



**GREEN
CLIMATE
FUND**

Meeting of the Board
17 - 20 October 2022
Incheon, Republic of Korea
Provisional Agenda Item 13

GCF/B.34/02/Add.08

29 September 2022

Consideration of funding proposals – Addendum VIII

Funding proposal package for FP198

Summary

This addendum contains the following six parts:

- a) A funding proposal summary titled “CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa” submitted by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.
- b) No-objection letters issued by the national designated authorities or focal point(s);
- c) Environmental and Social report(s) disclosure;
- d) Independent Technical Advisory Panel’s assessment;
- e) Response from the accredited entity to the independent Technical Advisory Panel’s assessment; and
- f) Gender documentation of the funding proposal.

These documents are presented as submitted by the accredited entity and the national designated authority(ies) or focal point(s), respectively. Pursuant to the Comprehensive Information Disclosure Policy of the Fund, the funding proposal titled titled “CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa” by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is being circulated on a limited distribution basis only to Board Members and Alternate Board Members to ensure confidentiality of certain proprietary, legally privileged or commercially sensitive information of the entity.

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Funding Proposal

Programme title:	CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa
Country(ies):	<u>Latin America:</u> Argentina, Costa Rica, Dominican Republic, Honduras, Mexico <u>West Africa:</u> Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mauritania, Niger, Senegal, Togo
Accredited Entity:	Deutsche Gesellschaft fuer Internationalen Zusammenarbeit (GIZ) GmbH
Date of first submission:	<u>2022/05/17</u>
Date of current submission	<u>21.09.2022</u>
Version number	<u>[V.007]</u>



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Note to Accredited Entities on the use of the funding proposal template

- Accredited Entities should provide summary information in the proposal with cross-reference to annexes such as feasibility studies, gender action plan, term sheet, etc.
- Accredited Entities should ensure that annexes provided are consistent with the details provided in the funding proposal. Updates to the funding proposal and/or annexes must be reflected in all relevant documents.
- The total number of pages for the funding proposal (excluding annexes) **should not exceed 60**. Proposals exceeding the prescribed length will not be assessed within the usual service standard time.
- The recommended font is Arial, size 11.
- Under the [GCF Information Disclosure Policy](#), project and programme funding proposals will be disclosed on the GCF website, simultaneous with the submission to the Board, subject to the redaction of any information that may not be disclosed pursuant to the IDP. Accredited Entities are asked to fill out information on disclosure in section G.4.

Please submit the completed proposal to:

fundingproposal@gcfund.org

Please use the following name convention for the file name:

“FP-[Accredited Entity Short Name]-[Country/Region]-[YYYY/MM/DD]”

PROJECT/PROGRAMME SUMMARY				
A.1. Project or programme	Programme	A.2. Public or private sector	Private	
A.3. Request for Proposals (RFP)	<p>If the funding proposal is being submitted in response to a specific GCF Request for Proposals, indicate which RFP it is targeted for. Please note that there is a separate template for the Simplified Approval Process and REDD+.</p> <p><u>Not applicable</u></p>			
A.4. Result area(s)		GCF contribution¹	Co-financers' contribution²	
	Mitigation total	100 %	100 %	
	<input checked="" type="checkbox"/> Energy generation and access	25 %	25 %	
	<input checked="" type="checkbox"/> Low-emission transport	20 %	20 %	
	<input checked="" type="checkbox"/> Buildings, cities, industries and appliances	25 %	25 %	
	<input checked="" type="checkbox"/> Forestry and land use	30 %	30 %	
	Adaptation total			
	<input type="checkbox"/> Most vulnerable people and communities			
	<input type="checkbox"/> Health and well-being, and food and water security			
<input type="checkbox"/> Infrastructure and built environment				
<input type="checkbox"/> Ecosystems and ecosystem services				
A.5. Expected mitigation outcome <i>(Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)</i>	3.8 MtCO ₂ e over 20-year programme lifespan	A.6. Expected adaptation outcome <i>(Core indicator 2: direct and indirect beneficiaries reached)</i>	N/A	
			N/A	N/A
			N/A	N/A
A.7. Total financing (GCF + co-finance³)	36.5 million Euros	A.9. Programme size	Small (Upto USD 50 million)	
A.8. Total GCF funding requested	26.8 million Euros <i>For multi-country proposals, please fill out annex 17.</i>			

¹ Result Area percentages are indicative, as the identities of the climate ventures supported by the CATALI.5°T Initiative will only be known during implementation. The percentages presented in A.4 are averages of the proportions expected (indicatively) in Latin America and West Africa. The regional breakdowns are: (i) Latin America: energy 10%, transport 30%, buildings 30% and AFOLU 30%; (ii) West Africa: energy 40%, transport 10%, buildings 20% and AFOLU 30%.

² Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

³ Refer to the Policy of Co-financing of the GCF.

A.10. Financial instrument(s) requested for the GCF funding	<i>Mark all that apply and provide total amounts. The sum of all total amounts should be consistent with A.8.</i>		
	<input checked="" type="checkbox"/> Grant <u>Euro 26.8 million</u> <input type="checkbox"/> Equity <u>Enter number</u> <input type="checkbox"/> Loan <u>Enter number</u> <input type="checkbox"/> Results-based payment <u>Enter number</u> <input type="checkbox"/> Guarantee <u>Enter number</u>		
A.11. Implementation period	6 years	A.12. Total lifespan	20 years
A.13. Expected date of AE internal approval	6/14/2022	A.14. ESS category	I-2
A.15. Has this FP been submitted as a CN before?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A.16. Has Readiness or PPF support been used to prepare this FP?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
A.17. Is this FP included in the entity work programme?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A.18. Is this FP included in the country programme?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
A.19. Complementarity and coherence	<i>Does the project/programme complement other climate finance funding (e.g. GEF, AF, CIF, etc.)? If yes, please elaborate in section B.1.</i> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

A.20. Executing Entity information

[Deutsche Gesellschaft fuer Internationale Zusammenarbeit \(GIZ\) GmbH](#), besides being the Accredited Entity (AE) for the programme, will serve as an Executing Entity (EE). In addition to GIZ, the CATALI.5°T Initiative has 4 Executing Entities.

- The [Instituto Tecnológico y de Estudios de Monterrey](#) (or, for brevity, Tec de Monterrey), a secular and co-educational private university based in Mexico with the legal status of a non-profit civil association. Tec de Monterrey will receive a grant from GIZ to implement the pre-acceleration and acceleration programmes in Latin America.
- One of three Executing Entities for the West Africa region is [Impact Hub Abidjan](#) (I-HUB ABIDJAN) a commercial pre-accelerator and accelerator (limited liability company) based in Cote d'Ivoire. Impact Hub Abidjan will receive a grant from GIZ to implement the technical assistance elements of the pre-acceleration programme in Cote d'Ivoire and to act as conceptual partner for the overall pre-acceleration programme in West Africa.
- The second Executing Entity for the West Africa region is [Investisseurs & Partenaires Entrepreneurs & Développement \(IPED\)](#), a French non-profit pre-accelerator and accelerator with offices throughout the region. IPED is an entity of French/West African impact investor [Investisseurs & Partenaires](#) (I&P). IPED will receive a grant from GIZ to implement: (i) the financial element (venture grants) of the pre-acceleration programme in West Africa, and (ii) the technical assistance and financial element (repayable grants) of the acceleration programme in West Africa.
- The Stichting [Climate Knowledge and Innovation Community](#) International Foundation (Stichting Climate-KIC International Foundation or, for brevity, Climate-KIC) is an independent Dutch non-profit with public benefit status. It will serve as the key Executing Entity for the CATALI.5°T Initiative's venture ideation and sourcing support in Latin America and West Africa, as well provision of climate impact assessment and gender climate entrepreneurship support to the pre-acceleration and acceleration programmes in both regions.

A.21. Executive Summary

Climate Change Problem

1. Climate start-ups and other micro and small enterprises, collectively known as climate ventures, are well placed to make a difference in delivering climate action. They can, at limited risk to the economy as a whole, demonstrate the market feasibility of innovative, low-emission technologies and business models, and inject pace and ambition into private-sector mitigation efforts. Climate ventures can provide solutions that are currently neglected by markets (so-called 'breakthrough technologies') as well as improving upon products and services that are already available ('incremental technologies').
2. In Latin America and West Africa, there is a significant opportunity to leap-frog emissions-intensive development pathways. Governments can play, and are playing, an important enabling role through the promotion of appropriate policies and regulatory frameworks. The context provided by post-COVID national recovery plans represents a timely entry-point for initiatives that support green growth. Venture capital (VC) flows into both regions are increasing rapidly, albeit from a low base (particularly in West Africa). VC finance directed at climate mitigation represents a small but growing fraction of overall venture capital, and there is a strong appetite among regionally-active VC firms to scale-up climate funding. Young, agile ventures can, in principle, play a prominent role in disrupting old, stagnant, emissions-intensive industries.
3. Climate ventures are currently being prevented from doing so by the nascent state of the cleantech sector in both regions – notably, the sector's limited technical capabilities, support networks and role-models, and the lack of 'industry standard' (widely-accepted, best-practice) tools and frameworks – and the mismatch between the current capacities of climate ventures and those required to successfully access VC finance.

Proposed Interventions

4. The CATALI.5°T (Concerted Action To Accelerate Local 1.5° Technologies) Initiative will establish and implement regional technical assistance and investment grant platforms that build a portfolio of early-stage climate ventures in Latin America and West Africa. The objective of each regional CATALI.5°T will be to trigger venture capital investments in start-ups and young businesses with the highest climate mitigation impact and business growth potential. Each regional CATALI.5°T will provide support for: (i) climate ventures; (ii) pre-accelerators, accelerators and entrepreneur support organisations (ESOs); and (iii) VC firms and other venture investors.
5. At the core of each regional CATALI.5°T will be an **acceleration programme**. Each acceleration programme will focus on providing support to 30 seed-stage climate ventures to rapidly scale-up their minimum viable products (MVPs) and ensure investability by VCs. Specifically, the acceleration programmes will enable climate ventures to: (i) further develop or validate their products or services (e.g. through market surveys, product testing or product enhancement); (ii) enhance the success of their products and services through market demonstration, development of growth strategies, partnership development, etc.; and (iii) maximise the climate impact of their products and services through robust, internationally-recognised climate change mitigation assessment and, where relevant, assessment and strengthening of climate adaptation co-benefits. This support will take the form of technical assistance and financial assistance (in the form of a repayable grant to each climate venture of an average of EUR 100,000 (range: EUR 50,000-200,000) to cover pre-agreed costs).
6. Less mature, pre-seed ventures – 60 in each region – will receive support to develop minimum viable climate products or services through two regional **pre-acceleration programmes**, encompassing technical assistance (capacity building, mentoring, networking, etc.) and financial assistance (in the form of a grant to each climate venture of up to EUR 15,000 to cover pre-agreed costs).
7. Accompanying this support to climate ventures will be: (i) **community-building and ideation** activities for potential climate entrepreneurs, including a special focus on women and other under-represented groups in entrepreneurship; and (ii) technical assistance for the broader **venture ecosystem** in both regions, to enable ESOs and venture investors to leverage their current strengths in building businesses in order to build and sustain *climate* businesses. With CATALI.5°T Initiative support, regional ESOs and venture investors will be enabled to assess and enhance ventures' climate potential (emission reduction

benefits and climate adaptation co-benefits), to steer ventures towards more disruptive and transformational climate solutions, to promote women's participation in climate entrepreneurship, and to understand and apply emerging ESG frameworks in the VC industry.

Climate Benefits

8. By contributing to the successful development and growth of climate ventures, the CATALI.5°T Initiative will unblock their climate mitigation benefits, resulting in quantifiable GHG emissions reductions that are aligned with GCF mitigation results areas.
9. This will be achieved through the sale of low-emission products / services by the 60 climate ventures supported by the CATALI.5°T Initiative's two regional acceleration programmes. The CATALI.5°T Initiative will screen and nurture these climate ventures, providing them with the technical, financial, mentoring and networking support needed to build and shape them into robust, high-potential investment opportunities from a VC perspective. This VC investment will be enabled by the GCF but will, itself, take place outside of the GCF programme boundary – and, in the majority of cases, is expected to occur after the end of the 6-year GCF support. The CATALI.5°T Initiative will thereby create a clear pathway for venture-driven climate mitigation while (i) establishing a clear exit strategy for the GCF and (ii) making minimal demands upon GCF funds.
10. The CATALI.5°T Initiative is expected to reduce 58 MtCO_{2e} of greenhouse gas emissions during its 20-year lifespan, of which MtCO_{2e} will be directly attributable to the GCF. The GCF mitigation cost will be Euro 7.1/tCO_{2e} (US\$ 7.12/tCO_{2e}).⁴

⁴ The exchange rate used (1.05 EUR/US\$) is the same as that was used in the financial and economic analysis.

PROJECT/PROGRAMME INFORMATION

B.1. Climate context

B.1.1 Strategic context

Climate Innovation and Climate Ventures

11. Limiting global warming to 1.5°C with no or limited overshoot, addressing already locked-in climate change impacts and achieving the Sustainable Development Goals (SDGs) will require enormous behavioural change by individuals and societies.⁵ Additionally, social, business and technology innovations will be necessary in energy, land, urban infrastructure (including transport and buildings) and industrial systems at unprecedented scale.⁶
12. Transformative climate technology innovations are technologies and related business practices that enable achievement of the 1.5°C target through substantial GHG emissions reduction / avoidance. The term 'climate innovation' is purposefully broad in order to encompass the swathe of relevant technology innovations and the wide array of sectors in which they can be applied – for example, cutting emissions associated with energy generation and consumption, the built environment, mobility, light and heavy industry, and food and land use, as well as enabling better carbon management, such as through carbon accounting and improved monitoring, reporting and verification (MRV).
13. With few exceptions, only industrialised countries can finance expensive basic research and development of unexplored and nascent climate innovations.⁷ However, to reduce future GHG emissions, developing countries can promote the development of transformative home-grown solutions (which might require less cost-intensive, locally/regionally-applied R&D), as well as transfer innovations whose technical feasibility and commercial competitiveness have already been proven in other countries and that can be introduced into domestic markets through product or business model adjustments.
14. 'Climate ventures' are micro or small enterprises that apply climate innovation. For the purpose of the CATALI.5°T Initiative, the definition of 'climate ventures' encompasses start-ups and growth companies that:
 - Satisfy the IFC definition of a micro or small enterprise (MSE) according to the table below⁸, and
 - Offer or plan to offer products or services that offer climate change mitigation benefits (i.e. the reduction or avoidance of greenhouse gas emissions, or the sequestration of carbon).

Table 1: IFC Definition of Micro and Small Enterprises (MSEs satisfy at least 2 out of 3 criteria)

Criterion	Micro Enterprise	Small Enterprise
Employees	<10	10-49
Total assets	<\$100,000	\$100,000-\$3 million
Annual sales	<\$100,000	\$100,000-\$3 million

15. Within the climate ventures category:
 - Start-ups are defined as early-stage companies that are developing or already have a minimum viable product (MVP), but no significant revenues and/or profits yet.
 - Growth companies are businesses that already generate revenues and possibly profits but are unable to grow to their full potential (for instance, by making large investments) due to lack of technical capacity or capital.
16. Climate ventures can target business models and/or technological solutions that would be beneficial to consumers and the global environment but which have not been introduced due to market failure, such

⁵ IPCC (2018), *Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels*: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter2_Low_Res.pdf

⁶ Project Drawdown (2020), *The Drawdown Review: Climate Solutions for a New Decade*: <https://drawdown.org/sites/default/files/pdfs/TheDrawdownReview%E2%80%93932020%E2%80%9393Download.pdf>

⁷ WIPO (2020), *Global Innovation Index 2020: Who Will Finance Innovation?*: https://www.wipo.int/edocs/pub-docs/en/wipo_pub_gii_2020.pdf

⁸ https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/priorities/ifcs+definitions+of+targeted+sectors

as market rigidities, established oligopolies, capital misallocation or lack of consumer awareness. Climate ventures are well-placed to make a difference in delivering climate action: “they are considered to be more effective in exploiting new technologies and introducing radical innovations that can help address some of the major challenges of our times”⁹, and are well positioned to disrupt old, stagnant industries, particularly carbon-emitting industries.¹⁰ The venture environment is one that promotes problem-solving, with a flat structure, with the aim of getting a new product, service or process into the hands of customers at fast pace.¹¹ This mindset typically makes ventures nimble and willing to overcome the status-quo – technologically or organisationally – that would slow down more-established organisations.

17. Climate ventures are a means to overcome the “inertia of ‘what we’ve always done’.”¹² They can, at limited risk to the economy as a whole, demonstrate the feasibility of innovative ideas in new markets, which can then either be developed further and/or be adopted by established market participants. These innovative ideas may provide solutions that are currently neglected by markets (so-called ‘breakthrough technologies’) or they may improve upon products and services that are already available (‘incremental technologies’).¹³
18. While ventures are generally not the only option to introduce early-stage solutions into markets, research suggests that they have generally proved to be one of the most effective. “This is particularly true for nascent solutions that are differentiated from incumbents and that require a distinctive understanding of the market”¹⁴ – features that apply in particular to transformative climate innovations. A recent report by PwC finds:

“We need faster, bolder innovation in climate tech, and start-up innovation can help deliver this. The start-up/venture ecosystem is geared up to deliver fast-growing, highly scalable companies with a technological edge, which is exactly what is needed now for climate. The special recipe is the combination of human capital with novel technologies, often wrapped in business models which challenge or disrupt the status quo. [...] Start-ups may play a key role in certain aspects of tackling the climate crisis, even if activity today is comparatively modest. They often presage the widespread availability of new products and services. The founder’s art is in connecting technology plausibility with a latent demand signal in the market. The incentives for founders and the venture capitalists who support them are structured to help them explore uncertain areas with potentially large markets and high returns. The capital fuels the talent to create new products and services, driving adoption in the market and demand for complementary products.”¹⁵

19. Ideation-stage ventures are at the very earliest stage of their development, and may be little more than a speculative business idea. The pre-seed stage represents the point at which the venture moves from an idea to an entity: the venture is ‘made real’ in some way, typically through official company registration and/or through the commencement of early operations – acquisition of office space and equipment, hiring of initial staff, etc. The end-point of the pre-seed stage is the development of a minimum viable product (MVP): a product or service that has just enough features to satisfy customers or to test a hypothesis for business development. The objective of releasing an MVP to targeted customers (typically early adopters) is to gain feedback that can help with future development of the product or service. The seed stage represents a developmental phase in which the venture begins to generate its first revenues (but typically not profits) by selling a market-ready good or service. This phase tends to involve extensive market research and product re-design / innovation.
20. Pre-accelerators (also known as incubators) and accelerators facilitate the development of ventures. The distinction between the terms is not well defined in the literature. Typical practice, which is adopted for

⁹ Breschi S., Lassebie J. and Menon C. (2018), *A Portrait of Innovative Start-Ups Across Countries*, OECD Science Technology and Industry Working Paper, 2018/2: <https://www.oecd-ilibrary.org/deliver/f9ff02f4-en.pdf?itemId=%2Fcontent%2Fpaper%2F9ff02f4-en&mimeType=pdf>

¹⁰ UNFCCC TEC, GCF and CTCN (2018), *Climate Technology Incubators and Accelerators*: https://unfccc.int/tclear/misc/_StaticFiles/gnwoerk_static/incubators_index/ee343309e8854ab783e0dcae3ec2cfa6/c172d2f388234bdbbe3dd9ae60e4d7e9.pdf

¹¹ Cohaesus (2018), *Startup Mindset: How Established Corporates Succeed With a Lean Mentality*: <https://cohaesus.co.uk/blog/startup-mindset-established-corporates-succeed-lean-mentality/>

¹² Gelobter M. (2015), *Lean Startups for Social Change: The Revolutionary Path to Big Impacts*. EDS Publications.

¹³ Rubio S. (2017), ‘Sharing R&D investments in breakthrough technologies to control climate change’, *Oxford Economic Papers*, 69 (2): <https://doi.org/10.1093/oeq/gpw067>

¹⁴ Burger S., Murray F., Kearney S. and Ma L. (2018), ‘The investment gap that threatens the planet’, *Stanford Social Innovation Review*: https://primecoalition.org/wp-content/uploads/2017/12/Winter_2018_the_investment_gap_that_threatens_the_planet.pdf?x48191

¹⁵ PwC (2020): *The State of Climate Tech 2020: The Next Frontier for Venture Capital*: <https://www.pwc.com/gx/en/services/sustainability/assets/pwc-the-state-of-climate-tech-2020.pdf>

the purposes of the CATALI.5°T Initiative, is to use the term ‘pre-accelerator’ to refer to ideational and pre-seed stage support to smaller ventures that have not yet developed a prototype service or product, while the term ‘accelerator’ refers to seed-stage support for an established venture with a product or service that is ready to be commercialised or scaled-up beyond the pilot market. There are estimated to be around 2,000 technology pre-accelerators and 150 accelerators worldwide. However, fewer than 70 focus on climate ventures and just 25 are located in developing countries.¹⁶

21. The crucial role that pre-accelerators / accelerators can play in supporting ventures is widely recognised, including by the GCF itself: “Incubators and accelerators reduce risk, helping entrepreneurs to transform inventions into technologies that meet societal needs. They act as local intermediary institutions, strengthening the national ecosystem that nurtures entrepreneurship and the growth of small businesses. They facilitate linkages between entrepreneurs, other innovation actors and potential markets of suppliers and buyers, leading to the development of products that are marketable and enhance welfare. They also help entrepreneurs to connect with sources of finance, providing them with the means to innovate.”¹⁷ Mission Innovation, an inter-governmental platform addressing clean energy, notes that “incubators are one of the most important stakeholders for a solution agenda when more than incremental improvements in existing systems are possible and needed.”¹⁸

Venture Financing

22. In mature venture ecosystems in Europe and North America, climate innovators and entrepreneurs meet their funding needs in the pre-seed and seed stages with: (a) their own personal assets, (b) investments from family and friends, c) angel investors¹⁹ and/or (d) grants from public programmes.²⁰ As ventures have little or no valuable collateral in their early stages, they usually do not qualify for loan instruments. The term ‘Valley of Death’ is often used to describe this period of a venture’s lifetime, when expenditures are growing and revenues are small in comparison.²¹ During this period, the venture depletes the initial equity capital provided by its owners and funders. Ventures face a high degree of uncertainty in this period, but the overall support environment is sufficiently strong to allow many ventures to develop on the basis of a credible business idea. It is at the end of the seed stage that venture capital (VC) finance typically becomes available to ventures with strong potential for growth.
23. VC funding, generally in the form of equity, is typically injected into a venture at the end of the seed stage, in a succession of ‘series’ – A, B, C, etc. – if the venture achieves specified milestones. Series A funding normally materialises when the potential of the product or service is recognised in the market and requires investment to grow: typical expenditures include marketing and sales capacity and campaigns, retail channels and advertising space in media. The Series B funding round builds on the success of a Stage A round. At this stage, the product or service is established in the market and requires further investment to scale up and reach maturity. This investment may also aim to broaden geographical reach, with the product or service potentially entering other markets outside the initial one, and deepen the marketing and sales campaigns. This is the phase where initial flotations are considered. Series C funding is typically provided to sustain rapid market growth, for example through the acquisition of other companies or to diversify into new sectors.

¹⁶ UNFCCC TEC, GCF and CTCN (2018), *Climate Technology Incubators and Accelerators*: https://unfccc.int/tclear/misc/_StaticFiles/gnwoerk_static/incubators_index/ee343309e8854ab783e0dcae3ec2cfa6/c172d2f388234bdbbe3dd9ae60e4d7e9.pdf

¹⁷ UNFCCC TEC, GCF and CTCN (2018), *Climate Technology Incubators and Accelerators*: https://unfccc.int/tclear/misc/_StaticFiles/gnwoerk_static/incubators_index/ee343309e8854ab783e0dcae3ec2cfa6/c172d2f388234bdbbe3dd9ae60e4d7e9.pdf

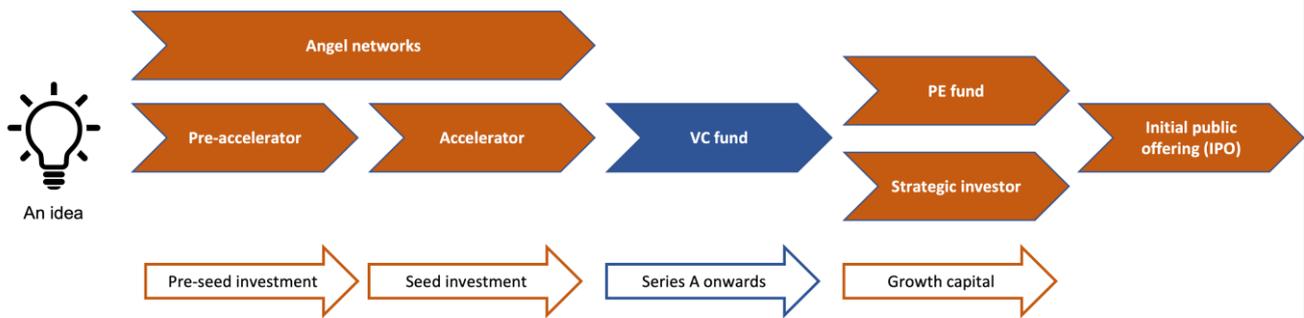
¹⁸ Mission Innovation (2021), *Incubators Accelerating the Uptake of Start-Ups with 1.5°C Compatible Solutions*: https://www.misolution-framework.net/pdf/Report-Incubators_accelerating_1_5C_climate_compatible_start-ups_with_PICU.pdf

¹⁹ Angel investors are high net-worth individuals, typically experienced entrepreneurs or businesspeople, who provide financial backing to early-stage (and hence risky) ventures, typically in exchange for equity ownership of the venture.

²⁰ For example, as part of the EU’s Horizon 2020 programme, the EU SME Instrument supports high-risk, high-potential SMEs with grants of €50,000 in the concept and feasibility assessment stage; in phase 2 (‘from concept to market’), ventures can apply for grants between €0.5-2.5 million. Climate-KIC runs an accelerator programme that provides EUR 95,000 equity-free grants to European seed-stage climate ventures. In the United States, the government issues grants through the US Small Business Innovation Research (SBIR) programme, the Advanced Research Projects Agency-Energy (ARPA-E) of the US Department of Energy provides grants to cleantech ventures, and USAID’s Development Innovation Ventures (DIV) programme provides grant finance – of up to US\$ 15 million – for breakthrough technologies that address development challenges.

²¹ DD Ready (2020), *‘Run or Die!’: How can a Start-Up Survive the Valley of Death?*: <https://dd-ready.com/run-or-die-how-can-a-startup-survive-the-valley-of-death/>

Figure 1: Venture Investment Finance²²



24. In emerging and frontier markets, by contrast, most entrepreneurs face a much more difficult situation when launching a venture: personal assets and assets of family and friends are usually very limited and venture promotion programmes funded by domestic governments are scarce or completely absent. Entrepreneurs, especially in frontier markets, also have limited access to business, VCs or (commercial) accelerators for seed capital. This latter situation is even more pronounced for climate ventures.²³ The vast majority of VC investors are new to understanding and assessing climate-related opportunities, technologies or business models; perceive market demand as unclear; and refrain from early investments in innovations outside known areas. Climate ventures are further disadvantaged in comparison to (for example) tech start-ups because they can have different requirements and longer payback horizons.²⁴ As such, even if they make it through the initial assessment of a VC funder, they are likely to lose out to non-climate competitors. Furthermore, the higher risk in emerging/frontier markets means that ventures have to be exceptionally strong in order to make it through the selection process for funding.

B.1.2 Baseline Scenario

Global Context

25. Annual VC investment has increased more than five-fold in the past 10 years, rising to US\$ 284 billion in 2020.²⁵ VC investment is focused primarily on the technology sector, with investments in cloud computing, mobile apps, virtual market places and artificial intelligence (AI) accounting for over one-third of total VC financing. Other significant investment sectors include digital banking ('fintech'), healthcare, media and consumer services.²⁶ Climate-related investment, also commonly termed 'cleantech investment', accounts for just 6% of total VC investment, but it has grown over 3,750% in absolute terms since 2013, the equivalent of an 84% compound annual growth rate.²⁷

26. Climate-related investment is widely considered to be in its second phase of development, dubbed 'Cleantech 2.0'.²⁸ 'Cleantech 1.0' constituted a boom in investment in the 'climate tech' sector between 2006 and 2011, which – at least in terms of investor perceptions – eventually turned into an investment bust.²⁹ The financial crash of 2008, unexpectedly-cheap natural gas prices and the ascendancy of China's solar PV manufacturing capacity meant that, of the US\$ 25 billion of capital invested into the energy sector by venture capitalists, they lost roughly half of it, rendering clean energy investing unattractive for the early

²² Adapted from: CDC and FMO (2020), *Responsible Venture Capital: Integrating Environmental and Social Approaches in Early-Stage Investing*: <https://assets.cdcgroup.com/wp-content/uploads/2020/01/16092500/Responsible-Venture-Capital.pdf>

²³ Of the incubators and accelerators worldwide, fewer than 2% focus on climate technology. UNFCCC TEC, GCF and CTCN (2018), *Climate Technology Incubators and Accelerators*: https://unfccc.int/tclear/misc/_StaticFiles/gnwoerk_static/incubators_in-dex/ee343309e8854ab783e0dcae3ec2cfa6/c172d2f388234bdbbe3dd9ae60e4d7e9.pdf

²⁴ GCF (2021), *Accelerating and Scaling Up Climate Innovation*: https://www.greenclimate.fund/sites/default/files/document/accelerating-and-scaling-climate-innovation_0.pdf

²⁵ CB Insights (2021), *State of Venture – Global: Q3 2021*: <https://www.cbinsights.com/research/report/venture-trends-q3-2021/>

²⁶ KPMG (2021), *Venture Pulse: Q2 2021*: <https://assets.kpmg/content/dam/kpmg/xx/pdf/2021/07/venture-pulse-q2-2021.pdf>

²⁷ TechCrunch (24 September 2020), *New Report Finds VC Investment into Climate Tech Growing Five Times Faster than Overall VC*: <https://techcrunch.com/2020/09/23/new-report-finds-vc-investment-into-climate-tech-growing-five-times-faster-than-overall-vc>

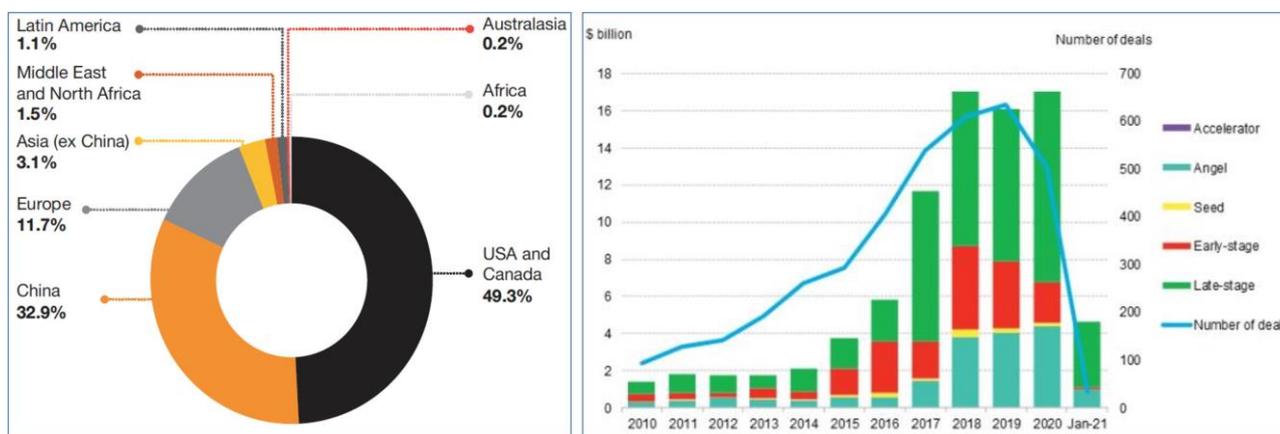
²⁸ Financial Times (24 March 2021), *Cleantech 2.0: Silicon Valley's New Bet on Start-Ups Fighting Climate Change*: <https://www.ft.com/content/f6cf7f42-5b61-4ff1-9ae9-d7c3ab8b17fd>

²⁹ For the conventional view, see, for example, Vandilay A. (2016), *Cleantech VC: A Decade of Failure*: <https://digital.hbs.edu/platform-rcotom/submission/cleantech-vc-a-decade-of-failure/>. But also consider the contrarian view here: Mount D. (2021), *Climate Tech Has Left the Startup 'Valley of Death'*: <https://blog.g2vp.com/climate-tech-has-left-the-startup-valley-of-death-ff9da038b388>

part of the 2010s.³⁰ Cleantech 2.0 represents a resurgence in climate-related investment, as well as a reaction to the lessons learned from the first wave – notably, through the adoption of broader investment strategies that encompass decarbonisation across all sectors of the economy, not solely the energy sector. While there is no definitive list, there are now estimated to be at least 28 cleantech unicorns³¹, spanning success stories such as Tesla Motors, Impossible Foods, Pivot Bio, Solugen, Indigo and Uplight.³²

27. It is, however, notable that of the (approximately) 910 unicorn ventures worldwide, fewer than 3% are focused on climate.³³ Furthermore, 93% of the US\$ 60 billion invested in cleantech in the period 2013-2019 went to North America, China and Europe, in that specific order, and none of the 28 cleantech unicorns is outside this geography.³⁴ While this heavy concentration is likely to be linked at least in part to data availability (which is itself an issue³⁵), it is clear that ventures (in general) and climate entrepreneurship (in particular) in many developing countries struggle to access finance. Among emerging markets, only India attracts significant volumes of climate VC. The entirety of Africa – home to over 1.1 billion people and a 4% share of the world’s GHG emissions – attracted just US\$ 120 million of climate VC finance between 2013 and 2019, less than Hungary in 2019 alone.³⁶ The entirety of Latin America – home to over 660 million people and an 8% share of the world’s GHG emissions – attracted just US\$ 650 million³⁷. Moreover, almost two-thirds of VC cleantech investment is directed towards large deals of over US\$ 100 million, not at small, early-stage ventures.³⁸

Figure 2: Climate Venture Investment by Region and Stage³⁹



Latin America

28. A full baseline description is provided in the Latin America feasibility study (Annex 2b).

29. Latin America contributed approximately 8% of GHG emissions in 2018, an increase from 5% in 2000. Both Mexico and Brazil are among the top 20 emitters in the world, though they each account for only 1.3% of global emissions. A significant proportion of emissions in Latin America come from the energy (46%) and agriculture, forestry and land use (AFOLU, 42%) sectors.⁴⁰ Rich in renewable energy capacity,

³⁰ Gaddy B., Sivaram V. and O’Sullivan F. (2016), *Venture Capital and Cleantech: The Wrong Model for Clean Energy Innovation*: <https://energy.mit.edu/wp-content/uploads/2016/07/MITEI-WP-2016-06.pdf>

³¹ A ‘unicorn’ is a privately-held company valued at over US\$ 1 billion.

³² Holon IQ (2021), *The Complete List of Global Climate Tech Unicorns*: <https://www.holoniq.com/climatetech-unicorns/>

³³ CB Insights (2021), *The Complete List of Unicorn Companies*: <https://www.cbinsights.com/research-unicorn-companies>

³⁴ PwC (2020): *The State of Climate Tech 2020: The Next Frontier for Venture Capital*: <https://www.pwc.com/gx/en/services/sustainability/assets/pwc-the-state-of-climate-tech-2020.pdf>

³⁵ Aspen Network of Development Entrepreneurs (2021), *Climate Entrepreneurship in Developing Economies: Supporting Entrepreneurs Tackling Climate Change*: <https://www.andeglobal.org/?action=tracking&file=2021/03/Climate-Entrepreneurship-in-Developing-Economies.pdf>

³⁶ OECD (2020), *Venture Capital Investments*: https://stats.oecd.org/Index.aspx?DataSetCode=VC_INVEST

³⁷ PwC (2020): *The State of Climate Tech 2020: The Next Frontier for Venture Capital*: <https://www.pwc.com/gx/en/services/sustainability/assets/pwc-the-state-of-climate-tech-2020.pdf>

³⁸ BNEF (2021), *Climate-Tech VC Investing Tops \$17bn in 2020*: <https://about.bnef.com/blog/climate-tech-vc-investing-tops-17bn-in-2020/>

³⁹ PwC (2020): *The State of Climate Tech 2020: The Next Frontier for Venture Capital*: <https://www.pwc.com/gx/en/services/sustainability/assets/pwc-the-state-of-climate-tech-2020.pdf> ; BNEF (2021), *Climate-Tech VC Investing Tops \$17bn in 2020*: <https://about.bnef.com/blog/climate-tech-vc-investing-tops-17bn-in-2020/>

⁴⁰ ECLAC (2019), *Economics of Climate Change in Latin America and the Caribbean: A Graphic View*: https://repositorio.cepal.org/bitstream/handle/11362/43889/1/S1800475_en.pdf

Latin America has the potential to meet a major share of global power demand with renewable energy by 2050.⁴¹ However, Mexico and many Central American states still rely heavily on fossil fuels, and others such as Brazil are at risk of seeing renewable shares slip as climate change makes hydropower generation less reliable.⁴²

30. VC investment in Latin America reached a record of US\$ 15.3 billion across more than 650 deals in 2021. The amount was greater than that of the preceding 7 years combined and far outstripped the previous record of US\$ 4.8 billion set in 2019.⁴³ The figure is skewed by some very large deals, such as a US\$ 1.15 billion capital raising by financial technology ('fintech') group Nubank, but the overall trajectory is nonetheless impressive. However, while the trend is generally positive, VC investment in Latin America has been uneven from the standpoint of:

- **Country:** VC investment has almost exclusively targeted Brazil, Mexico, Colombia, Chile and Argentina, with the former two countries taking by far the largest shares: in 2021, 58% flowed to Brazil and 26% to Mexico.⁴⁴ Nor was 2021 a one-off. In 2020, only US\$ 50 million out of US\$ 4.1 billion was invested in 20 deals in Peru and the 'Rest of Latin America' (Ecuador, Costa Rica, Panama, Uruguay and Venezuela). Roughly the same number of VC deals (22) took place in Peru and 'Rest of Latin America' in 2019, for a value of US\$ 176 million out of a total of US\$ 4.6 billion of VC investments in the region that year.
- **Sector:** a very marginal portion of VC investment in the region flows to sectors with close links to climate change mitigation. In 2021, fintech attracted 39% of all VC flowing into the region, followed by e-commerce (25%) and property technology ('proptech', 9%). VC investors in the region are focused on sectors that offer rapid growth on the back of digital trends, such as the widespread use of mobile phones. The only two sectors with strong links to mitigation are foodtech/agtech, which received only 3% of capital (US\$ 115 million) in 15 deals in 2020.⁴⁵
- **Stage of venture development:** the vast majority of VC investment in Latin America occurs at the early and late stages, while intermediate, seed-stage investments play a very minor role and only in the largest geographical markets of Brazil and Mexico.⁴⁶ This is not unusual, as in most markets, including advanced ones, VC firms tend to invest post-seed; nonetheless, it emphasises the challenge that seed-stage ventures face in attracting finance.

West Africa

31. A full baseline description is provided in the West African feasibility study (Annex 2c).

32. GHG emissions from West Africa represent 2% of global emissions.⁴⁷ Between 1990 and 2014, regional GHG emissions grew by 17%, slower than the world average growth of 45%.⁴⁸ Land-use change and forestry accounts for the largest share (32%) of regional emissions, followed by energy (27%), agriculture (23%) and waste (11%).⁴⁹ Approximately 70% of West Africa's primary energy supply comes from biomass, biofuels and waste, followed by 20% from coal.⁵⁰ Africa as a whole is the most entrepreneurial continent, with an estimated 22% of its working age population starting businesses, and over 10 million

⁴¹ IDB (2013), *Rethinking Our Energy Future: A White Paper on Renewable Energy for the 3GFLAC Regional Forum*: <https://publications.iadb.org/publications/english/document/Rethinking-Our-Energy-Future-A-White-Paper-on-Renewable-Energy-for-the-3GFLAC-Regional-Forum.pdf>

⁴² World Bank (2021), *Ten Key Points on Climate Change Impacts, Opportunities and Priorities for Latin America and the Caribbean*: <https://blogs.worldbank.org/latinamerica/10-key-points-climate-change-impacts-opportunities-and-priorities-latin-america-and>

⁴³ Financial Times (23 January 2022), *Latin American VC Investments Triple Record to Pass \$15 billion in 2021*: <https://www.ft.com/content/6f08aa97-ce65-44c8-9fe2-e5ed342c3cef>

⁴⁴ S&P (24 September 2021), *VC Investments in Latin America Shoot for \$10 billion in 2021, Already Outpacing FY 2020*: <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/vc-investments-in-latam-shoot-for-10b-in-2021-already-outpacing-fy-2020-66553406>

⁴⁵ LAVCA (2021), *LAVCA's 2021 Review of Tech Investment in Latin America*: <https://www.lavca.org/industry-data/lavcas-2021-review-of-tech-investment-in-latin-america/>

⁴⁶ CB Insights (2021), *State of Venture – Global 2021*: <https://www.cbinsights.com/research/report/venture-trends-2021/>

⁴⁷ USAID (2019), *Greenhouse Gas Emissions in the West Africa Region*: https://www.climate-links.org/sites/default/files/asset/document/2019_USAID_West%20Africa%20Regional%20GHG%20Emissions%20Factsheet.pdf

⁴⁸ USAID (2019), *Greenhouse Gas Emissions in the West Africa Region*: https://www.climate-links.org/sites/default/files/asset/document/2019_USAID_West%20Africa%20Regional%20GHG%20Emissions%20Factsheet.pdf

⁴⁹ WRI (2017), *CAIT 2.0*: <http://cait.wri.org/>

⁵⁰ IRENA and AfDB (2022), *Renewable Energy Market Analysis: Africa and Its Regions – A Summary for Policy Makers*: https://irena.org/-/media/Files/IRENA/Agency/Publication/2022/Jan/IRENA_Market_Africa_2022.pdf

people entering the job market each year. Already a leader in fintech, Africa has the potential to be a climate innovation venture leader, subject to investment barriers being addressed (see Section B.1.5).⁵¹

33. West Africa suffers from a clear lack of VC capital in absolute and relative terms – even compared with other regions of Africa. As observed by the World Bank in a note on Francophone African ventures, “many start-ups that are at the growth stage are facing what is known as the ‘Valley of Death’, a period where they are most susceptible to failure. The main challenge for these maturing tech start-ups is accessing the financing, specifically venture funding, that will help them take their business to scale.”⁵² A comprehensive 2020 annual report on African technology VC published by Partech notes persistent growth in venture investment across the whole continent but, at the same time, indicates a clear underweighting of the Francophone West Africa region. Specifically:

- **Country:** the picture for the continent as a whole is encouraging: 347 African ventures raised equity capital in 2020 in 359 fund-raising rounds, up 44% (in deal count) from 234 ventures and 250 rounds in 2019. The number of equity rounds increased almost seven-fold between 2015 (55 deals) and 2020. The total amount of equity capital raised was approximately US\$ 1.4 billion in 2020, down from US\$ 2 billion in 2019 but still higher than the 2018 amount (US\$ 1.2 billion) and over 5 times the amount raised in 2015 (US\$ 277 million). The drop in average deal value in 2020 vs. 2019 likely reflects the pandemic, lock-downs and their effects on investor risk appetite. However, 80% of total VC funding in 2020 went to just 4 countries: Nigeria, Kenya, Egypt and South Africa. Ghana followed as a distant fifth. The remaining VC investment was spread among 21 other countries.⁵³ In Francophone West Africa, Senegal and Côte d’Ivoire were the biggest recipients of VC investment, but they each recorded investments of only US\$ 10 million. Togo, Benin and Mali lagged further behind (US\$ 3.8, 2.4 and 1 million, respectively, in 2020), and Burkina Faso, Niger, Guinea and Mauritania failed to register any VC investments at all.⁵⁴
- **Sector:** sectors with significant potential to address climate change represented less than 25% of VC investment in Africa in 2020. These sectors are agritech, which attracted US\$ 179 million of VC funding in 2020 (13% of total VC funding in Africa), and off-grid power technologies, which attracted US\$ 148 million in funding (10% of the total).⁵⁵ While the presence of agritech and off-grid power in the top 5 sectors targeted by VCs in Africa as a whole is encouraging, it should be noted that none of the investments in these two sectors occurred in Francophone West Africa. The vast majority of agritech investments took place in Kenya, followed by South Africa and Nigeria. Off-grid investments were roughly equally split between Nigeria and Kenya, with a very small portion going to South Africa and Egypt. There is also a paucity of capital flowing to female-founded ventures: in 2020, only 14% of total VC equity funding in Africa went to female-funded ventures.
- **Stage of venture development:** While Francophone West Africa-specific data are not available, one positive trend highlighted by Partech with regard to the whole continent is the growth in late-seed (‘seed+’ in Partech’s terminology) and Series A deals. 228 late-seed deals were recorded in 2020, some ten times the 2015 figure and 64% of all deals in 2020. 86 Series A deals took place in 2020, roughly four times the 2015 figure. In 2020, the average amount of equity raised was US\$ 0.8 million for late-seed deals and US\$ 4.6 million for Series A deals, in line with the previous 5-year average but a drop from 2019 levels (likely due to risk aversion caused by the pandemic). The propensity of African VC investors to fund early-stage deals is encouraging: if climate ventures can be rigorously selected and adequately prepared, early-stage VC firms that already have experience elsewhere in Africa may be drawn to investing in West Africa.

⁵¹ Tony Blair Institute for Global Change (2022), *Closing the Funding Gap for Africa Tech Startups*: <https://institute.global/policy/closing-funding-gap-africa-tech-startups-1>

⁵² World Bank (6 May 2019), *Francophone Africa Has the Most Promising Tech Start-Ups and They Are Looking for Investors*: <https://blogs.worldbank.org/psd/francophone-africa-has-most-promising-tech-startups-and-they-are-looking-investors>

⁵³ Partech (2021), *2020 Africa Tech Venture Capital Report*: <https://partechpartners.com/2020-africa-tech-venture-capital-report/#section-1>

⁵⁴ The Partech report excludes investments lower than US\$ 200,000, many of which are not publicly disclosed. Even allowing for some investments on this scale, it is clear that Francophone West Africa suffers from limited VC interest.

⁵⁵ Partech (2021), *2020 Africa Tech Venture Capital Report*: <https://partechpartners.com/2020-africa-tech-venture-capital-report/#section-1>

B.1.3 Baseline Policies and Strategies

Nationally Determined Contributions, UNFCCC Assessments and Climate Policies

34. All countries in Latin America and West Africa have ratified the Paris Agreement. An overview of Nationally Determined Contribution (NDC) targets and UNFCCC reports and strategies, such as National Communications (NCs), technology needs assessments (TNAs) and national adaptation plans (NAPs), and key national climate policies, plans and strategies can be found in Annexes 2b and 2c. All countries in both regions have developed national, legal and institutional frameworks for addressing climate change, but their ability to ensure the effective implementation of those instruments is, in many cases, limited.⁵⁶

Policies and Strategies: Latin America

35. A detailed review of the Latin American policy environment is provided in Annex 2b. In brief, venture promotion now forms an increasingly important part of industrial and innovation policy in the region. Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru and Uruguay have all introduced programmes to explicitly support ventures. Progress has been notable in 3 areas in particular:

- Strengthening institutional frameworks for supporting ventures – notably in Mexico, which created the Instituto Nacional del Emprendedor (INADEM) as a national centre for the support of entrepreneurship in 2013,⁵⁷ and Chile, which created a division within CORFO⁵⁸ devoted to ventures. The region has also reformed its development banks, with ventures becoming priorities for Bancóldex in Colombia, Nacional Financiera S.N.C. (NAFINSA) in Mexico and Corporación Financiera de Desarrollo S.A. in Peru.
- Investing in transforming mind-sets and promoting a culture of entrepreneurship. Transforming ideas into a business is still not common in the region. Risk aversion is high in Latin American society and relatively few people see entrepreneurs as key contributors to national development. In Mexico, the launch of INADEM (now UDP) played a valuable role in raising awareness of the crucial role that entrepreneurship plays in the country's development.
- Modernising support instruments, including a focus on integrated services that combine access to infrastructure, finance and services with access to contacts and networks – such as the role accorded to Start-Up Peru as a national pre-accelerator and accelerator.⁵⁹

Policies and Strategies: West Africa

36. A detailed review of the West African policy environment is provided in Annex 2c. Africa as a whole has the highest rate of entrepreneurship in the world, with AfDB reporting that 22% of Africa's working-age population have started a business.⁶⁰ Most West African governments have policies and institutions to promote entrepreneurship and, in some cases, technological innovation. However, many public agencies have weak links with the rest of the venture ecosystem and limited capability to nurture climate ventures.⁶¹

- Burkina Faso, for example, ranks fifth in its income group in the Global Innovation Index 2021 rankings, and 15th in Africa, following Côte d'Ivoire.⁶² The 2020 Doing Business report ranks Burkina Faso 151st, with relatively high scores for starting a business, protecting minority investors, trading across borders and resolving insolvencies.⁶³ In 2008, the government created the Agency for Financing and Promotion of SMEs (AFP-PME).⁶⁴ Under the Ministry of Economy and Finance, AFP-PME acts as a national fund and a technical assistance provider for ventures / SMEs.

⁵⁶ Konrad Adenauer Stiftung Foundation (2016), *Tackling Climate Change in Latin America*: https://www.kas.de/c/document_library/get_file?uuid=ba43934b-d004-4ca5-4519-58ce8a3dbd98&groupId=252038; Sorgho R., Quiñonez C., Louis V., Winkler V, Dambach P., Sauerborn R. and Horstlick O. (2020), 'Climate change policies in 16 West African countries: a systematic review of adaptation with a focus on agriculture, food security and nutrition', *International Journal of Environmental Research and Public Health*, 17: <https://www.mdpi.com/1660-4601/17/23/8897/pdf>

⁵⁷ INADEM has since been absorbed into the Unidad de Desarrollo Productivo (UDP, Productive Development Unit): <https://www.inadem.gob.mx/>

⁵⁸ Corporación de Fomento de la Producción: the Chilean economic development agency: <https://www.corfo.cl/sites/cpp/movil/webingles>

⁵⁹ <https://www.start-up.pe/>

⁶⁰ AfDB, OECD & UNDP (2017), *African Economic Outlook: Entrepreneurship and Industrialisation*: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/AEO_2017_Report_Full_English.pdf

⁶¹ fDi Intelligence (2021), *African Tech Ecosystems of the Future 2021/22*: <https://www.fdiintelligence.com/content/download/79718/2609471/file/African%20Tech%20Ecosystems%20of%20the%20Future%202021.pdf>

⁶² WIPO (2021), *Global Innovation Index 2021*: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf

⁶³ World Bank (2020), *Doing Business 2020*: <https://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>

⁶⁴ <https://afpme.bf/>

- In Côte d'Ivoire, considerable progress has been achieved since 2011 in improving the business environment, particularly in legal areas – notably, in the form of revised legal codes relating to investment, mining, electricity and telecommunications – and institutions (in particular, the creation of the commercial court and a one-stop shop for ventures and SMEs). In 2014, the government enacted Law No. 2014-140 on the National SME Policy.⁶⁵ This Law created the Côte d'Ivoire SME Agency, the mission of which is to promote the creation of ventures / SMEs and improve their access to financing and markets.⁶⁶ In 2018 and 2019, Côte d'Ivoire gained 17 and then 12 places, respectively, in the Doing Business ranking, to reach 110th position out of 190 countries worldwide.⁶⁷
- Senegal ranks first in francophone West Africa in the 2019 Global Entrepreneurship Index, and second in the 2021 VC & PE Country Attractiveness Index.⁶⁸ While Senegal ranks 123rd globally in the Doing Business 2020 report, it receives relatively high scores for categories such as 'starting a business', 'getting credit' and 'paying taxes'.⁶⁹ Ventures and SMEs collectively play an important role in the national economy, representing nearly 90% of all companies, 30% of GDP and 60% of the active population.⁷⁰ In 2013, the special programme, Programme for the Reform of the Business Environment and Competitiveness (PREAC), was launched.⁷¹ This programme, which included 52 new measures to facilitate business, has propelled the country into becoming a continental leader in terms of reform.⁷² In 2019, Senegal became the second African country⁷³ to pass a Start-Up Law.⁷⁴ This Law provides tax breaks and other benefits to innovative new businesses.

B.1.4 Baseline Projects and Programmes

37. Detailed assessments of baseline initiatives have been undertaken for global projects (Annex 2a), Latin American projects (Annex 2b) and West African projects (Annex 2c). A summary of the baseline initiatives assessed is provided in Table 2; graphical analyses are provided in
38. Figure 3 and Figure 4.
39. Overall, there are relatively few climate-focused venture support initiatives – as opposed to broader, development-focused initiatives – in both regions and there are a number of identified gaps in their coverage: (i) the provision of combined technical and monetary support: baseline initiatives tend to focus on one type of support or the other; (ii) the provision of intermediate levels of venture financing: in Latin America, for example, no climate-focused initiative has been identified that provides financial support to ventures in the US\$ 10,000-200,000 range, and a similar gap exists in West Africa; and (iii) the provision of support to very early-stage ventures (i.e. pre-seed and early-seed): these are typically seen as riskier propositions than more mature businesses (which presents a challenge for risk-averse publicly-funded initiatives) and as more distant – and hence unattractive – commercial opportunities (which presents a challenge for private sector initiatives).

Table 2: Baseline Projects Analysed

Baseline Project	Country	Funding Entity Type
<i>Global</i>		
Adaptation Fund Climate Innovation Accelerator (AFCIA)	All developing countries	Vertical fund

⁶⁵ Oxford Business Group (2019), *Côte d'Ivoire Empowers Entrepreneurs to Boost Small Businesses*: <https://oxfordbusinessgroup.com/analysis/empowering-entrepreneurs-national-plans-facilitate-growth-small-businesses>

⁶⁶ <https://agencecipme.ci/?content=010&lang=en>

⁶⁷ World Bank (2020), *Doing Business 2020*: <https://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>

⁶⁸ IESE (2021), *The Venture Capital and Private Equity Country Attractiveness Index 2021*: <https://blog.iese.edu/vcpeindex/files/2021/06/report2021.pdf>

⁶⁹ World Bank (2020), *Doing Business 2020*: <https://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>

⁷⁰ Republic of Senegal (2014), *Plan Emerging Senegal*: <https://www.presidence.sn/en/pse/emerging-senegal>

⁷¹ <https://www.economie.gouv.sn/en/invest-senegal/senegal-brief>

⁷² <https://investinsenegal.com/faq/un-climat-des-affaires-tres-attractif/>

⁷³ Reuters (2020), *Senegal's Start-Up Act to Boost Female-Led Businesses in First for West Africa*: <https://www.reuters.com/article/us-senegal-entrepreneurs-law-trfn-idUSKBN20F1UZ>

⁷⁴ <http://www.numerique.gouv.sn/mediatheque/documentation/loi-relative-%C3%A0-la-cr%C3%A9ation-et-%C3%A0-la-promotion-de-la-startup-au-s%C3%A9n%C3%A9gal>

Adaptation SME Accelerator Project (ASAP)	Developing countries across Latin America, Africa and Asia	Vertical fund
CEMEX-TEC Award	Global	Public-private partnership (PPP)
Climate fund managers	Countries in Africa, Asia and Latin America	Fund manager
InfoDev	Brazil, Caribbean, Ethiopia, Ghana, Kenya, Morocco, Pakistan, Senegal, South Africa, Tanzania, Vietnam	Development finance institution
Global Innovation Fund (GIF)	All developing countries, including many investments in West Africa	Investment fund
Global Cleantech Innovation Programme (GCIP)	Armenia, Cambodia, India, Indonesia, Kazakhstan, Malaysia, Moldova, Morocco, Nigeria, Pakistan, Senegal, South Africa, Thailand, Turkey, Uruguay, Ukraine	Vertical fund
UN Climate Change Global Innovation Hub (UGIH)	Global	Donor-funded UN
<i>Latin America</i>		
Accelerate2030	Mexico, Colombia and others	Accelerator
Cleantech Challenge Mexico / X Challenge	Mexico	Pre-accelerator / accelerator
Cleantech HUB	Colombia	Innovation centre
Dalus Capital	All Latin American countries	VC fund
IDB Lab	All Latin American countries	Development finance institution
Low Emissions and Climate Resilient Agriculture Risk Sharing Facility (GCF FP048)	Mexico and Guatemala	Vertical fund
New Ventures	Mexico	Pre-accelerator / accelerator
Non-profit Enterprise and Self-Sustainability Team (NESsT)	All Latin American countries	Impact investor (non-profit)
P4G Partnership Fund	Colombia, Mexico and others	Philanthropic fund
Viva Schmidheiny Awards	All Latin American countries	Think-action tank
500 Startups Latin America	All Latin American countries	VC fund
<i>West Africa</i>		
Accelerate2030	Côte d'Ivoire, Mali and others	Accelerator
Acumen Resilient Agriculture Fund (ARAF) (GCF FP078)	Ghana, Nigeria and others	Vertical Fund
African Guarantee Fund (AGF)	All African countries	Financial institution
ASIP (Africa Startup Initiative Programme) Accelerator Programme	All African countries	Accelerator
BIX Capital	Nigeria and others	Impact investors
Clean Technology Hub	Nigeria	Innovation centre
Délégation Générale à l'Entrepreneuriat des Femmes et des Jeunes (DER/FJ)	Senegal	Public institution
Empow'Her	Countries in Europe and West Africa	Entrepreneurial network
Energise Africa	14 African countries	Crowdfunding platform
FRAGG Impact Growth Accelerator Programme (FIGAP) and Impact Fund	Côte d'Ivoire	Impact investment management company
GroFin	14 countries in Africa and the Middle East	Investor fund
Incub'Ivoire	Côte d'Ivoire	Pre-accelerator
Investisseurs et Partenaires	Burkina Faso, Côte d'Ivoire, Senegal and others	Impact investor
Janngo Capital Startup Fund	All African countries	VC fund
Kosmos Innovation Center (KIC)	Côte d'Ivoire, Senegal and others	Accelerator
Nigeria Climate Innovation Centre (NCIC)	Nigeria	Innovation centre
Promoting Cleantech Innovation for Climate Action in Senegal	Senegal	Vertical fund
REACT SSA Innovation Fund	Burkina Faso, Liberia, Mali and others	Development institution
Seedstars Africa Ventures	25 countries in sub-Saharan Africa	VC fund
West Africa Regional Innovation Hub	Burkina Faso, Côte d'Ivoire, Senegal and others	Joint international initiative

Figure 3: Baseline Project Heat Map Analysis – Latin America (full details are provided in Annex 2b)



Figure 4: Baseline Project Heat Map Analysis – West Africa (full details are provided in Annex 2c)



B.2 (a). Theory of change narrative and diagram

B.2.1 Problem Statement

40. *The opportunity:* there is a significant opportunity in both regions to leap-frog increasingly emissions-intensive development pathways and, instead, transition to low-emission technologies and practices. Governments can play, and are playing, an important enabling role through the promotion of appropriate policies and regulatory frameworks. The context provided by post-COVID recovery plans represents a timely entry-point for initiatives that support green growth. Venture capital flows into both regions are increasing rapidly, albeit from a low base (particularly in West Africa). VC finance directed at climate mitigation represents a small but growing fraction of overall venture capital, and there is a strong appetite among regionally-active VC firms to scale-up climate funding. The private sector – and, in particular, young, agile ventures that can innovate rapidly and are well positioned to disrupt the status quo – can, in principle, play a prominent role in supplying low-emission goods and services.

The problem: Governments are struggling with large deficits, partly driven by large public expenditures incurred during the COVID pandemic, as well as other pressing development challenges. The private sector needs to play a prominent role, but is currently prevented from doing so by the nascent state of the cleantech sector – notably, the sector’s limited technical capabilities, support networks and role-models, and the lack of ‘industry standard’ (widely-accepted, best-practice) tools and frameworks – and the mismatch between the current capacities of climate ventures and those required to successfully access VC finance.

The solution: The overarching objective of the CATALI.5°T Initiative is to build a pipeline of 60 high-potential and commercially-viable seed-stage climate ventures (30 in Latin America and 30 in West Africa) and 120 high-quality pre-seed climate ventures (60 in Latin America and 60 in West Africa), characterised by strong business execution and climate impact capabilities. The seed-stage ventures will be enabled to cross the ‘Valley of Death’, navigate the stringent VC due diligence process and successfully attract VC funding. The beneficiary ventures will be provided with financial and technical support to provide them with the opportunity to thrive in their respective markets. By contributing to the successful development of climate ventures, the CATALI.5°T Initiative will unblock their climate mitigation benefits, resulting in quantifiable GHG emissions reductions that are aligned with GCF mitigation results areas and Fund-level impacts.

B.2.2 Barrier Analysis

41. There is considerable evidence of emerging VC interest and nascent climate innovation in Latin American and West African markets, accompanied by improving (albeit sparse and incomplete) government policy signals intended to promote entrepreneurship, trigger innovation and facilitate private sector growth. A range of barriers that serve to constrain or prevent VC investment in climate innovation in both regions – in turn preventing large-scale GHG emission reductions – have been identified and placed into two clusters, namely: (i) complex sourcing of high-quality climate ventures in these markets; and (ii) limited information regarding the potential and actual climate impact of new ventures. These are presented in Table 3. The relative importance of these barriers, and their implications, varies between the regions and between the countries within each region. Full details are provided in the Latin America feasibility study (Annex 2b) and the West Africa feasibility study (Annex 2c). These barriers specifically apply to investment in climate ventures. General business and investment barriers – such as regulations, taxation, capital controls and foreign exchange risks – are not detailed here but are reflected in the CATALI.5°T Initiative design.

Table 3: Barriers to Climate Innovation in Latin America and West Africa

Barrier cluster	Barrier	Description
1. Complex sourcing of high-quality climate ventures	1.1 Growing interest of entrepreneurs and investors in achieving climate impact, but limited understanding of causalities, trade-offs and related business opportunities	<ul style="list-style-type: none"> Limited understanding of entrepreneurs on climate change causes, effects and market possibilities. Limited knowledge of entrepreneurs on climate-related government objectives, international commitments and actions. Perceived complexity, among entrepreneurs and investors, of climate solutions and the variety of markets they exist in. Even among impact investors (i.e. VCs and other investors with an explicit environmental or social investment mandate), limited exposure to, and technical capacities for appraising and supporting, climate ventures.

		<ul style="list-style-type: none"> Limited awareness of, or access to, solutions to reduce GHG emissions and climate vulnerabilities whose technical feasibility and commercial competitiveness have already been proven in other geographies. Limited means to adapt global solutions to local contexts due to a lack of research, prototyping and testing/validation infrastructure.
	1.2 Limited venture-building support infrastructure for entrepreneurs preparing climate ventures for VC investments	<p>Limited knowledge and experience of skilled entrepreneurs in developing and validating climate business ideas and business models.</p> <p>Lack of prominent regional role models, and notably women role models, to inform and inspire climate entrepreneurs.</p> <p>Limited access to tried and tested operating procedures for reaching market fit due to a relatively low number of historical climate ventures.</p> <p>Widespread informality of ventures limits their access to business or finance support.</p> <p>Limited ability of pre-accelerators, accelerators and other entrepreneur support organisations (ESOs) to leverage their expertise in ‘traditional’ (non-climate) business support to address the specific needs of climate ventures.</p> <p>Difficulties entrepreneurs face when validating market opportunities for climate solutions and business ideas and, consequently, when pitching these ideas to professional VCs.</p> <p>Limited capabilities for turning nascent climate solutions into prototypes and, eventually, high-impact commercial climate products and services.</p> <p>VCs lack established stakeholder networks and relationships in the regions, leading to (i) higher-cost, time-intensive venture sourcing, (ii) a focus on more mature (and hence more easily identified) companies at the expense of early-stage (but nonetheless high-potential) ventures; and (iii) limited communication between VC funds and ventures, resulting in mismatches between the venture characteristics VCs demand and the venture characteristics ventures supply.</p>
	1.3 Lack of pre-seed/seed funding available to climate entrepreneurs (grants)	<ul style="list-style-type: none"> Few public venture promotion programmes that provide equity-free pre-seed and seed grants for ventures to cover vital expenditures. Lack of venture capital targeting ticket sizes between US\$ 60,000 and US\$ 200,000. Limited number of VCs with an explicit climate focus.
2. Limited information regarding actual and potential climate impacts of new ventures	2.1 Lack of methods and data	<ul style="list-style-type: none"> Lack of robust, widely accepted (‘industry standard’) methodological frameworks and tools to measure the climate impact of climate ventures hinders comparison between ventures, disadvantages ventures offering genuine climate mitigation benefits, and limits the opportunities to claim and monitor climate impact.
	2.2. Limited capacity	<ul style="list-style-type: none"> Limited capacity of entrepreneurs, pre-accelerators, accelerators, other ESOs and investors to assess climate impact, in particular with regard to new ventures. Limited ability of entrepreneurs, pre-accelerators, accelerators, other ESOs and investors to embed climate impact in broader contexts, notably institutional gender strategies and emerging VC ESG frameworks.

Barrier cluster 1: Complex sourcing of high-quality climate ventures in Latin America and West Africa⁷⁵

Barrier 1.1: Growing interest of entrepreneurs and investors in achieving climate impact, but limited understanding of causalities, trade-offs and related business opportunities

42. Climate innovation does not currently attract as much investor interest as other sectors, notably software and fintech. The application pipelines of investors such as Reach for Change in Senegal or Sinergi in Burkina Faso, for example, reveal that climate innovation rarely accounts for a large proportion of applicants, as it is not seen by entrepreneurs as a sector that attracts investment capital. That said, interest in key climate sub-sectors (mainly solar energy, recycling, water supply / pumping and sanitation) is growing in both regions– although not necessarily for their climate impact but, rather, for their market potential or other benefits. A sizeable minority of entrepreneurs offer a climate impact without valuing it appropriately or even realising it exists at all: between 10-20% of ventures in the pipeline of a VC firm consulted during preparation of the CATALI.5°T Initiative failed to mention reduced GHG emissions as a positive feature of their goods / services when applying for finance, even though the VC firm assessed that benefit to be substantial. A minority of entrepreneurs, more so in Latin America, do market their offerings as ‘green’ or

⁷⁵ Full literature references to support the barrier analysis, including references to specific stakeholder interviews and workshops undertaken during CATALI.5°T Initiative preparation, are provided in the Regional Feasibility Studies (Annexes 2b and 2c).

(far less commonly) 'climate-friendly', but without a real understanding of GHG emissions or low-emission technologies or business models.

43. This means that: (i) entrepreneurs are missing opportunities to attract VC funding and, effectively, monetise their emission reduction potential; (ii) those VC firms that *are* active in the cleantech / impact space struggle more than they should to source ventures offering climate benefits (since these benefits are not being marketed by entrepreneurs or are being marketed misleadingly); and (iii) the mismatch between demand (availability of VC finance for climate ventures) and supply (the number and quality of climate ventures) is perceived by both sides of the market to be considerably greater than it really is, resulting in artificially suppressed market activity.
44. Furthermore, there is a widespread perception, shared by both entrepreneurs and investors in both regions, that climate mitigation solutions are complex and need substantial up-front capital, know-how and skilled labour to implement. This perception is hindering the development of the sector.
45. The perception of complexity stems largely from the additional technical requirements associated with climate mitigation solutions: in addition to all the (already-challenging) issues that a 'normal' venture must grapple with – such as design and manufacturing, marketing, finance, etc. – a climate venture and its investors must, in addition, contend with a host of concepts (baselines, emission factors, global warming potentials, leakage, MRV, etc.) that they may not be familiar with – and which their usual sources of support, such as mentors and pre-accelerators / accelerators – are unlikely to be familiar with either. Moreover, the diverse range of sectors and technologies that offer potential climate mitigation benefits simultaneously presents an enormous opportunity and a considerable challenge. Technical and domain expertise are vital for ventures that are developing prototypes, demonstrating proof of concept and finessing business models. Pre-accelerators / accelerators and VC firms tend to have generalised strengths across all (or, at least, most) sectors and deep technical expertise in a small handful; where a venture is offering a climate solution in an under-served sector, it may struggle to attract the support and finance it needs.
46. The perception of high up-front capital requirements stems from a widespread misunderstanding of climate mitigation solutions as entailing large-scale renewable energy (e.g. wind farms) or cutting-edge manufacturing plants (the example of Tesla was mentioned spontaneously in a number of stakeholder interviews in West Africa). Neither ventures nor VC firms generally perceive high up-front capital opportunities as aligned with their mental models of high-growth investment opportunities, particularly compared with other typical VC sectors such as software and fintech.
47. It is certainly true that some climate technologies have relatively high upfront costs (e.g. recycling infrastructure) – even if they ultimately deliver higher value (profits, reliable cash-flow) over time. These costs may be associated with the technology itself or with market and geographical barriers, such as for importation, production, logistics or the costs of skilled labour. As an early-stage climate venture is unlikely to be able to command pricing power in the marketplace (because it has not yet gained customer acceptance or built an attractive brand), it may take an extended period of time for revenues to start paying-back upfront costs. However, there are numerous examples of climate ventures that have created value inexpensively by, for example, connecting customers through mobile phones to relevant real-time and actionable information crucial to their livelihoods (e.g. Ignitia in Burkina Faso, relaying actionable weather-related information to farmers). Another example is Sanergy in Kenya, a venture that provides affordable non-sewage sanitation services to urban residents and uses the waste to make and distribute organic fertiliser and animal-feed to farmers, or briquettes for cooking to urban and rural residents. There is also considerable potential to adopt and adapt technologies and business models already developed in higher-income countries and apply them in innovative and capital-light ways that are appropriate to the local context.

Barrier 1.2: Limited venture-building support infrastructure for entrepreneurs preparing climate ventures for VC investment

48. The entrepreneurial ecosystem is vital to the success of ventures. Countries in both regions tend to have relatively small formal business sectors but have successfully and organically developed thriving informal entrepreneurial and financing networks. While this creates an environment that is conducive to innovation and risk-taking, it also suggests a very wide heterogeneity of entrepreneurs, some of whom lack strong fundamental business skills while others lack access to risk capital, networks or markets – and thus the

means to grow a viable enterprise. This is one reason why there are few prominent climate venture success stories in either region – which is, by itself, a problem, as it means there are few case-studies that aspiring entrepreneurs can be inspired by or learn from. The Gender Assessment (Annex 8a) identifies the lack of prominent women entrepreneurs as being a particular challenge in the context of encouraging the emergence and development of women-led climate ventures.

49. The widespread market informality makes it difficult to access support and finance from the formal sector. If an enterprise is not officially established, it typically lacks the appropriate documentation to receive VC funding and, instead, has to resort to more challenging routes such as self-financing, informal financing or micro-finance. It also means that many promising ventures ‘fly under the radar’ of VC firms, at least until they are more mature and have achieved a degree of market prominence – with the result that VC venture sourcing is, at best, patchy, with many lost mitigation opportunities as a result, and that VCs become aware of investment prospects at a late stage, by which time the ventures’ business models may be too far developed, and hence too rigid, to accommodate changes that improve their attractiveness to VC firms or that optimise their climate mitigation impact.
50. Pre-accelerators and accelerators provide a vital element of the venture support ecosystem, delivering opportunities for training, networking, collaboration, cross-fertilisation and mentoring. Despite a growing number of pre-accelerators / accelerators in both regions, the extent and quality of their support is heterogeneous. In Mexico, for example, only 22% of enterprises have received support from a pre-accelerator or accelerator. In West Africa, Afric’Innov is providing capacity building for pre-accelerators and accelerators. However, Afric’Innov and similar initiatives do not provide any climate-focused capacity building, and the ability of pre-accelerators and accelerators in both regions to leverage their expertise in ‘traditional’ business support to address the specific needs of climate ventures is very constrained.
51. In addition, there are large differences in the maturity of the markets within both regions. In Latin America, Brazil, Mexico, Colombia and Chile, dominate VC investment, while in West Africa a distinction can be drawn between more mature coastal economies and those of the Sahelian interior. Combined with the sectoral and technological diversity of climate ventures (see Barrier 1.2), this means that a ‘one size fits all’ approach to venture support is unlikely to be effective – and, indeed, counter-productive. One-to-one, tailored support is needed for climate ventures to a greater extent than both regions’ pre-accelerators and accelerators are accustomed to providing.

Barrier 1.3: Lack of pre-seed / seed funding available to climate entrepreneurs

52. Accessing finance is an obstacle for ventures generally and climate ventures specifically. A majority of stakeholders interviewed in both regions (including an advisor to the Prime Minister of Cote d’Ivoire) acknowledge that this is a major barrier. There are gaps in the ecosystem, notably a lack of technical and financial support for pre-seed and seed stage ventures. Some pre-accelerators and accelerators offer limited financial support: grants typically extend up to approximately US\$ 10,000-20,000. But the main financial gap is for ticket sizes between US\$ 60,000 and US\$ 200,000. There is a palpable sense of frustration among entrepreneurs, particularly in West Africa where financing opportunities are even more limited than those in Latin America: many receive initial finance of one kind or another (usually provided by the entrepreneurs themselves or by their friends and families, with angel investors playing an additional role in Latin America), but then lack ongoing support and are unable to cross the ‘Valley of Death’, when costs are ramping up but revenues remain limited. VC finance for climate ventures is certainly increasing in both regions, and the prospects for continued growth in VC financing are very good – but many high-potential ventures are simply unable to advance to the (post-seed) stage where Series A VC finance becomes a possibility.
53. Alternative funding opportunities are very limited. Banks and other traditional lenders, even those with a focus on SME finance, are risk-averse to novel technologies and business models. They perceive climate ventures as risky, even before other barriers to accessing bank finance – large ticket sizes, collateral requirements, favourable credit histories and high interest rates – are considered. These challenges are compounded for women, who are, in some countries / cultures, traditionally not official owners of land or assets that can be used as collateral. Conversely, for micro-finance, ticket sizes tend to be too low, with high interest rates and short durations (typically 6-12 months). As a result, the specific resource and support needs of ventures as they enter the seed stage are too large to benefit from early pre-seed grants and too small for the minimal thresholds of VCs, including most impact investors. The general lack of

available investment capital that would slot between high-risk venture capital and lower-risk private or corporate financing hinders the delivery of climate change solutions by ventures.

Barrier cluster 2: Limited information regarding actual and potential climate impacts of new ventures

Barrier 2.1: Lack of methods and data

54. An issue faced by most venture initiatives is access to widely accepted methodologies to measure climate mitigation benefits – or, indeed, adaptation-related co-benefits. This remains an important gap for three reasons:

- It makes it difficult to evaluate climate impact ex-ante and to compare the potential climate impacts of different ventures. This, in turn, means that investment may flow to the ‘wrong’ ventures – those that do not offer the highest mitigation benefits.
- It is inefficient. Ventures, pre-accelerators, accelerators, other entrepreneur support organisations (ESOs) and VC firms are all obliged to use – to the extent they can use – different tools to assess climate impact. These tools may not be robust or credible, are unlikely to be consistent with each other, entail duplicative efforts and may not be recognised by other ecosystem actors, such as international development organisations or the financiers (pension funds, foundations, etc.) that typically supply the capital for VC impact funds. It also renders the VC due diligence process more cumbersome and more time-consuming than it needs to be.
- The lack of standard practices limits the opportunities for entrepreneurs to claim climate impact and, to the extent that this climate impact leads to positive VC funding decisions, limits the ability of entrepreneurs to effectively monetise their emission reductions.

55. Investors in climate-related ventures require verifiable information on the climate impact of their interventions prior to allocating scarce funds to them. While methodologies to measure the climate mitigation impacts of ventures do exist, they tend to be (slightly paradoxically) both highly complex and simultaneously opaque (built on unclear or unvalidated assumptions); they tend to focus on Scope 1 and 2 emissions, where ventures may not make much of an impact at all; they lack consistency, making comparative investment decisions challenging; and, even when they are theoretically robust, they often suffer from a lack of good-quality, locally-calibrated baseline data and a limited track-record of real-world application (which would have allowed refinements to be made and deficiencies to be rectified). Requiring impacts to be verifiable involves costs associated with maintaining systems for data tracking and monitoring, whereas the budgets of ventures are typically already tight. Methodologies for measuring the climate resilience of ventures are at an even earlier stage of development.

56. The problem of impact measurement, including robust MRV frameworks, is compounded when the inherent uncertainty associated with the success or failure of ventures is considered. Managers of the baseline projects interviewed during preparation of the CATALI.5°T Initiative cautioned against using naïve (overly optimistic) assumptions about venture survival rates (and hence the realisation of GHG reduction outcomes). Furthermore, ventures often need a long lead time to gain traction, only gradually generating climate impact as they gain market share: for climate ventures, the time to reach Series A funding is typically 1-3 years after the seed stage.

Barrier 2.2: Limited capacity

57. Ventures require entrepreneurs to be multi-skilled – having an understanding of technology, business processes, sales and marketing, HR and other functions – in order to grow their business successfully. Climate ventures require an additional understanding of climate impacts, some understanding of climate science, and the methodologies and restrictions of climate finance as a sub-set of generic finance. Finding this skill-set is difficult in developed markets, and even harder in Latin America and – especially – West Africa, where technical skills and knowledge networks are weaker.

58. Many of the entrepreneurs surveyed during preparation of the CATALI.5°T Initiative were engaged in renewable energy and energy efficiency activities, in part reflecting these sectors’ prominence (high awareness, considerable body of successful investments worldwide), but also because donor agencies are most familiar with these sectors and there is certainly a considerable development opportunity associated with them in both regions. However, even in these relatively well-addressed sectors, climate-specific knowledge and skill-sets – i.e. the ability to assess and monitor climate impact, as opposed to non-climate domain expertise such as electrical engineering – was found to be extremely limited. Climate-

specific capacities are even lower in other high-potential mitigation sectors, such as agriculture, urban waste management and transport.

59. These limitations extend from entrepreneurs to pre-accelerators, accelerators, ESOs – and even to VC firms, which are operating in a fluid environment that is demanding ever-more emphasis on, and evidence for, 'impact' while equipped with ESG tools and frameworks that are lagging behind VC needs. While some pre-accelerators and accelerators have dedicated environmental programmes, these are relatively small, donor-dependent and not exclusively (or even primarily) climate-focused. Other programmes with a climate focus, such as the Adaptation Fund Climate Innovation Accelerator (AFCIA), are not directed at commercial acceleration and/or climate mitigation. Equipping ecosystem actors with the tools to accurately assess venture climate impact is crucial. But just as important is building their capacities to use these tools and enabling them to disseminate appropriate tool-use across the venture ecosystem.

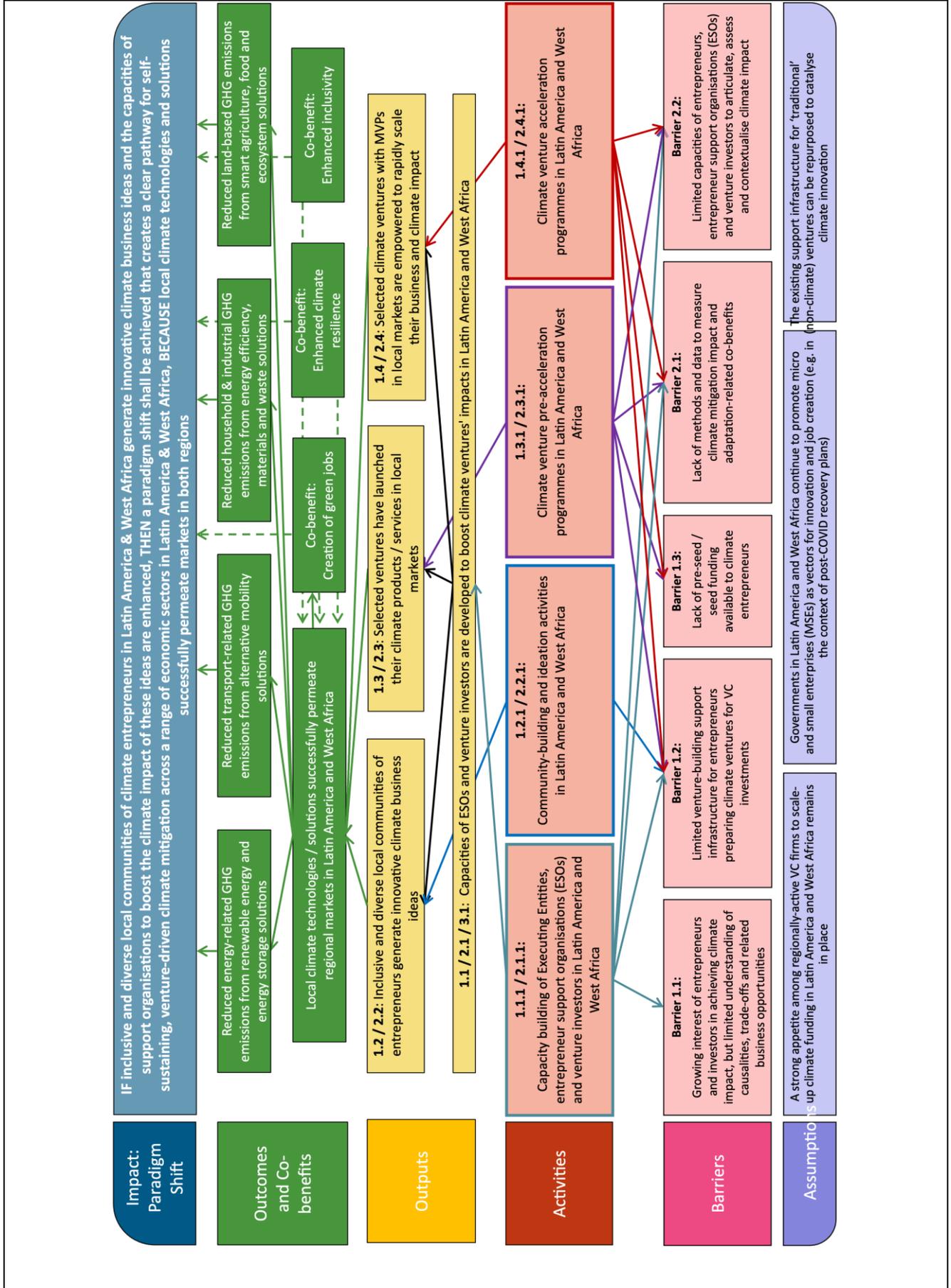
B.2.3 Theory of Change

60. The CATALI.5°T Initiative theory of change is presented in Figure 5. The logic can be stated as follows:

IF inclusive and diverse local communities of climate entrepreneurs in Latin America and West Africa generate innovative climate business ideas and the capacities of support organisations to boost the climate impact of these ideas are enhanced, **THEN** a paradigm shift shall be achieved that creates a clear pathway for self-sustaining, venture-driven climate mitigation across a range of economic sectors in Latin America and West Africa, **BECAUSE** local climate technologies and solutions successfully permeate markets in both regions

61. The theory of change illustrates the causal progression from underlying barriers to activities, outputs, outcomes and impact. According to the logic of the proposed intervention, substantive, self-sustaining emission reductions across the GCF's Mitigation Result Areas can be achieved in Latin America and West Africa if locally-developed or locally-tailored climate technologies and business solutions can be enabled to permeate regional markets. This can be brought about if local communities of entrepreneurs are able to generate innovative climate business ideas and if these ideas can be commercialised and can achieve rapid market scale-up.
62. To ensure this is the case, targeted activities are required to overcome the identified barriers – knowledge, awareness, financial and tool availability – that prevail in the baseline and which currently hinder such commercialisation and scale-up. These activities include capacity building of existing entrepreneur support organisations (ESOs) – pre-accelerators, accelerators, government venture support agencies, etc. – and venture investors; the development of a vibrant entrepreneurial community that is able to generate mitigation ideas with commercial potential; and the provision of technical and financial assistance to the climate ventures with the greatest commercial and mitigation potential, so that they can attract venture capital and other financing that allows them to achieve market success.
63. Technical assistance in the context of the CATALI.5°T Initiative refers to training, capacity building, coaching, mentoring and networking: i.e. to support services geared to stakeholders' needs that are procured and financed by the CATALI.5°T Initiative. Financial assistance in the context of the CATALI.5°T Initiative refers to: (i) grants of Euro 15,000 to climate ventures in the regional pre-acceleration programmes (one such programme in Latin America and one in West Africa); and (ii) repayable grants averaging Euro 100,000 to climate ventures in the regional acceleration programmes (one such programme in Latin America and one in West Africa). The use of these grants and repayable grants is subject to terms outlined in individual grant agreements signed by each venture and the relevant Executing Entity.

Figure 5: CATALI.5°T Initiative Theory of Change



B.2 (b). Outcome mapping to GCF results areas and co-benefit categorization

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1: Local climate technologies / solutions successfully permeate regional markets in Latin America and West Africa	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Reduced energy-related GHG emissions from renewable energy and energy storage solutions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Reduced transport-related GHG emissions from alternative mobility solutions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Reduced household and industrial GHG emissions from energy efficiency, materials and waste solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Reduced land-based GHG emissions from smart agriculture, food and ecosystem solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Co-benefit number	Co-benefit							
	Environmental	Social	Economic	Gender	Adaptation	Mitigation		
Co-benefit 1: Creation of green jobs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Co-benefit 2: Enhanced climate resilience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Co-benefit 3: Enhanced inclusivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

B.3. Project/programme description

B.3.1 CATALI.5°T Initiative Description

Overview

64. The CATALI.5°T (Concerted Action To Accelerate Local I.5° Technologies) Initiative will establish and implement regional technical assistance and investment grant platforms that build a portfolio of early-stage climate ventures in Latin America and West Africa. The objective of each regional CATALI.5°T is to trigger seed and venture capital investments in start-ups and young businesses with the highest climate mitigation impact and business growth potential. Each regional CATALI.5°T will provide support for: (i) climate ventures; (ii) pre-accelerators, accelerators and other entrepreneur support organisations (ESOs); and (iii) VC firms and other investors.

65. The design of the CATALI.5°T Initiative directly addresses the barriers identified in Section B.2.2.

Table 4: Barrier Removal by the CATALI.5°T Initiative

Barrier	Barrier Removal by the CATALI.5°T Initiative
1.1 Growing interest of entrepreneurs and investors in achieving climate impact, but limited understanding of causalities, trade-offs and related business opportunities	<ul style="list-style-type: none"> Nurturing nascent climate entrepreneurship / cleantech ecosystems in Latin America and West Africa to ensure (i) mutually-supportive roles for, (ii) technical understanding by, and (iii) standardised tool-use across Executing Entities, ESOs, venture investors and climate ventures, thereby enabling entrepreneurs and investors to, in effect, monetise emission reductions and address mismatches – real and perceived – between demand (availability of VC finance for climate ventures) and supply (the number and quality of climate ventures) in Latin America (Activities 1.1.1, 1.2.1, 1.3.1, 1.4.1, 3.1.1, 3.1.2, 3.1.3) and West Africa (Activities 2.1.1, 2.2.1, 2.3.1, 2.4.1, 3.1.1, 3.1.2, 3.1.3).
1.2 Limited venture-building support infrastructure for entrepreneurs preparing climate ventures for VC investments	<p>Community-building and ideation events ('climathons') in Latin America (Sub-Activity 1.2.1.1) and West Africa (Sub-Activity 2.2.1.1) to support and encourage entrepreneurs and potential entrepreneurs to develop early ideas for climate businesses – with a notable focus on mobilising and encouraging women entrepreneurs and other under-represented groups (e.g. rural-based entrepreneurs) in Latin America (Sub-Activity 1.2.1.2) and West Africa (Sub-Activity 2.2.1.2).</p> <ul style="list-style-type: none"> Regional support programmes for pre-seed ventures to enable them to develop minimum viable climate products / services – including technical assistance, mentoring, networking and financial assistance: Activity 1.3.1 (Latin America) and Activity 2.3.1 (West Africa). Regional support programmes for seed-stage ventures to enable them to scale-up and commercialise their minimum viable climate products / services and ensure investability by VC firms and other investors – including technical assistance, mentoring, networking and financial assistance: Activity 1.4.1 (Latin America) and Activity 2.4.1 (West Africa).
1.3 Lack of pre-seed/seed funding available to climate entrepreneurs (grants)	<p><u>Regional pre-acceleration programmes</u></p> <ul style="list-style-type: none"> Euro 15,000 grants for climate ventures in Latin America (Sub-Activity 1.3.1.3) and West Africa (Sub-Activity 2.3.1.4). <p><u>Regional acceleration programmes</u></p> <ul style="list-style-type: none"> Euro 50-200,000 (average: Euro 100,000) repayable grants for climate ventures in Latin America (Sub-Activity 1.4.1.3) and West Africa (Sub-Activity 2.4.1.2).
2.1 Lack of methods and data	<p>Methodologies, tools / toolkits and case-studies developed for Executing Entities, ESOs, venture investors and climate ventures:</p> <ul style="list-style-type: none"> Assessment of venture / venture portfolio ex ante and ex post GHG mitigation impact – CIF and MORSE tools: Sub-Activity 3.1.1.1. Assessment of ventures' climate resilience / adaptation co-benefits: Sub-Activity 3.1.1.2. Assessment of venture transformational / paradigm-shifting climate potential: Sub-Activity 3.1.1.3.
2.2. Limited capacity	<ul style="list-style-type: none"> Capacity building of Executing Entities, ESOs and venture investors to develop climate entrepreneurialism / cleantech expertise – and hence the ability to source, support, appraise and finance high-potential climate ventures: Activity 1.1.1 (Latin America) and Activity 2.1.1 (West Africa). Capacity building of pre-seed climate ventures to enable them to develop minimum viable climate products / services: Activity 1.3.1 (Latin America) and Activity 2.3.1 (West Africa).

	<ul style="list-style-type: none"> • Capacity building of seed-stage ventures to enable them to scale-up and commercialise their minimum viable climate products / services and ensure investability by VC firms and other investors: Activity 1.4.1 (Latin America) and Activity 2.4.1 (West Africa). • Actionable and practical guidance to Executing Entities, ESOs, venture investors and climate ventures on how to integrate gender equity into their operations, become gender-smart and enhance diversity in climate entrepreneurialism: Activity 3.1.2. • Awareness-raising, training and ad hoc support on E&S issues for climate ventures: Activities 1.1.1 and 1.3.1 (Latin America) and Activities 2.1.1 and 2.3.1 (West Africa). • ESG toolkits developed for Executing Entities, ESOs and venture investors to build on asset management and late-stage buy-out / private equity tools but calibrated for emerging VC / climate investment needs: Activity 3.1.3.
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66. At the core of each regional CATALI.5°T is an **acceleration programme** (Activity 1.4.1 – Latin America and Activity 2.4.1 – West Africa). Each regional acceleration programme focuses on providing support to seed-stage climate ventures to rapidly scale-up their minimum viable products (MVPs) and ensure investability by VCs. Specifically, the acceleration programmes will enable climate ventures to: (i) further develop or validate their products or services (e.g. through market surveys, product testing or product enhancement); (ii) enhance the success of their products and services through market demonstration, development of growth strategies, partnership development, etc.; and (iii) maximise the climate impact of their products and services through robust, internationally-recognised climate change mitigation assessment and, where relevant, assessment and strengthening of climate adaptation co-benefits. This support will take the form of Technical Assistance and Financial Assistance (in the form of a repayable grant to each climate venture of an average of EUR 100,000 to cover pre-agreed costs).

67. Less mature, pre-seed ventures will receive support to develop minimum viable climate products or services through a regional **pre-acceleration programme** (Activity 1.3.1 – Latin America and Activity 2.3.1 – West Africa). This support will take the form of Technical Assistance (capacity building, mentoring, networking, etc.) and Financial Assistance (in the form of a grant to each climate venture of up to EUR 15,000 to cover pre-agreed costs).

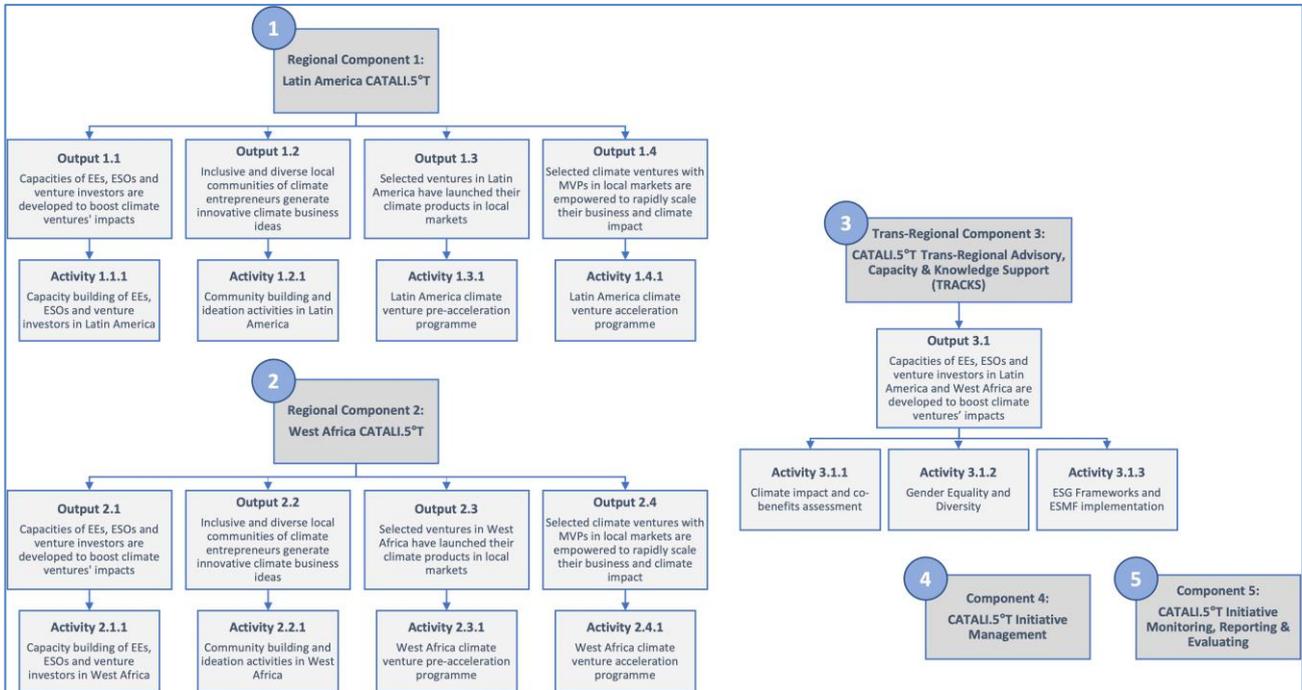
68. To promote the regional pre-acceleration and acceleration programmes, inspire entrepreneurs' interests in climate innovation and ensure a large number of high-quality applications to the pre-acceleration programme, the CATALI.5°T Initiative will run a number of **community-building and ideation activities** (Activity 1.2.1 – Latin America and Activity 2.2.1 – West Africa), some of them specifically targeting women and other under-represented groups in entrepreneurship.

69. In addition, **trans-regional advisory, capacity and knowledge support** (TRACKS) (Activity 1.1.1 – Latin America and Activity 2.1.1 – West Africa) will enable CATALI.5°T Initiative stakeholders to develop expertise in climate impact assessment; transformational climate mitigation solutions; women's empowerment in climate entrepreneurship; and Environmental, Social and Governance (ESG) frameworks. This will augment their current business and finance skill-sets and enable them, for example, to assess ventures' likely climate impacts (emission reduction potential and climate adaptation co-benefits), to steer ventures towards more disruptive and transformational climate solutions, to promote women's participation in climate entrepreneurship, and to understand and apply emerging ESG frameworks in the VC industry.

70. The CATALI.5°T Initiative is organised across 5 components:
 Component 1 encompasses the CATALI.5°T in Latin America.
 Component 2 encompasses the CATALI.5°T in West Africa.
 At cross-regional level, Component 3 aggregates provision of special advisory and capacity building services to ventures, Executing Entities, ESOs and investors involved in Components 1 and 2.
 Component 4 encompasses CATALI.5°T Initiative governance and management activities.
 Component 5 encompasses CATALI.5°T Initiative monitoring, reporting and evaluation activities.

71. The Latin America CATALI.5°T will be open to entrepreneurs and ventures from Argentina, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Paraguay and Peru (11 countries), provided the country's NDA has issued a No-Objection Letter (NoL).
72. The West African CATALI.5°T will be open to entrepreneurs and ventures from Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, Senegal and Togo (9 countries), provided the country's NDA has issued a No-Objection Letter (NoL).

Figure 6: CATALI.5°T: Concerted Action To Accelerate Local 1.5° Technologies – Components, Outputs and Activities



Types of Climate Ventures to be Supported by the CATALI.5°T Initiative

73. The CATALI.5°T Initiative will be sector- and technology-agnostic: it will follow a market-led approach to scaling-up the most promising opportunities for GHG mitigation. Subject to some limitations on eligibility (screening) and competitive selection (see Sub-Activities 1.3.1.1 / 2.3.1.1 relating to venture selection for the pre-acceleration programmes in Latin America and West Africa, and Sub-Activities 1.4.1.1 / 2.4.1.1 relating to venture selection for the acceleration programmes in Latin America and West Africa), venture-types outlined in Table 5 that demonstrate the potential to reduce / sequester GHG emissions at scale in any of the GCF's mitigation Result Areas will, in principle, be able to participate. Eligible greenhouse gases for mitigation purposes will be: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydro-fluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). Table 5 provides a summary of the types of ventures that can, in principle, be selected for inclusion, subject to additional screening and competitive selection criteria.

Table 5: Types of Climate Ventures That Can Participate in the CATALI.5°T Initiative

Result Area	Archetype ⁷⁶	Description
Energy access & power generation ventures	Biomass energy	Clean technology solutions to produce energy from renewable biomass sourced sustainably (combustion, pyrolysis, gasification, anaerobic digestion, etc.).
	Energy storage	Energy storage solutions for consumers and businesses, particularly those that increase the usability of renewable energy solutions (e.g. home energy storage).

⁷⁶ Please refer to Section D.1.1 for further details about archetypes.

	Renewable energy systems	Scaling-up the deployment and rehabilitation of generation technologies such as wind, solar and run-of-river hydro.
	Small-scale solar	Easy-to-use and affordable solar systems for households and premises such as clinics and offices.
	Smart grids	Responsive grid infrastructure and associated software and tools capable of managing intermittent renewable energy supply and optimising customers' electricity consumption.
Low-emission transport ventures	E-mobility	Electric vehicles (cars, bikes, etc.) and associated business models and tools to change user behaviour to use electric alternatives to fossil-fuel solutions.
	Shared mobility	Business cases around shared mobility solutions (car-pooling, last-mile solutions, car/bike sharing, etc.).
	Smart mobility	Route planning; apps for minimising journey times and energy consumption.
Buildings, cities, industries and appliances ventures	Energy efficiency	Platforms, technologies and equipment that require less energy than baseline alternatives (e.g. energy efficient lighting, heating, cooling, household appliances and commercial applications).
	Alternative materials	Alternatives to traditional packaging and other materials that offer smaller carbon footprints (during production, transport, use or disposal) – e.g. bioplastics, multi-use plastics, recycled paper and cardboard, etc.
	Smart city solutions	Analytics for mobility in cities and regions; development of smart / combined transportation systems.
	Smart manufacturing	Manufacturing processes and equipment that use less raw material, produce less waste and consume less energy.
	Sustainable building materials	Materials – such as cement, wood and insulation foam – that have smaller carbon footprints (during production, transport, use or disposal) than baseline alternatives; materials may also be zero-emission (e.g. sustainably harvested wood) or negative-emission (e.g. CO ₂ absorptive).
	Smart buildings	Systems and equipment that integrate discrete energy-saving or renewable energy technologies (e.g. smart lighting systems, smart cooling systems) or which incorporate low-emission features in their design (e.g. use of shading, orientation and natural ventilation).
	Urban planning	Solutions that address settlement-related emissions from a holistic perspective – e.g. integrated transport solutions, efficient zoning, provision of cycle routes, tree-planting schemes, etc.
	Sustainable consumption	Solutions that reduce the carbon footprint of consumer goods and services – e.g. reduced transport / logistics, multi-use or biodegradable packaging, reduced weight, alternative materials, improved power management, etc.
	Clean water / water availability	Technologies and processes – such as PV water pumping and solar disinfection – that lower the carbon footprint of the provision of clean water.
	Clean air	Solutions that reduce air pollution – where such solutions also reduce GHG emissions. ⁷⁷
	Sanitation	Technologies and processes that reduce GHG emissions associated with sewage management – e.g. variable-speed pumps, energy-efficient stirring, methane avoidance or capture, etc.
	Waste management	Solutions that avoid waste generation (e.g. composting, recycling) or reduce the GHG emissions from stored waste (e.g. landfill management).
Forestry & land use ventures	AgroTech (land)	Solutions to increase efficiency and sustainability of land management – e.g. reduced till agriculture, agro-forestry, alternative crops, smart crop rotation, alternative wetting and drying (in paddy fields), etc.
	AgroTech (nutrients / production)	Reduced use of nitrogenous fertilizers; alternative cattle feed; low-water agriculture that requires less water pumping; improved irrigation efficiency, etc.
	Alternative proteins	Alternatives to industrial meat production – e.g. plant-based and lab-cultivated meat, aquaculture, etc.

⁷⁷ For example, this would not include vehicle catalytic converters – as they tend to increase carbon dioxide and nitrous oxide emissions (while also reducing non-GHG emissions, such as those of carbon monoxide and nitrogen oxides). However, improved cookstoves that use less firewood and produce less CO₂ would be eligible, for example.

	Food security	Agricultural solutions that reduce inputs (fertilizers, pesticides, water, etc.) and/or increase outputs (more efficient farming practices), in the process reducing GHG emissions.
	Food waste	Solutions to reduce spoiling / wastage: e.g. more efficient transport, improved cooling technologies, new crop varieties, monitoring devices, etc.
	Monitoring land use	Technology solutions and analytics for livestock, soil and nutrient management – e.g. satellite data services, drones, mobile apps, GIS, etc.
	Ecosystem conservation, restoration and monitoring	Business cases and solutions for reversing ecosystem loss through (e.g.) reforestation, wetland rehabilitation, payments for ecosystem services, data provision and analytics, etc.

Regional Components (Components 1 and 2)

74. Component 1 (Latin America) and Component 2 (West Africa) have almost identical structures. Each encompasses 4 Outputs and 3 or 4 corresponding Activities (and associated Sub-Activities):

- Output 1.1 / 2.1: Capacities of Executing Entities, ESOs and venture investors in Latin America / West Africa are developed to boost climate ventures' impacts.
 - Activity 1.1.1 / 2.1.1: Capacity-building of Executing Entities, regional ESOs and venture investors in Latin America / West Africa.
 - *This Activity represents the regionally-specific implementation of Activities 3.1.1, 3.1.2 and 3.1.3, which are described in Component 3.*
- Output 1.2 / 2.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in Latin America / West Africa generate innovative climate business ideas.
 - Activity 1.2.1 / 2.2.1: Community-building and ideation activities in Latin America / West Africa
 - *Sub-Activity 1.2.1.1 / 2.2.1.1: Climathons*
 - *Sub-Activity 1.2.1.2 / 2.2.1.2: Open digital community for promoting women and diversity in climate entrepreneurship in Latin America / West Africa*
- Output 1.3 / 2.3: Selected Latin American / West African ventures have launched their climate products in local markets.
 - Activity 1.3.1: Climate venture pre-acceleration programme – Latin America
 - *Sub-Activity 1.3.1.1: Call for applications and venture selection*
 - *Sub-Activity 1.3.1.2: Pre-acceleration programme*
 - *Sub-Activity 1.3.1.3 Pre-acceleration programme – grants*
 - Activity 2.3.1: Climate venture pre-acceleration programme – West Africa
 - *Sub-Activity 2.3.1.1: Call for applications and venture selection*
 - *Sub-Activity 2.3.1.2: Pre-acceleration programme – Phase 1 (technical assistance)*
 - *Sub-Activity 2.3.1.3: Pre-acceleration programme – Phase 2 venture selection*
 - *Sub-Activity 2.3.1.4: Pre-acceleration programme – Phase 2 (TA & grants)*
- Output 1.4 / 2.4: Selected Latin American / West African climate ventures with MVPs in local markets are empowered to rapidly scale their business and climate impact.
 - Activity 1.4.1: Climate venture acceleration programme – Latin America
 - *Sub-Activity 1.4.1.1: Call for applications and venture selection*
 - *Sub-Activity 1.4.1.2: Acceleration programme: repayable grants*
 - *Sub-Activity 1.4.1.3 / 2.4.1.3: Acceleration programme: technical assistance*
 - Activity 2.4.1: Climate venture acceleration programme – West Africa
 - *Sub-Activity 2.4.1.1: Funding announcement, venture screening and selection*
 - *Sub-Activity 2.4.1.2: Acceleration programme – repayable grants*
 - *Sub-Activity 2.4.1.3: Acceleration programme – technical assistance*

75. Components 1 and 2 differ in some respects:

- Clearly, they serve different stakeholders in different market environments and baseline contexts, and are implemented by different regional Executing Entities.
- There are a few differences in the pre-acceleration and the acceleration programmes:

- *Implementation arrangements:* while the pre-acceleration and acceleration programmes in West Africa are delivered in a decentralised manner, with local activities implemented by local pre-accelerators / accelerators and seed funds in the IPED network in participating countries (under the close coordination of the CATALI.5°T Initiative’s Executing Entities in West Africa, Impact Hub, Climate-KIC and IPED), delivery of the pre-acceleration and acceleration programmes in Latin America is provided in and from Monterrey (Mexico) by the Executing Entity, Tec de Monterrey.
- *Structure and duration of acceleration programmes:* the acceleration programme in Latin America adopts typical elements of acceleration programmes around the world, as it is structured in cohorts of 10 ventures and each cohort will benefit from programme support for 6 months. All 30 selected seed-stage ventures will receive acceleration support, in 3 cohorts, over the first 3 years of the CATALI.5°T Initiative. In West Africa, in contrast, the regional acceleration programme will be implemented on a venture-by-venture basis (and not a cohort basis). Venture screening and selection will occur continuously, on a rolling basis, in the first 3 years of the West Africa acceleration programme. In addition, each venture will stay in the acceleration programme for 3 years, receiving intense technical assistance support in Year 1 of its acceleration programme, followed by regular follow-up and monitoring meetings by IPED and ‘light-touch’ technical assistance in Years 2 and 3 if needed.
- *Standardisation versus customisation:* more generally, the pre-acceleration and acceleration programmes in Latin America follow a more standardised approach (e.g. the indicator for triggering repayment of the repayable grant is the same for all funded ventures) while the programmes in West Africa will be delivered to supported ventures in a more customised manner, tailored to the specific profile and needs of each supported venture. This different approach reflects the less developed nature of the start-up sector in West Africa and the generally more challenging business environment.
- Despite these differences, the two programmes share extensive commonalities. For the sake of brevity, and to avoid unnecessary duplication, a description is provided below of Component 2. Much of this is directly applicable to Component 1. The reader is referred to the regional feasibility studies (Annex 2b – Latin America, Annex 2c – West Africa) for detailed descriptions of all Outputs, Activities and Sub-Activities in both regions.

Regional Component 1: Latin America CATALI.5°T

76. Please refer to Component 2 below and to Annex 2b.

Table 6: Execution Arrangements and Use of GCF Proceeds for Component 1

Regional Component 1: Latin America CATALI.5°T	Executing Entity⁷⁸	Use of GCF Proceeds
<i>Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures’ impacts</i>		
Activity 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America	Climate-KIC, GIZ	Technical assistance
Sub-Activity 1.1.1.1: Climate mitigation impact assessment	GIZ, Climate-KIC	Technical assistance
Sub-Activity 1.1.1.2: Climate resilience co-benefits assessment	Climate-KIC	Technical assistance
Sub-Activity 1.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC	Technical assistance
Sub-Activity 1.1.1.4: Gender equality and diversity	Climate-KIC	Technical assistance
Sub-Activity 1.1.1.5: ESG frameworks	GIZ	Technical assistance

⁷⁸ Where a Sub-Activity is implemented by more than one Executing Entity, a Lead Executing Entity will coordinate the interventions of the other Executing Entities. The individual roles and responsibilities of each Executing Entity, for each Sub-Activity, are described in detail in the Project Activities chapter of each Regional Feasibility Study (Annexes 2b and 2c).

<i>Output 1.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in Latin America generate innovative climate business ideas</i>		
Activity 1.2.1: Community-building and ideation activities in Latin America	Climate-KIC, GIZ	Technical assistance
Sub-Activity 1.2.1.1: Latin America climathons	Climate-KIC	Technical assistance
Sub-Activity 1.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in Latin America	GIZ	Technical assistance
<i>Output 1.3: Selected ventures in Latin America have launched their climate products in local markets</i>		
Activity 1.3.1: Latin America climate venture pre-acceleration programme	Tec de Monterrey, GIZ, Climate-KIC	Technical assistance, Financial assistance
Sub-Activity 1.3.1.1: Call for applications and venture selection	Tec de Monterrey, GIZ, Climate-KIC	Technical assistance
Sub-Activity 1.3.1.2: Pre-acceleration programme – technical assistance	Tec de Monterrey, GIZ, Climate-KIC	Technical assistance
Sub-Activity 1.3.1.3: Pre-acceleration programme – grants	Tec de Monterrey	Financial assistance
<i>Output 1.4: Selected climate ventures in Latin America with MVPs in local markets are empowered to rapidly scale their business and climate impact</i>		
Activity 1.4.1: Latin America climate venture acceleration programme	Tec de Monterrey, GIZ, Climate-KIC	Technical assistance, Financial assistance
Sub-Activity 1.4.1.1: Call for applications and venture selection	Tec de Monterrey, GIZ, Climate-KIC	Technical assistance
Sub-Activity 1.4.1.2: Acceleration programme – technical assistance	Tec de Monterrey, GIZ, Climate-KIC	Technical assistance
Sub-Activity 1.4.1.3: Acceleration programme – repayable grants	Tec de Monterrey	Financial assistance

Regional Component 2: West Africa CATALI.5°T

Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts

Activity 2.1.1: Capacity-building of Executing Entities, ESOs and venture investors in West Africa

Executing Entities: Climate-KIC, GIZ

Use of GCF proceeds: Technical assistance

77. In advance of, and in parallel with, West Africa CATALI.5°T pre-acceleration and acceleration programme commencement in 2023, the Executing Entities in West Africa (Impact Hub Abidjan and IPED, and the local implementation partners), other regional ESOs and venture investors will be offered training and coaching to develop expertise and build capacity in climate impact assessments; transformational climate mitigation solutions; women's empowerment in climate entrepreneurship; and Environmental, Social and Governance (ESG) frameworks. This will augment their current business and finance skill-sets and enable them, for example, to assess ventures' likely climate impacts (emission reduction potential and climate adaptation), to steer ventures towards more disruptive and transformational climate solutions, to promote women's involvement in climate entrepreneurship, and to understand and apply emerging ESG frameworks in the VC industry.
78. With regard to the programme Executing Entities and implementation partners in each participating country, Activity 2.1.1 will ensure the smooth implementation of the capacity building and advisory services in the pre-acceleration and acceleration programmes in West Africa. Capacity-building on gender in climate entrepreneurship and ESG will directly contribute to implementing the CATALI.5°T Initiative's Environmental and Social Management Framework (ESMF, Annex 6a) and Gender Action Plan (GAP, Annex 8b), at the level of the Executing Entities and implementation partners and at the level of the climate ventures that they support.
79. With regard to other regional ESOs and venture investors, Activity 2.1.1 will build the capacity of selected additional ESOs and venture investors. Much of the training provided by the CATALI.5°T Initiative will be online, so the incremental costs to the programme of training additional participants will be negligible, whereas the benefits (improved ecosystem capacities, awareness of the CATALI.5°T Initiative, stakeholder goodwill, etc.) are considered to be substantial. It is envisaged that the participation of ESOs and

venture investors will be relatively fluid – most will only participate in workshops / training that applies to their specific needs (e.g. GHG assessment, gender, ESG, etc.). For this reason, no detailed eligibility criteria are envisaged, beyond a few general requirements. Participation will be by invitation-only and the CATALI.5°T Initiative retains the right to screen and select participants.

80. General requirements for additional ESOs and venture investors – they must:

- Be active, or demonstrably planning to be active, in one or both of the programme regions (Latin America and West Africa).
- Show a strong and credible commitment to supporting climate innovation and entrepreneurialism. For example, in the case of VC firms, this would extend to investments or planned investments in climate ventures.
- Be private sector, public sector or non-profit entities.
- Cover travel-related costs (in the case of in-person workshops or events) themselves.

81. Initially, in 2022 and 2023, capacity building measures under Activity 2.1.1 will be delivered by the Executing Entities Climate-KIC (climate impact, gender / diversity) and GIZ (ESG). In 2024 and 2025, these services will increasingly be delivered by the staff of Impact Hub Abidjan and IPED themselves and by trained local consultants. Most capacity-building measures will be delivered virtually (i.e. using the internet).

82. The planned capacity building measures regarding climate impact and transformation potential are described in detail in Activity 3.1.1, which will be implemented by Climate-KIC. Planned capacity building measures regarding implementation of the Gender Action Plan and Environmental and Social Safeguards Framework are described in detail in Activity 3.1.2 (GAP) and Activity 3.1.3 (ESMF / ESG).

- Sub-Activity 2.1.1.1: Climate mitigation impact assessment – links to Sub-Activity 3.1.1.1.
- Sub-Activity 2.1.1.2: Climate resilience co-benefits assessment – links to Sub-Activity 3.1.1.2.
- Sub-Activity 2.1.1.3: Paradigm shift and systems transformation potential – links to Sub-Activity 3.1.1.3.
- Sub-Activity 2.1.1.4: Gender equality and diversity – links to Sub-Activity 3.1.2.1.
- Sub-Activity 2.1.1.5: ESG frameworks – links to Sub-Activity 3.1.3.1.

Output 2.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in West Africa generate innovative climate business ideas

Activity 2.2.1: Community-building and ideation activities in West Africa

83. To support and encourage entrepreneurs and potential entrepreneurs to develop early ideas for climate businesses and to ensure a large number of high-quality applications to the pre-acceleration programme, the local implementation partners of the pre-acceleration programme will run climathons (Sub-Activity 2.2.1.1) – unique community-building and ideation events – in the participating countries. Climathons will be promoted within each country through the local implementation partner's existing stakeholder network (social media, alumni, local partners, the Impact Hub Network, etc.). Calls for participation in local climathons will be actively promoted in women's networks and among entrepreneurs with backgrounds usually under-represented in start-up and innovation programmes (such as entrepreneurs living in rural areas). All community-building and ideation activities will be conducted in a gender-sensitive way (see GAP).

84. Following their participation in climathons, (potential) entrepreneurs will be invited to join an open digital community for advancing women and diversity in climate entrepreneurship in West Africa (Sub-Activity 2.2.1.2). This Sub-Activity will strive to achieve high diversity among applicants to the pre-acceleration and acceleration programmes and start building a community of climate entrepreneurs in the region.

85. Activity 2.2.1 consists of 2 Sub-Activities:

- Sub-Activity 2.2.1.1: West Africa climathons

Executing Entities: Climate-KIC

Use of GCF proceeds: Technical assistance

A climathon⁷⁹ is a place-based programme that harnesses the power and imagination of stakeholders to co-create ideas to tackle local climate mitigation challenges. Over the span of 12-72 hours, a diverse group of participants, typically including entrepreneurs, business leaders, policy-makers, professionals, youth representatives, civil society organisations (CSOs), academics, students and software / technology hackers, come together to collaborate on forward-thinking ideas. Climathons represent a useful first step in the ideation and business creation process. Principally, climathons serve as a tool to bring together community stakeholders to identify pressing climate challenges, build collective knowledge and begin to co-create local solutions. Climathons are often cited by alumni as the catalyst that helped them move from idea to action. Entrepreneurs report that strengthening their networks through climathon participation enabled them to further develop their climate business ideas.⁸⁰ Through selected local delivery partners, Climate-KIC will execute one climathon per year over 3 years in each country that participates in the West Africa CATALI.5°T. It is intended that the local delivery partners for climathons will be the same entities as those assisting in the decentralised execution of the pre-acceleration programme (see Activity 2.3.1).

Climathons will be executed as follows:

First, Climate-KIC will:

- Recruit local delivery partners in all countries participating in the regional CATALI.5°T, in close coordination with GIZ, Impact Hub Abidjan and IPED (all Executing Entities for the pre-acceleration programme).
- Provide the local climathon delivery partners with formats and materials with which to reach out to key local stakeholders to identify priority areas / sectors for local climate action.
- In select cases, work with local climathon delivery partners to hold warm-up activities that help activate and frame specific thematic climate challenges that can be the focus of climathons (e.g. short workshops at universities / schools, presenting at related conferences, etc.).
- Connect all local climathon delivery partners to the global Climathon Network.
- Connect climathon participants to others in the global Climathon Network via existing climathon alumni activity.

Next, the local delivery partners will:

- Recruit participants and other relevant partners to participate in annual climathons.
- Manage and coordinate all climathon-related activities locally, including:
 - Recruitment of all participants from relevant organisations (universities, municipalities, businesses, central government, CSOs, etc).
 - Outreach, communications and PR.
 - Monitoring and evaluation, thereby contributing to the overall learning agenda of the regional CATALI.5°T.
- Manage ongoing relationships with participants post-intervention to:
 - Track progress of ideas and entrepreneurs.
 - Provide connections for the best ideas / entrepreneurs to further sources of support and other regions (e.g. via engagement with the CATALI.5°T pre-acceleration programme, via other existing activities of delivery partners or via the global Climathon Network).

Where possible, climathons will be held in October / November each year, in order to coincide with Climate-KIC's Global Climathon Week. This will serve to provide access to a network of 180+ like-minded organisers from around the world and a global repository of past ideas / solutions.

- Sub-Activity 2.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in West Africa

Executing Entities: GIZ

Use of GCF proceeds: Technical assistance

⁷⁹ <https://climathon.climate-kic.org/>

⁸⁰ Global Climathon Participant Feedback Survey (2019) and Climathon Participant Impact Survey (2018) (participants surveyed one year later).

A strong professional network is key for female entrepreneurs to succeed. Before and after participation in the climathons and the pre-acceleration and/or acceleration programmes, (potential) entrepreneurs will be invited to join an open digital community for advancing women and diversity in climate entrepreneurship in West Africa. The digital community will be for female entrepreneurs to become inspired, build and successfully grow their businesses while learning from their peers and benefiting from the support of like-minded female founders. It will serve as an online gateway to useful and inspiring information (including upcoming events such as climathons and application information / materials for the pre-acceleration and acceleration programmes). The digital community will:

- Connect – like-minded entrepreneurs in the country, region and other continents.
- Share knowledge – from selected entrepreneurs, coaches and experts.
- Promote learning – about other relevant national and regional stakeholders and financing opportunities.
- Open up opportunities – calls for applications, etc.

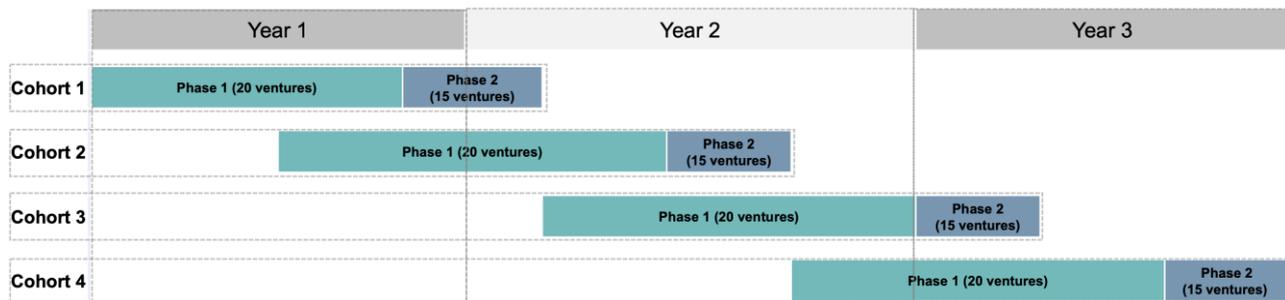
Output 2.3: Selected ventures in West Africa have launched their climate products in local markets

Activity 2.3.1: West Africa climate venture pre-acceleration programme

86. Over 3 years (approximately 36 months), the West Africa pre-acceleration programme will support 60 climate ventures at the pre-seed funding stage to develop minimum viable climate products or services and to be ready to enter local / regional markets. The pre-acceleration programme will be implemented on a cohort basis, with approximately 4 cohorts over approximately 36 months. For each cohort, the programme will be implemented in two phases:

- Phase 1: Climate ventures will be provided with technical assistance over a period of approximately 6 months.
- Phase 2: Climate ventures from phase 1 with the highest climate impact will be selected for approximately 4 months of additional one-on-one coaching, as well as each receiving a up to EUR 15,000 grant to cover pre-agreed expenses.

Figure 7: West Africa Pre-Acceleration Programme: Indicative Schedule



In total, the pre-acceleration programme will support approximately 80 Phase 1 climate ventures and 60 ventures that complete both Phase 1 and Phase 2.

The technical assistance will encompass business development, climate impact, gender, and environmental, social and governance (ESG) elements; the latter will reflect the CATALI.5°T Initiative’s Gender Action Plan (GAP) and its Environmental and Social Management Framework (ESMF).

Activity 2.3.1 consists of 4 Sub-Activities:

- Sub-Activity 2.3.1.1: Call for applications and Phase 1 venture selection

Executing Entities: Impact Hub Abidjan, Climate-KIC, IPED, GIZ
Use of GCF proceeds: Technical assistance

The pre-acceleration programme will be promoted within each country through Impact Hub Abidjan’s existing stakeholder network (social media, alumni, local implementation partners, the Impact Hub Network, etc.). All promotional activities will be conducted in a gender-sensitive manner (see the GAP, Annex 8b). Promotional materials will be in French, outlining the specific criteria and the

selection process. To achieve diversity among applicants, special events will actively promote the programme amongst women and entrepreneurs with backgrounds usually under-represented in pre-acceleration programmes. In order to select the best participants for the pre-acceleration programme – those with the highest likelihood of achieving climate impact and business success – Impact Hub Abidjan will adopt a multi-pronged publicity approach:

- Informational events with accomplished entrepreneurs: Impact Hub Abidjan, in conjunction with local implementation partners, will invite current entrepreneurs, particularly those involved in climate-related businesses, to participate in local events to sensitise early-stage entrepreneurs on the appeal of the programme. Inspirational peers will be solicited to facilitate webinars to share their experiences and outline how the programme could have supported (or has supported, for future cohorts) their growth.
- Request for referrals from regional pre-accelerators and accelerators: Impact Hub Abidjan will tap into the alumni networks of regional ESOs to request referrals of high-potential ventures.
- Invite applications through social media channels: While the quality of applicants through social media is typically lower, such channels can serve to increase general awareness and can reach segments of the population (notably, youth) who are more difficult to reach through traditional means (e.g. newspaper advertisements, flyers, etc.).

Ventures will initially be selected for Technical Assistance (TA)-only support (Phase 1). At the end of Phase 1, a sub-set of Phase 1 ventures will be selected for follow-on TA support (Phase 2) as well as financial support in the form of a EUR 15,000 grant. The application process to the pre-acceleration programme will consist of: (i) an initial eligibility screening process, and (ii) a subsequent selection process.

Venture Eligibility Screening

Initially, all applicants to the pre-acceleration programme will be screened against the following eligibility criteria by the Pre-Acceleration Screening Team:

- The applicant is an individual or a formally registered business in a francophone West African country that has supplied a No-Objection Letter (NOL). In case the applicant is already a formally registered business, it will need to fulfil the IFC definition of a micro or small enterprise (MSE): i.e. it meets 2 of the following criteria:
 - Fewer than 50 employees
 - Less than US\$ 3 million of total assets
 - Less than US\$ 3 million of annual sales

If the applicant is a formally registered business, in order to comply with EU state aid law and German non-profit law its ownership structure must credibly indicate that support provided by this programme will primarily benefit beneficiaries from a developing (Non-Annex 1) country.

If the applicant is an individual, he/she must be a citizen of a developing (Non-Annex 1) country and must have the right to live and work in a francophone West African country that has supplied a No-Objection Letter (NOL).

- The venture product or service presented for pre-acceleration support is: (i) at prototype or pre-sales stage; (ii) belongs to one or more of the categories listed in Table 5; and (iii) reduces or avoids greenhouse gas emissions or sequesters carbon in one or more of the GCF's Mitigation Result Areas ('climate mitigation impact'). The stated climate mitigation impact needs to be described in a qualitative manner, with the entrepreneur / venture demonstrating a reasonable understanding of GHG mitigation / avoidance and how the proposed product or service will achieve this.
- The proposed climate product or service is not on the IFC exclusion list or any other E&S exclusion list of GIZ.
- The applicant produces, or plans to produce, only one or more 'climate-friendly' (low-emission) products or services: i.e. it will not, in parallel, produce or sell 'climate-unfriendly' (baseline-emission or high-emission) products or services. (This ensures that support provided by the CATALI.5°T Initiative will be directed only at low-emission products and services).

Those applicants that pass the first 4 screening criteria will be subject to two subsequent screening elements:

- a) **E&S screening for pre-acceleration** (see ESMF, Annex 6a). This screening will serve to:
- Apply E&S exclusion criteria.
 - Identify potential E&S ‘red flags’: that is, negative risks and impacts that would not be manageable during the pre-acceleration programme implementation period or afterwards.
 - Assess a venture’s needs in the context of environmental and social permits, licences and similar administrative requirements.
 - Identify topics where the ventures could require dedicated support if they enter the pre-acceleration programme.
 - Apply a media check for potential infringements of human rights or discrimination.

The ESMF provides the relevant E&S screening checklists. The list of excluded ventures, and the list of excluded activities, is provided in the ESMF. The exclusions pertain mostly to avoidance of resettlement (ESS5), negative impacts on biodiversity (ESS6) and negative impacts on indigenous people (ESS7), as well as to ventures that are required by national legislation to undertake an Environmental and Social Impact Assessment (ESIA). The list can be updated upon agreement of the Executing Entities.

- b) **Gender screening** (see GAP, Annex 8b):
- The venture’s product or service has obvious negative implications for women: e.g. exacerbating wage disparities or requiring long working hours without extra compensation.
 - The venture has none of its founders and employees identifying as female and the venture has no intentions of diversifying its team members to include more women.

For acceptance into Phase 1 of the pre-acceleration programme, applications can be submitted by individuals. Formal business registration of the venture will only be required for Phase 2 application. The goal is to create a shortlist of approximately 40 applicants per cohort that pass the eligibility screening. The applicants that pass the eligibility screening will then proceed to the venture selection process.

The Pre-Acceleration Screening Team will consist of 7 members: 2 from Impact Hub Abidjan, 1 from an ESO, 3 from IPED (one of whom is the regional E&S specialist, the second is a gender specialist, the third is from the investment team) and 1 person experienced in climate entrepreneurship. The role of the climate entrepreneur expert will primarily be to assess the plausibility of: (i) the qualitative climate mitigation impact in the eligibility screening (above), and (ii) the climate impact self-assessment in the venture selection process (below). The decision to clear a venture to proceed to the selection process will, where possible, be by consensus, but Impact Hub Abidjan and IPED, as Executing Entities for the pre-acceleration programme, will exercise ultimate decision-making power. If Impact Hub Abidjan and IPED are unable to mutually agree on clearing a venture, the venture shall not proceed to the selection process.

Venture Selection

The selection process will consist of 2 elements:

- Climate impact self-assessment. Each of the ~40 ventures will be asked to complete a climate impact self-assessment, using the Climate Impact Hypothesis (CIH) tool.⁸¹ This will provide a simple, part-qualitative / part-quantitative estimate of the venture’s potential mitigation impact – essentially, one that provides: (i) a basis for subsequent structured discussion with the entrepreneur / venture (e.g. about the underlying assumptions used, future sales expectations, etc.); and (ii) a tentative means of comparing the climate impacts of the different ventures.
- Selection interviews. The ventures will be invited to online interviews. During the interviews, the candidates will be asked to present, in 5 minutes, their ventures / solutions. After the presentation, the members of the Phase 1 Selection Panel will have the opportunity to ask questions (10 minutes maximum) to challenge them on their ideas / business models, and also to assess their motivations to join the pre-acceleration programme. A scoring sheet will be provided to the Phase 1 Selection Panel to assess the candidates during the presentation and the Q&A session.

⁸¹ <https://impact-forecast.com/impact-hypothesis>

Selection criteria will include:

- *Climate mitigation impact potential:* using a combination of the results of the Climate Impact Hypothesis tool and the expert judgement of panel members. Climate mitigation impact potential will be assessed on the basis of: (i) the anticipated abatement effectiveness of the product / service, and (ii) the anticipated market penetration of the product / service. Climate mitigation impact potential will represent the single most important selection criterion (50% of the total score). Constituent elements of the climate mitigation impact potential will be:
 - *Understanding the problem and relevance of the solution:* Does the venture have a good understanding of the problem it wants to solve and good arguments to explain why it has the appropriate solution? (10% of total score).
 - *Business model:* Is the business model clear? Is there consistency between the different elements of the business model? Is the value proposition of the venture attractive? Does the product / service bring something different? How has the venture management team validated the business model? (20% of total score).
 - *Market attractiveness:* Does the venture have a good understanding of the market potential for its product / service? Does the product / service target an attractive market? Does the product / service have potential for local, regional or international expansion? Is the target market large enough for the business to be sustainable? (10% of total score).
 - *Competitive analysis:* Does the venture have a good understanding of its competitors and its competitive advantages? Is the market crowded? Is there one or more dominant players in the market? Are the barriers to entry significant? (10% of total score).
- *Paradigm shift potential:* in what way does the proposed climate product / service have the potential to be innovative and disruptive in the target market? Incremental climate solutions (for instance, an electrical appliance that is just 20% more energy-efficient than a baseline competitor) are eligible for inclusion in the pre-acceleration programme if their anticipated market penetration compensates for the relatively low per-unit GHG abatement potential. However, transformational solutions, representing a genuine rupture with business-as-usual, will be favoured, subject to considerations of execution risk, consumer receptiveness, etc. (10% of total score).
- *Climate resilience co-benefit:* Does the product / service offer potential climate adaptation co-benefits, either to the venture itself or (preferred) to its customers? How extensive and deep would these adaptation benefits likely be? All ventures must offer a substantial GHG mitigation impact. An additional climate adaptation impact is not necessary for inclusion in the pre-acceleration programme, but it will be positively assessed. (10% of total score).
- *Team:* Does the entrepreneur have the qualities and abilities to grow the business (enthusiasm, background, technical and managerial skills, devotion to the venture)? Does the venture have relevant positions filled by people with the skills and experience required to fulfil its value proposition, including an explicit interest in addressing climate change? (10% of total score).
- *Gender:* Is the venture female-led, defined as the founder being a woman? Where there is more than one founder, are the majority of founders (50% or more) women? Will the venture offer products or services that address a gender-related climate problem (e.g. gender stereotyping, increase women's wages / reduce women's unpaid work burden, unlock the potential of women-dominant sectors (e.g. improved agricultural practices or improving staple food value chains), or increase female participation in male-dominated sectors (e.g. high-yielding cash crops, climate-related technological innovation)? (10% of total score).
- *Quality of the presentation / pitch:* Is the presentation clear? Is the tone and rhythm of the voice engaging? Is the presentation dynamic? (10% of total score).

Once ventures have been scored by each Phase 1 Selection Panel member, deliberation among members will help calibrate the scores and enable the final selection of participants to be made for Phase 1 of the pre-acceleration programme (20 ventures per cohort). Participants who are not

selected will nonetheless have access to the pre-acceleration programme's online training materials. The Phase 1 Selection Panel will consist of the same organisations as those represented in the Pre-Acceleration Screening Team, as well as GIZ. The decision to accept a venture into the pre-acceleration programme will, where possible, be by consensus, but GIZ will be able to exercise a veto (e.g. based on the climate relevance (or lack thereof) of the venture and compliance with the E&S safeguards and GAP).

- Sub-Activity 2.3.1.2: Pre-acceleration programme – Phase 1

Executing Entities: Impact Hub Abidjan, Climate-KIC, GIZ
Use of GCF proceeds: Technical assistance

Phase 1 of the pre-acceleration programme will provide technical assistance to 80 pre-seed climate ventures – 20 ventures per cohort, for a period of 6 months per cohort. Phase 1 will consist of a blend of online training and mentoring, as well as two in-person cohort workshops.

Online training: The online training will cover the following topics:

- Business management and planning:
 - Value proposition: improving understanding of market opportunities, customer needs and unique product benefits.
 - Competition mapping: identifying the strengths and weaknesses of the offer, how the venture distinguishes itself from its competitors, and finding its true competitive advantage.
 - Stakeholder mapping: determining the different partners the venture needs to launch and creating a map of its partner networks and distribution channels.
 - Business model and marketing: obtaining a clear picture of the activities essential to the growth of the business and learning how to attract customers and keep them coming back.
 - Pricing: better understanding the costs of attracting customers and discovering the optimal price level to make the business financially viable.
- Climate advisory services (see also Activity 3.1.1):
 - Building ventures' understanding of their potential climate mitigation impact: introduction to concepts (baselines, emission factors, leakage, etc.), tools and case-studies.
 - Understanding of how the venture's product / service climate impact can be improved.
 - Guiding ventures on how they can introduce systems thinking and systems innovation concepts into their business model design, with a view to promoting more transformational (higher-impact, disruptive) climate innovation.
 - For those ventures that offer a potential climate resilience co-benefit, providing the tools and methodologies to assess the scope and magnitude of this co-benefit, and approaches to maximising this co-benefit in the context of commercially-viable business models.
- Environment and social (E&S) topics and gender (see also Activities 3.1.2 and 3.1.3):
 - Compliance with safeguards on labour and working conditions, including health and safety.
 - Other E&S topics as relevant, depending on the characteristics of each cohort: e.g. advice on effluents and waste management, ESG frameworks used by VC funds, etc.
 - Business cases for gender in climate innovation and using a gender lens in ventures' own business models (e.g., market research, consumer segmentation).
 - Information on risks of sexual exploitation, abuse and harassment (SEAH), and gender-based violence (GBV), and on the project's zero-tolerance policy.
 - Gender training, including on gender-based violence and reducing unconscious gender biases.

Mentoring: Following the online training, each venture will benefit from one-to-one mentoring, covering key topics such as production, sales, business management, climate innovation and leadership. The mentor will be based in (or affiliated with) the local implementation partner and will regularly follow-up on the venture's progress. The local mentor will also provide guidance and support

on how to overcome country-specific entrepreneurship challenges. At the commencement of the CATALI.5°T Initiative, Impact Hub Abidjan and GIZ will build a gender-diverse pool of mentors. The ventures identified as having specific E&S risks will receive mentoring in E&S management from the CATALI.5°T Initiative's regional E&S specialist on relevant topics, such as performing an E&S self-assessment, implementing waste management, improving occupational safety management etc. Mentors are generally anticipated to be based in the same country (or a similar economic context) as the supported climate venture. However, in circumstances where a mentor has a unique offering (e.g. a track-record of making a similar climate product / service in a different market), the mentor may be based elsewhere.

Cohort workshops: A first in-person workshop (3 days in Abidjan, Dakar or Bamako) will be organised three months into Phase 1 of the pre-acceleration programme to reinforce the sense of community among participants and provide in-person training on key topics. At the end of Phase 1, participants will come together a second time for an in-person group workshop (4 days in Abidjan, Dakar or Bamako) to review the content of their Growth Plans and Impact Action Plans; and to network with each other, with the Executing Entities and with ESOs. All workshop participants will also receive support in finalising their application and preparing their oral pitches for Phase 2 of the pre-acceleration programme.

- **Sub-Activity 2.3.1.3: Phase 2 venture selection**

Executing Entities: Impact Hub Abidjan, Climate-KIC, IPED, GIZ
Use of GCF proceeds: Technical assistance

In Phase 2 of the pre-acceleration programme, 15 of the 20 ventures supported in each cohort in Phase 1 will be selected for 4 months of additional support. This will consist of:

- An in-depth climate mitigation assessment.
- One-to-one coaching.
- A EUR 15,000 grant payment

All Phase 1 participants will be encouraged to submit online applications for Phase 2 support. Applications will be reviewed against the following selection criteria:

- *Administrative compliance and eligibility criteria:* e.g. the venture is, or is in the process of being, formally registered as a business⁸²; the venture has its own bank account (distinct from the personal bank account of the entrepreneur / founder); and satisfies ESMF requirements.
- *Quality of the venture's business idea and model, growth and impact plan:* likely climate mitigation impact, impact sustainability, level of innovation, quality of envisaged partnerships.
- *Quality of the grant request proposal:* relevance of the requested items (goods, services, equipment, technical assistance, etc.) to be covered by the EUR 15,000 grant.
- *Financial resources:* the venture is able to provide at least EUR 5,000 of its own resources to match the EUR 15,000 grant that will be provided in Phase 2 of the pre-acceleration programme.
- *Quality of the venture's organisation:* quality of the management / implementation team, quality of the methodological approach for implementation.
- *Budget and finance:* relevance of the budget vs. activities and desired outputs, financial planning.
- *Participation in Phase 1:* the venture registered good attendance and participation in Phase 1.
- *Quality of the presentation / pitch:* the presentation is clear and dynamic. The tone is engaging. The entrepreneur is able to answer questions from the Selection Panel in a fluid manner.

The Phase 2 Selection Panel will consist of the following members, with the following responsibilities:

- Impact Hub Abidjan will ensure that the business model is strong and marketable.
- IPED will check that the financial structuring and projections are coherent; that the uses proposed for the grant are legitimate (e.g. are not likely to involve proscribed activities, such as

⁸² Desirable at the time of application. If the venture is selected, legal incorporation / formal registration is required to receive grant funding.

payment of entertainment costs or the purchase of products and services from suppliers closely affiliated with venture employees) and are catalytic for the business; and that the grant request covers no more than 75% of the total cost of the venture's requested uses – 25% of the total budget must come from the venture's own resources (not in-kind) contribution (bootstrapping).

- The CATALI.5°T Initiative's regional E&S specialist will confirm the E&S screening (already performed before admission of the venture into Phase 1) and define specific needs for further coaching accordingly.
- GIZ will ensure that the climate impacts of the ventures' businesses are strong and well-articulated.

The Phase 2 Selection Panel will issue two types of decision:

- Positive opinion – if applicable, subject to the fulfilment of specified conditions (eg. obtaining a lease, recruiting an executive, etc.).
- Negative opinion, motivated by specific reasons. In this case, Impact Hub Abidjan will: (i) notify the venture of the refusal, (ii) provide reasons for the refusal, and (iii) provide constructive guidance on how the venture can improve its offering to other potential sources of support / finance.

The decision to accept a venture into Phase 2 of the pre-acceleration programme will be taken by majority vote, with an effort to reach broad consensus. GIZ will have a veto (e.g. based on the climate relevance (or lack thereof) of the venture and compliance with the E&S safeguards and GAP).

In the case of a positive opinion from the Phase 2 Selection Committee, a draft grant contract will be prepared by Impact Hub Abidjan, which will forward it, together with appendices, to IPED. One appendix will include the grant request proposal of the venture to IPED; another appendix will inform the venture about obligations pertaining to gender and E&S safeguards (including SEAH), that will be included in the grant agreement (see below). Once the contract has been approved by IPED, it will be signed by both the venture and IPED.

- Sub-Activity 2.3.1.4: Pre-acceleration programme – Phase 2

Executing Entities: Impact Hub Abidjan, Climate-KIC, IPED, GIZ

Use of GCF proceeds: Technical assistance, financial assistance (grants to climate ventures)

Support provided to the climate ventures (15 per cohort) in Phase 2 of the pre-acceleration programme will take the form of: (i) an in-depth climate mitigation impact assessment; (ii) one-to-one coaching, and (iii) a EUR 15,000 grant payment to cover pre-agreed expenses. These will be provided in parallel over a period of 4 months.

In-depth climate mitigation assessment: Each venture will be given the opportunity to advance the climate impact forecast self-assessment it conducted during the initial venture selection process (using the Climate Impact Hypothesis tool under Sub-Activity 2.3.1.1). This advanced assessment will be undertaken using the Climate Impact Forecast (CIF) tool⁸³ (see Activity 3.1.1) and will be guided by an independent, third-party certified CIF trainer. This exercise will provide an opportunity to revise the assumptions of the venture (e.g. to reflect changes to the venture's business plan, technology or market context), calibrate parameters (e.g. emission factors, projected sales, etc.) and, ultimately, provide an authoritative, quantitative and credible climate impact assessment that can be shared with VC funds and other potential investors (for more information, see Sub-Activity 3.1.1.1).

One-to-one coaching: The selected ventures will receive one-to-one coaching (online or face-to-face) to execute the business strategy and the Growth Plan and Impact Action Plan developed in Phase 1. Entrepreneurs will have regular coaching sessions (at least 4 hours per month) with their coaches and one monitoring / reporting session (at least 2 hours per month) with the local delivery partner in their country. The coaching will be growth-oriented and will address themes such as:

- Production

⁸³ <https://impact-forecast.com/impact-support>

- Sales and marketing
- Business management
- Financial management
- E&S management for specific subjects, identified during the E&S screening
- Preparation of investment plan (investment readiness for grant payment)

Sessions will be held at specified intervals to share feedback, review progress toward goal attainment and provide advice for the next steps. These sessions will also allow the coaches to identify potential bottlenecks and brainstorm solutions with the ventures. Coaches will be able to tap into the Executing Entities' regional networks to seek advice and/or make useful connections with other experts / entrepreneurs who could provide support. Additionally, IPED will provide training to 3 Impact Hub Abidjan coaches on the investment readiness module.

Grant payment: Upon satisfactory completion of the grant contract between IPED and the climate venture, IPED will prepare a bank transfer to the venture and will send an e-mail to Impact Hub Abidjan confirming the disbursement. The EUR 15,000 grant payment will be made in instalments. The use of the grant will be disciplined by the grant contract. Grants will be eligible for a broad range of activities relevant to pre-acceleration of the venture – including R&D, business development and procurement of equipment, services or personnel – in recognition of the diverse needs a climate venture may have in order to develop technological, commercial and consumer viability.

The grant contract will include clauses that aim to minimise the possibility of grant misuse, including:

- The need for additional validation should a substantive change in the use of the grant occur after the Phase 2 Selection Committee's initial approval.
- Eligible items for grant financing: cost of newly hired staff, equipment, software / data / information services and professional services (e.g. legal, accounting) critical to the R&D, product development and business development functions. The venture will need to justify the essential nature of the expenses and generally show that it is managing its business in a lean manner.
- In-kind financing (e.g. an entrepreneur's own work time) will not count towards the 25% own-contribution of the venture towards the total grant amount. It is very unlikely that ventures will be able to borrow, given the very early stage of ventures in the pre-acceleration programme. The entrepreneurs themselves may borrow in a personal capacity to raise the own resources necessary for the minimum 25% contribution or raise funds in any other feasible way (e.g. advances or donations from friends and family). The format of such fund-raising on the part of the entrepreneurs is indifferent to the purpose of the grant. For instance, entrepreneurs may decide to give equity stakes to third-party capital providers (this would, in fact, be a sign of early-stage success, albeit small).
- Exclusion lists and spending caps (for instance, for travel and entertainment costs, or remuneration of the founders / owners). Exclusion lists and spending caps will be the same for both grant-funded and entrepreneur-funded expenses.
- Conflict of interest and anti-fraud clauses aimed at preventing the purchase of products and services from suppliers closely affiliated with climate venture and pre-accelerator staff members.
- Adherence to E&S requirements on excluded activities.
- Provision of reasonable conditions of employment, protection of the workforce, provision of a safe and healthy work environment.
- Non-infringements of human rights.
- Zero tolerance of gender-based violence (GBV), and of sexual exploitation, abuse and harassment (SEAH).

Phase 2 monitoring: The focal point within the local implementation partner will monitor progress and support the ventures in drafting and submitting monthly reports (progress on activities and finances). The focal point will also be a local link that the coach and Impact Hub Abidjan can use to collect information on the market and the venture. The monthly reports will include mention of significant E&S incidents, as per detailed procedures defined in the ESMF.

Cohort workshop: At the end of Phase 2, participants will come together for a third and final time for an in-person group workshop (3 days in Abidjan, Dakar or Bamako) to review the content of

their Growth Plans and Impact Action Plans and to assess their readiness for: (i) entry into the acceleration programme or (ii) future business growth outside of the framework of the CATALI.5°T Initiative.

Output 2.4: Selected climate ventures in West Africa with MVPs in local markets are empowered to rapidly scale their business and climate impact

Activity 2.4.1: West Africa climate venture acceleration programme

87. The West Africa acceleration programme aims to achieve the commercial investment readiness of 30 West African climate ventures over 6 years (72 months), with each venture benefiting from 3 years of acceleration support. The acceleration programme will provide comprehensive technical assistance and repayable grant funding of EUR 100,000 on average (range: EUR 50,000-200,000) per venture. The technical assistance will encompass business development, climate impact, gender as well as environmental, social and governance (ESG) aspects; the latter will reflect the CATALI.5°T Initiative's Gender Action Plan (GAP) and its Environmental and Social Management Framework (ESMF). The acceleration programme will target both start-ups and growth companies (see 'target group' below), collectively referred to as climate ventures. Unlike the acceleration programme in Latin America, the West Africa acceleration programme will be implemented on a venture-by-venture basis (and not a cohort basis). Venture screening and selection will occur continuously in the first 3 years of the CATALI.5°T Initiative.

88. Activity 2.4.1 consists of 3 Sub-Activities:

- Sub-Activity 2.4.1.1: Venture screening and selection

Executing Entities: IPED, Climate-KIC, GIZ
Use of GCF proceeds: Technical assistance

This will consist of 5 principal steps:

1. Prospect identification and first assessment
2. Mandate-fit check
3. Due diligence
4. Selection Committee
5. Value Creation Plan

For each venture, steps 1-5 will, together, typically take 5-6 months:

- Identification and first assessment of the venture: approximately 1 month.
- Mandate-fit check and due diligence: approximately 3 months.
- Selection Committee and preparation of the repayable grant contract: approximately 1 month.
- Co-development of the Value Creation Plan (IPED and the venture): approximately 1 month.

1. Prospect identification and first assessment: Unlike the Latin America CATALI.5°T, ventures will not be selected for the acceleration programme in West Africa through a regular call for applications; instead, ventures will be selected on a rolling, case-by-case basis through proactive canvassing by IPED. This continuous, rolling approach is driven by two considerations: (i) it will provide entrepreneurs with more flexibility around when and how they join, essentially building support around their needs rather than around the CATALI.5°T Initiative's preferences; and (ii) financing 10 companies per year will require in-depth due diligence on at least 20 prospects per year; the IPED seed team will not be available to conduct 20 due diligence missions at the same time and will need to spread them over the year.

IPED will scope: (i) top participants of the West Africa CATALI.5°T pre-acceleration programme (see Activity 2.3.1); (ii) promising participants of other regional pitch competitions / entrepreneur network events; and (iii) promising ventures discovered through market surveillance. To achieve diversity among applicants, IPED will also run (iv) special outreach events with women entrepreneurs and entrepreneurs with backgrounds usually under-represented in acceleration programmes (see the GAP, Annex 8b). All scoping activities will be conducted in a gender-sensitive manner (see GAP). Information materials will be in French, outlining the specific criteria and the selection process.

Initial information submission. Interested participants will submit relevant information, including (list not exclusive): description of the business, description of funding needs and use of proceeds, team background and credentials, references, product demonstrations (e.g. by uploading videos), fund-raising track record (if any), tentative business plan, number of employees (disaggregated by sex), turnover generated over the last two years, time spent by the founders on the operations of the company, and – importantly – an explanation of how the venture meets the climate mitigation objectives of the programme and why grant support is necessary (versus other forms or sources of capital). If the climate venture has already filed audited accounts in the past, these will also be included in the application, together with corporate registration or similar documents.

Initial eligibility check. The most promising ventures will be invited to submit further information that will allow an initial assessment against the following eligibility criteria by the IPED screening team:

- The venture satisfies the IFC definition of a micro or small enterprise (MSE).
- The venture is legally incorporated or formally registered in a francophone West African country that has supplied a No-Objection Letter (NOL).⁸⁴
- The venture has its own bank account (distinct from the personal bank account of the entrepreneur / founder).
- The ownership structure of the venture credibly indicates that support provided by this programme will primarily benefit beneficiaries from a developing (Non-Annex 1) country.
- The venture does not fail against the IFC exclusion list and further E&S and gender exclusion criteria:
 - *E&S screening.* The same E&S screening for the pre-acceleration programme is applied to the acceleration programme.
 - *Gender screening.* Ventures will be excluded if: (i) the venture's product or service has obvious negative implications for women: e.g. exacerbates wage disparities or requires long working hours without extra compensation; and/or (ii) the venture has none of its founders and employees identifying as female and the venture has no intentions of diversifying its team members to include more women.
- The venture's founder(s) is devoted to this one venture only or, alternatively, the venture is the founder's principal economic activity.
- The venture has a minimum viable product (MVP) in one or more of the categories listed in Table 5 that offers commercial traction and potential for large-scale avoidance / reduction of GHG emissions or carbon sequestration in one or more of the GCF's Mitigation Result Areas. To provide a consistent statement of how the venture's product / service reduces or avoids GHG emissions, and by roughly how much, the venture will be required to complete an initial climate impact self-assessment, using the Climate Impact Hypothesis (CIH) tool. Ventures that have graduated from the pre-acceleration programme will, instead, submit their in-depth climate mitigation assessments (undertaken as part of Sub-Activity 2.3.1.4).
- The venture produces, or plans to produce, only one or more 'climate-friendly' (low-emission) products or services: i.e. it will not, in parallel, produce or sell 'climate-unfriendly' (baseline-emission or high-emission) products or services. (This ensures that support provided by the CATALI.5°T Initiative will be directed only at low-emission products and services).
- The venture needs funding: the venture requires seed funding between EUR 50,000 and EUR 200,000 to carry out a pilot phase, strengthen its capacities, improve its preparation for investment, strengthen its climate impact or undertake other eligible uses of funds.

2. Mandate-fit check: Those ventures that pass the initial eligibility check will be invited to a 'mandate-fit check' meeting / interview, where the venture will be assessed against the following selection criteria⁸⁵:

- *Climate mitigation impact potential* (40% of total score): Using a combination of the results of the Climate Impact Hypothesis tool (or, where relevant, the pre-acceleration in-depth climate mitigation assessment) and the expert judgement of the IPED screening team. Climate mitigation impact potential will be assessed on the basis of: (i) the anticipated abatement

⁸⁴ Desirable at the time of application. If the venture is selected, legal incorporation / formal registration is required.

⁸⁵ The criteria are slightly different for start-ups and growth companies. For brevity, only the start-up criteria are presented here. Please refer to Annex 2c for the growth company criteria.

effectiveness of the product / service, and (ii) the anticipated market penetration of the product / service. Climate mitigation impact potential will represent the single most important selection criterion.

- *Business model and market traction* (20% of total score):
 - The start-up has a minimum viable product and some market experience – potentially actual product sales but, alternatively, early-adopter testing of an initial version of the product / service.
 - The start-up's product / service has reached at least Technology Readiness Level (TRL) 5 (technology validated in a relevant environment).
 - The start-up has a high-potential business model, backed up by evidence of market attractiveness, differentiation from competitors and sustainability.
- *Venture management team* (10% of total score):
 - The start-up has evidence of team competence / capabilities for growing the start-up (e.g. prior entrepreneurship experience or relevant skill-sets or prior exposure to relevant markets).
 - The start-up management team demonstrate an understanding of the main impacts and risks of their product / service (e.g. energy and materials sourcing, waste and effluent generation, etc.), which should not outweigh the expected climate benefits.
- *Paradigm shift potential* (10% of total score): In what way does the proposed climate product / service have the potential to be innovative and disruptive in the target market? Incremental climate solutions are eligible for inclusion in the acceleration programme if their anticipated market penetration compensates for the relatively low per-unit GHG abatement potential. However, transformational solutions, representing a genuine rupture with business-as-usual, will be favoured, subject to considerations of execution risk, consumer receptiveness, etc.
- *Climate resilience co-benefit* (10% of total score): Does the product / service offer potential climate adaptation co-benefits, either to the start-up itself or (preferred) to its customers? How extensive and deep are these adaptation benefits likely to be? All start-ups must offer a substantial GHG mitigation impact. An additional climate adaptation impact is not necessary for inclusion in the acceleration programme, but it will be positively assessed.
- *Gender* (10% of total score): Is the start-up female-led, defined as the founder being a woman? Where there is more than one founder, are the majority of founders (50% or more) women? Will the start-up offer products or services that address a gender-related socio-economic problem (e.g. gender stereotyping, increase women's wages / reduce women's unpaid work burden, unlock the potential of women-dominant sectors (e.g. improved agricultural practices or improving staple food value chains), or increase female participation in male-dominated sectors (e.g. high-yielding cash crops, climate-related technological innovation)?

Because applicants to the acceleration programme will be assessed on a rolling, continuous basis – and not as a group of applicants for entry into a cohort – the scoring system will play a different role in the acceleration programme than it does in the pre-acceleration programme. In the pre-acceleration programme, the scoring will enable direct ranking – and hence selection – of the top 20 venture applicants. In the acceleration programme, in contrast, the scoring system will serve two functions: (i) ventures that score less than 50% will be excluded from further consideration; and (ii) for those ventures that score 50% or more, the scoring will serve as a means of assessing each venture in a more informed, semi-structured manner, which will assist the qualitative judgement of the Selection Committee. (For details on the composition of the Selection Committee, see below).

If the IPED screening team judges that a venture is suitable for potential entry into the acceleration programme, IPED will sign a Non-Disclosure Agreement (NDA) with the venture and advance to the next stage: due diligence.

3. Due diligence: For those ventures that advance, comprehensive due diligence of the venture will be undertaken to:

- Undertake a know-your-customer (KYC) check.
- Establish the business growth potential, including detailed analysis of market size and competitors.
- Quantify the climate impact potential using the Climate Impact Forecast (CIF) tool. This will be done by each venture and the self-estimate will then be validated by a climate specialist appointed by GIZ. Ventures that have graduated from the pre-acceleration programme can use their existing in-depth climate mitigation assessments (undertaken as part of Sub-Activity 2.3.1.4), provided there has been no material change in the venture's product / service or business model.
- Evaluate programme additionality: i.e. whether acceleration support is necessary and will not crowd-out other potential sources of assistance.
- E&S due diligence (ESDD).
- Ensure that requirements relating to Sexual Exploitation, Sexual Abuse, and Sexual Harassment – SEAH) are met or required provisions can be established prior to acceleration support.

4. Selection Committee: The venture due diligence results will be presented to the Selection Committee, which will approve, decline or approve with conditions the venture's entry into the acceleration programme. The Selection Committee will consist of the following members, with the following responsibilities:

- The IPED Seed Funding Director will organise and head the Committee, and will prepare the minutes of the Committee to explain the final decision.
- A member of the IPED screening team will assess the business aspects of the venture (business model, competitive environment, growth prospects, execution risks, legal and regulatory issues, etc.).
- A second local investor or local private sector specialist will provide his/her knowledge of the local venture ecosystem.
- A IPED E&S and gender specialist will assess the E&S risks, impacts and management capacity, will define specific needs for further training accordingly and will ensure that the selected venture complies with obligations under the Gender Action Plan.
- The GIZ representative will ensure that the climate impact of the venture is significant.

The decision to accept a venture into the acceleration programme will be taken by majority vote, with genuine effort made to reach broad consensus. GIZ will have a veto (e.g. based on the climate relevance (or lack thereof) of the venture and compliance with the E&S standards and gender policies).

Value Creation Plan: Each venture that is accepted into the acceleration programme will co-develop a 3-year Value Creation Plan in conjunction with IPED at the very start of the programme. The Value Creation Plan will also provide the basis for the repayable grant funding request (see Sub-Activity 2.4.1.2). The Value Creation Plan will focus primarily on the tasks that need to be accomplished to make the venture fully investment-ready, including key strategic issues, fund-raising support, climate impact, recruitment of key personnel, reliable financial reporting, the implementation of good operational management practices (including E&S standards), etc. The process for including E&S aspects in the Value Creation Plan follows the E&S due diligence (ESDD) and is described in detail in the ESMF. Relying on monthly meetings, quarterly reports and a set of scheduled technical assistance missions, IPED will closely monitor the implementation of the Value Creation Plan of each venture and will provide (in conjunction with partners such as Climate-KIC, as required) targeted, bespoke needs-based coaching and mentoring support during the 3-year technical assistance phase (Sub-Activity 2.4.1.3).

- **Sub-Activity 2.4.1.2: Acceleration programme – repayable grants**

Executing Entities: IPED

Use of GCF proceeds: Financial assistance (repayable grants to climate ventures)

A core support element of the acceleration programme is the provision of a repayable seed grant to each participating venture. Issuance of this grant, and the investments / activities paid for by the grant, will run in parallel to the suite of technical assistance interventions offered under Sub-Activity 2.4.1.3. The grant will be provided upon submission of a repayable grant proposal by the venture to IPED. Full details of the repayable grant are provided in Section B.4.5 of the Funding Proposal.

Repayments of the repayable grants up to EUR 300,000 during Years 1-6 will be used to cover the operational costs of the acceleration programme implemented by IPED. Repayments above EUR 300,000 will be used to implement additional community-building and ideation activities, for the purpose of further strengthening the local climate innovation ecosystem and broadening the pool of entrepreneurs moving into the climate technology and innovation space. Community-building and ideation activities will encompass outreach and capacity-building measures for entrepreneurs in the CATALI.5°T Initiative countries of West Africa; the funds raised through the repayment of repayable grants will not be disbursed as new grants directly to ventures or other beneficiaries. Such community-building and ideation activities will be implemented by IPED itself or by a procured party, at the discretion of IPED.

- Sub-Activity 2.4.1.3: Acceleration programme – technical assistance

Executing Entities: IPED, GIZ, Climate-KIC

Use of GCF proceeds: Technical assistance

This will be structured as follows:

- Phase 1: In the first year of its participation in the acceleration programme, each venture will benefit from an intensive programme of technical assistance that includes business coaching, climate advisory support, gender support and E&S / ESG support – all structured around the Value Creation Plan.
- Phase 2: for Years 2 and 3 of the venture's participation in the acceleration programme, light-touch mentoring will be provided, as well as an updated in-depth climate impact assessment.

Phase 1 technical assistance: Technical assistance will be provided that is highly tailored to each venture's Value Creation Plan. Potential areas of support are described below, but each venture's precise mix of support activities will vary according to need. This high level of TA individualisation serves as a key differentiator between the acceleration programme and the pre-acceleration programme (especially Phase 1 of the pre-acceleration programme, which offers a standard training curriculum to all participating ventures). It also ensures that ventures that graduate from the pre-acceleration programme and subsequently enter the acceleration programme do not duplicate the support they have already received.

- *Business coaching* from IPED staff or external experts can cover themes such as (non-exhaustive): investment readiness (inclusive governance, legal formalisation, trustworthy accounting, etc.); strengthening middle management; developing or refining a fund-raising strategy; technical and operational support (improvement of operational processes, certification process, E&S management, etc.); marketing, branding and packaging improvement; etc.
- *Labour formalisation support and labour quality enhancement:* awareness-raising and ad hoc support to increase labour formalisation and, while on the path to formalisation, improvement of labour conditions, especially for unskilled workers, manual workers and/or vulnerable workers. IPED has built a track-record and acknowledged expertise on such formalisation training in West Africa, which the CATALI.5°T Initiative will leverage.
- *Climate advisory support* will be available on an as-needed basis, including (non-exhaustive):
 - Building ventures' understanding of their potential climate mitigation impact: introduction to concepts (baselines, emission factors, leakage, etc.), tools and case-studies.
 - Guiding ventures on how they can introduce systems thinking and systems innovation concepts into their business model design, with a view to promoting more transformational (higher-impact, disruptive) climate innovation. [Linked to Sub-Activity 3.1.1.3].
 - For those ventures that offer a potential climate resilience co-benefit, providing the tools and methodologies to assess the scope and magnitude of this co-benefit, and approaches to maximising this co-benefit in the context of commercially-viable business models. [Linked to Sub-Activity 3.1.1.2].

E&S and gender monitoring to ensure venture compliance with programme requirements (e.g. relating to labour management, health and safety, hazardous materials, waste, community engagement, biodiversity management, SEAH, etc.) will be undertaken as part of the Value Creation Plan. Among the E&S topics quoted, SEAH is an essential topic of GCF's policy and will receive specific attention. Monitoring of occurrences of SEAH will be carried out through a dedicated GRM.

In addition, *E&S / ESG and gender technical assistance* will be available for ventures under Sub-Activity 2.4.1.3. This will include (non-exhaustive):

- Tailored E&S support as relevant, depending on the characteristics of the venture – e.g. advice on effluents and waste management (Linked to Activity 3.1.3).
- ESG frameworks. (Linked to Sub-Activity 3.1.3.1).
- Frameworks for identifying and reducing sexual exploitation, abuse and harassment (SEAH)
- Frameworks for identifying gender-based violence and/or unconscious gender biases in the workplace).
- Gender climate entrepreneurship toolkits. (Linked to Sub-Activity 3.1.2.1).

Phase 2 technical assistance: In Years 2 and 3 of the venture's participation in the acceleration programme, light-touch mentoring will be provided, as well as an updated in-depth climate impact assessment. As with the more intensive technical assistance provided in Phase 1, Phase 2 support will be highly individualised to respond to ventures' unique needs. While Phase 1 will focus on providing ventures with the knowledge and tools needed to implement their Value Creation Plans, Phase 2 will be more outward-looking, with greater emphasis placed on networking, publicity and positioning for potential VC financing.

- *Mentoring support* will include (on an as-needed basis; non-exhaustive): mentorship sessions and office hours with IPED staff, domain experts relevant to the climate venture business (including prospective clients) and, importantly, senior VC professionals; ample opportunity to network with prospective investors, industry leaders and pioneering companies based in other markets through seminars, webinars, etc.; awareness-building for the venture through IPED's website and social media accounts, as well as proactive efforts by IPED to feature the venture on mainstream media (TV, radio, news sites, etc.); 3-year membership of IPED's alumni network and database of domain experts and service providers.
- The *in-depth climate impact assessment* developed by the venture (and validated by a third-party climate expert) during the due diligence process prior to entry into the acceleration programme (under Sub-Activity 2.4.1.1) will be updated by the venture using the Climate Impact Forecast (CIF) tool and will incorporate updated data and assumptions. The intention is to provide the venture with an independent, authoritative assessment of its climate mitigation impact, which it can then use as a sales tool when seeking finance from VC firms and other impact investors. In order to ensure that the climate impact assessment is as up-to-date as possible for external use, the assessment will be conducted in the final year (i.e. Year 3) of the venture's participation in the acceleration programme.

Component 3: CATALI.5°T Trans-Regional Advisory, Capacity and Knowledge Support (TRACKS)

Output 3.1: Capacities of Executing Entities, selected ESOs and venture investors in Latin America and West Africa are developed to boost climate ventures' impacts

89. Climate venture support programmes can play a unique role in helping specific climate innovations enter the market quickly and, crucially, also contribute to building regional ecosystems that can foster the systematic change required to move towards a low-emission world. To do this, 'impact' must be embedded into the way the pre-acceleration and acceleration programmes in Latin America and West Africa are designed and delivered, and the way lessons are learned from them. Most venture ecosystem stakeholders (e.g. pre-accelerators, accelerators, VC firms and climate ventures) in Latin America and West Africa have limited knowledge of climate innovation to fully understand and address these challenges. Advisory, capacity-building and knowledge support activities under Output 3.1 will, therefore, address: (i) the programme Executing Entities and implementation partners, (ii) other interested regional Entrepreneur Support Organisations (ESOs), (iii) venture investors, and (iv) the climate ventures themselves. These stakeholders will gain the capabilities to:

- Assess the climate impact potential of climate ventures: measure, track and validate ventures' contributions to emission reductions / carbon sequestration, as well as – where relevant – their climate adaptation co-benefits.
- Identify and support ventures with the most climate-transformative potential: to channel more support to ventures that have the potential to be innovative and disruptive in the target market, thereby catalysing genuine rupture ('paradigm shift') with respect to business-as-usual practices.
- Shift mind-sets: arm entrepreneurs with the ability to apply the single-minded focus they need to scale-up their climate solutions, but also to understand where their solution fits into the bigger system/picture.

Activity 3.1.1: Climate impact and co-benefits assessment

90. The Climate Impact Framework deployed in Activity 3.1.1 is a tried and tested methodology that utilises the Climate Impact Forecast (CIF) tool⁸⁶ at its core. The Climate Impact Framework serves: (i) as a re-iterative learning tool for climate ventures to forecast their potential climate impact, and (ii) to help local pre-accelerator / accelerator managers to integrate climate impact measurement as part of the pre-acceleration / acceleration selection process and curriculum. The Climate Impact Framework will be applied at different stages of the pre-acceleration and acceleration programmes and will be administered in partnership with the regional Executing Entities. The Framework is important for three principal reasons:

- As a key differentiator from other, non-climate, venture programmes to ensure that the CATALI.5°T Initiative's pre-acceleration and acceleration programmes select the climate ventures with the greatest mitigation potential.
- To track impact during and beyond the life-cycle of the venture support programmes.
- To provide VC funds and other impact investors with an objective, independently-validated, quantitative estimate of climate impact, thereby enabling them to deploy capital efficiently to the most climate-effective venture investments.

91. Activity 3.1.1 consists of 3 Sub-Activities:

- Sub-Activity 3.1.1.1: Climate mitigation impact assessment

Executing Entities: Climate-KIC, GIZ

Use of GCF proceeds: Technical assistance

Climate-KIC will collect and review suitable datasets (economy, emissions, etc.) from the relevant geographies / countries in order to update the Climate Impact Forecast (CIF) tool with locally-calibrated data (e.g. emission factors, market sizes) for the purpose of improving the accuracy of baseline and venture emission scenarios. The software, and accompanying user manuals and training materials, will be made available in Spanish and French. In parallel, the existing MORSE⁸⁷ model (which builds on the CIF tool to predict cohort-level climate mitigation impact) will be improved by expanding the input data from ventures across the EU, West Africa and Latin America. The improved MORSE model will serve as a free online resource for any stakeholder (worldwide) that manages portfolios of climate ventures (notably, pre-accelerators, accelerators and VC firms) to assess the ex ante and ex post climate mitigation impact of their portfolios, including in the context of 'what-if' scenario modelling.

Test-run workshops (accompanied by training) will be undertaken with the regional Executing Entities: Tec de Monterrey in Latin America and Impact Hub Abidjan and IPED in West Africa. A workshop will be run in each region at the start of each region's pre-acceleration and acceleration programmes (i.e. 4 workshops in total) to enable trainers to work with a small group of ventures at different stages of readiness (early to more mature) as a test / sample to ensure the Climate Impact Framework has good usability and suitability for different contexts. The workshops will focus, in particular, on the Climate Impact Hypothesis (CIH) and CIF elements of the Impact Framework, as these elements are needed from the outset of the CATALI.5°T Initiative in order to select ventures for inclusion in the regional pre-acceleration and acceleration programmes, and to undertake in-depth climate mitigation assessments of the ventures at various points in their development.

⁸⁶ <https://climate.impactforecast.org/about/>

⁸⁷ MORSE: Model for Regional climate Start-up Ecosystem impacts. See Section D.1.1 for further details.

A training programme will be implemented in each region to train locally-based consultants for future delivery of the Climate Impact Framework. At the commencement of CATALI.5°T Initiative implementation in Latin America and West Africa, a call for potential impact trainers will be run. Staff members from Tec de Monterrey, Impact Hub Abidjan, IPED and local implementation partners are considered the principal beneficiaries of this training, but other local consultants will also be eligible to apply. The training will include at least 3 stand-alone training sessions per region, as well as participation of trainees in relevant CATALI.5°T Initiative-related work (e.g. serving as hands-on assistants in venture selection processes for the pre-acceleration and acceleration programmes).

Alongside the test-run workshops, Climate-KIC will facilitate a one-day workshop in each region – with Tec de Monterrey in Latin America and Impact Hub Abidjan and IPED in West Africa – in order to:

- Establish a learning framework for not only embedding the Climate Impact Framework into the pre-acceleration and acceleration programmes, but also to agree on an approach for capturing and analysing outputs from the climate impact tools (Impact Management and Monitoring, IMM). This will: (i) facilitate the establishment of baselines for individual ventures, against which (ii) mitigation progress can be assessed as ventures periodically update their climate impact assessments and (iii) aggregated climate impact (e.g. at the cohort, regional or programme level) can be periodically assessed; and (iv) feed empirical data back into the CIF and MORSE models for improved impact prediction.
- Establish a communications approach and a set of social media assets for sharing information about the Framework and tools and their importance to external stakeholders (other partners and ventures). For instance, it is critically important that the ventures that are supported by the pre-acceleration and acceleration programmes understand the importance of climate impact and can articulate what their impact is projected to be (and can communicate that they are, in fact, 'climate ventures').

Each time a venture undertakes a Climate Impact Hypothesis and (especially) an in-depth climate impact assessment (using the CIF tool), the CATALI.5°T Initiative will collect and store the data. The data will be collected by the relevant regional Executing Entity (Tec de Monterrey, Impact Hub Abidjan, IPED) and then shared with Climate-KIC, which will cut and analyse the data at various levels of aggregation, including:

- Cohort
- Sector / GCF result area
- SDG(s)
- Stage of venture maturity
- Type of business / impact domain (mitigation only, mitigation with adaptation co-benefits, etc.)
- Geography
- Product / service / digital / non-digital
- Impact lever (production, usage, waste treatment, transportation, re-use, etc.)

GIZ and Climate-KIC will publish an annual climate impact report to showcase ongoing CATALI.5°T Initiative achievements. The key impact findings will also be presented each year at an Open ClimAccelerator⁸⁸ network workshop. Open ClimAccelerator is a global open-source programme coordinated by Climate-KIC that provides organisations (notably pre-accelerators and accelerators) that support climate ventures with the means to facilitate innovation, catalysis and scaling-up of climate solutions.

- Sub-Activity 3.1.1.2: Climate resilience co-benefits assessment.

Executing Entities: Climate-KIC

Use of GCF proceeds: Technical assistance

The development of commercially-viable climate mitigation solutions that also offer climate adaptation benefits is particularly challenging to support, due to a range of issues associated with adaptation, such as: its context-specific nature, time-horizons (which may be different for mitigation and

⁸⁸ <https://climaccelerator.climate-kic.org/>

adaptation), the evolving frequency / severity of the climate hazards, and the difficulty in establishing effective revenue-generation models. These challenges can be overcome but most organisations lack the knowledge to fully understand and address them, including developing the support needed by entrepreneurs and ventures working to create these solutions. Sub-Activity 3.1.1.2 will provide specialised guidance and support to the regional Executing Entities and other interested regional ESOs to help them understand what constitutes an effective adaptation and resilience co-benefit, the challenges that need to be overcome to achieve such co-benefits, and the support they need to provide to the entrepreneurs developing mitigation solutions in order to maximise adaptation co-benefits. Through this support, the CATALI.5°T Initiative will be able to build a dedicated community of climate solution providers that are able to offer mitigation benefits and substantive adaptation co-benefits, accompanied by the ability to connect them effectively to potential clients and investors. In addition, the CATALI.5°T Initiative will introduce tools that help ventures to assess their adaptation co-benefit impact – complementary to the (mitigation-oriented) CIF tool.

Climate-KIC will draw upon its existing, extensive experience of building adaptation and resilience innovation thinking and capabilities to develop a cohesive body of literature, case-studies and tools for CATALI.5°T Initiative stakeholders. These will then be deployed in support of building the capacities of the regional Executing Entities and the climate ventures. Climate-KIC will determine what types and levels of adaptation support are needed and in what form in each region (e.g. toolkits, guidance materials, sectoral priorities, etc.) by:

- Undertaking a short survey for pre-accelerator / accelerator partners, augmented by structured interviews.
- Organising a 2-hour workshop for each region to present the preliminary results to local partners and gather collective feedback to inform the design of a support framework.

Based on this stakeholder input, Climate-KIC will then develop a regionally-specific support framework, adapted so that it is: (i) applicable to a primarily mitigation context (in which emissions reduction is the primary objective and climate adaptation co-benefits are subsidiary to the mitigation objective); (ii) tailored to regional interests (e.g. case-studies will be drawn from Latin America and West Africa, where possible); and (iii) translated into Spanish and French.

Dedicated training, in the form of a one-day train-the-trainers workshop in each region, will be provided to Tec de Monterrey, Impact Hub Abidjan, IPED and local implementation partners, as well as other interested regional ESOs, on key adaptation topics and issues. The support framework will form the basis of the training, and will include methodologies, criteria and taxonomies (such as the Adaptation Solutions Taxonomy – ASAP) for assessing adaptation and resilience ideas and their strengths / weaknesses. The regional Executing Entities and local implementation partners will be enabled to:

- Assess ventures for inclusion in the pre-acceleration and acceleration programmes on the basis of their likely climate resilience co-benefits.
- Advise climate ventures in the pre-acceleration and acceleration programmes on how to enhance the climate resilience co-benefits of their goods / services and, crucially, how to leverage climate resilience co-benefits to reinforce business models.
- Undertake in-depth climate resilience assessments of selected ventures using third-party (externally understood and accepted) tools and methodologies.

In the regional pre-acceleration programmes, and for relevant ventures only (those with adaptation co-benefits), the CATALI.5°T Initiative will provide:

- Direct support to groups of ventures through adaptation and resilience ‘bootcamps’, initially by Climate-KIC staff, with gradual transition of delivery by the regional Executing Entities. The support framework will form the basis of the training, but the emphasis will be on practical, venture-oriented questions, such as: Does my product / service offer climate resilience benefits? To whom? How can these resilience benefits be measured, priced and marketed? Can the resilience benefits be enhanced without jeopardising core business requirements (costs, profitability, technologies, etc.)?
- Peer-to-peer connections between participants in the cohorts and more advanced peers that have developed similar solutions.

In the regional acceleration programmes, and for relevant ventures only (those with adaptation co-benefits), the CATALI.5°T Initiative will provide:

- Those ventures that did not participate in the pre-acceleration programme will be invited to participate in one of the pre-acceleration bootcamps to obtain a basic technical understanding of climate resilience and how it relates to their business.
- ‘Deep dive’ training on specific topics, such as resilient agriculture or adaptation fintech (etc. – as applicable), by Climate-KIC or by specialists provided by Climate-KIC. To promote cross-fertilization of ideas, ventures in similar sectors or with similar adaptation co-benefits will receive the deep-dive training in groups.
- Introductions to specialised investors and agencies that are interested in cross-cutting (mitigation and adaptation) business ideas.

Throughout the training of the Executing Entities, ESOs and climate ventures, ongoing surveys will be conducted to collect feedback on the training programmes and to tailor future support to their needs, as well as to create knowledge products for use by the wider global community of practice.

- Sub-Activity 3.1.1.3: Paradigm shift and systems transformation potential

Executing Entities: Climate-KIC, GIZ

Use of GCF proceeds: Technical assistance

The Executing Entities, local implementation partners and other interested regional ESOs will:

- Inspire pre-accelerators / accelerators to do more: to shift from a narrow ‘traditional business excellence’ focus (e.g. profitability) or even an incremental climate impact focus (‘lower-emission business-as-usual’) to a broader perspective that emphasises transformational change - disruptive technologies and business models that facilitate ‘doing things differently’ in a way that is better aligned with 1.5 °C compatibility.
- Provide practical tools to support the identification and capacity building of ventures that have transformative potential.
- Understand the transformational potential of the CATALI.5°T Initiative’s pre-acceleration and acceleration programmes’ venture portfolios and use the findings to influence and crowd-in others.

The approach towards Sub-Activity 3.1.1.3 is intentionally open: it is not the intention to be too prescriptive but, rather, to tailor support based on interest levels and local demand.

Climate-KIC will develop training materials for the regional Executing Entities and local implementation partners. These training materials will be made available in French and Spanish. Using these training materials, Climate-KIC will provide capacity building – 6 hours of training workshops per region – to pre-acceleration and acceleration programme staff, as well as other interested ESOs in the respective regions, on implementation of the paradigm shift and systems transformation framework. In addition, Climate-KIC will support the regional Executing Entities and local implementation partners in the areas of:

- Communications and outreach: To attract ventures with the greatest transformational potential, the communications materials for the pre-acceleration and acceleration programmes, and for specific calls for ventures, will include a ‘transformative impact lens’. Communications materials will be reviewed by relevant experts (e.g. for specific sectors or geographies) before they are distributed.
- Design of specific questions to be used in the online application forms for the venture selection process (pre-acceleration and acceleration programmes).

Leveraging the tools adapted and the training provided to the regional Executing Entities, local implementation partners and ESOs, Climate-KIC will support the regional Executing Entities and local implementation partners in providing light-touch opportunities for ventures in the pre-acceleration and acceleration programmes to incorporate systems thinking and systems innovation concepts into their business model design and ways of working:

- The regional pre-acceleration programmes: One 2-hour workshop per cohort per region on why and how to embed systems innovation into venture design. The full toolkit will be available for all ventures after the workshop.
- The regional acceleration programmes: For those seed-stage ventures that receive prior CATALI.5°T Initiative support at the pre-acceleration stage, such systems thinking will already be incorporated into the ventures’ business models by the acceleration stage. For

those seed-stage ventures that seek further assistance in revising their business models to achieve greater mitigation paradigm shift, and where such revision is consistent with their Value Creation Plans (see Sub-Activities 1.4.1.1 and 2.4.1.1), these ventures will be invited to participate in the pre-acceleration workshops. Additionally, Climate-KIC and a pool of technical advisors will be available on an ad hoc basis to respond to specific venture needs.

An annual impact report will be published that links directly to the overall results framework of the CATALI.5°T Initiative. The key impact findings will be presented each year at a global Open Climate Accelerator network workshop hosted by Climate-KIC.

Activity 3.1.2: Gender equality and diversity – implementing the CATALI.5°T Initiative Gender Action Plan (GAP)

92. Activities under Activity 3.1.2 will provide actionable and practical guidance to CATALI.5°T Initiative Executing Entities, local implementation partners, climate ventures and other ESOs on how they can integrate gender equity interventions, become more gender-smart and enhance diversity in climate entrepreneurship. Including women and under-represented societal members across the ecosystem as customers, entrepreneurs, trainers, mentors, investors and pre-accelerator / accelerator team members will generate innovative climate solutions that are more inclusive, leave nobody behind and, in many cases, open up new business opportunities:

- In Latin America and West Africa, women disproportionately engage in GHG-emitting activities such as self-employed work, cooking and household management, and face the impacts of climate change, such as droughts, floods and crop losses. Women are, therefore, often in a better position to recognise some of the opportunities that climate change presents. Additionally, women entrepreneurs are more likely to innovate to address social needs.
- A gender-diverse climate venture is likely to be more robust, generate more diverse ideas and tap into different markets.
- A more diverse portfolio of pre-seed and seed-stage climate ventures is likely to be more resilient to market shocks.

93. Activity 3.1.2 consists of one Sub-Activity:

- Sub-Activity 3.1.2.1: Gender equality and diversity.

Executing Entities: Climate-KIC

Use of GCF proceeds: Technical assistance

Gender awareness and self-assessment tools will form the basis for the learning journeys of both the 'enablers' (primarily the regional Executing Entities – Tec de Monterrey, iHub Abidjan and IPED – and local implementation partners) and the climate ventures. There will be one gender climate entrepreneurship toolkit for enablers and one toolkit for ventures. Both toolkits will have the same structure and will include:

- The climate-gender business case – to explore why partners should incorporate gender.
- Interventions checklist – to assess how well partners are doing on gender.
- Metrics overview – to track gender metrics.
- Climate acceleration / entrepreneurship examples – to see how others are doing it.
- Action planning – to provide manageable steps to change over time.

The toolkits will be supported by bespoke gender-climate training modules (based on demand from partners) to zoom-in on specific topics and create a roadmap for programmatic changes and cross-partner learning. Additionally, a gender dimension will be introduced in the climathon community building (Sub-Activities 1.2.1.1 and 2.2.1.1). By creating more gender-inclusive pre-acceleration and acceleration programmes, as well as community building activities, the CATALI.5°T Initiative will be able to attract more diverse entrepreneurs and climate innovations. This inclusivity is likely to lead to a more diverse innovation and entrepreneur portfolio.

A longitudinal study will be designed and implemented for each regional Executing Entity (Tec de Monterrey in Latin America; Impact Hub Abidjan and IPED in West Africa), focused on the following metrics – which determine how robust the institution's gender strategy / approach is (and based on

assumed improvements due to programmatic interventions). The results and analysis will be consolidated in a report to inform individual and collective actions on gender:

- Organisational leadership – is there gender balance in the management team and board?
- Workplace culture – is there gender balance amongst employees; are there employment policies in place (e.g. parental leave and favourable working hours), is there training available (e.g. sexual harassment and gender bias training) and pay equality?
- Marketplace – is gender incorporated into brand values and programme design; is there a clear effort to support women-owned businesses (e.g. women trainers) and women in supply chains?
- Community and transparency – is there a gender strategy in place with measurable goals and targets (tracked over time)?

Similar indicators will be used to assess all the climate ventures that participate in the pre-acceleration and acceleration programmes. In the case of the ventures, data will be collected when ventures are admitted into the programme (to generate baseline data) and when they graduate from the programme (to assess impact). Aggregated data will be made public (with a particular emphasis on local ESOs), including good / best practices.

Activity 3.1.3: ESG frameworks – implementing the CATALI.5°T Initiative Environmental and Social Management Framework (ESMF)

94. The CATALI.5°T Initiative has developed an Environmental and Social Management Framework (ESMF) – see Annex 6a for detailed information. The ESMF essentially targets the activities of the supported climate ventures, because the CATALI.5°T Initiative's impacts occur as a result of these activities – i.e. as a result of the production, consumption and disposal of the goods and services sold by the climate ventures. The ventures will be screened for potential E&S impacts and will receive awareness-raising, training and ad hoc support on E&S matters. At the beginning of the regional acceleration programmes, they will be subject to Environmental and Social Due Diligence (ESDD), following which, if necessary, they will receive support in developing more detailed environmental and social management plans. They will then be coached in implementing and monitoring these plans. The plans will also include actions to enhance potential positive benefits of the ventures' activities. To ensure full integration of, and responsibility for, E&S matters in general CATALI.5°T Initiative management and oversight, implementation of the ESMF is included in Component 5 (monitoring, reporting and evaluating). Activity 3.1.3 includes those E&S actions that directly support the regional pre-acceleration and acceleration programmes.

95. In Latin America, GIZ will be responsible for the assessment of E&S risks and impacts of the supported climate ventures, for assisting the ventures to engage with appropriate E&S management, for reporting, and for compliance. GIZ will provide a regional E&S specialist for Latin America to oversee and carry out E&S management for the acceleration programme. In West Africa, IPED will perform the corresponding E&S role. The existing E&S capacity of IPED is very high, but the E&S capacities of Impact Hub Abidjan and Tec de Monterrey are more limited. To facilitate these Executing Entities' engagement with CATALI.5°T Initiative implementation, to strengthen their advisory roles vis-à-vis supported climate ventures in the pre-acceleration and acceleration programmes, and to build post-Initiative sustainability (such that these institutions can continue to promote high-grade E&S standards in the context of future climate ventures), Activity 3.1.3 will provide capacity building for the regional Executing Entities. This capacity building will be provided by the CATALI.5°T Initiative's E&S manager and the regional E&S specialists. In some limited cases, the regional E&S specialists may contract external consultants to provide specialised training. Specific needs for capacity building will be defined as the CATALI.5°T Initiative progresses and will, to an extent, be shaped by the types of climate ventures (sectors, technologies, geographies) that are admitted into the pre-acceleration and acceleration programmes – and, hence, what types of E&S issues the Executing Entities will be exposed to.

96. All ventures that participate in the pre-acceleration and acceleration programmes will receive minimum awareness-raising and training on labour, working conditions, and occupational health and safety. If necessary, the regional E&S specialists will define actions, provide training and set targets so that specific ventures improve their management of human resources and occupational health and safety. For pre-acceleration, these measures will mostly be in the form of awareness-raising and ad hoc support, but, for the acceleration programme, more prescriptive requirements will be captured in management plans (depending on each venture's risks). Additional risks and impacts associated with the activities of each venture, relating to, inter alia, waste generation, biodiversity, water consumption, etc., will be assessed at

intake into the pre-acceleration programme and the acceleration programme. Tailored E&S support will be provided as relevant, depending on the characteristics of the venture: e.g. advice might be provided on effluents and waste management, or on energy conservation.

97. An essential impact factor identified in the E&S Assessment (Annex 6a) is the opportunity to advance labour formalisation among small enterprises in Latin America and West Africa. Under Activity 3.1.3, an annual workshop will be held in each region for Executing Entities, local implementation partners and ESOs to exchange experiences and share best practices. Specific ventures may be invited to participate to act as case-studies or to inform their own labour strategies. As a result, the ESMF labour procedures may be periodically updated.

Sub-Activity 3.1.3.1: Environmental, social and governance (ESG) frameworks

Executing Entities: GIZ

Use of GCF proceeds: Technical assistance

Climate impact is at the core of the CATALI.5°T Initiative. However, to support truly ‘good’ and resilient climate businesses and to ensure long-term sustainability of programme interventions, the CATALI.5°T Initiative will also foster the integration of ESG aspects into internal practices, routines and processes of the pre-accelerated / accelerated ventures and VC firms. Young ventures are increasingly expected to integrate ESG into aspects of their business when they receive support from pre-accelerators and accelerators and / or funding from VCs. This expectation is also expanding to encompass the VC firms themselves.⁸⁹ In order to ensure the future viability of ventures supported by the CATALI.5°T Initiative, it is, therefore, crucial to: (i) support the regional Executing Entities and local implementation partners to develop the internal capacities needed to guide and assist the ventures in becoming ‘ESG-ready’; and (ii) support the two regional VC communities to develop the ESG understanding, screening and assessment capabilities, and tool and methodology use increasingly expected of them by ventures and by other ecosystem actors.

Sub-Activity 3.1.3.1 will focus on adapting existing ESG tools that are not currently fit for purpose for the venture and VC investor ecosystem. Providers and standard-setting bodies, such as the Principles for Responsible Investing (PRI) and the Sustainability Accounting Standards Board (SASB) ESG tools, are explicitly focused on (public market) asset managers and late-stage buy-out/PE funds. The specificity of VC / early-stage companies (e.g. fast-changing, new markets and business models) is not captured by these tools, hence the need for adaptation. The exact set of tools will be defined in accordance with investors’ needs in Latin America and West Africa. IPED already has an operational ESG framework; in its case, CATALI.5°T Initiative support will address specific gaps in coverage – e.g. impacts on biodiversity. Impact Hub Abidjan and Tec de Monterrey have less developed ESG understanding and capacities, and support will necessarily be more comprehensive. On the basis of discussions held with stakeholders during CATALI.5°T Initiative preparation, the regional toolkits are expected to include:

- An ESG due diligence framework / questionnaire (DDQ): this is an ESG-aligned framework / questionnaire used by investors when making investment decisions to add to their regular commercial / market / legal due diligence. DDQs come in a short-form ‘check list’ questionnaire format and could be adapted for immediate use by the programme pre-accelerators / accelerators, VC firms and other ESOs in the two regions.
- An ESG investment framework: a broader and longer ESG-focused framework to be used by the pre-accelerator / accelerator teams (and, subsequently, other ESOs) to work with the ventures admitted into the regional pre-acceleration and acceleration programmes to identify and improve ESG gaps and areas for improvement.
- An Internal Fund Management Framework: to help manage ESG within pre-accelerators, accelerators and VC funds by offering a tool / framework to record, measure and report ESG issues and the metrics that require adaptation. The Principles for Responsible Investing’s (PRI) Reporting Framework (adapted mostly for buy-out/PE funds) will serve as a starting point.

⁸⁹ While little academic work has been done on the topic (and development) of ESG in venture capital, recent articles in both the Harvard Business Review and the Stanford Social Innovation Review substantiate the claim that VC is slowly starting to adopt ESG. See, for example, Alemany L. et al (2022), *How VCs Can Help Startups Set (and Meet) ESG Goals*: <https://hbr.org/2022/01/how-vcs-can-help-startups-set-and-meet-esg-goals>; and Lenhard J. and Winterberg S. (2021), *How Venture Capital Can Join the ESG Revolution*: https://ssir.org/articles/entry/how_venture_capital_can_join_the_esg_revolution

- SASB-like materiality map: the SASB ‘materiality map’ is popular among investors in other asset classes to identify which ESG areas are relevant for a specific (portfolio / investee) company. In a recent white paper, KfW Capital made an attempt to extend this tool to the venture / start-up sector.⁹⁰ Adapting the eventual tool for Latin American / West African pre-accelerators, accelerators and VC firms will help them to zoom in on (financially) relevant ESG issues.

These tools will be adapted to the specific contexts of the target pre-accelerators, accelerators and investors. The geography (Latin America and West Africa), stage of venture support (e.g. pre-seed, seed, Series A, etc.) and investment focus will be considered. The tools will be provided in Spanish and French. The toolkits will be tested and refined with selected CATALI.5°T Initiative partners and revised versions will then be produced.

Explaining the rationale behind different tools (and ESG more broadly) as part of a broader education programme on the incentives, motivations and concrete practicalities will be essential to facilitate the use of the toolkits and, ultimately, enact a re-thinking of how pre-acceleration, acceleration and VC are done. A 6-unit training programme (and feedback session) will be developed – accompanied by prior input from key CATALI.5°T Initiative stakeholders in a dedicated co-development workshop – and delivered to the target Executing Entities, local implementation partners and VC funds in individual sessions.

Current ESG frameworks are not sufficiently detailed and prescriptive to guarantee compliance with typical international E&S policies and safeguards, and hence full implementation of the ESMF is required. But they do establish a useful focus on the realisation of positive results along many dimensions of sustainable development, as well as emphasising the importance of governance – issues such as board composition, executive compensation, workforce diversity, data security, privacy, bribery and corruption, lobbying, etc. It is ESG considerations, and not E&S considerations, that will govern the behaviour of the climate ventures, the regional pre-accelerators and accelerators, and the VC firms after the CATALI.5°T Initiative has ended. Accordingly, there is value in harmonising, to the extent possible, the CATALI.5°T Initiative’s ESMF and the ESG toolkits developed, so that CATALI.5°T Initiative stakeholders are equipped to continue operating with minimal disruption after the GCF involvement ends: i.e. to smooth the transition from ESMF to ESG.

Accordingly, Sub-Activity 3.1.3.1 will identify governance-related gaps in the ESMF and will seek to address these gaps using the ESG toolkits. The intention is not to generate a lot of work or disruption for CATALI.5°T Initiative participants (hence the reliance upon the ESG toolkits that will be used anyway), and nor is to undertake a comprehensive gap-filling exercise. Instead, a small number of governance issues, potentially data safety and cybersecurity (to be confirmed following consultations with stakeholders), will be addressed and incorporated into the ESMF. The tools and materials developed will be made available to external stakeholders free of charge (available online), to promote the uptake of best-practice governance practices in the wider venture community.

Component 4: CATALI.5°T Initiative Governance and Management

98. **Governance.** The Global Advisory Committee (GAC) will be established to provide strategic guidance. It will comprise representatives of: (i) GIZ, (ii) Climate-KIC, (iii) Tec de Monterrey, (iv) Impact Hub Abidjan and (v) IPED. During implementation of the CATALI.5°T Initiative, the GAC will periodically invite: (v) the NDAs of participating countries, (vi) external advisors from the VC industry and from the international pre-accelerator / accelerator community, and (vii) strategic stakeholders to share insights about national, regional and global trends that could be relevant to CATALI.5°T Initiative implementation.
99. Meeting twice a year, the GAC will review progress and provide recommendations on direction, linkages with relevant baseline initiatives and processes happening globally or in the regions, and on knowledge management and climate innovation. The GAC will be responsible for:
 - Providing guidance for the implementation of the pre-acceleration and acceleration programmes in both regions.

⁹⁰ KfW Capital (2021), *Growing the Seeds of ESG: Venture Capital, Start-Ups and the Need for Sustainability*: <https://kfw-capital.de/wp-content/uploads/ESG-Studie.pdf>

- Making recommendations to strengthen CATALI.5°T Initiative execution and achievement of targeted results.
- Ensuring CATALI.5°T Initiative momentum and coherence with the evolution of the international context.

100.

Management units. The 3 management Units (MUs) will implement activities under Component 1, Component 2 and Component 3, respectively. The MUs will comprise management-level representatives of the corresponding Executing Entities responsible for the components' outputs and will be responsible for day-to-day administration, execution and technical coordination. The Latin America MU will be located in Mexico City and Monterrey, the West Africa MU will be located in Abidjan and Dakar, and the Trans-Regional MU will be located in Eschborn, Germany. The MUs will ensure CATALI.5°T Initiative execution proceeds according to pre-agreed activity descriptions and timetables, with clear work plans and in compliance with the CATALI.5°T Initiative's Environmental and Social Management Framework (ESMF) and Gender Action Plan (GAP). Each MU will hold, among others, regular operational meetings to:

- Take management-related and technical decisions.
- Discuss CATALI.5°T Initiative implementation and ways to strengthen it.
- Develop, monitor and coordinate annual work plans (including procurement).
- Ensure that budgets and work plans are on track and monitor programme progress.
- Identify and resolve bottlenecks and implementation challenges and/or bring these to the attention of the AE.

101. At least twice a year, all 3 MUs will meet to undertake strategic thinking and planning, thereby connecting strategy with execution. At the same time, these meetings will serve to exchange on challenges, achievements and lessons learned (including in relation to gender and ESMF issues), and to discuss, monitor and promote the best possible synchronisation of implementation between the Executing Entities. All MUs will also meet on an additional, ad hoc basis whenever necessary.

Figure 8: CATALI.5°T Initiative Governance and Management



Component 5: CATALI.5°T Initiative Monitoring, Reporting and Evaluation

102. Please refer to Section E.7.1.

B.3.2 Alternative Operating Models

103. The design of the CATALI.5°T Initiative reflects best-practice. The GCF's own assessment of climate ventures' and entrepreneurs' needs is pertinent in this regard⁹¹:

Developing economies have an immense potential to accelerate the deployment of pivotal technologies to decarbonise high-emitting sectors...Unleashing the climate innovation potential of developing countries is imperative to meet their unique requirements and scale up global climate action. However, there are many barriers to the development and widespread adoption of inclusive and responsible climate innovation...At the emergence phase, the combination of sector- and country-specific barriers can be broadly clustered into four categories: (i) limited awareness of climate physical/transition/liability risks and new venture opportunities; (ii) limited capacity to ideate or tailor novel approaches; (iii) weak climate innovation and entrepreneurial ecosystems; and (iv) limited access to seed funding and early-stage capital.

A public-private innovation ecosystem is required to drive climate innovation. In mature start-up ecosystems, a host of public and private start-up incubation and acceleration schemes makes available offices, technical expertise, manufacturing know-how, information on marketing strategies, help in developing business plans, assistance in raising funds, mentoring, legal guidance, patent application support, facility to benchmark peers, and interface to universities and laboratories, or digital platforms...The so-called 'valley of death' (the gap between initial seed funding and more mature, long-term finance) for climate start-ups in developing countries starts earlier and ends later – becoming a forbidding obstacle. This calls for new financing models to support climate technology ventures and accelerate climate innovation in developing countries.

104. GIZ recently produced a book, 'Strengthening Entrepreneurial Ecosystems'⁹², that summarises the key lessons learned from GIZ entrepreneurship projects and programmes, and which have informed the design of the CATALI.5°T Initiative. Key among them are:

- A healthy entrepreneurial ecosystem, supported by pre-accelerators and accelerators, can provide early, innovative ventures with the confidence to push forward and develop potentially life-changing products with an uncertain future. This dynamic ecosystem produces a self-reinforcing system of innovative job creation that attracts top talent – which, in turn, leads to more creative entrepreneurs and attracts even more talent.
- Vital support actions for ventures include:
 - Capacity building for entrepreneur support organisations (ESOs) – improving their services by bringing in experts, facilitating peer learning and providing training.
 - Connecting ecosystem actors – outreach to entrepreneurs, recruiting mentors and coaches, mobilising the media, etc.
 - Facilitating international connections – e.g. with international ESOs and international investors.
 - Providing financial support to ESOs – necessary to manage risks.
 - Capacity building for financial organisations – bringing in experts, training, peer learning, developing guides and reports.
 - Establishing grant schemes – direct grants to entrepreneurs, matching capital to investors.
 - Improving the ability of entrepreneurs to access finance by supporting consulting, workshops and training.
 - Matchmaking between entrepreneurs and financial organisations – supporting the convening of events, competitions, technology-enhanced platforms and introductions.

B.4. Implementation arrangements

B.4.1 Role of GIZ

⁹¹ GCF (2021), *Accelerating and Scaling-Up Climate Innovation: How the Green Climate Fund's Approach Can Deliver New Climate Solutions for Developing Countries*: https://www.greenclimate.fund/sites/default/files/document/accelerating-and-scaling-climate-innovation_0.pdf

⁹² GIZ (2021), *Strengthening Entrepreneurial Ecosystems: An Interactive Guide for Development Professionals*: <https://www.giz.de/en/downloads/giz2021-en-entrepreneurial-ecosystems-guide.pdf>

105. GIZ, with its head office located in Germany, is the Accredited Entity (AE) for the CATALI.5°T Initiative. GIZ will also operate as an Executing Entity in relation to specific activities of the CATALI.5°T Initiative. For the avoidance of doubt, GIZ as the Accredited Entity and GIZ as the Executing Entity are a single legal entity, but the two GIZ functions of Accredited Entity and Executing Entity will be strictly separated and are accountable to different management structures within GIZ.
106. GIZ is one of the largest international providers of capacity development and technical assistance on climate change worldwide. GIZ is currently carrying out over 300 climate-related projects, with combined funding of over US\$ 1.9 billion. GIZ has a strong track-record in the area of green private sector and entrepreneurship promotion, sustainable economic development and climate change in the two CATALI.5°T Initiative regions, in addition to well-established relationships with the key stakeholders. GIZ operates permanent delegations throughout the CATALI.5°T Initiative regions: in Latin America: Bolivia (145 staff), Colombia (223 staff), Costa Rica (92 staff), Ecuador (174 staff), El Salvador (68 staff), Guatemala (111 staff), Honduras (87 staff), Mexico (239 staff), Nicaragua (15 staff), Paraguay (29 staff) and Peru (162 staff); and in West Africa: Benin (428 staff), Burkina Faso (362 staff), Côte d'Ivoire (289 staff), Guinea (140 staff), Mali (339 staff), Mauritania (97 staff), Niger (294 staff), Senegal (297 staff) and Togo (262 staff). In the CATALI.5°T Initiative countries in Latin America, GIZ is implementing a portfolio of 31 relevant entrepreneurship and green growth projects, and 51 relevant climate change projects (see Annex 2b); in the CATALI.5°T Initiative countries in West Africa, GIZ is implementing a portfolio of 38 relevant entrepreneurship and green growth projects, and 18 relevant climate change projects (see Annex 2c).

GIZ as Accredited Entity

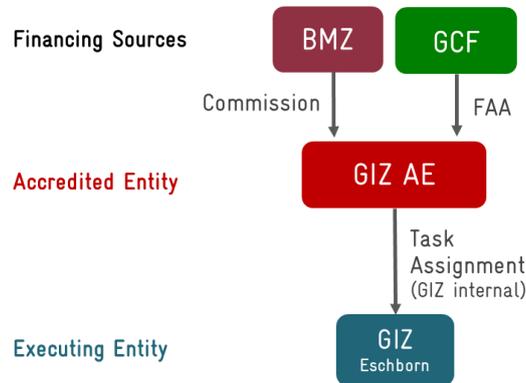
107. As the AE, GIZ will have oversight responsibility for the CATALI.5°T Initiative, as defined in the Accreditation Master Agreement (AMA) between the GCF and GIZ. As AE, GIZ will administer funds on behalf of the GCF and provide oversight guidance and quality assurance for the Executing Entities. The GCF AE unit based at GIZ head office will be responsible for:
- Oversight of the programme during implementation:
 - Maintaining adequate documentation and communication with the GCF.
 - Establishing internal control routines.
 - Ensuring continuous programme risk assessment.
 - Financial management, in particular receiving GCF proceeds as well as disbursing, administering and processing the funds. This implies:
 - Ensuring the proper use of GCF proceeds.
 - Assessing the integrity and capacity of the Executing Entities.
 - Setting up the subsidiary agreements.
 - Monitoring the subsidiary agreements and the performance of Executing Entities.
 - Ensuring that Executing Entities' procurement activities comply with GIZ's policies and rules.
 - Evaluating the programme, including the commissioning of independent interim and final reviews.
108. Oversight and quality assurance are supported by specific departments in GIZ head office:
- *Finance Department*: Responsible for strategic and operational financial control, maintaining standards of financial management, and accounting and elaboration of annual statements of accounts, among other responsibilities.
 - *Procurement Department*: Responsible for procurement, contracting, setting up the financing agreements with the Executing Entities; and monitoring of tender processes through the procurement plan, among other responsibilities.
 - *Compliance and Integrity Department*: Responsible for ensuring compliance with GIZ and government rules and regulations.

GIZ as Executing Entity

109. GIZ (head office in Germany and regional offices) will act as an Executing Entity (EE). GIZ will establish a Trans-Regional Management Unit (MU) for the implementation of Component 3 of the CATALI.5°T Initiative, which will also be responsible for providing coordination support to the 2 regional Management Units. Figure 9 illustrates the contractual arrangements between the GCF, GIZ and BMZ. The German Federal Ministry for Cooperation and Development (BMZ) will commission GIZ with the implementation

of the CATALI.5°T Initiative through commissioning agreements. The GCF will transfer funds based on a Funded Activity Agreement (FAA) to the Accredited Entity, GIZ. The GIZ Eschborn Management Unit and GIZ regional offices (Executing Entity) will receive internal task assignments from the AE for the implementation of the GCF programme management function for Component 3, as well as for implementation of defined Activities and Sub-Activities across Components 1, 2 and 3 (see Table 7).

Figure 9: GIZ Contractual Arrangements



B.4.2 Executing Entities

110. In addition to GIZ, the CATALI.5°T Initiative will have 4 Executing Entities: Tec de Monterrey, IPED, Impact Hub Abidjan and Climate-KIC.
111. **Tec de Monterrey:** Instituto Tecnológico y de Estudios Superiores de Monterrey⁹³ (ITESM) (Monterrey Institute of Technology and Higher Education), also known as Tecnológico de Monterrey or Tec de Monterrey, is a secular and co-educational private university based in Monterrey, Mexico. Founded in 1943 under Mexican commercial law as an Asociación Civil sin fines de Lucro (non-profit civil association), it is one of only 45 universities in the world to be ranked with 5 QS Stars and is recognised as one of the most prestigious universities in Latin America. Tec de Monterrey has 26 campuses in Mexico and 18 offices overseas. Tec de Monterrey's Instituto de Emprendimiento Eugenio Garza Lagüera (IEEGL: Eugenio Garza Lagüera Entrepreneurship Institute,⁹⁴ founded in 2013, is responsible for designing, implementing and promoting entrepreneurship within the university's academic curriculum, as well as through external programmes that are open to the public. In 2021, IEEGL ranked sixth in The Princeton Review for International Undergraduate Entrepreneurship Programmes. IEEGL, and its institutional predecessors within Tec de Monterrey, has developed 8 high-impact business pre-accelerators, 24 basic business pre-accelerators and 14 technology parks. IEEGL's department in charge of supporting entrepreneurs is Zona Ei⁹⁵, which carries out pre-acceleration and acceleration activities, including the Institute's flagship TecLean programmes. Thus, under Tec de Monterrey as the Executing Entity, the Zona Ei department will be responsible for the Latin America pre-acceleration and acceleration programmes under the CATALI.5°T Initiative. The department will also manage the provision of the pre-seed grants (pre-acceleration) and repayable seed grants (acceleration) in Latin America.
112. **IPED:** Investisseurs & Partenaires Entrepreneurs & Développement (IPED) is a non-profit association dedicated to encouraging entrepreneurship in Africa. IPED receives public funding and subsidies to provide investment vehicles, MSMEs and entrepreneurship support structures with technical, operational, human and financial support, as well as contributions to the improvement of their legal, economic and institutional environment. IPED is affiliated with the impact investment group, Investisseurs & Partenaires (I&P).⁹⁶ The I&P Group has partnered with more than 170 investee companies and operates in 15 sub-Saharan African countries in a wide range of sectors, including agribusiness, energy, ICT, microfinance, health and business-to-business (B2B) products and services. To date, the I&P Group has

⁹³ <https://tec.mx/en>

⁹⁴ <https://tec.mx/en/entrepreneurship>

⁹⁵ <https://tec.mx/en/entrepreneurship/zone-ei>

⁹⁶ <https://www.ietsp.com/en#:~:text=I%26P%20is%20an%20impact%20investment,inclusive%20growth%20on%20the%20continent.>

recruited an operational team of more than 20 employees in 7 countries (Burkina Faso, Cameroon, Côte d'Ivoire, Madagascar, Mali, Niger and Senegal) fully dedicated to the implementation of acceleration programmes managed by IPED. IPED-managed venture acceleration programmes include:

- I&P Acceleration in Sahel (IPAS)⁹⁷ is coordinated by IPED and deployed locally by I&P teams specialised in financing, coaching, education and training, as well as by 5 I&P-sponsored management companies, partners and capital investment funds dedicated to high-potential, local SMEs: Sinergi in Niger, Sinergi Burkina in Burkina Faso, Teranga Capital in Senegal, Zira Capital in Mali and Comoé Capital in Côte d'Ivoire. To date (2020 and 2021), IPAS has funded and supported 47 SMEs.
- I&P Acceleration Technologies (IPAT)⁹⁸, in conjunction with the Agence Française de Développement (AFD), targets digital ventures (or ventures for which a significant part of their activity is linked to digital) in sub-Saharan Africa. IPAT is financed by the Digital Africa seed fund, which is a component of AFD's Choose Africa programme. To date (2020 and 2021), IPAT has funded 7 ventures.
- The PACE programme⁹⁹, in conjunction with USAID, operated a venture seed funding mechanism up to 2020, channelling financial support through a network of existing investment companies: this mechanism funded 26 new Small and Growing Businesses (SGBs) in West Africa.
- IPED is working with GIZ in the context of DPP – Partnership for Growth and Jobs in Agro-Processing in Cote d'Ivoire.

For the CATALI.5°T Initiative, IPED will be responsible for running the acceleration programme in West Africa. This support will take the form of Technical Assistance and Financial Assistance (in the form of a repayable grant to each climate venture). IPED will also manage the Financial Assistance element of the pre-acceleration programme, channelling grant payments to climate ventures to cover pre-agreed costs. The Technical Assistance element of the West African pre-acceleration programme will be run by another Executing Entity, Impact Hub Abidjan.

113. Impact Hub Abidjan: Impact Hub Abidjan¹⁰⁰, or I-Hub Abidjan, is a commercial pre-accelerator and accelerator (limited liability company) founded in 2019, offering services to entrepreneurs and innovators in Cote d'Ivoire and the West Africa region. Impact Hub Abidjan is a member of the Impact Hub global network, a collaborative community of ~25,000 entrepreneurs, support organisations and investors in 60+ countries.¹⁰¹ Impact Hub Abidjan is a small institution of 13 employees founded by 4 women entrepreneurs. It is affiliated with Go Impact Côte d'Ivoire, a non-profit organisation that was created in March 2021. Impact Hub Abidjan has run and hosted a number of entrepreneurial programmes, pitch competitions, boot camps and individual coaching sessions. It has implemented the following projects:

- Pre-acceleration programmes (Incubabi 1.0 and 2.0).¹⁰²
- Acceleration programmes (Agri'Deminn with the Netherlands Enterprise Agency (RVO), NEXT STAGE TICs, NEXT STAGE EXPORT with GIZ).¹⁰³
- Investment readiness programme (Afrikhaliss, in collaboration with Village Capital and Impact Hub Dakar).¹⁰⁴
- Women entrepreneurs programmes (AWE 1.0 and 2.0 with the US Embassy).¹⁰⁵
- Planned training for entrepreneurs in aquaculture (with GIZ).

For the CATALI.5°T Initiative, Impact Hub Abidjan will run the Technical Assistance element of the pre-acceleration programme in Côte d'Ivoire and will serve as the conceptual partner for the overall pre-acceleration programme in West Africa. Financial Assistance aspects of the pre-acceleration programme in West Africa will be managed by IPED. Outside Côte d'Ivoire, the in-country Technical Assistance elements of the pre-acceleration programme will be undertaken by local implementation partners coordinated by GIZ and Climate-KIC.

⁹⁷ <https://www.ietp.com/en/acceleration-sahel>

⁹⁸ <https://www.ietp.com/en/acceleration-technologies>

⁹⁹ <https://www.ietp.com/en/content/usaaid-ip-partnership>

¹⁰⁰ <https://abidjan.impacthub.net/une-nouvelle-vision-pour-l-agri-business/>

¹⁰¹ <https://impacthub.net/>

¹⁰² <https://abidjan.impacthub.net/demo-day-jour-de-pitch-incubabi-2-0/>

¹⁰³ <https://abidjan.impacthub.net/formulaire-de-candidature-au-programme-next-stage-export/>

¹⁰⁴ <https://afrikanheroes.com/2020/06/17/startups-in-french-speaking-west-africa-called-upon-to-apply-to-afrikhaliss-fund-raising-support-program/>

¹⁰⁵ <https://abidjan.impacthub.net/awe-2021/>

114. **Stichting Climate Knowledge and Innovation Community (Climate-KIC) International Foundation:** The Climate-KIC Group¹⁰⁶ is led by Stichting Climate-KIC International Foundation, an independent Dutch non-profit with public benefit status in the Netherlands. The Climate-KIC International Foundation owns 90% of Climate-KIC Holding B.V., a private limited liability company registered in the Netherlands that is focused on raising and allocating funds for climate-relevant innovation.¹⁰⁷ Climate-KIC Holding B.V. is essentially the operational arm of the Foundation. Climate-KIC's activities include pursuing public and private funding; incorporating, participating in and financing businesses and companies; and providing technical support to beneficiaries. Climate-KIC has created an extensive climate ideation, pre-acceleration and acceleration support ecosystem. Over the past 10 years, its three flagship programmes, Climathon¹⁰⁸, ClimateLaunchpad (CLP)¹⁰⁹ and Climate Accelerator¹¹⁰, have supported more than 4,500 ventures in over 50 countries and ideation activities across 140 cities worldwide. Climate-KIC's financial and technical relationships include:

- EIT: Climate-KIC's lead funder for the past 10 years, channelling over EUR 60 million to entrepreneurship activity over the past 5 years.
- Irish Aid: Funder of the ClimateLaunchpad programme in 7 countries in Africa and Asia since 2019.
- Climate Justice Resilience Fund (CJRF) and the African Development Bank (AfDB): invested Euro 1.5 million in Climate-KIC's WINnERS Programme to scale-up an agricultural supply chain de-risking programme in Africa.
- Google.org: the Google.org Impact Challenge on Climate.
- Other corporate funders: Facebook and Munich RE.
- EU: In the past 10 years, Climate-KIC has managed more EUR 630 million of Horizon2020 funding from EIT, delivering a venture accelerator programme in 31 locations in 29 countries, and supporting 1,600 climate ventures to raise over EUR 1 billion in follow-on investment.

Stichting Climate-KIC International Foundation will be the Executing Entity for the CATALI.5°T Initiative trans-regional activities. Stichting Climate-KIC International Foundation will receive a grant from GIZ to deliver targeted venture ideation services to trigger novel climate business ideas in Latin America and West Africa, as well as to deliver climate impact advisory services and climate-gender nexus support in the framework of the regional pre-acceleration and acceleration programmes; Climate-KIC will also coordinate – together with GIZ – the in-country Technical Assistance elements of the pre-acceleration programme which will be undertaken by local implementation partners. .

Table 7: Responsibilities of Executing Entities

CATALI.5°T Initiative Element	Executing Entity ¹¹¹
Regional Component 1: Latin America CATALI.5°T	
<i>Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures' impacts</i>	
Activity 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America	Climate-KIC, GIZ
Sub-Activity 1.1.1.1: Climate mitigation impact assessment	Climate-KIC, GIZ
Sub-Activity 1.1.1.2: Climate resilience co-benefits assessment	Climate-KIC
Sub-Activity 1.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC
Sub-Activity 1.1.1.4: Gender equality and diversity	Climate-KIC
Sub-Activity 1.1.1.5: ESG frameworks	GIZ
<i>Output 1.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in Latin America generate innovative climate business ideas</i>	
Activity 1.2.1: Community-building and ideation activities in Latin America	Climate-KIC, GIZ
Sub-Activity 1.2.1.1: Latin America climathons	Climate-KIC
Sub-Activity 1.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in Latin America	GIZ
<i>Output 1.3: Selected ventures in Latin America have launched their climate products in local markets</i>	

¹⁰⁶ <https://www.climate-kic.org/>

¹⁰⁷ The other 10% of shares in Climate-KIC Holding B.V. are held by Association Climate-KIC, registered in the Netherlands and whose membership consists of European universities, research institutes, businesses and cities.

¹⁰⁸ <https://climathon.climate-kic.org/>

¹⁰⁹ <https://climatelaunchpad.org/>

¹¹⁰ <https://climaccelerator.climate-kic.org/>

¹¹¹ Where a Sub-Activity is implemented by more than one Executing Entity, a Lead Executing Entity will coordinate the interventions of the other Executing Entities. The individual roles and responsibilities of each Executing Entity, for each Sub-Activity, are described in detail in the Project Activities chapter of each Regional Feasibility Study (Annexes 2b and 2c).

Activity 1.3.1: Latin America climate venture pre-acceleration programme	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.3.1.1: Call for applications and venture selection	Tec de Monterrey, Climate-KIC, GIZ
Sub-Activity 1.3.1.2: Pre-acceleration programme – technical assistance	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.3.1.3: Pre-acceleration programme – grants	Tec de Monterrey
<i>Output 1.4: Selected climate ventures in Latin America with MVPs in local markets are empowered to rapidly scale their business and climate impact</i>	
Activity 1.4.1: Latin America climate venture acceleration programme	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.4.1.1: Call for applications and venture selection	Tec de Monterrey, Climate-KIC, GIZ
Sub-Activity 1.4.1.2: Acceleration programme – technical assistance	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.4.1.3: Acceleration programme – repayable grants	Tec de Monterrey
Regional Component 2: West Africa CATALI.5°T	
<i>Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts</i>	
Activity 2.1.1: Capacity-building of Executing Entities, ESOs and venture investors in West Africa	Climate-KIC, GIZ
Sub-Activity 2.1.1.1: Climate mitigation impact assessment	GIZ, Climate-KIC
Sub-Activity 2.1.1.2: Climate resilience co-benefits assessment	Climate-KIC
Sub-Activity 2.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC
Sub-Activity 2.1.1.4: Gender equality and diversity	Climate-KIC
Sub-Activity 2.1.1.5: ESG frameworks	GIZ
<i>Output 2.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in West Africa generate innovative climate business ideas</i>	
Activity 2.2.1: Community-building and ideation activities in West Africa	Climate-KIC, GIZ
Sub-Activity 2.2.1.1: West Africa climathons	Climate-KIC
Sub-Activity 2.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in West Africa	GIZ
<i>Output 2.3: Selected ventures in West Africa have launched their climate products in local markets</i>	
Activity 2.3.1: West Africa climate venture pre-acceleration programme	Impact Hub Abidjan, Climate-KIC, IPED, GIZ
Sub-Activity 2.3.1.1: Call for applications and Phase 1 venture selection	Impact Hub Abidjan, Climate-KIC, IPED, GIZ
Sub-Activity 2.3.1.2: Pre-acceleration programme – Phase 1	Impact Hub Abidjan, Climate-KIC, GIZ
Sub-Activity 2.3.1.3: Phase 2 venture selection	Impact Hub Abidjan, Climate-KIC, IPED, GIZ
Sub-Activity 2.3.1.4: Pre-acceleration programme – Phase 2	Impact Hub Abidjan (TA), Climate-KIC (TA), GIZ (TA), IPED (grants)
<i>Output 2.4: Selected climate ventures in West Africa with MVPs in local markets are empowered to rapidly scale their business and climate impact</i>	
Activity 2.4.1: West Africa climate venture acceleration programme	IPED, GIZ, Climate-KIC
Sub-Activity 2.4.1.1: Funding announcement, venture screening and selection	IPED, Climate-KIC, GIZ
Sub-Activity 2.4.1.2: Acceleration programme – repayable grants	IPED
Sub-Activity 2.4.1.3: Acceleration programme – technical assistance	IPED, GIZ, Climate-KIC
Component 3: CATALI.5°T Trans-Regional Advisory, Capacity & Knowledge Support (TRACKS)	
<i>Output 3.1: Capacities of Executing Entities, selected ESOs and venture investors in Latin America and West Africa are developed to boost climate ventures' impacts</i>	
Activity 3.1.1: Climate impact and co-benefits assessment	GIZ, Climate-KIC
Sub-Activity 3.1.1.1: Climate mitigation impact assessment	GIZ, Climate-KIC
Sub-Activity 3.1.1.2: Climate resilience co-benefits assessment	Climate-KIC
Sub-Activity 3.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC
Activity 3.1.2: Gender equality and diversity – implementing the CATALI.5°T Initiative Gender Action Plan (GAP)	Climate-KIC
Sub-Activity 3.1.2.1: Gender equality and diversity	Climate-KIC
Activity 3.1.3: ESG frameworks – implementing the CATALI.5°T Initiative ESMF	GIZ
Sub-Activity 3.1.3.1: ESG frameworks	GIZ
Component 4: CATALI.5°T Initiative Governance and Management	

Latin America Management Unit	Tec de Monterrey, GIZ, Climate-KIC
West Africa Management Unit	IPED, Impact Hub Abidjan, Climate-KIC, GIZ
Trans-Regional Management Unit	GIZ
Component 5: CATALI.5°T Initiative Monitoring, Reporting and Evaluation	
CATALI.5°T Initiative monitoring, reporting and evaluation	GIZ (AE), supported by the 3 CATALI.5°T Initiative Management Units

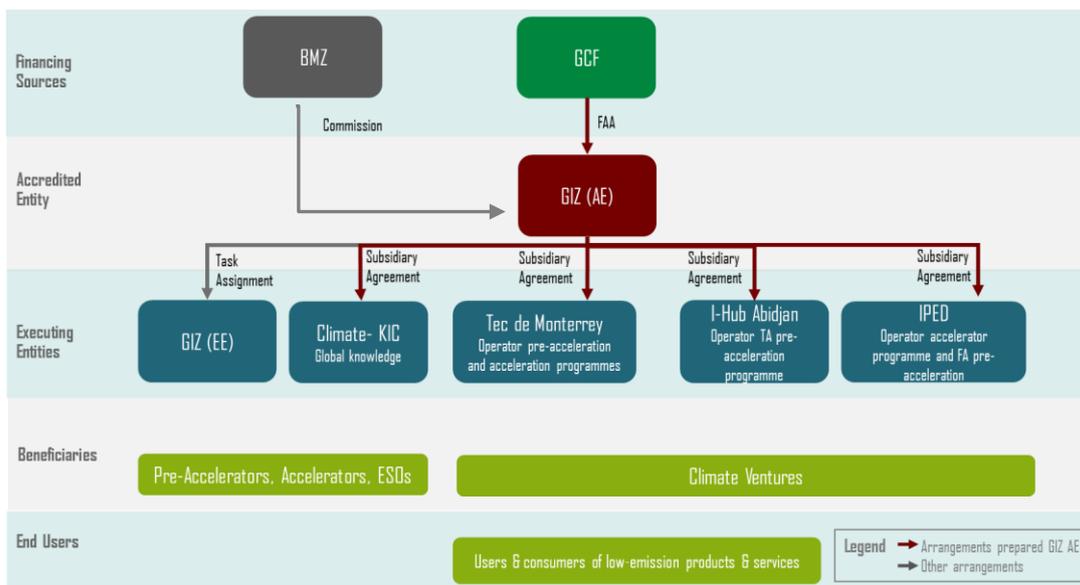
B.4.3 Governance and management

115. Please refer to Component 4 in Section B.3.1.

B.4.4 Legal and contractual arrangements

116. The German Federal Ministry for Cooperation and Development (BMZ) will commission GIZ with the implementation of the overall programme (commissioning agreement). The GCF will transfer funds based on a Funded Activity Agreement (FAA) to the Accredited Entity, GIZ. GIZ as Executing Entity will receive an internal task assignment from the AE for the implementation of defined CATALI.5°T Initiative activities (see Responsibilities of Executing Entities Table 7). The other Executing Entities (Tec de Monterrey, Impact Hub Abidjan, IPED and Climate-KIC) will sign subsidiary agreements with GIZ, based on GIZ standard operating procedures for grant agreements. These subsidiary agreements will establish the legal basis on which GIZ makes the GCF proceeds available to the Executing Entities for the measures to be implemented by the Executing Entities, in accordance with the AMA and FAA.

Figure 10: Contractual Arrangements

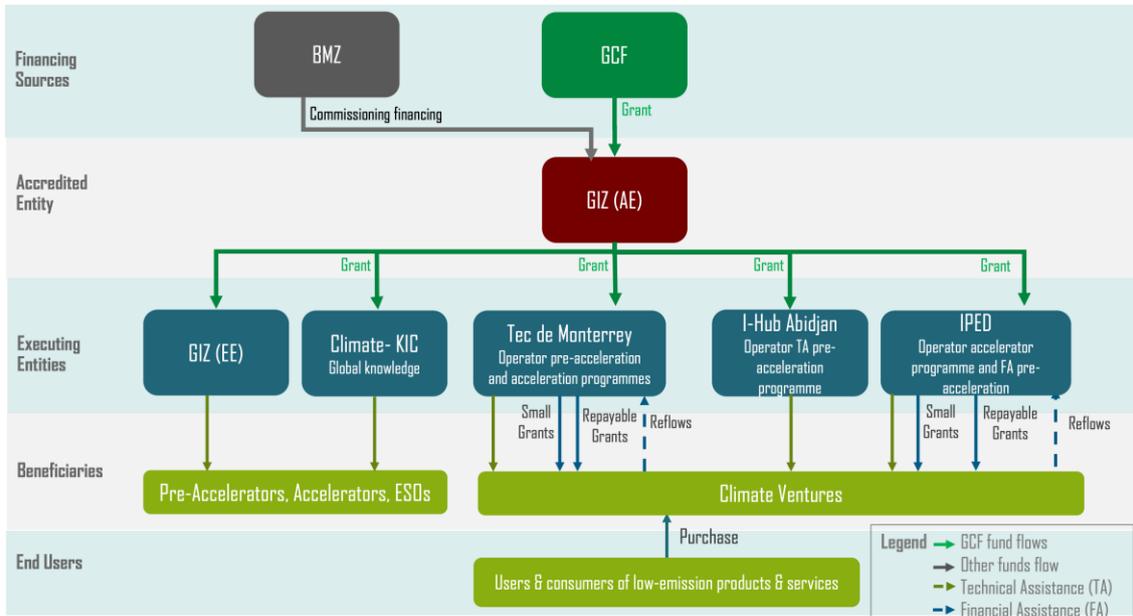


B.4.5 Financial Flows

117. GIZ (AE) will transfer GCF funds to 4 Executing Entities, as well as retaining a portion off the GCF funds to implement activities itself as an Executing Entity. GIZ (Executing Entity) and Climate-KIC will use the grant funds to finance technical assistance measures, which will benefit local implementation partners, pre-accelerators, accelerators and other entrepreneur support organisations (ESOs), as well as climate ventures, in both regions. Tec de Monterrey will use the GCF funds within Component 1 for technical and financial assistance for climate ventures. In the West African pre-acceleration programme (Activity 2.3.1), Impact Hub Abidjan will use the GCF funds for technical assistance in Côte d'Ivoire, GIZ will use the GCF funds for local implementation partners that will provide technical assistance in other West African countries, and IPED will use the GCF funds for financial assistance (venture grants). In the West

African acceleration programme (Activity 2.4.1), IPED will use the GCF funds to provide technical and financial assistance (repayable venture grants).

Figure 11: CATALI.5°T Initiative Flow of Funds



Repayable grants

118. The financial support mechanism to pre-seed and seed stage ventures will occur in two steps: (i) the provision of up to EUR 15,000 straight grants to 120 ventures (60 per region) competitively selected to participate in a pre-acceleration programme (EUR 1.8 million total) and (ii) the provision of on average EUR 100,000 repayable grants to 60 ventures (30 per region) competitively selected to participate in an acceleration programme (EUR 6 million total). A total of EUR 7.8 million will therefore be spent in direct financial support to climate ventures.
119. **Regional re-acceleration programmes:** Tec de Monterrey (in Latin America) and Impact Hub Abidjan (in West Africa) will promote the pre-acceleration programme in the respective region and call for applications through their own marketing channels and venture ecosystem access. Four pre-acceleration (Phase 2) cohorts will be run in each region, with 15 participating ventures per cohort. Applicants can be individuals or formally-registered micro and small enterprises (MSEs) from countries that have signed a No-Objection Letter for the CATALI.5°T Initiative. Candidates will be screened based on the eligibility and selection criteria described under Sub-Activity 1.3.1.1 for Latin America and Sub-Activities 2.3.1.1 and 2.3.1.3 for West Africa (see Section B.3). The selected ventures, in addition to receiving the technical assistance described in Sub-Activity 1.3.1.4 (Latin America) and Sub-Activity 2.3.1.4 (West Africa), will receive a EUR 15,000 plain-vanilla grant, in one instalment after signing a grant contract with Tec de Monterrey (for Latin America) and IPED (which will manage grant provision in the pre-acceleration programme in West Africa), as applicable. Grants will be eligible for a broad range of activities relevant to pre-acceleration needs, as detailed in the grant contract – including R&D, business development and procurement of equipment, services or personnel – in recognition of the diverse needs a climate venture may have in order to develop technological, commercial and consumer viability. The grant contract will include clauses that aim to minimise the possibility of grant misuse, including exclusion lists, spending caps, validation in case of substantive change in grant use, conflict of interest and anti-fraud clauses, and adherence to E&S and gender requirements. Grants must be spent within the duration of the pre-acceleration programme.
120. **Regional acceleration programmes:** Tec de Monterrey and IPED will run acceleration programmes for 30 climate ventures in Latin America and West Africa, respectively. The programmes will operate on an

annual cohort basis in Latin America and on a rolling basis – as new acceleration candidates are identified – in West Africa. The acceleration programmes will be open to top graduates / participants of the pre-acceleration programmes, promising participants of other regional pitch competitions / entrepreneur network events and promising ventures discovered through market surveillance. Application will be open only to formally-registered MSEs from countries that have signed a No-Objection Letter for the CATALI.5°T Initiative.

121. Ventures eligible for the acceleration programme will be start-ups in the case of Latin America and start-ups and growth companies in the case of West Africa. Start-ups are defined as early-stage ('seed stage') companies with a minimum viable product (MVP) and proof of traction in the market but no significant revenues yet, and which need funding for pilot phases, research and development, human resources or market testing, as well as for the purchase of equipment / technology. Growth companies' business models are known or predictable, as they are existing or young companies that are already operating in well-mastered sectors; they may be semi-formal or not very structured, but they have already started their activity (a product already sold, a team in place); their objective is to reach sustainability as soon as possible and they need financing for working capital, capex or capacity building, or to pivot from an existing business model to a business model with superior climate mitigation benefits.
122. Candidates will be screened and selected based on transparent criteria relating to their business and climate mitigation potential, as well as E&S and gender compliance (see Sub-Activity 1.4.1.1 for Latin America and Sub-Activity 2.4.1.1 for West Africa). The selected ventures, in addition to receiving the technical assistance described in Sub-Activity 1.4.1.3 (Latin America) and Sub-Activity 2.4.1.3 (West Africa), will receive a repayable grant for an amount of (i) EUR 100,000 (in US\$ equivalent) in Latin America and (ii) EUR 50,000-200,000 in West Africa (depending on the venture's specific funding needs, with the expectation that the average grant size will be EUR 100,000). Unlike commercial accelerators, the Executing Entities will not receive an equity stake in the ventures supported, in recognition of the additional risks and barriers involved in investing in climate innovation and the paucity of VC capital targeting the sector, which justify additional concessionality for climate ventures in Latin America and West Africa.
123. The use of repayable grants will be disciplined by a grant agreement signed by each climate venture and the respective Executing Entity. In Latin America, one standard agreement will apply to all beneficiary ventures. In West Africa, the agreement will be tailored to each individual venture, reflecting a value creation plan developed by the venture and agreed by IPED. Repayable grants will be eligible for a broad range of activities relevant to accelerating market and product development. In Latin America, the repayable grant will be disbursed in two instalments. In West Africa, it will be disbursed in one or more instalments, at the discretion of IPED on a case-by-case basis. For both regions, the grant agreements signed will include clauses that aim to minimise the possibility of grant misuse, including exclusion lists, spending caps, validation in case of substantive change in grant use, conflict of interest and anti-fraud clauses, and adherence to E&S and gender requirements.
124. The repayable feature of the grants is deemed integral to the acceleration programme's effectiveness. It is meant to create a high sense of accountability among participating ventures and reduce moral hazard (obtaining a grant with no strings attached is a risk-free proposition for the recipient). It is also meant to instil in the participating ventures the financial discipline that would be expected by commercial capital providers – be it VC funds or commercial banks (the latter being more applicable to growth companies) – and therefore build their future investability / bankability. Repayments will be accepted by Tec de Monterrey and IPED throughout the duration of the CATALI.5°T Initiative (i.e. during Years 1-6) and thereafter. In order to maximise the level of repayment, all 60 acceleration ventures (30 in each region) will be admitted into the acceleration programme in Years 1-3.
125. The triggers for grant repayment will differ in Latin America and West Africa. In Latin America, the repayment will be triggered in two circumstances: either (i) when a venture achieves annual incremental revenues of at least US\$ 1 million (incremental compared to the venture's last reported annual revenues prior to admission to the acceleration programme, if any), the grant will be subsequently repaid in quarterly instalments equivalent to 3% of quarterly revenues; or (ii) when a venture closes a funding round of more than USD 5 million, in which case the grant (or any amount yet to be repaid under the previous point (i)) will be repaid in a bullet payment for the outstanding amount.

126. In West Africa, repayment will be triggered by milestones tailored to each venture and detailed in the grant agreement. During the due diligence phase, IPED will engage in an in-depth dialogue with the venture regarding the business plan, including milestones and financial projections. Discussions will aim at guiding the venture towards business and financial goals that are ambitious but achievable. The process will be iterative – IPED will not take for granted the plan proposed by the venture and will probe every aspect of it. Once this intensive vetting of the plan is done, IPED will be in a position to determine and agree venture-specific repayment criteria with a realistic (albeit never 100% certain, given the inherent volatility of any business) prospect of repayment. Examples of possible repayment milestones include: achievement of a fund-raising of an amount equal to at least [% to be defined between 50% and 100%] of the amount of the fund-raising planned in the company's value creation plan; achievement of a turnover or EBITDA¹¹² equal to at least [% to be defined between 50% and 100%] of the turnover or EBITDA forecast in the company's value creation plan over a given period (subject to the venture having sufficient cash reserves when this milestone is triggered); and achievement of an operational performance indicator (e.g. obtaining a significant sales contract).
127. In both regional contexts, only the principal amount of the grant will be repaid, and the repayment schedule will be detailed in the grant agreement.
128. While the repayable grant instrument provides limited effective leverage to demand repayment in the event of a dispute, a risk mitigation process will be established, including: initial evaluation of the entrepreneur's integrity / track-record during the programme screening process; regular monitoring of the venture through meetings and calls; mandatory meetings in case of late payment; and positive incentives, by showing the venture that the acceleration programme will continue to generate value in the future. The venture ecosystems in both regions are relatively small: in the case of bad faith by a venture, the venture risks reputational damage with other financial and support organisations that could impair its business prospects. Accordingly, deliberate avoidance of repayment or contravention of the terms of the grant contracts presents considerable risks to ventures.
129. Repayments will be made by the ventures to Tec de Monterrey and IPED. IPED will systematically monitor and process anticipated repayments in Years 3-6 in the framework of the 6-year West Africa acceleration programme. Repayments after the end of the CATALI.5°T Initiative in Year 7 and later will continue to be accepted according to the agreed repayment schedule for ventures. Reflecting the shorter, 3-year duration of the Latin American acceleration programme, Tec de Monterrey will monitor and process anticipated repayments in Years 5-7 using its own financial resources. Financial modelling (see Annex 3a), informed by regional experience of similar schemes, anticipates repayments in Latin America of up to EUR 300,000 in Years 6-7 after programme start; in West Africa, repayments of EUR 1.1 million are estimated for Years 3-6.
130. In Latin America, repayments will be used to implement additional community-building and ideation activities, for the purpose of further strengthening the local climate innovation ecosystem and broadening the pool of entrepreneurs moving into the climate technology and innovation space. Community-building and ideation activities will encompass outreach and capacity-building measures for entrepreneurs in the CATALI.5°T Initiative countries of Latin America. Such community-building and ideation activities will be implemented by Tec de Monterrey itself or by a procured party, at the discretion of Tec de Monterrey. As no environmental or social safeguard obligations apply to such light-touch capacity-building measures for individual entrepreneurs, GIZ will not need to retain a no-objection veto regarding the beneficiaries of the community building and ideation measures in Latin America.
131. Use of repayments in West Africa will follow the same logic as in Latin America, with one difference: repayments of up to EUR 300,000 during Years 1-6 will be used to cover the operational costs of the acceleration programme implemented by IPED. The Executing Entity budget of IPED incorporates this amount. Repayments above EUR 300,000 will be used to implement the aforementioned community-building and ideation activities, with the same approach as in Latin America.
132. In both regions, the amounts raised by the Executing Entities through the repayment of grants under the regional acceleration programme will not be disbursed as new grants directly to ventures. Instead, the amounts will be spent by the Executing Entities themselves in ideation and community-building activities.

¹¹² EBITDA: Earnings before interest, tax, depreciation and amortisation.

B.5. Justification for GCF funding request

B.5.1 Additionality

133. Meeting the objectives of the Paris Agreement will require a shift from business as usual, driven in large part by a high level of entrepreneurial activity and innovation. Climate ventures in Latin America and West Africa face a range of barriers to development and growth that prevent them from realising their (substantial) climate mitigation potential. GCF resources will be used to address identified barriers to climate venture development. These barriers will persist in the business-as-usual scenario and will require GCF intervention to overcome them. The additionality of GCF intervention is thus clear: without such intervention, the barriers will persist and a pipeline of high-potential climate ventures – and their associated GHG mitigation impact – will not materialise or will materialise only over a much longer time period and in weaker (lower-capacity) form.
134. In order to reach the key objective of bringing high-potential climate ventures to the market, the design of the CATALI.5°T Initiative includes: (i) competitive entry of ventures into the pre-acceleration and acceleration programmes, accompanied by extensive due diligence – in order to ensure that only the highest-potential, most promising ventures are admitted; (ii) intensive technical assistance to climate ventures (delivered on a one-to-one basis in the acceleration programme), covering general business issues (technical, financial, marketing, staffing, etc.), climate impact assessment (mitigation and, where relevant, resilience co-benefits), and the gender-climate nexus – accompanied by mentoring and networking support; (iii) financial assistance to ventures – grants (pre-acceleration programme) and repayable grants (acceleration programme) – to enable them to finance self-determined priorities (technology, personnel, consultants, market surveys, etc.); and (iv) capacity building of CATALI.5°T Initiative stakeholders, including the Executing Entities, local implementation partners, VC funds and other stakeholders, to ensure high-quality delivery of technical assistance to ventures, engagement with market developments (e.g. evolving ESG frameworks) and post-programme sustainability of institutional capacities.
135. Successfully navigating climate ventures to the Series A funding milestone will serve to open up financing for their future growth. But it will also serve to enhance investor confidence in the regions' climate sectors, provide successful role-models for other entrepreneurs to replicate, and deepen the support network in the regions, all of which will serve as a positive feedback to further market growth.

B.5.2 Concessionality

136. A quantitative estimate of the level of concessionality of the pre-acceleration and acceleration grants is impossible, given the wide variety – in terms of sectors, business models and countries – of the ventures pre-accelerated and accelerated. Such analysis would entail computing the financial IRR for a prospective equity investor in a venture (including the venture's founders) with and without the pre-acceleration and/or acceleration grant, based on assumptions such as:
- For the scenario without GCF grant:
 - The amount of equity injected by investors over one or more funding rounds.
 - The venture valuation in each funding round and, hence, the percentage stake in the venture owned by the investors.
 - The venture valuation at exit (IPO, sale of the company), which, in turn, would depend on the growth prospects and profitability of the business at the point of exit.
 - A realistic time period between investment and exit.
 - For the scenario with GCF grant:
 - The increase in valuation resulting from the venture's participation in the pre-acceleration and/or acceleration programme, which would entail estimating how much of the revenue, profit and cash flow increase is uniquely attributable to the GCF contribution.
 - The equity stake increase resulting from raising capital through a pre-acceleration and/or acceleration grant as opposed to an equivalent amount of equity.

137. This exercise would need to be undertaken for each venture in a model portfolio of – in the case of the acceleration programme – 60 accelerated ventures across the two regions and based on a realistic mix of business sectors. The number of arbitrary assumptions required would undermine the robustness of the analysis or, worse, make it malleable to a desired outcome.
138. Instead, the justification of the use of grants relies on: (i) the analysis of the financing gap faced by climate ventures in the two regions (as detailed in Annexes 3c and 3d, which survey the venture financing environments in Latin America and West Africa); (ii) the feedback received from the regional Executing Entities, which have long-standing experience in pre-acceleration and acceleration in the two regions; (iii) feedback received from VC funds investing in the two regions; and (iv) in the case of the acceleration grants, the use of repayable rather than straight grants. Specifically:
- In West Africa, start-ups and growth companies have access to limited sources of long-term capital. VC activity has seen a significant increase in sub-Saharan Africa over the past 5-6 years, including in sectors with climate change potential, such as agri-tech and off-grid tech; to date, however, this VC capital has largely avoided the Francophone West Africa region. Only a few SME impact funds operate in the region, including I&P (the for-profit sister of IPED). While a number of private equity (PE) funds have been active in the region, their target companies are more mature and sizable than the start-ups and growth companies expected to graduate from the acceleration programme. The banking system is under-developed in Francophone West Africa compared with sub-Saharan Africa as a whole. The penetration of private sector credit is therefore low, especially for SMEs. While UEMOA¹¹³ countries have a regional stock market, IPOs are not a realistic source of funding for companies at such an early stage of development. None of the financing sources described above have a primary focus on climate change, although several funds explicitly aim for impact, including contributing to the SDGs.
 - In Latin America, climate venture also have access to limited sources of long-term capital. VC activity has seen a significant increase in Latin America. VC capital, however, is predominantly focused on fintech, e-commerce and other digital sectors. Climate innovation sectors have been largely avoided by VCs operating in the region. Also, VC capital is highly concentrated in the largest Latin American economies, especially Brazil and Mexico, followed by Colombia, Chile and Argentina. Impact funds are active in Latin America and, while they represent a pool of capital much smaller than that of VCs, they focus on a number of sectors that have close linkages with climate change. While a number of PE funds have been active in the region, their target companies are more mature and sizable than the start-ups expected to graduate from the acceleration programme. Bank loans are an unlikely source of capital for climate ventures that graduate from the CATALI.5°T Initiative acceleration programme, since at graduation start-ups are unlikely to be cashflow-positive and considering the reluctance of Latin American banks to lend to MSMEs. Similarly, IPOs are not a realistic source of funding for companies at such an early stage of development.
 - The start-ups targeted by commercial accelerators such as Y Combinator in Silicon Valley operate primarily in the digital and online space. They address potentially very large sectors (e.g. e-commerce, fintech) offering the potential to scale-up user bases and revenues very quickly – a proposition that commercial accelerators and, later on, VC firms value and seek. Climate ventures operate in sectors that often require significant capital investment, have features specific to the country or sub-national territories where they operate and – in the two regions targeted – address the needs of vulnerable and/or low-income communities (e.g. smallholder farmers). These represent significant barriers for conventional VC firms. Grant capital from the CATALI.5°T Initiative, in addition to comprehensive technical assistance, is therefore essential to demonstrate the attractiveness of climate ventures from a business standpoint and help them to achieve a scale and level of development at which they become attractive to private sector investors.
 - In recognition of the additional risks and barriers involved in investing in climate innovation and the paucity of VC and impact capital targeting the sector in the two regions, the Executing Entities that will operate the pre-acceleration and acceleration programmes will not receive equity stakes in the climate ventures supported. In this respect, they differ from commercial accelerators, such

¹¹³ West African Economic and Monetary Union.

as Y Combinator in Silicon Valley. Concessionality will vary in the pre-acceleration and acceleration phases in line with the level of risk associated in funding ventures in either phase. Specifically:

- Pre-acceleration grants will be straight, non-repayable grants. Ventures in the pre-acceleration programme will be in the proof-of-concept stage and far from producing revenues, let alone profits. Small (EUR 15,000) non-repayable grants are considered an appropriate level of concessionality given the risk of these ventures and the extremely low likelihood they would be able to attract pre-seed funding from commercial investors.
- Acceleration grants will be larger in size (EUR 100,000 on average) but will be repayable (without any interest) upon the achievement of pre-agreed business and fund-raising milestones by the recipient ventures, as detailed in Section B.4.5. The repayable feature is deemed integral to the acceleration programme's effectiveness. It is meant to create a high sense of accountability among participating ventures and reduce moral hazard (obtaining a grant with no strings attached is a risk-free proposition for the recipient). It is also meant to instill in the participating ventures the financial discipline that would be expected by commercial capital providers – be it VC funds or commercial banks – and therefore build their future investibility / bankability and maximise the probability that they raise commercial capital at a later stage. The Executing Entities will closely follow the accelerated ventures to make sure they maintain financial discipline and implement their business plans in order to maximise the likelihood of repayment.

B.6. Exit strategy

B.6.1 Exit Strategy

139. The CATALI.5°T Initiative seeks to catalyse and crowd-in private sector investment. The Initiative's leverage ratio (even excluding the value of goods and services sold by the climate ventures) is approximately 15x. Expressed another way, the vast majority of the impact of the CATALI.5°T Initiative is attributable to non-GCF funding sources. The CATALI.5°T Initiative succeeds in establishing a clear pathway from pre-seed and seed-stage ventures to healthy, rapidly growing climate enterprises, and, moreover, it does so while (i) establishing a clear exit strategy for the GCF and (ii) making minimal demands upon GCF funds. The achievement of impacts is clearly not reliant upon GCF resources but, instead, upon the considerable additional resources unlocked and enabled by the CATALI.5°T Initiative. Consequently, the end of the CATALI.5°T Initiative need not, and will not, imply an end to ongoing investment and climate impact.

B.6.2 Sustainability

140. Sustainability of CATALI.5°T Initiative impacts will be assured in a number of ways:

141. Creation of a set of high-potential, high-capacity climate ventures. The CATALI.5°T Initiative will support 60 pre-seed (pre-acceleration) and 30 seed-stage (acceleration) ventures in each region. These climate ventures will be provided with financial and technical support (pre-seed/seed grants, mentorship, business skills training, business services, exposure to financiers, etc.) to thrive in the pre-seed and seed stages, and engagement and interactions with VC providers will be facilitated at a very early stage, thereby allowing ventures and VCs to build relationships and understand each other's needs. Strengthening climate ventures through this support will enable more of them to reach Series A funding decisions in better shape, and is expected to lead to lower attrition rates, compared to the counterfactual. Specifically:

- More climate ventures will reach Series A financing than would be the case in the no-CATALI.5°T Initiative baseline.
- Climate ventures arriving at Series A decisions will be stronger due to the support they received.
- More climate ventures will pass Series A VC due diligence and receive funding than would be the case in the no-CATALI.5°T Initiative baseline.
- The strengths of the climate ventures will also mean that fewer of them will falter or fail after Series A funding than would be the case in the no-CATALI.5°T Initiative baseline.

Using conservative, stakeholder-validated assumptions about the ventures' growth and survival prospects (e.g. assuming that just 6 ventures in Latin America achieve Series A financing and 3 receive Series B financing, etc.), and using typical investment quanta for each financing event, it is estimated that the climate ventures accelerated by the CATALI.5°T Initiative in Latin America and West Africa will raise a total of approximately EUR 413 million of private finance over the programme's 20-year lifespan (see Annex 3a).

142. Network, ecosystem and first-mover effects. The CATALI.5°T Initiative's barrier removal measures, networking support (e.g. putting VC firms into contact with promising climate ventures) and first-mover impacts (creating successful ventures that act as inspirations and role models for subsequent climate entrepreneurs) will have sustained positive impacts well beyond the Initiative's lifetime.
143. Strengthened capacity of Tec de Monterrey, IPED and Impact Hub Abidjan (Executing Entities). All three institutions are already established, respected business pre-accelerators / accelerators in Latin America and West Africa. The CATALI.5°T Initiative will build their ability to support climate ventures through, inter alia, an enhanced capacity to: assess the GHG impacts of ventures' products and services; identify and strengthen the climate-transformational aspects of ventures' business models; assess ventures' climate adaptation and resilience co-benefits; support the gender climate entrepreneurship nexus; and apply and monitor ESS/ESG frameworks. Combining their existing business acceleration skill-sets and networks with this enhanced ability to support climate ventures specifically will have enduring benefits for the Latin American and West African climate venture ecosystem long after the CATALI.5°T Initiative comes to an end.
144. Strong emphasis on women-led ventures. The inclusion of women-led ventures as an integral element of CATALI.5°T Initiative outreach activities is expected to contribute to the Initiative's sustainability. Multiple studies concur that women-led companies in developing countries tend to be disadvantaged in terms of access to capital, social discrimination and in being largely confined to low-margin sectors such as hospitality and retail.¹¹⁴ But, when these constraints are statistically controlled for, women-led companies are nonetheless found on average to be more profitable, more robust (i.e. less likely to fail) and more successful at reaching market segments, such as household goods and services, where women are the principal customers. The CATALI.5°T Initiative's focus on incorporating gender inclusivity tools and metrics to maximise the potential for men and women to participate on an equal footing means there will be a positive impact after GCF funding ends, not only through the successful ventures that pass through the pre-acceleration and acceleration programmes but also through the changing mindset and practices of ecosystem actors based on the knowledge created by the CATALI.5°T Initiative in two regions where female entrepreneurs are frequently overlooked.
145. Use of repayable grants. The use of repayable grants for seed-stage climate ventures in the regional acceleration programmes presents a significant deviation from common practice in publicly-funded acceleration programmes and underlines the market- and investment-oriented mindset of the CATALI.5°T Initiative. Repayable grants will allow GCF funds to support an additional round of climate venture ideational and sourcing activities, thereby extending the size and reach of the climate venture ecosystem in both regions.

¹¹⁴ World Bank (2014), *Supporting Growth-Oriented Women Entrepreneurs: A Review of the Evidence and Key Challenges*: <https://documents1.worldbank.org/curated/en/301891468327585460/pdf/92210-REPLACEMENT-Supporting-Growth-Oriented-Women-Entrepreneurs-A-Review-of-the-Evidence-and-Key-Challenge.pdf>

FINANCING INFORMATION

C.1. Total financing							
(a) Requested GCF funding (i + ii + iii + iv + v + vi + vii)	Total amount			Currency			
		26.8			million euro (€)		
GCF financial instrument	Amount	Tenor	Grace period	Pricing			
(i) Senior loans	<u>Enter amount</u>	<u>Enter years</u>	<u>Enter years</u>	<u>Enter %</u>			
(ii) Subordinated loans	<u>Enter amount</u>	<u>Enter years</u>	<u>Enter years</u>	<u>Enter %</u>			
(iii) Equity	<u>Enter amount</u>			<u>Enter % equity return</u>			
(iv) Guarantees	<u>Enter amount</u>	<u>Enter years</u>					
(v) Reimbursable grants	<u>Enter amount</u>						
(vi) Grants	26.8						
(vii) Results-based payments	<u>Enter amount</u>						
(b) Co-financing information	Total amount			Currency			
	9.7			million euro (€)			
Name of institution	Financial instrument	Amount	Currency	Tenor & grace	Pricing	Seniority	
BMZ	<u>Grant</u>	<u>9.7</u>	<u>million euro (€)</u>				
Total financing (c) = (a)+(b)	Amount			Currency			
	<u>36.5</u>			<u>million euro (€)</u>			
(d) Other financing arrangements and contributions	<p>Leveraged finance is expected to amount to Euro 413 million over the 20-year lifespan of the CATALI.5°T Initiative, in the form of external financing – convertible notes / SAFE notes¹¹⁵, VC Series A equity, VC Series B and beyond equity, loans, etc. – for climate ventures that graduate from the regional acceleration programmes. A full breakdown of the leveraged finance is provided in Annex 3a. In summary, the anticipated amounts are:</p> <ul style="list-style-type: none"> • Convertible / SAFE notes: € 11.1m • VC Series A: Euro € 14.5m • VC Series B+: € 24.2m • Loans: € 8.0m • Middle- and late-stage funding and IPOs: € 355.2m 						
C.2. Financing by component							
Component	Output / Activity	Indicative cost million euro (€)	GCF financing		Co-financing		
			Amount million euro (€)	Financial Instrument	Amount million euro (€)	Financial Instrument	Name of Institutions
	<i>Output 1.1</i>			<i>Grants</i>		<i>Grants</i>	-

¹¹⁵ SAFE: Simple Agreement for Future Equity

Regional Component 1: Latin America CATALI.5°T	Activity 1.1.1	-	-	Grants	-	Grants	-
	Output 1.2	1.673.510	778.306	Grants	895.203	Grants	BMZ
	Activity 1.2.1			Grants		Grants	BMZ
	Output 1.3	2.281.902	1.118.415	Grants	1.163.487	Grants	BMZ
	Activity 1.3.1			Grants		Grants	BMZ
	Output 1.4	4.555.416	2.617.216	Grants	1.938.200	Grants	BMZ
	Activity 1.4.1			Grants	Enter amount	Grants	BMZ
Regional Component 2: West Africa CA-TALI.5°T	Output 2.1	-	-	Grants	-	Grants	-
	Activity 2.1.1	-	-	Grants	-	Grants	-
	Output 2.2	894.423	724.351	Grants	170.072	Grants	BMZ
	Activity 2.2.1		0.727	Grants		Grants	BMZ
	Output 2.3	3.314.376	3.172.391	Grants	141.984	Grants	BMZ
	Activity 2.3.1			Grants		Grants	BMZ
	Output 2.4	9.891.119	9.800.612	Grants	90.506	Grants	BMZ
Component 3: CATALI.5°T Trans-Regional Advisory, Capacity & Knowledge Support (TRACKS)	Output 3.1	8.844.480	5.249.008	Grants	3.595.471	Grants	BMZ
	Activity 3.1.1	4.879.122	2.736.099	Grants	2.143.023	Grants	BMZ
	Activity 3.1.2	2.024.051	1.294.240	Grants	729.811	Grants	BMZ
	Activity 3.1.3	1.941.306	1.218.669	Grants	722.637	Grants	BMZ
Component 4: CATALI.5°T Initiative Management	Output 4.1	2.253.030	1.019.979	Grants	1.233.050	Grants	BMZ
Component 5: CATALI.5°T Initiative Monitoring, Reporting and Evaluating	Output 5.1	2.237.037	1.759.925	Grants	477.112	Grants	BMZ
Contingencies		600.000 €	600.000 €				
Indicative total cost (Euro)		36.5 million	26.8 million		9.7 million		

C.3 Capacity building and technology development/transfer

C.3.1 Does GCF funding finance capacity building activities?

Yes No

C.3.2. Does GCF funding finance technology development/transfer?

Yes No

C.3.1 Technology Development / Transfer

146. The barrier analysis and theory of change of the CATALI.5°T Initiative mirror best practice relating to technology transfer. For example, in the 51 UNFCCC Technology Needs Assessments (TNAs) prepared by August 2019, the most commonly reported barriers to the transfer of prioritised technologies are economic, financial and technical, including lack of financial resources, insufficient expertise, market failure

and imperfection, and information and awareness.¹¹⁶ The CATALI.5°T Initiative addresses each of these barriers in a targeted approach. The CATALI.5°T Initiative is sector- and technology-agnostic: it follows a market-led approach to scaling-up the most promising opportunities for GHG mitigation. The most commonly prioritised mitigation sectors and sub-sectors in TNAs – solar PV, run-of-river hydropower, biomass/biogas, transport and AFOLU – are all eligible for CATALI.5°T Initiative support.

147. The CATALI.5°T Initiative will support a total of 120 pre-seed climate ventures in its regional pre-acceleration programmes and 60 seed-stage climate ventures in its regional acceleration programmes. These ventures will develop commercial/technological solutions that reflect local market needs and constraints while also building on and incorporating best-practices from other countries and regions. Building entrepreneurial communities in Latin America and West Africa, and connecting them to each other and elsewhere, will accelerate cleantech innovation, commercialisation and market uptake.

148. In a sense, the entire GCF programme budget can be said to promote technology development and transfer. However, if the supported climate ventures are regarded as the primary vector of such technology development, the GCF budget allocated specifically to the venture pre-acceleration and acceleration programmes (i.e. Components 1 and 2) can be regarded as a reasonable proxy for GCF support to technology development and transfer. The GCF support therefore amounts to Euro 16.7 million.

C.3.2 Capacity Building

149. Capacity building activities permeate the CATALI.5°T Initiative. They encompass a variety of stakeholders – notably, climate ventures, pre-accelerators, accelerators, entrepreneur support organisations (ESOs) and VC firms – and a variety of needs, including GHG impact assessment, systems transformation potential assessment, identification of climate adaptation co-benefits, gender toolkits, ESG frameworks and others.

150. The following CATALI.5°T Initiative elements are considered to be primarily oriented around capacity building:

- Activity 1.1.1: Capacity building of Executing Entities, ESOs and venture investors in Latin America
- Sub-Activity 1.3.1.2: Pre-acceleration programme (Latin America) – Phase 1
- Sub-Activity 1.3.1.4: Pre-acceleration programme (Latin America) – Phase 2
- Sub-Activity 1.4.1.3: Acceleration programme (Latin America) – technical assistance
- Activity 2.1.1: Capacity building of Executing Entities, ESOs and venture investors in West Africa
- Sub-Activity 2.3.1.2: Pre-acceleration programme (Latin America)
- Sub-Activity 2.4.1.3: Acceleration programme (Latin America) – technical assistance

¹¹⁶ UNFCCC (2020), *Fourth Synthesis of Technology Needs Identified by Parties not Included in Annex I to the Convention*: https://unfccc.int/sites/default/files/resource/sbi2020_inf.01.pdf

EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section refers to the performance of the project/programme against the investment criteria as set out in the GCF's [Initial Investment Framework](#).

D.1. Impact potential

D.1.1 Emission Reductions Estimation Methodology

150. When GIZ embarked on developing the CATALI.5°T Initiative in mid-2019, there was no methodology available to estimate the mitigation potential of a portfolio of ventures whose precise composition is necessarily unknown ex ante. To provide the GCF with an informed, robust and transparent climate impact estimate, GIZ partnered with Climate-KIC and the consulting company, Impact Forecast, to build a sophisticated bottom-up model – MORSE: Model for Regional climate Start-up Ecosystem impacts. Full details are provided in Annex 22b and Annex 22c; a brief overview is provided below.
151. The Avoided Emissions Potential (AEP) – defined as the difference in lifecycle GHG emissions between an existing baseline solution (e.g. an internal combustion engine vehicle) and a climate venture's product (e.g. an electric vehicle) – was calculated for individual ventures. The selected ventures were sourced from Climate-KIC entrepreneurial initiatives in the European Union for which climate impact (i.e. emission reductions) was an eligibility criterion and was consistently reported with the Climate Impact Forecast (CIF) tool¹¹⁷, making them well-suited for building a climate venture database. Additionally, this allowed access to detailed information on a large sample of current ventures, which would otherwise be hard to achieve in a coherent manner, as noted by other studies.¹¹⁸
152. Twenty-four ventures were randomly selected from a pool of 104 EU ventures and were complemented by an additional 5 ventures from Latin America and 4 from sub-Saharan Africa: i.e. 33 ventures in total. The CIF impact reports for these 33 climate ventures were reviewed by Climate-KIC and validated by an expert third-party.
153. The selected climate ventures were each assigned to represent a venture 'archetype'. An archetype refers to a type of innovation within a GCF Result Area: for example, 'energy storage' within 'energy access and power generation' or 'e-mobility' within 'low-emission transport' or 'alternative proteins' within 'forestry and land use'.¹¹⁹ Each archetype also represents a CAIT sub-sector¹²⁰ and an economic sector as defined by the World Bank's development indicators. Archetype categorisation was participatory (GIZ, Climate-KIC, Executing Entities and VC funds) and underwent a number of rounds of review and revision. Table 8 provides an overview of the 28 archetypes used. Annex 24d provides an overview of the types of climate ventures in each GCF Result Area and in each archetype.

Table 8: GCF Result Areas and Constituent Archetypes

GCF Result Area	Archetypes
Energy access and power generation	Biomass, energy storage, renewable energy systems, small-scale solar, smart grids
Low-emission transport	E-mobility, shared mobility, smart mobility
Buildings, cities, industries and appliances	Alternative materials, energy efficiency, smart city solutions, smart manufacturing, sustainable building materials, smart buildings, urban planning, sustainable consumption, clean water/water availability, clean air, sanitation, waste management
Forestry and land-use	Agrotech (land), agrotech (nutrients/production), alternative proteins, food security, food waste, land-use monitoring systems, ecosystem conservation, restoration and monitoring

154. Economic data (GDP and local market data) were used to identify the type and size of the economic sector associated with each venture archetype in each region. The total GHG emissions covered by the relevant venture

¹¹⁷ <https://impact-forecast.com/>

¹¹⁸ Leendertse, J., van Rijnsoever, F. and Eveleens, C. (2020), 'The sustainable start-up paradox: predicting the business and climate performance of start-ups', *Business Strategy and the Environment*, 30: <https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/bse.2667?download=true>

¹¹⁹ 'Alternative proteins' encompasses alternatives to industrial meat production – e.g. plant-based and lab-cultivated meat, edible insects, aquaculture, etc. Annex 24d provides descriptions of the archetypes.

¹²⁰ The Climate Access Indicators Tool (CAIT), maintained by the World Resources Institute.

markets were determined using two key variables: the sector and sub-sector emissions (tCO_{2e}) based on CAIT GHG emissions data, and the percentage of addressable sub-sector emissions that reflect the ventures' maximum possible market share in that sector.¹²¹ The variables are then multiplied together to represent the upper boundary on emission savings: the maximum Avoided Emissions Potential or AEP_{max} .¹²²

155. In practice, the total emissions in the sub-sector typically greatly exceed those in a venture's AEP_{max} . For example, in Year 1 of operations, most ventures are expected to achieve emission reductions below 0.001% of the maximum attainable in theory – and, at best, 0.03%.
156. The Year 1 Avoided Emissions Potential (AEP_{y1}) of a climate venture – or, at a higher level of aggregation, an archetype, a GCF result area, a region or the overall CATALI.5°T Initiative – is calculated as the climate impact per functional unit¹²³ multiplied by the number of functional units sold in Year 1. In a typical group of early-stage ventures, their first-year climate impact varies widely, ranging from tonnes to kilotonnes of CO_{2e}, and with the occasional high-performing outlier ('impact unicorn').
157. Because the AEP represents the entire *lifecycle* emission reductions of a product or service (i.e. the total emissions associated with production, use and disposal of the product or service), the MORSE model annualises each venture's AEP by allocating the product/service emission reductions achieved equally across the expected lifetime of the good or service being sold. Thus, the AEP associated with the sale of an energy-efficient refrigerator in Year 3 of the CATALI.5°T Initiative, for example, is distributed equally over the 10-year product lifetime of the refrigerator between Years 3-13, while the AEP associated with the sale of low-emission packaging, such as bioplastics or recycled cardboard, is distributed over just 1 year.¹²⁴ The archetype-specific product/service lifetimes used by the MORSE model are provided in Annex 22c. This step serves to provide an *annual AEP*. While this annualisation process has no impact on the overall mitigation estimates, it does enable emission reductions to be presented in a manner compatible with GCF practice – i.e. for defined time-periods, such as the CATALI.5°T Initiative implementation period and the CATALI.5°T Initiative lifespan.
158. The lifespan AEP of the CATALI.5°T Initiative is determined by a number of variables:
- The **duration of the programme lifespan** (i.e. the CATALI.5°T Initiative's 'influence period'). A lifespan of 20 years has been chosen because this is approximately the average expected lifespan of a listed company in the USA today¹²⁵ – and therefore, in the absence of an equivalent figure for Latin America or West Africa, represents a reasonable upper-bound on the lifespans of the climate ventures supported by the CATALI.5°T Initiative. Most (85%) of the CATALI.5°T Initiative's supported ventures are expected to survive only a fraction of this time, but a small minority (15%) may exceed 20-year lifetimes. It should be noted that, in reality, even when a venture fails (i.e. ceases business activity) its climate influence may not necessarily disappear entirely: its goods / services may continue to be sold by an acquiring firm or its founders may go on to apply their learning elsewhere, for example. Consequently, the imposition of a finite programme influence period, of whatever duration, is itself considered to be a conservative assumption.

The effect of the 20-year lifespan on the estimation of emission reductions is three-fold: (i) CATALI.5°T Initiative-supported ventures that survive more than 20 years contribute zero climate impact after Year 20; (ii) climate ventures supported in Year 1 of the CATALI.5°T Initiative have a (marginally) greater opportunity to generate emission reductions than climate ventures supported in Years 2 and 3 of the CATALI.5°T Initiative; and (iii) the emission reductions associated with goods / services sold by CATALI.5°T Initiative-supported ventures are only counted up to and including Year 20 – thus, for example, an energy-efficient appliance sold by a venture in Year 15 that has a 10-year expected product lifetime would only contribute emission reductions to the CATALI.5°T Initiative for 6 years (up to and including Year 20) rather than for the full 10-year product lifetime.

¹²¹ For example, software for power stations can run in every power station: if the venture supplying this software were – theoretically – able to achieve the maximum possible market share (i.e. all power stations), it could affect 100% of the electricity sector's emissions. In contrast, a venture supplying green roofing material could not affect 100% of building sector emissions, as building emissions are attributable to other sources (e.g. lighting and HVAC), not just roofs.

¹²² Maximum Avoided Emissions Potential (AEP_{max}): the theoretical maximum emissions of the market or sector that a company is able to target. AEP_{max} is analogous to TAM or 'Total Addressable Market', which is typically measured in terms of revenue. The AEP_{max} is quantified as the addressable share of regional maximum avoidable emissions (tCO_{2e}) a venture has in its target market / sector.

¹²³ A functional unit is the good or service that provides the basis of comparison between the baseline and the venture's innovation.

¹²⁴ Packaging lifetimes can vary from 1 day (e.g. plastic straws) to 10+ years (e.g. toys, crates); a 1-year lifetime covers 'typical' applications, such as food & drink containers, cosmetics, etc.: <https://www.resourcefutures.co.uk/the-lifetime-of-plastic/>

¹²⁵ McKinsey (2020), *Europe's Start-Up Ecosystem: Heating Up, But Still Facing Challenges*: <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/europes-start-up-ecosystem-heating-up-but-still-facing-challenges>

- The **number of climate ventures** included in the analysis. The CATALI.5°T Initiative will provide technical and financial support to 60 pre-seed climate ventures in each region (i.e. 120 ventures in total) through its regional pre-acceleration programmes, and to 30 seed-stage climate ventures in each region (i.e. 60 ventures in total) through its regional acceleration programmes. Estimating the future climate impact of pre-seed climate ventures – which, on graduation from the pre-acceleration programme, may have no, or very little, actual market exposure – is challenging and would inevitably necessitate considerable speculation and guesswork. Accordingly, only the 60 more advanced, market-exposed climate ventures that graduate from the regional acceleration programmes are included in the mitigation impact analysis.¹²⁶
- The **types of climate ventures** supported by the CATALI.5°T Initiative. In Latin America, the regional acceleration programme will support only start-ups – defined as early-stage companies that are developing or already have a minimum viable product (MVP), but no significant revenues and/or profits. In West Africa, the regional acceleration programme will support start-ups as well as growth companies – defined as businesses that already generate revenues, and potentially profits, but are unable to grow to their full potential (for instance, by making large investments) due to lack of technical capacity or capital. In West Africa, the anticipated proportion of growth ventures in the acceleration programme will be approximately 50%. Both types of venture will satisfy the IFC definition of a micro or small enterprise (MSE) and both will sell products or services that offer climate mitigation benefits. However, the growth companies differ from the start-ups in having more favourable failure schedules (i.e. a lower risk of failure each year – see below).
- The **failure schedule of each CATALI.5°T Initiative-supported venture**: i.e. the number of years after graduation from the regional acceleration programme at which each venture ceases to operate. Until the time of failure, a venture actively generates emission reductions through sale of its goods/services; after failure, the venture is considered to generate zero emission reductions. Ongoing use of products/services sold before venture failure does continue to generate emission reductions. Thus, if a venture sells an emission-reducing product in Year 10 and then fails in Year 11, the product sold in Year 10 will continue to generate a stream of emission reductions for the remaining product lifetime (up to and including Year 20), even though the venture is no longer selling new products.
- The **success schedule of each CATALI.5°T Initiative-supported venture**: i.e. the performance of each venture in accessing VC finance (and when), as well as non-VC sources of finance (e.g. debt)¹²⁷, up until the point of venture failure or, for long-lived ventures, until Year 20. The success and failure schedules are inter-related. Ventures are unable to sustain themselves for protracted periods of time – and hence fail – without periodic injections of finance, and ventures that have recently raised financing are less likely to fail than those that have not managed to do so. The financing events modelled over the 20-year timeframe are: first-round financing (convertible notes / equity), second-round financing (Series A), second-round financing (debt), third-round financing (Series B), third-round financing (debt), fourth-round financing (Series C), fourth-round financing (debt) and Initial Public Offerings (IPOs). Ventures may benefit from none, one or more of these financing events, depending on their type (start-up or growth company) and longevity.
- The **growth rate of each CATALI.5°T Initiative-supported venture** after graduation from the regional acceleration programme: i.e. the evolution of its annual sales performance (market share) over time. The growth rate determines the number of functional units (goods or services) sold in each successive year, up to the point of venture failure. The annual growth rates that populate the model have been calibrated with expert input from stakeholders (regional VC funds, pre-accelerators / accelerators, etc.: see below), and are differentiated in the MORSE model in two respects:
 - Regionally: different growth rates are applied in Latin America and West Africa.
 - Venture survival: a venture's growth prospects are related to its survival prospects, such that a short-lived venture tends to grow more slowly than a long-lived venture in each corresponding year of its life. The annual growth rates of ventures that survive for 1-3 years are discounted by 30%, and ventures that survive for 4-6 years by 10%, relative to those of ventures that survive for 7 or more years.

¹²⁶ Some of the ventures that graduate from the pre-acceleration programmes may then advance to the acceleration programmes – subject to competitive entry requirements. Indeed, this is actively expected and welcome, as it will ensure a supply of high-quality candidates for acceleration-stage support. However, the point stands: only ventures graduating from the acceleration programmes are included in the emission reduction calculations.

¹²⁷ Debt instruments are considered for growth companies only.

- The **taper rate**. In early iterations of the MORSE model, ventures continued to enjoy sustained, uninterrupted growth until the point when they suddenly failed. However, this was considered unrealistic and tapering was introduced to represent gradual deceleration in a venture's growth in the years leading up to a venture's failure.

Ventures fail for a variety of reasons. According to CB Insights (2021)¹²⁸, based on a sample of 111 venture failures, the main reasons for failure are:

- Ran out of cash / failed to raise new capital (38%)
- No market need for product (35%)
- Got out-competed (20%)
- Flawed business model (19%)
- Regulatory / legal challenges (18%)
- Pricing / cost issues (15%)
- Not the right team (14%)

Some of these factors (such as regulatory / legal challenges or internal team dynamics) may, indeed, manifest themselves suddenly and lead to abrupt venture failure, rather than a gradually decelerating growth rate. However, other factors (such as cash burn, market competition and market saturation) are likely to produce precisely the sort of growth slow-down prior to eventual business failure that the tapering is designed to replicate. A user-adjustable parameter in the model enables the user to dictate the number of years of (approximately) linear decline before venture failure. The default value of 30% makes the linear decline commence in the final 30% of years of the venture's lifetime.

- The **GCF attribution coefficient**. Not all of the climate impact achieved by the CATALI.5°T Initiative-supported climate ventures can, justifiably, be attributed to the GCF. The CATALI.5°T Initiative will produce a set of 60 accelerated climate ventures that are well positioned to grow and prosper; however, whether the ventures do, indeed, grow and prosper is also attributable to how much VC (and other) finance they can attract. The CATALI.5°T Initiative funds represent a small fraction of the Series A, Series B, etc. finance that these ventures will subsequently mobilise.¹²⁹ Accordingly, a GCF attribution coefficient is applied to the CATALI.5°T Initiative's GHG impact – essentially, scaling the MORSE-derived mitigation total by a parameter that tries to capture the proportion of the mitigation that is directly attributable to the GCF.

The GCF attribution coefficient is calculated as the amount of GCF budget funding relative to the total VC and other financing expected to be leveraged by the programme: i.e. the GCF contribution to the GHG impact achieved by the CATALI.5°T Initiative-supported climate ventures is deemed to be proportional to the amount of funding spent on the ventures by the GCF compared with the amount of funding spent by other parties. The GCF budget is Euro 26.8 million and the expected leveraged finance is Euro 413 million; hence the GCF attribution coefficient is 6.5%. (See Annex 22c for detailed calculations).

D.1.2 Model Parameterisation

159. For the purpose of providing an ex ante estimate of the CATALI.5°T Initiative's mitigation impact, in-depth interviews with relevant actors – pre-accelerators, accelerators, VC funds and other financiers, entrepreneurs, government officials, international organisations and donors – were held in Latin America and West Africa. These discussions then formed the basis for regionally-differentiated quantified estimates of: (i) the composition – archetypes and/or result areas, start-ups vs growth companies – of the 30 climate ventures that will graduate from each region's seed-stage acceleration programme, (ii) the failure schedule of the ventures, (iii) the success schedule of the ventures, and (iv) the annual growth rates of the ventures – all over a 20-year influence period. These parameters then underwent 3 rounds of stakeholder and GCF Secretariat review and revision, such that they are now considered to be: (i) extremely robust and (ii) at the low (conservative) end of empirical expectations. These parameters form the basis of the 'central estimate' – essentially, the 'best guess' – for the CATALI.5°T Initiative's GHG mitigation impact in each region. Full details of the parameter values and assumptions used are provided in Annex 22c.

¹²⁸ <https://www.cbinsights.com/research/startup-failure-reasons-top/>

¹²⁹ This is, of course, one of the CATALI.5°T Initiative's key strengths. The CATALI.5°T Initiative establishes a clear pathway from pre-seed and seed-stage ventures to healthy, rapidly growing climate enterprises, and, moreover, it does so while: (i) establishing a clear exit strategy for the GCF and (ii) making minimal demands on GCF funds.

D.1.3 Emissions Reduction Impact

160. The CATALI.5°T Initiative is expected to reduce 58 MtCO₂e of greenhouse gas emissions during its 20-year lifespan (influence period). This will be achieved through the sale of low-emission products / services by the 60 climate ventures supported by the CATALI.5°T Initiative's two regional acceleration programmes. The CATALI.5°T Initiative will screen and nurture these climate ventures, providing them with the technical, financial, mentoring and networking support needed to build and shape them into robust, high-potential investment opportunities from a VC perspective. This VC equity investment (and, in the case of growth companies, debt investment) will be enabled by the GCF but will, itself, take place outside of the GCF programme boundary – and, in the majority of cases, is expected to occur after the end of the 6-year GCF support. Accordingly, a GCF attribution coefficient is applied to the CATALI.5°T Initiative's overall mitigation impact to capture the impact that is directly attributable to the GCF itself. Table 9 summarises the modelling results after this GCF attribution has been applied.
161. For Latin America, the cumulative total GCF-attributable mitigation impact by the end of the CATALI.5°T Initiative implementation period (Year 6) is 141 ktCO₂e, and 1.1 MtCO₂e by the end of the Initiative lifespan (Year 20). For West Africa, the cumulative total GCF-attributable mitigation impact by the end of Year 6 is 89 ktCO₂e, and 2.7 MtCO₂e by the end of Year 20. Total GCF-attributable mitigation impact is expected to be 3.8 MtCO₂e over the 20-year programme lifespan.

Table 9: Central Estimate of the GCF-Attributable CATALI.5°T Initiative Mitigation Impact

Region	Programme Implementation Period (Years 1-6), ktCO ₂ e	Programme Lifespan (Years 1-20), ktCO ₂ e
Latin America	141.2	1,099.2
West Africa	88.8	2,674.8
Total	230.0	3,774.0

162. The expected breakdown of emission reductions by GCF Result Area is provided in Table 10. As with the mitigation estimates, this breakdown should be considered to be indicative rather than definitive, as there are considerable uncertainties associated with predicting the mitigation characteristics of 60 climate ventures, across 2 regions, whose identities and characteristics will only be known when they are admitted into the regional acceleration programmes during the course of programme implementation (see the sensitivity analysis below). Moreover, the composition of emission reductions will evolve each year over the 20-year programme lifespan; Table 10 shows the composition of *cumulative* emissions for the programme lifespan.
163. In Latin America, energy access and power generation is expected to contribute the bulk of emission reductions, due to a combination of factors. Structurally, ventures providing energy products and services have widely applicable solutions with a large addressable market share, in an impactful sector. The group of ventures modelled also contains two 'impact unicorns' that manage to survive for reasonable periods and thereby sustain their climate impact; while this is essentially a chance (rather than structural) aspect of the model, outlier performance by particular ventures is an intrinsic element of venture finance and such probabilistic factors cannot be ignored.¹³⁰ In West Africa, the most significant impact is made by ventures in the agriculture, forestry and other land use (AFOLU) result area, due to this sector's economic importance in the region. In both regions, there is a small but nonetheless substantive contribution from buildings, cities, industries and appliances.
164. The contribution of transport is predicted to be negligible in both regions. This may be partly a reflection of the challenges presented by many transport sub-sectors (capital-intensive, global supply chains, offshore manufacturing, multinational incumbents) to start-ups in particular. However, this is not universally true: smaller-scale transport options, such as such as e-mobility (e.g. electric bikes) or shared mobility solutions (e.g. business models built around car-pooling), could represent more promising opportunities for ventures. Moreover, the negligible contribution from transport is not aligned with VC firms' expectations: VC firms consulted during the GHG modelling predicted that transport ventures would account for approximately 20% of the ventures in the regional acceleration programmes.
165. Further analysis of the transport modelling result is provided in Annex 22e. The negligible emission reductions attributed to transport is partly a chance outcome in the MORSE model, due to the presence of 5 successful energy-sector ventures that serve to reduce the relative impact of other Result Areas. Alternative modelling scenarios can be constructed in MORSE that generate solutions in which transport is a considerably more impactful result area. More fundamentally, however, the transport sector is currently under-served by the MORSE model.

The MORSE model generates emission reduction estimates by using an underlying database of 33 'real-world' ventures, which are used – singly or in multiples – to construct higher-level archetypes. These ventures were sourced from a Climate-KIC database. Unfortunately, transport is not a key focus area for Climate-KIC, with the result that high-quality data was only available for 3 transport ventures: electric powerboats, smart public transport analytics and low-impact delivery services. These are not high-impact mitigation sub-sectors, with the result that the data that the MORSE model uses to generate transport mitigation impacts tends to under-estimate such impacts.

166. Improvement of the MORSE model, including expansion of the underlying venture database, is planned under Sub-Activity 3.1.1.1. A key emphasis of this work will be on strengthening the breadth of transport sector coverage.
167. It should be noted that selection of ventures for admission into the CATALI.5°T Initiative's pre-acceleration and acceleration programmes will not suffer from these MORSE-related deficiencies. Assessment of these ventures' mitigation impacts will be done on a case-by-case basis using the CIF tool, as the identities of the ventures will be known at the time of screening / selection. The challenge that arises with the use of the MORSE tool is that the identities of the ventures are not known – and hence archetypical analogues need to be used in their place.

Table 10: GCF Result Area Composition of the Central Estimate of CATALI.5°T Initiative Mitigation Impact

GCF Result Area	Latin America	West Africa
MRA 1 – Energy generation and access	89%	9%
MRA 2 – Low-emission transport	~0%	~0%
MRA 3 – Buildings, cities, industries and appliances	7%	9%
MRA 4 – Forestry and land-use	4%	81%

D.1.4 Sensitivity Analysis

168. Clearly, the central estimate is subject to considerable uncertainty. If, for example, during CATALI.5°T Initiative implementation one or more ventures performs markedly better (or worse) than expected, the GHG impact of the CATALI.5°T Initiative will deviate from the central estimate, potentially quite significantly. Accordingly, to complement the central GHG estimate, a 'downside GHG estimate' has also been calculated. This entirely removes the top 10% of ventures – defined in terms of their mitigation performance – from the GHG mitigation calculations. This is considered to be an extremely conservative scenario – there seems little plausible reason why it should be the CATALI.5°T Initiative's top-performing ventures that fail, and fail so spectacularly – but it nonetheless provides a useful 'almost-worst-case' baseline against which the central estimate can be compared. The downside estimate is presented in Table 11.

Table 11: Downside Estimate of the GCF-Attributable CATALI.5°T Initiative Mitigation Impact

Region	Programme Implementation Period (Years 1-6), ktCO ₂ e	Programme Lifespan (Years 1-20), ktCO ₂ e
Latin America	29.1	476.2
West Africa	54.1	620.2
Total	83.2	1,096.3

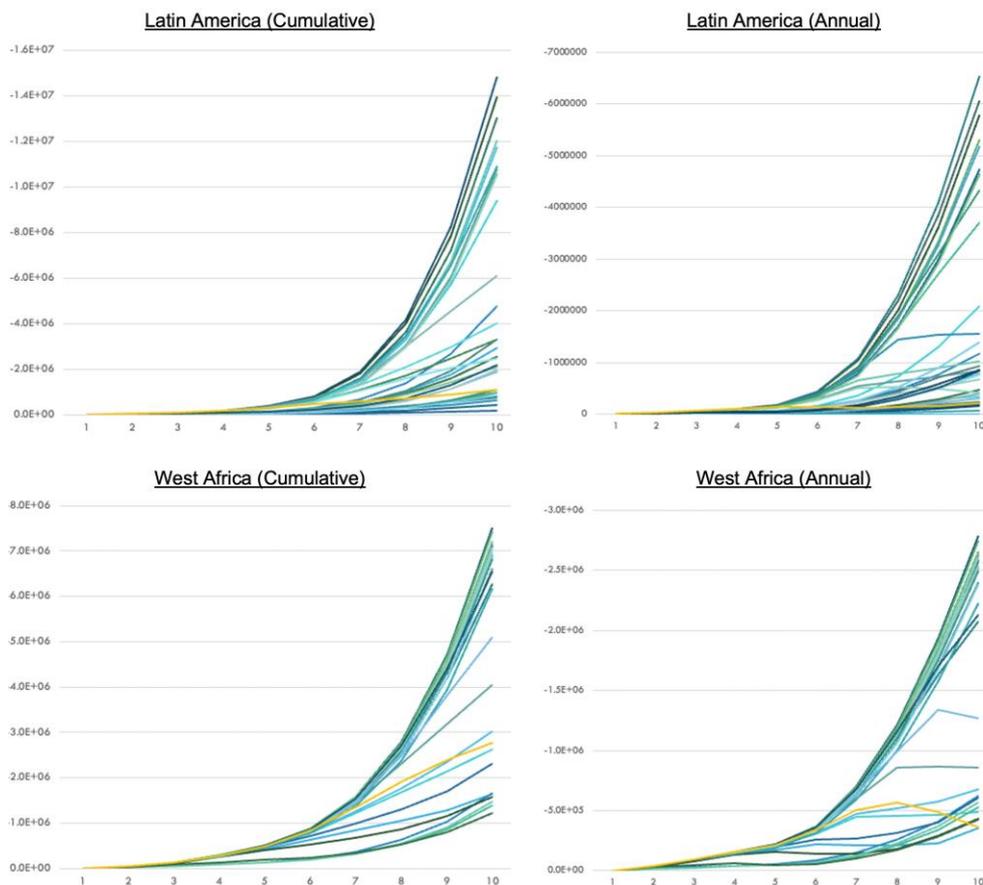
169. The downside mitigation impact – 1.1 MtCO₂e – is 29% the size of the central estimate, which shows the disproportionate impact that the top-performing ventures can exert on the overall mitigation performance of the CATALI.5°T Initiative. This mirrors the skewed financial impact that a small number of ventures typically exert on VC investment portfolios. It is not unusual for investments in 1-2 successful ventures to "return the fund" – i.e. compensate for the under-performance of a much larger number of ventures in a VC's portfolio.¹³¹ Nonetheless, even the downside estimate represents a substantial climate impact from a GCF perspective.

¹³⁰ See, for example, Preuss M. (2020), *Understanding Power Law Curves to Better Your Chances of Raising Venture Capital*: <https://visible.vc/blog/understanding-the-power-law-curve-of-vc/>

¹³¹ See, for example, CB Insights (2020), *Eight Laws Driving Success in Tech*: <https://www.cbinsights.com/research/report/tech-laws-success-failure/>; and Preuss M. (2019), *Understanding Power Law Curves to Better Your Chances of Raising Venture Capital*: <https://visible.vc/blog/understanding-the-power-law-curve-of-vc/>

170. The downside estimate has been augmented by probabilistic – Monte Carlo – modelling, in which 50 random survival schedules for the 30 accelerated climate ventures in each region have been drawn through repeated sampling. This provides a statistical distribution of potential GHG outcomes in each region.
171. Figure 12 is interpreted as follows: cumulative mitigation impact is shown on the left-hand side and annual mitigation impact is shown on the right-hand side. Latin America is shown in the top charts, West Africa in the bottom charts. The yellow line represents the downside estimate. The downside estimate tends to be optimistic relative to probabilistic scenarios in the first six years, and pessimistic thereafter. Expressed another way, the probabilistic modelling suggests that the downside estimate may be lower than expected in the near-term and greater than expected in the longer-term. Over the course of the CATALI.5°T Initiative’s lifespan, the downside estimate – which is already, by design, conservative – is likely to be extremely conservative: CATALI.5°T Initiative mitigation impact is likely to be higher, and potentially substantially higher, than predicted by the downside estimate.

Figure 12: Downside Estimate (Yellow) Compared With Probabilistic Model Runs



172. Table 12 provides a complementary means of contextualising the downside estimate against the probabilistic simulations. It shows the value of the downside estimate as a percentile of the distribution of simulations. Thus, even in Year 1 the Latin American downside estimate is already in the top percentile: i.e. is amongst the highest of all mitigation estimates across the scenarios run. The West African central estimate shows a similar trajectory, starting in the 97th percentile in Year 1. The downside estimate of the programme’s mitigation impact is, in other words, very optimistic in the early years, compared with randomly-drawn alternative scenarios. However, after Year 5 the downside estimate becomes progressively smaller relative to alternative scenarios. By Year 10, both regions’ downside estimates are in the bottom third of impact estimates. By Year 20, the Latin American downside estimate is in the bottom 15% of impact estimates and the West African estimate is amongst the lowest 1% of estimates. Thus, over time the downside estimate can be said to become increasingly conservative, with confidence correspondingly high that the CATALI.5°T Initiative will significantly out-perform it.

Table 12: Comparing the Downside Estimate to Probabilistic Model Runs

Percentile of downside estimate to distribution of simulations								
	Year 1	Year 2	Year 3	Year 5	Year 7	Year 10	Year 15	Year 20
Latin America	100%	100%	100%	92%	63%	29%	18%	15%
West Africa	97%	100%	81%	69%	31%	26%	0%	0%

D.2. Paradigm shift potential

D.2.1 Potential for Scaling Up and Replication

173. The design of the CATALI.5°T Initiative is flexible and allows for scaling to additional regions, sub-regions or countries at a later stage. By developing two slightly different regional programmes – one for emerging markets (Latin America) and one for frontier markets (West Africa) – the CATALI.5°T Initiative will address different regional development stages and business climates. This approach will allow the CATALI.5°T Initiative model to be replicable in different markets:

- The emerging markets version will target ecosystems with an established VC scene and growing engagement of catalytic capital, but with limited dynamics in the climate solutions space and limited geographical diversity.
- The frontier markets version is designed for dynamic developing countries with enormous investment needs in home-grown or locally-adapted climate solutions and where traditional and impact VCs face an array of daunting barriers to investment.

As the CATALI.5°T Initiative will initially focus on two distinct regions, the lessons learned in these regions can inform similar interventions in emerging and frontier markets elsewhere.

D.2.2 Potential for Knowledge-Sharing and Learning

174. The CATALI.5°T Initiative's knowledge management plan is provided in Annex 23a. Providing new opportunities for the climate venture sector in Latin America and West Africa will generate important lessons to be used in successive climate venture sourcing, ideation, pre-acceleration and acceleration activities; in developing a stronger climate venture ecosystem in the regions; and boosting confidence in investments that are currently limited within the sector. Given the lack of resources currently focused on this sector in the regions, from both private and public sources, the CATALI.5°T Initiative will place considerable emphasis on: (i) collecting and sharing knowledge, and (ii) building tools, frameworks and capacities for stakeholders – e.g. pre-accelerators and accelerators in the context of assessing (and shaping) ventures' climate impact, and VC funds in the context of applying industry-standard ESG frameworks – to enable them to sustain and apply their learning long after the end of GCF involvement.

175. The CATALI.5°T Initiative will facilitate continuous exchange of knowledge and lessons learned amongst stakeholders within and between the regional programmes. All knowledge products, such as annual climate impact reports that collect and analyse data from actual venture cohorts, will be made available online, free of charge, in every participating country and globally, thereby facilitating widespread diffusion of knowledge. Through this feedback loop, learning from the CATALI.5°T Initiative's climate ventures' impacts can then be embedded into the way climate venture support programmes in Latin America, West Africa and beyond are designed and delivered.

176. Knowledge products to be created by the CATALI.5°T Initiative include (not exhaustive):

- Ideation and community-building. The CATALI.5°T Initiative will hold one climathon per year in each participating country, with delivery partners and entrepreneur participants inducted into the global Climathon Network to establish networking connections. Where possible, climathons will be held in October/November each year, in order to coincide with Climate-KIC's Global Climathon Week. Evaluation reports for each climathon will be produced in order to refine subsequent climathon design and to contribute to the overall learning agenda of the CATALI.5°T Initiative.

- Regional pre-acceleration programmes. Each climate venture participating in Phase 2 of the pre-acceleration programmes will benefit from an independently-validated in-depth climate assessment using the CIF tool (which will, itself, be updated and enhanced with CATALI.5°T Initiative support). This will provide an authoritative, quantitative and credible climate impact assessment that can be shared with VC funds and other potential investors, as well as informing CATALI.5°T Initiative M&E needs.
- Regional acceleration programmes. Each venture that is accepted into the acceleration programmes will co-develop a three-year Value Creation Plan. The Value Creation Plan will focus primarily on the tasks that need to be accomplished to make the venture fully investment-ready, including key strategic issues, fund-raising support, climate impact management and monitoring, recruitment of key personnel, reliable financial reporting, the implementation of good operational management practices (including E&S standards), etc. Each climate venture participating in the acceleration programmes will also benefit from an independently-validated in-depth climate assessment using the CIF tool.
- Climate gender entrepreneurship toolkits. There will be one gender climate entrepreneurship toolkit for 'enablers' (primarily the regional Executing Entities – Tec de Monterrey, Impact Hub Abidjan and IPED) and one toolkit for ventures. Both toolkits will have the same structure and will include:
 - The climate-gender business case – to explore why partners should incorporate gender.
 - Interventions checklist – to assess how well partners are doing on gender.
 - Metrics overview – to track gender metrics.
 - Climate acceleration / entrepreneurship examples – to see how others are doing it.
 - Action planning – to provide manageable steps to change over time.

The toolkits will be supported by bespoke gender-climate training modules (based on demand from partners) to zoom-in on specific topics and create a roadmap for programmatic changes and cross-partner learning. By creating more gender-inclusive pre-acceleration and acceleration programmes, the CATALI.5°T Initiative will be able to attract more diverse entrepreneurs and climate innovations. This inclusivity is likely to lead to a more diverse innovation and entrepreneur portfolio. Furthermore, if the regional Executing Entities are able to codify parameters around diversity, this will improve their ability to create, support and sustain diverse, fundable, high-impact climate ventures. Climate innovations will be lifted to a higher level, will come from a wider scope of innovation types and will reach a wider range of customers.

- ESG tools for pre-accelerators, accelerators and VC funds. The CATALI.5°T Initiative will develop a comprehensive, first-of-its-kind regional toolkit to equip pre-accelerators and accelerators (including the Executing Entities and local implementation partners) and regionally-active VCs with practical resources to start and sustain their ESG integration in a co-production effort. By co-developing the toolkits with expert input, the beneficiaries will not only 'learn by doing' but will automatically develop a stronger buy-in into the usage of 'their' tools moving forward. On the basis of discussions held with stakeholders during CATALI.5°T Initiative preparation, the regional toolkits are expected to include:
 - An ESG due diligence framework / questionnaire (DDQ): an ESG-aligned framework / questionnaire used by investors when making investment decisions to add to their regular commercial / market / legal due diligence. DDQs come in a short-form 'check list' questionnaire format and could be adapted for immediate use by the CATALI.5°T Initiative.
 - An ESG investment framework: a broader and longer ESG-focused framework (or long-list / universe of relevant issues) to be used by the pre-accelerator / accelerator teams (and, subsequently, other actors in the region) to work with the ventures admitted into the regional support programmes to identify and improve ESG gaps and areas for improvement.
 - An Internal Fund Management Framework: to help manage ESG within pre-accelerators, accelerators and VC funds by offering a tool / framework to record, measure and report ESG issues and the metrics that require adaptation. The Principles for Responsible Investing's (PRI) Reporting Framework (adapted mostly for buy-out/PE funds) will serve as a starting point and VentureESG is in the process of developing and releasing an internal fund management tool.
 - SASB-like materiality map: the SASB 'materiality map' is popular among investors in other asset classes to identify which ESG areas are relevant for a specific (portfolio / investee) company. In a recent white paper, KfW Capital made an attempt to extend this tool to the venture / start-up sector. Adapting the tool for Latin American and West African pre-accelerators, accelerators and VC firms will help them to zoom in on (financially) relevant ESG issues.

D.2.3 Contribution to the Creation of an Enabling Environment

177. The CATALI.5°T Initiative directly contributes to creating an enabling environment through its activities, notably:
- Activities 1.1.1 and 2.1.1: capacity-building of Executing Entities, local implementation partners, entrepreneur support organisations (ESOs) and venture investors.

- Activities 1.2.1 and 2.2.1: awareness-raising, ideation and programme marketing.
- Activities 1.3.1, 1.4.1, 2.3.1 and 2.4.1: capacity-building of pre-seed and seed-stage climate ventures.
- Component 3: Trans-regional advisory, capacity and knowledge support to climate entrepreneurship. This component will be divided into three strands, each contributing to a different element of the enabling environment: (i) Activity 3.1.1 on climate impact; (ii) Activity 3.1.2 on women's empowerment and diversity; and (iii) Activity 3.1.3 on environmental and social safeguards and governance.

178. The CATALI.5°T Initiative approach rests on the assumption that the supported climate ventures will have direct climate impacts (assured through a rigorous selection process and subsequent technical and financial support) and that the direct channel for this impact is for each venture to grow and successfully sell its products and/or services. This is a conservative approach to assessing beneficial CATALI.5°T Initiative impact, including its impact on the enabling environment, because secondary (indirect) impact channels are also anticipated. While a particular venture may not succeed: (i) its idea can be replicated by other companies; (ii) the venture founders can use the knowledge and networks gained through the CATALI.5°T Initiative to develop new climate ventures with greater impacts; and (iii) the enabling environment – and especially the awareness and capacities of ecosystem actors such as other climate entrepreneurs, pre-accelerators, accelerators and investors – is sufficiently strengthened, such that it enables additional climate innovation and investment activity outside the scope of the CATALI.5°T Initiative. While it is challenging to account for these secondary channels, this indirect contribution to the enabling environment is nonetheless considered an important aspect of the CATALI.5°T Initiative.

D.2.4 Contribution to the Regulatory Framework and Policies

179. Government actions to create or enhance markets for technologies that reduce GHG emissions are a critical element of the technological innovation process, and their absence will lead to innovation lag. Latin America and West Africa have already made some progress related to its venture ecosystems, both in terms of government policies and the emergence of venture support systems (e.g. Start-Up Acts in three of the target African countries), as well as in terms of attracting greater investment from VC funds. The CATALI.5°T Initiative builds on these positive developments by creating capacities, tools, regional networks and partnerships.
180. The CATALI.5°T Initiative is well-aligned with the policy context, notably (but by no means exclusively) in terms of supporting governments' climate policies, including their NDCs, and by supporting post-COVID recovery plans, which prioritise MSMEs as engines of economic growth and innovation. While the CATALI.5°T Initiative does not have a direct policy element, it is expected to provide positive examples that demonstrate the potential of climate ventures, as well as a more granular understanding of barriers and opportunities in the region. Case-studies and other knowledge products will be disseminated, with the aim of contributing to informed policy-making.

D.2.5 Contribution to Climate-Resilient Development Pathways

181. The CATALI.5°T Initiative is mitigation-focused. The objective is to reduce GHG emissions by identifying and supporting climate ventures that offer the greatest GHG abatement / avoidance potential. However, it is acknowledged that many low-emission products and services offer complementary adaptation benefits: for example, energy-efficient cooling as a response to warming temperatures, off-grid renewable energy solutions as a means of reducing households' reliance upon climate-vulnerable grid infrastructure, or sustainable agricultural practices that simultaneously reduce emissions and reduce exposure to climate-induced hazards (e.g. soil erosion, pests, desiccation, etc.). Consequently, in the assessment criteria that the CATALI.5°T Initiative uses to select climate ventures for pre-acceleration and acceleration support, the principal emphasis will be on mitigation potential, but ventures that offer additional adaptation co-benefits will be preferentially considered. Furthermore, the Executing Entities and other venture ecosystem stakeholders (e.g. other accelerators, VC firms) will be provided with capacity building on climate adaptation and resilience, to enable them to assess and support ventures' adaptation co-benefits (Sub-Activity 1.1.1.2 in Latin America and Sub-Activity 2.1.1.2 in West Africa).

D.3. Sustainable development

D.3.1 Sustainable Development Goals

182. The CATALI.5°T Initiative directly contributes to the following SDGs:
- SDG 5: Achieve gender equality and empower all women and girls: The CATALI.5°T Initiative will address barriers that women entrepreneurs face, including the cost of leaving the informal sector, limited knowledge

of available funding opportunities, a lack of women role models in business, and unequal access to educational and professional networks.

- SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: by promoting the development and sustained growth of climate ventures, accompanied by formalisation measures for these ventures, the CATALI.5°T Initiative will promote economic growth, technological and business innovation and job creation.
- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation: by increasing entrepreneurs' access to finance and supporting domestic technology development and innovation.
- SDG 10: Reduce inequality within and among countries: by ensuring equal opportunities and encouraging investment in Latin American and West African countries (including LDCs).
- SDG 13: Take urgent action to combat climate change and its impacts: through direct contribution to NDC targets and by building the regional knowledge base and capacity for climate change action. Adaptation co-benefits are also likely to be generated.
- SDG 17: Strengthen the means of implementation and revitalise the global partnership for sustainable development: by mobilising financial resources towards Latin America and West Africa, sharing knowledge for technology and innovation, promoting sustainable technologies and enhancing the capacity of countries to address the climate emergency.

183. Moreover, beneficiary climate ventures will generate further contributions to other SDGs. The expected sectoral breakdown of beneficiary ventures in the West African acceleration programme, for example, is expected to be (approximately): 40% energy access and power generation; 30% agriculture, forestry and land-use; 20% buildings, cities, industries and appliances; and 10% low-emission transport. Such ventures have the potential to contribute to the following SDGs:

- SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture: through ventures that focus on agritech, land-use monitoring systems, rural infrastructure and improved agricultural practices.
- SDG 6: Ensure availability and sustainable management of water and sanitation for all: through ventures that offer, for example, enhanced sanitation or water quality solutions that simultaneously reduce GHG emissions (e.g. through more efficient pumps or enhanced sewage treatment) and offer adaptation co-benefits (e.g. more efficient use of water).
- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all: through ventures that focus on energy efficiency, distributed renewable energy solutions or pay-as-you-go energy access models.
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable: through ventures that offer mobility solutions, waste management products or services, and alternative and sustainable building materials for inclusive and sustainable urbanisation.
- SDG 12: Ensure sustainable consumption and production patterns: through ventures that focus on smart manufacturing, alternative food sources, waste management, recycling, composting and resource efficiency.

D.3.2 Environmental Co-Benefits

184. Improved land-use and soil conservation practices: Ventures with significant impact on land use (e.g. through alternative fuels, more efficient agricultural processes, ecosystem restoration) will have a significant environmental impact going beyond decarbonisation.

Reduced water stress on regions with limited access to adequate water sources: by reducing water consumption and contamination in economic activities and improving access to safe drinking water and sanitation.

D.3.3 Social Co-Benefits

185. Improved livelihoods of customers through the provision of locally-relevant, low-emission climate solutions: the low-emission climate products and services created and sold by CATALI.5°T Initiative-supported ventures will provide their users with the opportunity to reduce their carbon footprints as well as improve their livelihoods. This could be because of energy savings, improved resource efficiency, reduced travel times or improved product reliability, depending on the nature of the climate solution.

Improved adaptive capacities of consumers: by deploying products and services that are climate-resilient and adaptive in sectors with strong impacts on livelihoods (e.g. agriculture, energy and transport).

D.3.4 Economic Co-Benefits

186. Private investment mobilised for climate ventures will strengthen the overall innovation ecosystem. This investment is key in a region like West Africa, for example, where one-fifth of the working-age population are starting businesses¹³² and in countries such as Senegal, where MSMEs represent nearly 90% of all companies and 30% of GDP.¹³³

Green job creation: The supported climate ventures will create jobs in a range of ‘green’ technologies and sectors. Moreover, the programme’s support to venture formalisation will help to ensure that these jobs are accompanied by other benefits: workplace insurance, health and safety, etc.

D.3.5 Gender-Sensitive Development Benefits

187. Women’s empowerment in climate entrepreneurship and broader climate action: Women are significantly under-represented among entrepreneurs and venture founders. The CATALI.5°T Initiative will put in place measures to actively source women-led ventures, will preferentially score women-led ventures during the selection processes for the pre-acceleration and acceleration programmes, will equip all supported ventures – as well as other ecosystem actors, including pre-accelerators, accelerators and VC funds – with tools and frameworks to strengthen gender aspects of their operations, and will build mentoring and support networks to encourage and guide women climate entrepreneurs.

D.4. Needs of recipient

D.4.1 Climate Risk and Vulnerability

Latin America

188. The IPCC identifies the following key regional changes to the climate:¹³⁴

- Temperatures: mean temperatures have increased across the region and will continue to increase at rates greater than the global average. 2020 was the second-hottest year on record for Latin America after 2014.¹³⁵ Andean glaciers shrank by nearly one-third between 2000-2016, melting faster than in any other mountainous region of the world.¹³⁶ This has resulted in the loss of a major source of freshwater for consumption, irrigation and hydropower. Marine heat waves are also predicted to increase, which threaten the region’s fishing and tourism industries.
- Precipitation: mean precipitation is projected to change, with shifting patterns of rainfall, increases in precipitation in north-west and south-east South America, and decreases in north-east and south-west South America. Heat extremes and changing precipitation patterns will impact cities, agricultural productivity, hydrological regimes and biodiversity.
- Sea level: relative sea-level rise is extremely likely to continue in the oceans around Central and South America, contributing to increased coastal flooding in low-lying areas and shoreline retreat along most sandy coasts. The large coastal Latin American population (60% of Latin America’s population reside in coastal urban centres¹³⁷) is additionally threatened by contamination of freshwater aquifers and the increasing risk of storm surges. By 2050, coastal flooding due to sea-level rise could generate approximately US\$ 940 million-1.2 billion of mean annual losses for the region’s 22 largest coastal cities.¹³⁸
- Extreme climate events: Latin America has been experiencing increasing climate variability and extremes due to climate change, with climate change-related disasters increasing in frequency and intensity. On average, approximately 1.7 % of GDP is lost each year due to climate related disasters.¹³⁹ According to the

¹³² fDi Intelligence (2021), *African Tech Ecosystems of the Future 2021/22*: <https://www.fdiintelligence.com/content/download/79718/2609471/file/African%20Tech%20Ecosystems%20of%20the%20Future%202021.pdf>

¹³³ Republic of Senegal (2014), *Plan for an Emerging Senegal*: <https://www.presidence.sn/en/pse/emerging-senegal>

¹³⁴ IPCC (2021), *Regional Fact Sheet: Central and South America – Sixth Assessment Report of Working Group 1: The Physical Science Basis*: https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Central_and_South_America.pdf

¹³⁵ NOAA (2021), *State of the Climate: Global Climate Report – Annual 2020*: <https://www.ncdc.noaa.gov/sotc/global/202013>

¹³⁶ Seehaus et al. (2019), ‘Changes of the tropical glaciers throughout Peru between 2000 and 2016 – mass balance and area fluctuations’, *The Cryosphere*, 13: <https://doi.org/10.5194/tc-13-2537-2019>

¹³⁷ IADB (2020), *Inmigrando: Fortalecer Ciudades Destino*: <http://dx.doi.org/10.18235/0002267>

¹³⁸ Reyer et al. (2015), ‘Climate change impacts in Latin America and the Caribbean and their implications for development’, *Regional Environmental Change*, 17: <https://link.springer.com/article/10.1007/s10113-015-0854-6>

¹³⁹ Global Centre on Adaptation (2021), *A Green and Resilient Recovery for Latin America*: <http://gca.org/wp-content/uploads/2021/01/Green-and-Resilient-Recovery-for-LAC-Jan-2021-.pdf>

IPCC, over 600 extreme climate events occurred between 2000 and 2019.¹⁴⁰ These events included typhoons and hurricanes, thunderstorms, hailstorms, tornados, blizzards, heavy snowfall, avalanches, coastal storm surges, floods, flash floods, drought, heatwaves and cold spells. This has resulted in the displacement of people, numerous fatalities and significant economic losses.¹⁴¹ The hurricane season of 2020 was unprecedented, with two major hurricanes hitting Central America in less than two weeks, causing tens of billions of dollars in damage to homes, power lines and workplaces during a time of overlapping economic and social crises.¹⁴² Amazonia, the North-East of Brazil, Central America, the Caribbean and some parts of Mexico will likely see increased drought conditions. More frequent extreme droughts in the Amazon are of concern, as it could push the region to a 'tipping point', increasing the likelihood of a large-scale dieback of the Amazon Forest.¹⁴³

189. Physical and biophysical climate change impacts will challenge human livelihoods. Climate change will, *inter alia*, reduce agricultural yields, livestock and fisheries, increase water and food insecurity, threaten terrestrial biodiversity following species range shifts and further degrade the Amazon rainforest.¹⁴⁴ Human health, coastal infrastructures and energy systems are also likely to be negatively affected. Climate change is predicted to push 3 million people a year into extreme poverty by 2030.¹⁴⁵ Annex 2b provides details of individual countries' climate risks and adaptation capabilities.

West Africa

190. West Africa is considered one of the most vulnerable regions to climate change.¹⁴⁶ Increasing temperatures, shifting rainfall patterns and sea-level rise are already affecting livelihoods, food security, and economic and governance stability. Extreme climate variability since the 1970s has resulted in agricultural losses, recurrent food crises, water scarcity, extreme flooding and environmental degradation.¹⁴⁷ Climate change vulnerability in the region is compounded by a high dependence on rain-fed agriculture, high population growth, widespread poverty and limited access to safe water and sanitation.

191. Annex 2c provides details of historical and future climate change, as well as individual countries' climate risks and adaptation capabilities. In summary:

- **Temperatures:** A warming trend has been observed over the whole of sub-Saharan Africa since the 1960s; this is more rapid than the global average and includes an increase in the number of warm spells in West Africa.¹⁴⁸ Historical data suggest a rate of temperature increase of 2.3°C (1950-2018) and 3.9°C (1990-2018) per century.¹⁴⁹ Countries including Côte d'Ivoire, Guinea and Senegal have experienced the most significant warming signals, ranging from 0.2°C to more than 0.5°C per decade.¹⁵⁰ 2019 was the third-warmest year on record.¹⁵¹ Temperatures in the region are expected to increase nearly by 1°C over the next 20 years, 2.1°C by 2065 and 4.0°C by the end of the century.¹⁵² By 2050, temperature increases are expected to reach +1.6-2.9°C in Niger, Burkina Faso and Mali, +1.4-2.5°C in Senegal and +1.3-2.3°C in

¹⁴⁰ IPCC (2022), *Climate Change 2022: Impacts, Adaptation and Vulnerability*: https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_FullReport.pdf

¹⁴¹ WWF (2021), *Climate Change Impacts in Latin America*: https://www.wwfca.org/en/our_work/climate_change_and_energy/climate_change_impacts_la/

¹⁴² World Bank (2021), *10 Key Points on Climate Change Impacts, Opportunities and Priorities for Latin America and the Caribbean*: <https://blogs.worldbank.org/latinamerica/10-key-points-climate-change-impacts-opportunities-and-priorities-latin-america-and>

¹⁴³ WWF (2021), *Climate Change Impacts in Latin America*: https://www.wwfca.org/en/our_work/climate_change_and_energy/climate_change_impacts_la/

¹⁴⁴ Reyer et al. (2015), 'Climate change impacts in Latin America and the Caribbean and their implications for development', *Regional Environmental Change*, 17: <https://link.springer.com/article/10.1007/s10113-015-0854-6>

¹⁴⁵ World Bank (2021), *Promoting Climate Change Action in Latin America and the Caribbean: Results Briefs*:

<https://www.worldbank.org/en/results/2021/04/14/promoting-climate-change-action-in-latin-america-and-the-caribbean>

¹⁴⁶ USAID (2018), *Climate Risks in West Africa: Regional Risk Profile*: https://reliefweb.int/sites/reliefweb.int/files/resources/West_Africa_CRP_Final.pdf

¹⁴⁷ WMO (2021), *State of the Climate in Africa 2020*: https://library.wmo.int/doc_num.php?explnum_id=10929

¹⁴⁸ World Bank (2021), *Climate Change Knowledge Portal: Western and Central Africa*: <https://climateknowledgeportal.worldbank.org/region/africa-western-and-central/>

¹⁴⁹ Sylla M. et al. (2016), 'Climate change over West Africa: recent trends and future projections', in Yaro J. and Hesselberg J. (eds.), *Adaptation to Climate Change and Variability in Rural West Africa*: https://www.researchgate.net/publication/301338612_Climate_Change_over_West_Africa_Recent_Trends_and_Future_Projections

¹⁵⁰ Sylla M. et al (2016), 'Climate change over West Africa: recent trends and future projections', in Yaro J. and Hesselberg J. (eds.), *Adaptation to Climate Change and Variability in Rural West Africa*: https://www.researchgate.net/publication/301338612_Climate_Change_over_West_Africa_Recent_Trends_and_Future_Projections

¹⁵¹ WMO (2021), *State of the Climate in Africa 2020*: https://library.wmo.int/doc_num.php?explnum_id=10929

¹⁵² IISD (2015), *Climate Change and State Fragility in the Sahel*: <https://www.iisd.org/system/files/publications/climate-change-and-state-fragility-in-the-sahel-fride.pdf>

Côte d'Ivoire, Togo and Benin.¹⁵³ This will be accompanied by the increased occurrence and duration of heat waves (+6-28 days) and hot days and nights. By the end of the century, under RCP 8.5, tropical West Africa is expected to experience warm nights 95% of the time. The area of arid regions is projected to grow by 10% under RCP 8.5 by 2080-2100, relative to 1986-2005.¹⁵⁴

- **Precipitation:** West Africa has experienced a shift in rainfall patterns and increased variability, with marked periods of decadal rainfall variability shifting toward inter-annual fluctuations. There has been an overall reduction in mean annual rainfall, but more intense summer monsoon rainfall. Rainfall has reduced in Senegal, Burkina Faso, Mali and Côte d'Ivoire – by -6%, -4%, -4% and -3% per 30 years, respectively – but there has been no discernible change in Niger, Togo or Benin.¹⁵⁵ Projected rainfall patterns are still uncertain, with annual rainfall projected to reduce in the Western Sahel sub-region and increase along the Guinea Coast sub-region, accompanied by a likely delay in the onset of the spring rainy season.¹⁵⁶
- **Sea level:** West Africa is experiencing sea-level rise and coastal erosion, with implications for coastal populations, coastal aquifers, fisheries and agriculture. For example, Togo's GDP decreased by over 2% in one year because of coastal degradation and erosion.¹⁵⁷ By 2081-2100, relative to 1850-1900, the sea level is expected to rise by an average of 48 cm and to result in: i) accelerated coastal erosion; ii) flooding of low-lying areas; iii) increased elevation of storm surges, as frequency and intensity of storms increases; iv) salinisation of soil and water; v) degradation and modification of ecosystems; vi) changes in groundwater levels; vii) infrastructure losses; viii) involuntary migration; ix) reduced economic activity; and x) increased health risks.¹⁵⁸ Over the same time period, ocean surface pH and temperature changes are expected to increase acidity and surface temperatures by 0.6-2°C and result in changes to the marine and estuarine habitat, causing altered plant and animal species distribution and survival.¹⁵⁹
- **Extreme climate events:** Extreme precipitation is becoming more frequent and intense, with the proportion of rainfall from heavy rainfall events increasing from 17% (1970-1990) to 21% (2001-2010) in the Sahel.¹⁶⁰ Climate models project a range of different trends in annual rainfall, but it is generally understood that heavy rainfall events will occur with increased frequency (+1-43% by 2050) and intensity (+1-12%) over the region.¹⁶¹ Countries including Senegal, Côte d'Ivoire, Benin and Togo are projected to experience more intense future rainfall increase, while other countries, including Mali, Burkina Faso and Niger, will undergo more moderate intensity increases.¹⁶² These heavy precipitation events will threaten widespread flood occurrences, particularly around the monsoon season.¹⁶³

192. By 2100, the combined effect of extreme rainfall patterns, increased temperatures and increased frequency of hot extremes is expected to result in changes to water resources, leading to issues such as water scarcity, land degradation, reduced agricultural production, population displacement and potential conflict between humans, sectors and countries. Reductions are projected in per capita food availability as median crop yields fall by 0-2% per decade, while demand for crops is expected to increase by 14% per decade until mid-century.¹⁶⁴

¹⁵³ USAID (2018), *Climate Risks in West Africa: Regional Risk Profile*: https://reliefweb.int/sites/reliefweb.int/files/resources/West_Africa_CRP_Final.pdf

¹⁵⁴ World Bank (2021), *Climate Change Knowledge Portal: Western and Central Africa*: <https://climateknowledgeportal.worldbank.org/region/africa-western-and-central/>

¹⁵⁵ USAID (2018), *Climate Risks in West Africa: Regional Risk Profile*: https://reliefweb.int/sites/reliefweb.int/files/resources/West_Africa_CRP_Final.pdf

¹⁵⁶ IPCC (2022), *Climate Change 2022: Impacts, Adaptation and Vulnerability*: https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_FullReport.pdf

¹⁵⁷ World Bank (2021), *Climate Risk Country Profile: Togo*: https://reliefweb.int/sites/reliefweb.int/files/resources/15859-WB_Togo%20Country%20Profile-WEB.pdf

¹⁵⁸ Nyadzi E. et al (2021), 'Taking stock of climate change induced sea level rise across the West African coast', *Environmental Claims Journal*, 33: <https://www.tandfonline.com/doi/pdf/10.1080/10406026.2020.1847873?needAccess=true>

¹⁵⁹ Crespo L. et al (2018), 'The role of sea surface temperature in the atmospheric seasonal cycle of the equatorial Atlantic', *Climate Dynamics*, 52: <https://link.springer.com/content/pdf/10.1007/s00382-018-4489-4.pdf>

¹⁶⁰ USAID (2018), *Climate Risks in West Africa: Regional Risk Profile*: https://reliefweb.int/sites/reliefweb.int/files/resources/West_Africa_CRP_Final.pdf

¹⁶¹ Vizy E. and Cook K. (2022), 'Distribution of extreme rainfall events and their environmental controls in the West African Sahel and Sudan', *Climate Dynamics*, 58: <https://link.springer.com/article/10.1007/s00382-022-06171-x>

¹⁶² Sylla M. et al. (2016), 'Climate change over West Africa: recent trends and future projections', in Yaro J. and Hesselberg J. (eds.), *Adaptation to Climate Change and Variability in Rural West Africa*: https://www.researchgate.net/publication/301338612_Climate_Change_over_West_Africa_Recent_Trends_and_Future_Projections

¹⁶³ Wagner S. et al (2021), 'When does flood risk become residual? A systematic review of research on flood risk management in West Africa', *Regional Environmental Change*, 21: <https://link.springer.com/content/pdf/10.1007/s10113-021-01826-7.pdf>

¹⁶⁴ IPCC (2022), *Climate Change 2022: Impacts, Adaptation and Vulnerability*: https://report.ipcc.ch/ar6wg2/pdf/IPCC_AR6_WGII_FinalDraft_FullReport.pdf

D.4.2 Financing Needs

Latin America

193. Annex 2b provides a comprehensive overview of the economic, financial and post-COVID contexts in Latin America. Overall, the region has seen steady socio-economic progress over the past two decades. Most countries in the region have significantly increased their GDP and have become more integrated into the global economy. The region's GDP at purchasing power parity (PPP) amounts to US\$ 6.1 trillion, with a median GDP per capita of US\$ 5,710, making it a low-income region.¹⁶⁵ Only Chile, Costa Rica, Panama and Uruguay have a median GDP per capita over US\$ 10,000. Two of the region's economies, Brazil and Mexico, are among the largest economies in the world and have historically been the economic powerhouses of the region.
194. Social inequality is a notable characteristic of the region. Poverty is mostly concentrated in rural areas, where 49% of the population is poor and 23% is extremely poor.¹⁶⁶ Furthermore, despite consistent food production surpluses, millions of Latin Americans regularly go hungry or suffer from malnutrition: the share of the region's population suffering from undernourishment exceeds 10% in seven countries.¹⁶⁷
195. The COVID-19 pandemic caused an economic contraction of 7.7% in 2020, followed by positive growth of 3.7% in 2021. UN-ECLAC expects that a full recovery will not take place until 2024; in the meantime, the pandemic has deepened the region's social and economic inequalities.¹⁶⁸ Given the limited financial resources of many countries in the region, only six have dedicated more than 0.1% of their GDP to recovery spending. Furthermore, an analysis of over 1,100 policies shows that approximately 77% of the region's total recovery spending has been allocated to rescue measures addressing short-term threats and saving lives, while only 16% has focused on long-term recovery plans to revitalise the economy.¹⁶⁹ While enterprises of all sizes faced economic hardship during COVID-19, MSMEs were hit harder than larger firms. Support for MSMEs has been an important element of governments' economic relief strategies, including deferred payments, facilitating access to credit and offering grants or subsidies. However, due to their constrained fiscal space, many Latin American governments have faced challenges in providing adequate support to MSMEs.¹⁷⁰
196. The largest Latin American banks are headquartered in four countries: Brazil, Mexico, Colombia and Chile. The five largest banks, according to asset size, are all in Brazil. The formal financial system is characterised by: i) low and unequal access by households and MSMEs; and ii) a limited number of instruments and mechanisms for supplying finance to productive agents.¹⁷¹ Corporate lending in Latin America indicates that there is still a significant financing gap. Domestic credit to the private sector is only 47.4% across Latin America and the Caribbean, compared with 198.9% in the US. There is significant variation across Latin American countries, with Argentina posting the lowest percentage (16%) and Chile the highest (112%).¹⁷² The situation is particularly difficult for Latin American MSMEs. Total credit demand from MSMEs in Latin America and the Caribbean is US\$ 2.15 trillion, while total supply of funding from financial institutions is US\$ 347 billion (2017). This US\$ 1.8 trillion funding gap is equivalent to 41.7% of regional GDP or 5.2 times the current supply of credit to MSMEs.¹⁷³

¹⁶⁵ World Bank (2022), DataBank: Latin America and Caribbean: <https://data.worldbank.org/country/ZJ>

¹⁶⁶ FAO (2021), *Towards Sustainable and Resilient Agriculture in Latin America and the Caribbean: Analysis of Seven Successful Transformation Pathways*: <https://www.fao.org/americas/priorities/sustainable-and-resilient-agriculture/panorama-2021/en/>

¹⁶⁷ World Bank (2020), *Future Foodscapes: Re-imagining Agriculture in Latin America and the Caribbean*: <https://openknowledge.worldbank.org/bitstream/handle/10986/34812/Future-Foodscapes-Re-imagining-Agriculture-in-Latin-America-and-the-Caribbean.pdf?sequence=1&isAllowed=y>

¹⁶⁸ UN-ECLAC (2021), *Social Panorama of Latin America 2021*: https://repositorio.cepal.org/bitstream/handle/11362/47719/1/S2100654_en.pdf

¹⁶⁹ Global Recovery Observatory (2021), *Are We Building Back Better? Evidence from 2020 and Pathways to Inclusive Green Recovery Spending*: <https://wedocs.unep.org/bitstream/handle/20.500.11822/35281/AWBBS.pdf>

¹⁷⁰ UNDP (2021), *Small Businesses, Big Impacts: Supporting Productive SMEs as an Engine of Recovery in LAC*: <https://www.latinamerica.undp.org/content/rblac/en/home/presscenter/director-s-graph-for-thought/small-businesses--big-impacts--supporting-productive-smes-as-an.html>

¹⁷¹ ECLAC (2018), *Financial Inclusion of SMEs and Development Bank Financial Innovation Policies*: <https://www.cepal.org/en/inclusion-financiera-pymes/background>

¹⁷² World Bank (2021), *Global Financial Development Database*: <https://the-docs.worldbank.org/en/doc/92631f5aa8ecaed440d9b2e0ab8810e7-0050062021/original/Global-Financial-Development-Database-11-1-2021.xlsx>

¹⁷³ IADB (2020), *MSME Financing Instruments in Latin America and the Caribbean During COVID-19*: <https://publications.iadb.org/publications/english/document/MSME-Financing-Instruments-in-Latin-America-and-the-Caribbean-During-COVID-19.pdf>

West Africa

197. Annex 2c provides a comprehensive overview of the economic, financial and post-COVID contexts in West Africa. The majority of the population and economic activity – 85% and 93%, respectively – in the Economic Community of West African States (ECOWAS) member states¹⁷⁴ is concentrated in the 12 coastal countries, representing less than half of the total ECOWAS land area.¹⁷⁵ Nigeria alone accounts for over 62% of regional GDP, followed by Ghana at ~10%. While average GDP per capita stands at ~US\$ 5,100 (purchasing power parity), the average for the French-speaking countries of the West African Economic and Monetary Union (WAEMU) is ~US\$ 2,700.¹⁷⁶
198. Six of the ten fastest-growing economies in Africa are in West Africa, and Côte d'Ivoire and Senegal are among the ten fastest-growing economies in the world.¹⁷⁷ Although West Africa has experienced significant economic growth in recent decades, which has to some extent been reflected in an associated reduction in poverty, levels of inequality in West African countries are unprecedented and rising.¹⁷⁸ Crops and livestock form the basis for about 60% of livelihoods and 35% of GDP regionally.¹⁷⁹ However, with declining agricultural sectors and limited manufacturing sectors, most West African economies are commodity-dependent and service sector-led.¹⁸⁰
199. Of the 8 WAEMU states, Côte d'Ivoire is considered a middle-income country, while Benin, Burkina Faso, Guinea, Mali, Niger, Senegal and Togo are all considered least developed countries (LDCs).¹⁸¹ French-speaking West African countries are among the lowest-ranking countries on the UN Human Development Index, ranging in rankings from 157 to 189 out of 189.¹⁸²
200. Due to the COVID-19 pandemic, GDP in West Africa contracted by 1.5% in 2020 – a relatively limited fall relative to other regions in the world, but nonetheless markedly different from the 3.5% growth in 2018-2019 and the 4% growth rate forecast before the pandemic.¹⁸³ A number of countries with less strict lockdowns experienced mild, positive growth, including Benin (2.3%), Côte d'Ivoire (1.8%) and Niger (1.2%).¹⁸⁴ COVID-19 has highlighted the weaknesses of West African economies, particularly for vulnerable groups such as women, young people and informal workers: in 2020, the socioeconomic impacts of the COVID-19 pandemic doubled the number of food-insecure people in the region to 43 million.¹⁸⁵ Fourteen West African countries are planning to reduce national budgets by a combined US\$ 26.8 billion by 2026 in order to partly address the loss of ~US\$ 49 billion in 2020 due to the pandemic.¹⁸⁶
201. The financial sector in WAEMU countries is markedly underdeveloped.¹⁸⁷ Official statistics on domestic credit to the private sector as a percentage of GDP show that credit availability in francophone West African countries is significantly constrained: domestic bank credit to the private sector is 21% of GDP on average in francophone West Africa, compared with 27% in sub-Saharan Africa – which is, by itself, already much lower than the global average of 99%.¹⁸⁸ SMEs, in particular, struggle to attract bank lending. As noted by the World Bank, “access to financial services remains one of the most acute constraints for SMEs in West Africa. Due to their smaller size, limited experience and undocumented performance, SMEs can be very risky to lenders – especially when they

¹⁷⁴ ECOWAS comprises 15 member states – Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo – and is mandated to promote economic integration in the region.

¹⁷⁵ <https://countryeconomy.com/countries/groups/economic-community-west-african-states>

¹⁷⁶ IMF (2021), *West African Economic and Monetary Union: Staff Report on Common Policies for Member Countries*: <https://www.imf.org/-/media/Files/Publications/CR/2021/English/1WAUEA2021001.ashx>

¹⁷⁷ Coulibaly B. (2019), *Reconciling Financing Needs and Debt Levels*: https://www.brookings.edu/wp-content/uploads/2019/01/BLS18234_BRO_book_006.1_CH2.pdf

¹⁷⁸ Oxfam (2019), *The West Africa Inequality Crisis: How West African Governments Are Failing to Reduce Inequality and What Should be Done About It*: <https://oxfamlibrary.openrepository.com/bitstream/10546/620837/1/bp-west-africa-inequality-crisis-090719-en.pdf>

¹⁷⁹ USAID (2018), *Climate Risks in West Africa: Regional Risk Profile*: https://reliefweb.int/sites/reliefweb.int/files/resources/West_Africa_CRP_Final.pdf

¹⁸⁰ AfDB (2021), *West Africa Economic Outlook 2021*: <https://www.afdb.org/en/documents/west-africa-economic-outlook-2021>

¹⁸¹ UNCTAD (2021), *The Least Developed Countries Report 2021*: https://unctad.org/system/files/official-document/lcd2021_en.pdf

¹⁸² <https://hdr.undp.org/en/content/latest-human-development-index-ranking>

¹⁸³ AfDB (2021), *West Africa Economic Outlook 2021*: <https://www.afdb.org/en/documents/west-africa-economic-outlook-2021>

¹⁸⁴ African Development Bank Group. 2020. Annual Report 2020.

¹⁸⁵ UN News (2020), *Food Insecurity in West Africa Could Leave 43 Million At Risk as Coronavirus Hits*: [https://news.un.org/en/story/2020/05/1063232#:~:text=Well%20over%2040%20million%20people,\(WFP\)%20said%20on%20Tuesday](https://news.un.org/en/story/2020/05/1063232#:~:text=Well%20over%2040%20million%20people,(WFP)%20said%20on%20Tuesday)

¹⁸⁶ Oxfam International (2021), *COVID-19 Recovery in West Africa is “Austerity on Steroids” and Sets the Region on a Destructive Path Ahead*: <https://www.oxfam.org/en/press-releases/covid-19-recovery-west-africa-austerity-steroids-and-sets-region-destructive-path>

¹⁸⁷ Illy O. and Ouedraogo S. (2020), *Developing Countries Navigating Global Banking Standards: WAEMU*: <https://www.geg.ox.ac.uk/project/waemu>

¹⁸⁸ World Bank (2022), *DataBank: Domestic Credit to Private Sector*: https://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS?name_desc=false&view=chart

operate in fragile markets or more challenging environments.”¹⁸⁹ Only 34% of the trade finance assets of African banks are dedicated to SMEs, despite SMEs representing 90% of businesses and 80% of employment on the continent.¹⁹⁰

202. Furthermore, francophone West Africa has a relatively simple financial system in which banks are essentially the sole providers of credit to the private sector. WAEMU has its own stock exchange, the Bourse Régionale des Valeurs Mobilières (BRVM).¹⁹¹ 58 companies are listed on the BRVM, for a total market capitalisation of US\$ 10.5 billion (local currency equivalent) at the end of 2021.¹⁹² The vast majority of companies listed on BRVM are banks, former state-owned enterprises or local subsidiaries of large multinationals such as Nestle and Unilever. Free floats and trading volumes are limited, as is the institutional investor base that holds and trades stocks. A few bonds are also listed on the BRVM, but all the issuers are WAEMU sovereigns. No corporate bonds are listed, emphasising the point that banks are effectively the sole providers of credit to the private sector in the region.

D.5. Country ownership

D.5.1 Alignment with Climate Policies

203. The CATALI.5°T Initiative is aligned with NDCs, national climate policies and strategies, National Communications to the UNFCCC, Technology Needs Assessments and National Adaptation Plans (see Section B.1.3 and Annexes 2b and 2c).

D.5.2 Engagement with Stakeholders During CATALI.5°T Initiative Preparation

204. A number of workstreams have informed the design of the CATALI.5°T Initiative, including a scoping assessment study (Annex 2a), two regional feasibility studies (Annexes 2b and 2c), two regional VC finance assessments (Annexes 3c and 3d), an ESS assessment (Annex 6a) and a gender assessment (Annex 8a).
205. All of these studies incorporated extensive stakeholder consultations, at global, regional and national levels, spanning a diverse range of stakeholders, including ventures and SMEs; entrepreneur support organisations (such as pre-accelerators and accelerators); VC funds and other sources of finance (angel investors, banks, micro-credit institutions, impact funds, philanthropic foundations); ministries of finance, industry, environment and gender, as well as parastatal bodies; CSOs, including educational / research organisations and environmental and gender-based NGOs; and multilateral / donor organisations and baseline projects. These consultations were augmented by extensive dialogue with NDAs and by validation workshops in December 2021: for Latin America, an in-person workshop in Mexico City and a regional virtual workshop, and for West Africa, an in-person workshop in Abidjan and a regional virtual workshop. Full details of meetings, interviews and workshops held, including the names and institutional affiliations of stakeholders, are provided in Annex 7. A summary is provided below in Table 13.
206. Consultations with venture founders were useful, in particular, for understanding what activities could be financed by the grants and the repayable grants, and what could be potential impacts (climate, business, E&S, gender, co-benefits, etc.) of small enterprises at their early development stages. Consultations held in West Africa, in particular, were very useful in understanding the challenges of informal labour. The consultations with pre-accelerators, accelerators, and investors served to assess their own needs (climate knowledge and mitigation impact assessment, ESG frameworks, E&S management principles, etc.), as well as those of the ventures they support and finance. Ongoing consultations were held throughout the programme development process with the Executing Entities – Climate-KIC, Tec de Monterrey, Impact Hub Abidjan and IPED – to validate the barrier analysis, theory of change, ESMF, gender assessment, paradigm shift and other aspects of the CATALI.5°T Initiative.

¹⁸⁹ World Bank (2021), *Jumpstarting Small and Medium-Sized Businesses in West Africa*: <https://www.worldbank.org/en/news/feature/2021/07/07/jumpstarting-small-and-medium-sized-businesses-in-west-africa>

¹⁹⁰ AfDB (2021), *SMEs and Trade Finance in Africa*: https://www.mfw4a.org/sites/default/files/resources/aeb_vol_12_issue_11_smes_and_trade_finance_in_africa_brief.pdf

¹⁹¹ Guinea and Mauritania do not have a stock exchange.

¹⁹² BRVM website: <https://www.brvm.org/fr>

Table 13: Stakeholder Consultations Undertaken During CATALI.5°T Initiative Preparation

Stakeholder-Type	Stakeholder ¹⁹³	
<i>Latin America</i>		
Multilateral projects and international organisations	Agence Française de Développement (AFD) (global) Antired (Argentina) Climate Launchpad (global) European Union Commission's Directorate-General for International Partnerships (DG INTPA) (global) FELICITY programme (Brazil, Ecuador, Mexico) Inter-American Development Bank Lab (regional) KfW Development Bank (global) Lightsmith Group – Adaptation SME Acceleration Programme (global) Mission Innovation (global) Pegasus Capital Advisors CRAFT – Catalytic Capital for First Private Investment Fund for Adaptation Technologies in Developing Countries (global) South Pole (global) UNFCCC Secretariat (global) UNIDO – Global Cleantech Innovation Programme (global) Young Leaders of the Americas Initiative (YLAI) (regional)	
Public entities	Ministry for Economy (Mexico) Profonanpe (Peru) Programa ProInnovate (Peru) NDAs of all CATALI.5°T Initiative countries (and, through the NDAs, relevant line ministries)	
NGOs	Agora (regional) Bayer Foundation (global) Circular Influence (global) Cleantech Hub (regional) Climate-KIC (global)	
Universities	Anahuac University (Mexico) Tec de Monterrey (Mexico) UNAM University (Mexico) Universidad Tecnológica de Tehuacán (Mexico) University of Cambridge (global)	
Investors / finance	Andes Impact Partners (Peru) Angel Ventures (Peru) Dalus Capital (regional) Impacto Capital (Ecuador)	
Ventures and Entrepreneur Support Organisations (ESOs)	<u>Ventures</u> Alimentarte (Ecuador) Ambient (Mexico) Artigiano (Mexico) Bicho (Mexico) Blue Energy (Mexico) Carbon Fraction (Mexico) Centro Empresarial El Champal SAC (Peru) Clair (Mexico) Cultivo (Mexico) G2E (Mexico) Genes Peru (Peru) Grupo Promesa (Mexico) ImaGeau (global) Innpackia (Colombia) J3M Global (Ecuador) Light Up The World (Peru) Muebles La Tabla (Mexico) Nimbus (Mexico) Semilla Pof (Ecuador) Trading Solutions (Ecuador) UTEC Venture (Peru) Verdecandade SE (Ecuador) Vertmonde (Ecuador) Waykana (Ecuador)	<u>ESOs</u> Aspen Network of Development Entrepreneurs (ANDE) (global) Bictia (regional) Cleantech Challenge (Mexico) Cleartech Hub (Colombia) Disruptivo (regional) Gender Smart (global) Impacto Consulting (regional) INCmty (Mexico) Kaya Impacto (Colombia and regional) Lucha Startup Studio (Peru) Makesense (Mexico, Peru) PFAN (global) SVX (regional) Value for Women (global)

	Whole Forest (Ecuador) Yakupura (Ecuador)	
<i>West Africa</i>		
Multilateral projects and international organisations	Water and Energy for Food (WE4F) – West Africa Regional Innovation Hub (regional)	
Public entities	ADEPME (Senegal) Advisor to the Prime Minister for Innovation (Côte d'Ivoire) Agence Côte d'Ivoire PME (Côte d'Ivoire) Délégation de l'Entreprenariat Rapide (Senegal) NDAs of all CATALI.5°T Initiative countries (and, through the NDAs, relevant line ministries)	
NGOs	AfricInnov (regional) Impactum (regional) Reach for Change (Senegal)	
Investors / finance	Brightmore Capital (regional) Comoé Capital (regional) FONSIS (Senegal) Investisseurs & Partenaires (regional) SEPHIS Foundation (Côte d'Ivoire) Sinergi (Burkina Faso)	
Ventures and Entrepreneur Support Organisations (ESOs)	<u>Ventures</u> CIPMEN (Niger) Corail Immobilier (Côte d'Ivoire) Donilab (Mali) Ecoenvie (Côte d'Ivoire) Ecoplast INNOV (Côte d'Ivoire) Eveil En Forêt (Côte d'Ivoire) FabLab Network (regional) Ferme Permacole (Côte d'Ivoire) Green Agro Valley (Côte d'Ivoire) Green Skills Africa (Côte d'Ivoire) Hygiène Solution (Niger) La Fabrique (Burkina Faso) Lono (Côte d'Ivoire) Nowelli (Senegal) Tiamanline (Côte d'Ivoire)	<u>ESOs</u> Afric'Innov (regional) Catalystas (Côte d'Ivoire) Impact Hub Abidjan (regional) Impact Hub Dakar (Senegal) Incub'Ivoire (Côte d'Ivoire) Makesense (Burkina Faso, Côte d'Ivoire, Senegal)

D.5.3 Engagement with Stakeholders During CATALI.5°T Initiative Implementation

207. The Global Advisory Committee (GAC) will be responsible for providing strategic direction to the CATALI.5°T Initiative (see Component 4, Section B.3.1). The GAC will consist of the Executing Entities: GIZ, Climate-KIC, Tec de Monterrey, Impact Hub Abidjan and IPED. The GAC will meet twice a year and, additionally, on an ad hoc basis, as required. During implementation of the CATALI.5°T Initiative, the GAC will periodically invite: (i) the NDAs of participating countries, (ii) representatives from the VC industry and from the international pre-accelerator / accelerator community; and (iii) other stakeholders – such as academia, NGOs, public sector institutions and development partners – in order to ensure full engagement and coordination with stakeholders.

ESS Stakeholder Engagement Plan (SEP) for CATALI.5°T Initiative implementation

208. The stakeholder engagement plan during CATALI.5°T Initiative implementation has four dimensions:

- At global level, GIZ and Climate-KIC will regularly engage with stakeholders in the VC finance industry. At least annually, a programme evaluation workshop will be held (or possibly, two regional workshops to account for language differences), including financiers and interested ventures and other companies.
- At regional level, the regional Executing Entities and local implementation partners will permanently engage with the beneficiary ventures during CATALI.5°T Initiative implementation. Annually, the beneficiaries will be asked to assess CATALI.5°T Initiative quality and usefulness.
- For each venture participating in the acceleration programmes, the regional E&S specialist will recommend inclusion of fit-for-purpose stakeholder engagement activities in the ventures' business plans. The ventures

¹⁹³ To avoid unnecessary duplication, global initiatives or entities are listed only for Latin America, even if their mandates or operations also extend to West Africa.

will carry out stakeholder engagement as needed. This could include engagement with prospective customers, with people potentially affected (negatively or positively) by the ventures' impacts, with people living near the ventures' premises, etc.

- The regional E&S specialists may, in some cases, decide to consult directly with specific groups of persons, either related to the activity of one specific venture, to verify that the CATALI.5°T Initiative successfully applies principles of inclusion and non-discrimination, and/or to verify application of the Gender Action Plan.

Information disclosure

209. The CATALI.5°T Initiative will meet the requirements of the GCF Information Disclosure Policy and Section 7.1 of GCF's E&S policy.

External communication, Grievance Redress Mechanism (GRM) (including workers) and GRM for SEAH

210. According to the GCF's E&S policy, the purpose of the GRM is to receive and facilitate the resolution of concerns and grievances about the environmental and social performance of GCF-financed activities. The GRM will be implemented at global level and at regional level, as well as at country level for West Africa:

- Use of the existing internet mechanisms of GIZ¹⁹⁴, IPED¹⁹⁵ and Tec de Monterrey.¹⁹⁶
- Collection of grievances by phone or in person by the regional E&S specialists.
- Workers will be able to use the generic GRM. In addition, a survivor-centred and gender-responsive GRM will be implemented for SEAH-specific complaints / incidents.

211. The regional Executing Entities and, ultimately, the GIZ E&S manager, are responsible for resolving grievances, and for reporting on grievance resolution. Where the GIZ E&S manager is unable to resolve a grievance to the satisfaction of all involved stakeholders (the complainant, the venture, the Executing Entity, etc.), an ad hoc evaluation committee shall be constituted on a case-by-case basis to review the decision and, where necessary, amend the decision. The committee shall seek to make decisions on the basis of consensus but will, where necessary, make decisions by majority vote. Composition of the committee will vary from case to case, as this will determine what E&S, legal and sectoral skills are required. The committee members will be appointed by GIZ (as the AE) and will include 1 representative of GIZ (as the AE), 1 representative of the relevant Management Unit (Latin America, West Africa or Trans-Regional) and 3 independent representatives (e.g. academics, professionals (legal, consultants, etc.), NGO staff, etc.) who are selected for their relevant technical or geographical backgrounds. In the event that the evaluation committee is unable to resolve a complaint to stakeholders' satisfaction, the grievance shall be communicated to the GCF's Independent Redress Mechanism.

D.5.4 NDA Approval Process

212. NDAs have been involved throughout the CATALI.5°T Initiative development process, spanning early scoping, development of the concept note and development of the funding proposal. In both regions, all NDAs have been regularly updated on progress and consulted via e-mail. Additionally, GIZ has held video calls and in-person meetings with the NDAs of Brazil, Colombia, Honduras and Mexico in Latin America, and Benin, Côte d'Ivoire, Mali and Senegal in West Africa. All NDAs were invited to attend the validation workshops in December 2021 and a follow-up online consultation for West African NDAs was held in May 2022. No-objection letters are provided in Annex 1.

213. As of September 21st, 2022, GIZ has received 12 NOLs from:

- Latin America: Argentina, Costa Rica, Dominican Republic, Honduras, Mexico
- West Africa: Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mauritania, Niger, Senegal, Togo

GIZ is in advanced discussions with several other countries, including (without limitation):

- Latin America: Colombia, Paraguay, Peru
- West Africa: Mali

Many of these countries have expressed significant interest in the CATALI.5°T Initiative but have not been able to complete their internal sign-off processes due to COVID-19 and other reasons. Nonetheless, GIZ expects to

¹⁹⁴ <https://www.giz.de/en/aboutgiz/39089.html>

¹⁹⁵ <https://www.ietp.com/fr/node/1861/#plainte>

¹⁹⁶ <https://letica.mx/ethos?locale=es>

receive NOLs from most, if not all, of these countries before the Funding Proposal publication deadline. Additional countries may be added to the programme after initial Board approval, provided they submit a NOL and the addition is approved by the Board.

D.6. Efficiency and effectiveness

D.6.1 Mitigation Cost

214. The CATALI.5°T Initiative's GCF budget is EUR 26,8 million. Over 20 years, the CATALI.5°T Initiative will achieve GCF-attributable emission reductions of 3.8 MtCO_{2e}. Accordingly, the mitigation cost to the GCF is EUR 7.1/tCO_{2e}.

D.6.2 Economic Analysis

Economic IRR and NPV

215. This section should be read in conjunction with the Excel economic model (Annex 3a).

216. The main quantifiable economic benefit of the CATALI.5°T Initiative is the GHG emission reductions resulting from the ventures accelerated in the two regions.

217. The central estimate of emission reductions, discussed in detail in Section D.1, indicates cumulative emission savings of approximately 3.8 million tCO_{2e} over 20 years from CATALI.5°T Initiative inception, across the two regions. The annual allocation of emission savings over the 20-year period reflects the ventures' survival and revenue growth rate schedules presented in the relevant worksheets of the Excel model.¹⁹⁷ Survival and growth rates were estimated after extensive and detailed discussions with regional stakeholders, including VC firms and pre-accelerators / accelerators. All of these stakeholders have extensive on-the-ground experience in accelerating and investing in ventures and are, therefore, best qualified to produce reliable estimates of venture prospects.

218. It is important to note that the 3.8 MtCO_{2e} central estimate represents the emission reductions after the application of a 6.5% attribution coefficient. This coefficient is intended to represent a realistic level of causality between the CATALI.5°T Initiative's activities and the venture survival and growth rates: it would be unrealistic to assume that the CATALI.5°T Initiative is *entirely* responsible for the business success and corresponding emission reduction of the accelerated ventures over 20 years. The attribution coefficient is calculated as the ratio of the GCF grant (EUR 26.8 million) to the total capital estimated to be raised by the ventures over 20 years, well beyond the expiry of the GCF programme. A total of EUR 413 million is expected to be raised by the ventures over 20 years – approximately EUR 186 million in Latin America and EUR 227 million in West Africa. These figures are based on estimates of mid-stage and late-stage VC funding for start-ups, debt financing¹⁹⁸ and the amounts raised at IPO per venture. The total figure for West Africa is higher than the total figure for Latin America due to the strong presence in the West African acceleration programme of growth companies that have a higher chance of survival than pure start-ups.

219. The base-case assumption for the shadow price of carbon is EUR 60/tCO_{2e}. The OECD recently published a study on the effective carbon price needed to meet the Paris Agreement's goal of limiting global temperature increase to 1.5°C by mid-century.¹⁹⁹ Based on a comprehensive review of studies by academic and policy institutions, the OECD selected EUR 60 as its mid-range estimate of the required carbon price. The OECD's low-end estimate is EUR 30 and its high-end estimate is EUR 120. To put the OECD's mid-range estimate in context:

- The High-Level Commission on Carbon Prices estimates that carbon prices at a level of EUR 40-80 are needed in 2020 for countries to decarbonise in line with the Paris Agreement. In 2030, prices should reach EUR 50-100.²⁰⁰

¹⁹⁷ Worksheets: 'LAT – survival rates' and 'AFR – survival sheets'.

¹⁹⁸ Applicable to growth companies in West Africa.

¹⁹⁹ OECD (2021), *Effective Carbon Rates 2021 – Pricing Carbon Emissions Through Taxes and Emissions Trading*: https://www.oecd-ilibrary.org/taxation/effective-carbon-rates-2021_0e8e24f5-en

²⁰⁰ Ibid.

- The IMF recommends an increase in carbon prices by EUR 75 from current levels through to 2030 in a scenario that assumes optimal support for clean technology development.²⁰¹
- Emission allowances in the EU Emission Trading Scheme (EU-ETS), the world's largest, stand at approximately EUR 80 as of May 2022.

220. The OECD's mid-range estimate therefore appears reasonable – and possibly even conservative in the light of EU market prices.

221. With cumulative emission reductions of 3.8 MtCO_{2e}, a carbon price of EUR 60/tCO_{2e}, and a total programme budget of EUR 36.5 million (GCF grant + co-finance), the CATALI.5°T Initiative yields an attractive economic internal rate of return (EIRR) of 18,7%. The economic net present value is estimated at EUR 30.5 million, based on a 10% discount rate as customarily used in economic analyses.

222. A sensitivity analysis indicates that the EIRR and NPV are robust in a downside scenario. For the purposes of the sensitivity analysis, two variables have been considered: (i) different carbon price levels, in increments of EUR 10/tCO_{2e}, and (ii) a change in the volume of emission reductions from base case, in 10% increments. The analysis (see Table 14 and

223. Table 15) shows that:

- The EIRR remains double-digit even if carbon prices drop to EUR 30, in line with the OECD's low-end estimate, and the emission reduction volume is in line with the central estimate.
- The EIRR only turns negative in the extreme scenario where carbon prices drop to EUR 10 and emission reduction volumes are lower than the central estimate.
- As carbon prices move closer to the OECD's high-end estimate of EUR 120, EIRRs increase to the 30% range.
- The economic NPV is positive as long as carbon prices are at least EUR 30 and the emission reduction volume is in line with the central estimate.

Table 14: Economic IRR Sensitivity

		EIRR sensitivity						
		Change in emission reduction vs. central estimate						
		-30%	-20%	-10%	0%	10%	20%	30%
Carbon price (EUR/t)	10	-2,5%	-1,5%	-0,6%	0,3%	1,0%	1,7%	2,4%
	20	3,1%	4,2%	5,3%	6,3%	7,2%	8,0%	8,8%
	30	6,7%	8,0%	9,2%	10,3%	11,4%	12,3%	13,2%
	40	9,6%	11,0%	12,3%	13,5%	14,7%	15,7%	16,8%
	50	12,0%	13,5%	14,9%	16,3%	17,5%	18,7%	19,8%
	60	14,1%	15,7%	17,3%	18,7%	20,1%	21,4%	22,6%
	70	16,0%	17,8%	19,4%	20,9%	22,4%	23,8%	25,1%
	80	17,8%	19,6%	21,4%	23,0%	24,6%	26,1%	27,5%
	90	19,4%	21,4%	23,2%	25,0%	26,6%	28,3%	29,8%
	100	20,9%	23,0%	25,0%	26,8%	28,6%	30,4%	32,0%
	110	22,4%	24,6%	26,6%	28,6%	30,5%	32,4%	34,2%
120	23,8%	26,1%	28,3%	30,4%	32,4%	34,4%	36,3%	

²⁰¹ Ibid.

Table 15: Economic NPV Sensitivity

		NPV sensitivity						
		Change in emission reduction vs. central estimate						
		-30%	-20%	-10%	0%	10%	20%	30%
Carbon price (EUR/t)	10	(21,8)	(20,8)	(19,8)	(18,8)	(17,8)	(16,9)	(15,9)
	20	(14,9)	(12,9)	(10,9)	(9,0)	(7,0)	(5,0)	(3,0)
	30	(8,0)	(5,0)	(2,1)	0,9	3,9	6,8	9,8
	40	(1,1)	2,9	6,8	10,8	14,7	18,6	22,6
	50	5,8	10,8	15,7	20,6	25,5	30,5	35,4
	60	12,7	18,6	24,6	30,5	36,4	42,3	48,2
	70	19,6	26,5	33,4	40,3	47,2	54,1	61,0
	80	26,5	34,4	42,3	50,2	58,1	66,0	73,9
	90	33,4	42,3	51,2	60,1	68,9	77,8	86,7
	100	40,3	50,2	60,1	69,9	79,8	89,6	99,5
	110	47,2	58,1	68,9	79,8	90,6	101,5	112,3
	120	54,1	66,0	77,8	89,6	101,5	113,3	125,1

Other Effects Not Included in Economic IRR and NPV Estimates

224. The CATALI.5°T Initiative is expected to produce significant socio-economic co-benefits. However, given that the identities / sectors of the accelerated ventures will not be known until implementation of the CATALI.5°T Initiative is underway, the value of these co-benefits is very difficult to quantify in advance, unless heroic assumptions are made. Conservatively, therefore, the value of these co-benefits is not captured in the above estimates of economic IRR and NPV. These co-benefits, discussed in Section D.3, include:

- **Employment creation** during and after the CATALI.5°T Initiative implementation period. To the extent that the employees of the ventures accelerated are not already employed elsewhere and switching jobs, such employment creation would be a net contributor to economic growth in the concerned countries. Importantly, there would also be an increase in labour quality, formalisation of businesses and improvement in occupational health and safety practices, due to the ventures' compliance with rigorous E&S standards. The jobs created by the ventures are also likely to entail higher skill levels than jobs in the broader economy. Job creation effects would also extend to companies operating in the ventures' value chains. In Africa, the African Development Bank estimates that each year more than 10 million young people enter the workforce but only 3 million new jobs are created, leaving vast numbers unemployed or in unstable and informal employment.²⁰² The climate transition could become one of the drivers of job creation for Africa's young population in the coming decades, across different sectors and value chains, supporting the goal of promoting more diversified economies.
- **Impact on health and livelihoods.** Climate ventures can meaningfully contribute to the health and livelihoods of communities, for instance through food security (in the case of innovative agricultural ventures), energy savings and stability of energy supply, improved resource efficiency, reduced travel times and improved product reliability, depending on the nature of the climate solution.
- **Climate change adaptation benefits.** Accelerated ventures may produce significant adaptation co-benefits. Ventures that address water security through, for example, sustainable pumping or nature-based solutions could make farmers (users of water) more resilient. Ventures that implement off-grid renewable energy solutions would make communities more resilient to natural disasters that can affect the electricity grid. Energy access and affordability, access to reliable and safe drinking water, comfort and living conditions, agricultural productivity or sustainable buildings can enhance the adaptive capacity and resilience of vulnerable populations as they face the impacts of climate change.
- **Pollution prevention.** Recycling, sustainable agriculture and nature-based approaches, as well as many other solutions, are likely to result in a reduction in pollution, which, in turn, can have positive effects on health and livelihoods. (On a purely indicative basis, the OECD estimates that a 1µg/m³ reduction in particle matter concentration in Europe could boost GDP by 0.8%).²⁰³

- Biodiversity conservation. Climate ventures in sectors such as agroforestry and ecosystem restoration can have a positive impact on the conservation of biodiversity. Significant research efforts have attempted to estimate the value of restored ecosystems and forests, in particular. Such value arises from multiple factors such as: avoided erosion, watershed protection, flood protection and associated insurance savings, availability of water resources, biodiversity habitat, pollination and tourism revenues. Estimates of the value of restored ecosystems are subject to a wide range of variables and are highly country-specific.²⁰⁴
- A range of other co-benefits can be envisaged, depending on the climate solution implemented and business model, including improved living conditions and opportunities for vulnerable persons (through low-emission transport or energy-efficiency building retrofits, for instance) and empowerment of women.

225. The presence of such a wide range of socio-economic co-benefits, not included in the estimate of economic IRR and NPV, underscores the conservative nature of the quantitative analysis.

D.6.3 Financial Analysis

226. A quantitative estimate of the level of concessionality of the pre-acceleration and acceleration grants is impossible, given the wide variety – in terms of sectors, business models and countries – of the ventures that will be pre-accelerated and accelerated. Please refer to Section B.5.2 for a detailed, albeit qualitative, analysis of programme concessionality.

227.

D.6.3 Financial Analysis

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D.6.4 Best Available Technologies and Practices

229. The CATALI.5°T Initiative will be guided by market realities and will adopt a highly pragmatic approach to screening and selecting climate ventures for pre-acceleration and acceleration support. The objective will be to select the ventures with the most promising market prospects, as this is how climate mitigation impact will be achieved. The definition of ‘best available technology’ in this context will, therefore, be market-conditioned: a cutting-edge mobile app or drone technology may represent a good business in one particular sector or national market, but composting or recycling or restoring old bicycles – as examples of technologies that are not necessarily cutting-edge – may represent equally good business ideas in other market settings. The ventures supported by the CATALI.5°T Initiative will always be the ‘best’ in their own particular market contexts.

²⁰² IRENA and AfDB (2022), *Renewable Energy Market Analysis: Africa and Its Regions – A Summary for Policy Makers*: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Jan/IRENA_Market_Africa_2022.pdf

²⁰³ OECD (2020), *The Economic Cost of Air Pollution: Evidence from Europe*: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP\(2019\)54&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2019)54&docLanguage=En)

²⁰⁴ See, for instance, TEEB (2012), *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB*: <http://www.teebweb.org/wp-content/uploads/Study%20and%20Reports/Reports/Synthesis%20report/TEEB%20Synthesis%20Report%202010.pdf>

LOGICAL FRAMEWORK

E.1. Project/Programme Focus

- Reduced emissions (mitigation)
 Increased resilience (adaptation)

E.2. GCF Impact level: Paradigm shift potential

Assessment Dimension	Current state (baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	At the time of this Funding Proposal formulation (mid-2022), both Latin America and West Africa have very under-developed climate venture sectors. Latin America in its entirety accounts for just 1.1% of climate VC investment, and West Africa less than 0.2%. Both regions contribute substantially more to global GHG emissions (Latin America ~8%, West Africa ~2%) and both are experiencing accelerating increases in GHG emissions. Commercially-viable opportunities to innovate, develop new business models and disrupt markets with alternative, low-emission goods and services are being missed.	<u>Low</u>	Paradigm shift would involve a shift away from current markets in Latin America and West Africa – which pay little attention to GHG emissions and in which incumbent firms have limited incentive to innovate – to markets characterised by nimble firms capable of rapid problem-solving and the ability to deliver new, low-emission products and services into the hands of customers at fast pace. This paradigm shift should be accomplished at limited risk to the economy as a whole and with minimal demands on already-tight (post-COVID) national public budgets.	The CATALI.5°T Initiative is conservatively projected to deliver MtCO _{2e} of GCF-attributable emission reductions over 20 years, which would represent a significant step towards paradigm shift on GHG emissions. The Initiative's sector-agnostic approach and focus on leveraging growing climate VC interest in the two regions, accompanied by proactive support for ventures that (i) offer climate-resilience co-benefits and/or (ii) are female-led, will ensure inclusive impacts that span a broad swathe of each region's economy.
Replicability	In mature venture ecosystems in Europe and North America, climate entrepreneurs meet their funding needs in the early stages (pre-seed and seed) of venture development with a combination of their own personal assets, investments from family and friends, angel investors and grants from public programmes, allowing them to cross the 'Valley of Death' and reach the point at which VC finance becomes	<u>Low</u>	If pathways for climate ventures to successfully access VC funding can be demonstrated, the approach could be further replicated across Latin America and West Africa, and across other countries and regions.	The design of the CATALI.5°T Initiative is flexible and allows for scaling to additional countries or regions at a later stage. By developing two slightly different regional programmes – one for emerging markets (Latin America) and one for frontier markets (West Africa) – the CATALI.5°T Initiative will address different regional development stages and business climates, allowing the lessons learned in these regions to inform interventions in emerging and frontier markets elsewhere.

	<p>available. This support ecosystem is, at best, under-developed in Latin America and West Africa. It is extremely challenging for entrepreneurs, and especially climate entrepreneurs, to position themselves to receive VC funding. Thus, even if VC investment flows to the two regions increase (which they are beginning to do, albeit from a low base), the scope for replication – for scaling-up the number of ventures successfully accessing VC finance – is limited.</p>			
<p>Sustainability</p>	<p>The sustainability of climate venture finance in Latin America and West Africa is questionable. While climate VC flows are increasing in both regions, and the interest of ecosystem actors – including entrepreneurs, pre-accelerators, accelerators and governments – is currently high, the foundations for sustained engagement are brittle: ventures struggle to make themselves ‘VC-ready’ (because of limited technical capacities, limited understanding of VC needs, limited pre-seed / seed finance and other barriers) and VC firms face high sourcing and due diligence costs in climate-related sectors and regional geographies that are new to them. Without support, the nascent climate venture sector in both regions may run out of momentum, with the result that commercially-viable emission reduction opportunities remain unaddressed.</p>	<p><u>Low</u></p>	<p>Paradigm shift would see the development of a self-sustaining ecosystem in which climate ventures – with the support of pre-accelerators, accelerators, mentors and an extensive network of peers – are able to successfully overcome the ‘Valley of Death’ and access VC finance to sustain their market growth. Successful role models would provide both entrepreneurs and VC firms with confidence that realisable commercial mitigation opportunities exist, leading to further rounds of climate innovation and investment.</p>	<p>The CATALI.5°T Initiative will target identified market barriers to create the enabling conditions for sustained market development. These barriers span technical capacities; financial capacities; tools, frameworks and other knowledge gaps; and networking and mentor support (including for women entrepreneurs). Climate ventures will be enabled to thrive in their respective market niches, thereby unblocking their climate mitigation potential.</p>

E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)								
GCF Result Area	IRMF Indicator	Means of Verification (MoV)	Baseline	Target ²⁰⁵		Assumptions / Note		
				Mid-term (End of Year 3)	Final			
All Result Areas (i.e. total emission reductions)	Core 1: GHG emissions reduced, avoided or removed/sequestered	Application of the Climate Impact Forecast (CIF) tool ²⁰⁶ (with third-party expert validation) will take place 2 times: when a venture is accepted into the acceleration programme and – using updated data (updated emission factors, latest sales data, etc.) – in the final year of the venture's 3-year acceleration support. These CIF applications will provide ex ante estimates (and, for those ventures that are already engaged in market activity, actual estimates) of each venture's GHG impact.	0 (In the absence of the CATALI.5°T Initiative, no climate ventures receive acceleration support)	38,200 tCO _{2e}	Programme implementation period (6 years): 230,000 tCO _{2e} Programme lifespan (20 years): 3,774,000 tCO _{2e}	GHG emission reductions for MRA1, MRA 2, MRA 3 and MRA 4 are calculated as the total emission reductions achieved by climate ventures that: <ul style="list-style-type: none"> • Are associated with each Result Area: i.e. energy ventures (MRA 1); transport ventures (MRA 2); buildings, cities, industries and appliances ventures (MRA 3); and AFOLU ventures (MRA 4). Ventures will be classified by archetype and Result Area when they start to receive programme support (with periodic checks thereafter to ensure that the classification remains valid as the ventures' business models potentially evolve); and • Receive support through the programme's regional acceleration programmes (30 such ventures in each region). 		
			0				25,600 tCO _{2e}	Programme implementation period (6 years): 147,500 tCO _{2e} Programme lifespan (20 years): 1,225,500 tCO _{2e}
			0				TBD	TBD
MRA1 Energy generation and access	Core 1: GHG emissions reduced, avoided or removed/sequestered	At the end of the CATALI.5°T Initiative (i.e. in Year 6), the MORSE model will be re-run using the updated venture-specific (CIF) data. Almost all supported ventures – particularly in Latin America – will by then have recorded at least some (1-3 years) post-acceleration programme experience (with some also having	0	TBD	TBD	Emission reductions are achieved through the use of goods / services sold to customers by the ventures; emission reductions are calculated on the basis of consumers' annual usage. ²⁰⁷ The mitigation context of each venture is unique: each venture sells a different product or service in a particular market context, in a particular country, in competition with		
			0	TBD	TBD			
			0	TBD	TBD			
All Result Areas (i.e. total emission reductions)	SUPPLEMENTARY 1.2: INSTALLED ENERGY STORAGE CAPACITY	At the end of the CATALI.5°T Initiative (i.e. in Year 6), the MORSE model will be re-run using the updated venture-specific (CIF) data. Almost all supported ventures – particularly in Latin America – will by then have recorded at least some (1-3 years) post-acceleration programme experience (with some also having	0	TBD	TBD	Emission reductions are achieved through the use of goods / services sold to customers by the ventures; emission reductions are calculated on the basis of consumers' annual usage. ²⁰⁷ The mitigation context of each venture is unique: each venture sells a different product or service in a particular market context, in a particular country, in competition with		
			0	TBD	TBD			
			0	TBD	TBD			
MRA1 Energy generation and access	Supplementary 1.3: Installed renewable energy capacity	At the end of the CATALI.5°T Initiative (i.e. in Year 6), the MORSE model will be re-run using the updated venture-specific (CIF) data. Almost all supported ventures – particularly in Latin America – will by then have recorded at least some (1-3 years) post-acceleration programme experience (with some also having	0	TBD	TBD	Emission reductions are achieved through the use of goods / services sold to customers by the ventures; emission reductions are calculated on the basis of consumers' annual usage. ²⁰⁷ The mitigation context of each venture is unique: each venture sells a different product or service in a particular market context, in a particular country, in competition with		
			0	TBD	TBD			
			0	TBD	TBD			
All Result Areas (i.e. total emission reductions)	Supplementary 1.4: Renewable energy generated	At the end of the CATALI.5°T Initiative (i.e. in Year 6), the MORSE model will be re-run using the updated venture-specific (CIF) data. Almost all supported ventures – particularly in Latin America – will by then have recorded at least some (1-3 years) post-acceleration programme experience (with some also having	0	TBD	TBD	Emission reductions are achieved through the use of goods / services sold to customers by the ventures; emission reductions are calculated on the basis of consumers' annual usage. ²⁰⁷ The mitigation context of each venture is unique: each venture sells a different product or service in a particular market context, in a particular country, in competition with		
			0	TBD	TBD			
			0	TBD	TBD			

²⁰⁵ Target values refer to GCF-attributable emission reductions: i.e. emission reductions achieved by the CATALI.5°T Initiative after the GCF attribution coefficient has been applied. GCF-attributable emission reductions represent a fraction of the total emission reductions achieved by the CATALI.5°T Initiative. See Section D.1.1 for further details.

²⁰⁶ <https://impact-forecast.com/>

²⁰⁷ Product / service life-cycle emission reductions are annually averaged over the product / service lifespan.

MRA2 Low-emission transport	Core 1: GHG emissions reduced, avoided or removed/sequestered	successfully raised Series A or equivalent financing). Re-running the MORSE model with 'actuals' in Year 6 will, therefore, provide an accurate update of expected post-CATALI.5°T Initiative mitigation performance. Ventures' sales data will be validated (to the extent possible) through provision to the Executing Entity of ventures' sales receipts and/or bank records	0	~0 tCO ₂ e ²⁰⁸	Programme implementation period (6 years): ~0 tCO ₂ e Programme lifespan (20 years): ~0 tCO ₂ e	(higher-emission) baseline alternative products / services. The CIF tool enables unique, very specific GHG mitigation estimates to be computed for each venture, incorporating (for example) Tier 2 and Tier 3 emission factors. Combined with (validated) market sales data, the result is extremely accurate GHG mitigation estimates. Achievement of the mid-term and final mitigation targets is subject to a number of factors, notably: Empirical venture survival rates that are aligned with ex ante expectations. Ventures' sales growth, which may be affected by macroeconomic conditions and exogenous shocks (e.g. COVID-related lock-downs). The allocation of emission reductions across the 4 Result Areas (and hence the values of the mid-term and final targets for each Result Area) has been informed by detailed MORSE modelling (see Section D.1.3) which, in turn, was informed by interviews and consultations with VC funds and other stakeholders active in Latin America and West Africa. However, the MORSE modelling should be interpreted as indicative rather than definitive: it is essentially a 'best guess' of climate impact achieved by a set of climate ventures whose identities / sectors are not known in advance. If the ex ante expectations of sectoral composition and performance of the supported climate ventures
	Supplementary 1.5 Improved low-emission vehicle fuel economy		0	TBD	TBD	
MRA3 Buildings, cities, industries and appliances	Core 1: GHG emissions reduced, avoided or removed/sequestered		0	850 tCO ₂ e	Programme implementation period (6 years): 9,800 tCO ₂ e Programme lifespan (20 years): 323,250 tCO ₂ e	
	Supplementary 1.1: Annual energy savings	0	TBD	TBD		
MRA4 Forestry and land use	Core 1: GHG emissions reduced, avoided or removed/sequestered	0	11,600 tCO ₂ e	Programme implementation period (6 years): 2,225,250 tCO ₂ e Programme lifespan (20 years): 444,500 tCO ₂ e		

²⁰⁸ The negligible mid-term and final GHG emission reduction estimates for transport should be considered with some caution. Annex 22e provides a detailed analysis. In brief, the negligible mitigation impact attributed to transport is partly: (i) a chance outcome in the MORSE model, due to the presence of 5 successful energy-sector ventures that serve to reduce the relative impact of other Result Areas; and (ii) attributable to poor coverage of transport in the underlying venture database that informs the MORSE model. In reality, the mitigation impact of the transport Result Area is expected to be significantly higher than that predicted by the MORSE model; this mitigation impact will be estimated with considerably greater accuracy during CATALI.5°T Initiative implementation (as the CIF tool will then be deployed to assess known ventures); and the current weaknesses of the MORSE model will be addressed by the CATALI.5°T Initiative during programme implementation (Sub-Activity 3.1.1.1).

						<p>are not met, the actual allocation of emission reductions across Result Areas may differ from expectation. This is particularly relevant for transport (see footnote).</p> <p>Targets for the Supplementary Indicators (1.1-1.5) will be set during programme implementation, when the identities (and hence technological / sectoral nature) of the supported climate ventures are known. Targets will be reported in the programme APRs.</p> <p>The Supplementary Indicators will be reported annually. GHG emission reductions will be reported as follows:</p> <ul style="list-style-type: none"> - An ex-ante estimate of each venture's future mitigation impact will be generated using the CIF tool when each venture enters the acceleration programme. These ex-ante estimates will be reported to the GCF in the relevant Annual Performance Report (APR), on a venture-by-venture and aggregated basis (e.g. by Result Area, by archetype, by cohort, by region, etc.). - Where a venture generates sales during its participation in the acceleration programme, these sales will be collected, validated and stored on a quarterly basis by the relevant Executing Entity or local implementation partner. Using the per-functional-unit mitigation parameter generated by the CIF tool at the beginning of the venture's acceleration support, these sales data will be used to produce ex post emission reduction estimates. Such estimates will be generated on a quarterly basis (matching the frequency of sales data collection) and will be reported to the GCF on an annual basis, in APRs. - At the end of a venture's acceleration programme, the CIF tool will be re-run. As a
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						result, the per-functional-unit mitigation parameter may be updated – e.g. to reflect more precise emission factors or new baseline conditions. Where relevant (i.e. where a venture has recorded sales during the acceleration programme and where it is felt appropriate to retrospectively apply the updated per-functional-unit mitigation parameter to these past sales), emission reduction estimates for the previous years will be updated using the new per-functional-unit mitigation parameter. These amendments will be reported to the GCF in the APR of the year in which the amendments are made.
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E.4. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)

Core Indicator	Baseline context (description)	Rating for current state (baseline)	Target scenario (description)	How the programme will contribute	Coverage
Core indicator 7: Degree to which GCF Investments contribute to market development/transformation at the sectoral, local, or national level	<p>Both regions currently have very under-developed climate venture sectors.</p> <p>Latin America attracted just US\$ 650 million of VC cleantech investment between 2013-2019. Brazil and Mexico together account for 84% of Latin American investment, meaning that the remaining 14 countries in the region collectively attracted barely US\$ 100 million of cleantech investment.</p> <p>The entirety of Africa attracted just US\$ 120 million of VC cleantech investment between 2013 and 2019, less than Hungary in 2019 alone. Moreover, 80% of this flowed to just 4 countries (Nigeria, Kenya, Egypt and South Africa); in francophone West Africa, only</p>	<p><u>Latin America</u></p> <p>medium</p> <p><u>West Africa</u></p> <p>low</p>	<p>The central objective of the programme is to reduce GHG emissions through sectoral transformation – both:</p> <ul style="list-style-type: none"> • Within the cleantech sector, through supporting climate ventures to grow and prosper; and • Within the sectors that span the 4 GCF mitigation areas (energy, transport, industry, consumer appliances, agriculture, etc.) in which the climate ventures will operate. <p>Climate ventures will:</p>	<p>The target scenario will be achieved through technical assistance and financial assistance to targeted climate ventures that offer the potential to sell low-emission products or services at scale (and hence achieve considerable GHG mitigation impact), as well as through guiding – where market realities allow – early-stage ventures towards climate solutions that offer system-level climate impacts (e.g. avoiding the need for private passenger travel altogether, instead of ‘just’ reducing the emission factor of a particular form of private transport).</p>	Multi-countries

	<p>Senegal and Côte d'Ivoire each received more than US\$ 10 million.</p> <p>In both regions, the majority of cleantech investment is directed at large deals rather than at early-stage climate ventures. And, in both regions, cleantech represents a small minority of total VC investment, with sectors such as fintech and e-commerce being preferred.</p> <p>Although both regions are clearly struggling to kick-start vibrant, high-growth cleantech sectors, the context is different in each region. As a broad generalisation, the Latin America venture sector is more developed than that of West Africa, with more technical and financial support available to ventures. To describe the Latin American baseline as 'medium' is something of an exaggeration, but a distinction between the Latin American ('medium') and West African ('low') baselines is useful in this context.</p>		<ul style="list-style-type: none"> • Disrupt existing markets and/or create new markets. • Generate direct emission reductions through the sale of low-emission goods and services. • Contribute to indirect emission reductions through replication effects (e.g. competitors emulating ventures' business strategies), the creation of role models for future entrepreneurs, the unlocking of future VC finance through real-world cleantech venture success stories, and through heightened consumer awareness and understanding. 	<p>Capacity building support to regional pre-accelerators / accelerators and to regionally-active VC firms, in combination with networking support for all actors, will help to create a self-sustaining cleantech investment ecosystem in both regions.</p>	
<p>Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards</p>	<p>The cleantech sector is young. There is a widespread perception, shared by both entrepreneurs and investors in both Latin America and West Africa, that climate mitigation solutions are complex. This perception is hindering the development of the sector.</p> <p>The perception of complexity stems largely from the additional technical requirements associated with climate mitigation solutions: in addition to all the (already-challenging) issues that a 'normal' venture must grapple with – such as</p>	<p><u>Latin America</u></p> <p>low</p> <p><u>West Africa</u></p> <p>low</p>	<p>The CATALI.5°T Initiative seeks to create a venture ecosystem that contains: (i) informed, motivated entrepreneurs (men and women) who are equipped with the knowledge and tools to build 'VC-ready' ventures; (ii) entrepreneur support organisations (ESOs, such as pre-accelerators and accelerators) that are able to provide high-quality technical assistance to climate ventures in the context of VC needs;</p>	<p>The CATALI.5°T Initiative's knowledge management plan is provided in Annex 23a. Knowledge products to be created by the CATALI.5°T Initiative include (not exhaustive): (i) climathon reports that will be disseminated at Climate-KIC's Global Climathon Week, (ii) updated versions of the CIF and MORSE tools that are calibrated for the 2 programme regions; (iii) venture climate impact assessments using the CIF tool; (iv) climate</p>	<p>Multi-countries</p>

	<p>design and manufacturing, marketing, finance, etc. – a climate venture and its investors must, in addition, contend with a host of concepts (baselines, emission factors, global warming potentials, leakage, MRV, etc.) that they may not be familiar with – and which their usual sources of support, such as mentors and pre-accelerators / accelerators – are unlikely to be familiar with either. A lack of case-studies, ‘industry-standard’ mitigation assessment methodologies and robust, transparent tools (and capacities to deploy these methodologies and tools) serve to: (i) limit entrepreneurs’ ability to claim – and hence monetise – emission reductions; (ii) make the VC due diligence process unnecessarily cumbersome and time-consuming; and (iii) misallocate capital (as investments may flow to the ‘wrong’ ventures – those that do not offer the highest mitigation benefits.</p>		<p>and (iii) VC firms with climate finance capabilities that are firmly embedded in their in-house ESG systems and practices.</p> <p>Moreover, (iv) all ecosystem actors will be able to quantify emission reductions potential (and ongoing mitigation performance) and climate resilience co-benefits using a standard set of robust, high-quality tools, thereby facilitating communication and knowledge exchange and reducing frictions to investment.</p>	<p>gender entrepreneurship toolkits for ESOs and ventures; and (v) ESG tools for ESOs and VC funds.</p> <p>All knowledge products will be made available online, free of charge, in every participating country and globally, thereby facilitating widespread diffusion of knowledge. Through this feedback loop, learning from the CATALI.5°T Initiative will be embedded into the way climate venture support programmes in Latin America, West Africa and beyond are designed and delivered.</p> <p>The language used in knowledge products will be inclusive of all genders and will showcase (where relevant) successful women entrepreneurs who can serve as examples and role models for other women.</p>	
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E.5. Project/programme specific indicators (project outcomes and outputs)						
Project / programme results (outcomes / outputs)	Project / programme specific Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term (Year 3)	Final (Year 6)	
Cross-Component OUTCOME						
Outcome 1: Local climate technologies / solutions successfully permeate	Number of venture graduates from the CATALI.5°T Initiative	Tec de Monterrey and IPED follow-up engagement with ventures for	0 seed-stage ventures	8 ventures	24 ventures	Because of the rigorous selection process, the small number of selected ventures, and the intensive, continuous, one-on-one support provided to each venture (including grant support), it is assumed that all ventures graduating from the accel-

national and regional markets in Latin America and West Africa	<p>ventures' regional acceleration programmes that succeed in commercial fund-raising to rapidly grow their user / customer base in national and regional markets</p>	<p>12 months after graduation.</p> <p>Term sheets between ventures and venture investors</p>				<p>eration programme will actively engage in market-based activity (but with varying levels of success in the following years – please refer to Sections D.1 and D.6).</p> <p>As the purpose of the CATALI.5°T Initiative is to select, support and nurture the ventures that offer the greatest emissions reduction benefits, no targets will be set for women-led ventures being admitted into the regional acceleration programmes. Instead, competitive selection processes for the pre-acceleration and acceleration programmes will ultimately determine which ventures receive technical and financial assistance. Which ventures then go on to succeed in commercial fund-raising after graduating from the acceleration programmes is extremely difficult to predict in advance, and therefore attaching gender targets to such success is largely meaningless. However, support for women entrepreneurs permeates the CATALI.5°T Initiative, with the explicit intention of enabling women-led ventures: (i) to be sourced (i.e. to be set up and/or discovered); (ii) to be able to successfully compete for entry into the pre-acceleration and acceleration programmes; and (iii) to grow and prosper after graduation.</p> <p>The gender composition (male-led, female-led) of the ventures supported by the CATALI.5°T Initiative will be collected, recorded and reported to the GCF and other programme stakeholders.</p>
	<p>Total volume of finance raised by the accelerated ventures</p>		0	Euro 13.2 million	Euro 35.8 million	<p>Where a venture produces more than one product or service, the leveraged finance relates only to those goods and services ('climate products / services') that serve to reduce GHG emissions.</p>
	<p>Total volume of finance raised by the accelerated ventures, broken down by source:</p> <ul style="list-style-type: none"> • Private finance • Public finance 		0	TBD	TBD	<p>Indicator data will be collected on a venture-by-venture basis and can therefore be analysed and reported according to need. For example, it will be possible to determine the amount of Series A finance leveraged by energy-related ventures in Latin America by Year 6, or the amount of debt finance leveraged in West Africa, or the total amount of VC finance leveraged, etc.</p>
	<p>Total volume of finance raised by the accelerated ventures, broken down by instrument:</p>		0	TBD	TBD	<p>Financial and GHG impact modelling have been undertaken during preparation of the CATALI.5°T Initiative. As part of this modelling, assumptions (validated by regional stakeholders) have been made regarding the leverage potential of different</p>

<ul style="list-style-type: none"> • Convertible note / SAFE note²⁰⁹ • VC Series A • VC Series B+ • Loan • Other (e.g. grant) 						<p>types of financial instruments (convertible notes, Series A equity, loans, etc.) and the Result Area composition of the ventures in the regional acceleration programmes. The financial assumptions are provided in Annex 3a and the composition assumptions are provided in Annex 22c.</p>
<p>Total volume of finance raised by the accelerated ventures, broken down by GCF Result Area:</p> <ul style="list-style-type: none"> • Energy generation and access • Low-emission transport • Buildings, cities, industries and appliances • Forestry and land-use 		0	TBD	TBD	TBD	<p>However, these assumptions are subject to considerable uncertainty. While the leveraged finance totals for each region can be presented as mid-term and final targets with a degree of confidence, the precise means by which these totals are met (by which instruments, by what archetypes and Result Areas, etc.) is considered to be too uncertain to present as ex ante targets. Instead, the targets will be set as soon as possible during programme implementation, when there is sufficient clarity on the identities of the supported ventures. The data needed to inform each of the indicators will be collected from the outset of the CATALI.5°T Initiative; it will therefore be possible to track progress against the targets (once set) with ease, including retrospectively. Indicator data and targets will be communicated to the GCF through APRs.</p>
<p>Total volume of finance raised by the accelerated ventures, broken down by:</p> <ul style="list-style-type: none"> • Archetype 		0	TBD	TBD	TBD	
<p>Total volume of finance raised by the accelerated ventures, broken down by geography:</p> <ul style="list-style-type: none"> • Country • Region (Latin America, West Africa) 		0	<p>Country: TBD</p> <p>Region:</p> <ul style="list-style-type: none"> • Latin America: Euro 11.4 million • West Africa: Euro 1.8 million 	<p>Country: TBD</p> <p>Region:</p> <ul style="list-style-type: none"> • Latin America: Euro 23.8 million • West Africa: Euro 13.4 million 		

²⁰⁹ SAFE: Simple Agreement for Future Equity

	<p>Venture survival rate</p>	<p>Quarterly reports from ventures to acceleration programme Executing Entities (Tec de Monterrey in Latin America; IPED in West Africa)</p>	<p>0 seed-stage ventures</p>	<p>60 ventures</p>	<p>34 ventures</p>	<p>The venture survival rate will be recorded each quarter as a binomial variable: 'alive' (= the venture is still operating and doing business) or 'failed' (= the venture has ceased operating and is no longer selling its low-emission product / service). Because data will be collected for individual ventures, it can be analysed at various levels of aggregation – e.g. by archetype, GCF Result Area, region, etc.</p> <p>No gender-differentiated survival rates are presented as targets. This is because: (i) the CATALI.5°T Initiative will, of course, strive to achieve 100% survival rates: any shortfall from full survival (which, realistically, is to be expected given the risky and uncertain start-up environment) is an unfortunate event, not a targeted outcome; and (ii) when a venture fails, this will largely be because of factors outside of the programme's control: such lack of control will apply equally to male-led and female-led ventures, making any targets largely meaningless. The CATALI.5°T Initiative will keep a full record of venture failures, including gender-differentiated statistics: this will generate an invaluable source of empirical data on venture failures and possible gender dimensions of such failures.</p>
	<p>Total sales (number of functional units sold) per accelerated venture</p>	<p>Quarterly reports from ventures to acceleration programme Executing Entities (Tec de Monterrey in Latin America; IPED in West Africa)</p>	<p>0</p>	<p>Sales of functional units that are, across all accelerated ventures, consistent with the mitigation target of 38,200 tCO₂e</p>	<p>Sales of functional units that are, across all accelerated ventures, consistent with the mitigation target of 230,000 tCO₂e</p>	<p>The definition of a 'functional unit' varies between archetypes. For example, it might be the number of energy-efficient appliances sold, or rooftop PV units installed, or tonnes of compost produced, or hectares of low-emission agriculture applied (etc.). Functional units form the basis of emission reduction calculations in the CIF tool. Given their heterogeneity, presenting an aggregate number of functional units sold makes little sense as a target. Instead, the target is defined by the GHG mitigation impact that must be achieved by the appropriate mix (types, numbers) of functional units sold by the accelerated ventures.</p> <p>Sales data will be collected from the accelerated ventures on a quarterly basis by the Executing Entities responsible for the regional acceleration programmes – Tec de Monterrey in Latin America and IPED in West Africa – as part of their venture engagement processes.</p> <p>Indicator data will be collected on a venture basis and can therefore be analysed and reported according to need – for example, by archetype, Result Area, region, male-led ventures vs female-led ventures, etc.</p>

						<p>Ventures' individual growth rates (i.e. change in sales with respect to time) will be derived from the sales data. Because sales data will be collected on a quarterly basis, growth rates can also be derived on a quarterly basis. Because data will be collected for individual ventures, it can be analysed at various levels of aggregation – e.g. by archetype, GCF Result Area, region, male-led ventures vs female-led ventures, etc.</p>
	<p>Number of supported Entrepreneur Support Organisations (ESOs), broken down by:</p> <ul style="list-style-type: none"> Country 	<p>Workshop attendance sheets; climathon attendance sheets; online training attendance sheets</p>	0	1 per participating country	1 per participating country	<p>ESOs can include pre-accelerators, accelerators, VC firms, banks, consultancy firms, NGOs, philanthropic organisations, universities, government agencies, parastatals and others. An ESO is defined in this context as any organisation that provides direct technical or financial support to micro and small enterprises; this support might be holistic or confined to a particular aspect of venture operations (e.g. marketing, engineering, gender, ESG, etc.). For the purposes of this indicator, CATALI.5°T Initiative Executing Entities are excluded and local implementation partners are included.</p> <p>A participating country is defined as one that has supplied a No-Objection Letter to participate in the CATALI.5°T Initiative.</p>
Regional Component 1: Latin America CATALI.5°T						
<p>Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures' impacts</p>	<p>Proportion of ESO and venture investor staff in Latin America who are coached in assessing venture climate impacts and co-benefits and, as a result of the coaching, confirm a very good understanding of the use and business case of such tools</p>	<p>Workshop / training session questionnaires</p>	0	<p>65% of ESO staff</p> <p>(with no significant gender skew: i.e. the gender composition of the trained staff will be approximately the same as the gender composition of the total ESO workforce)</p>	<p>75% of ESO staff</p> <p>(with no significant gender skew: i.e. the gender composition of the trained staff will be approximately the same as the gender composition of the total ESO workforce)</p>	<p>Proportions based on regional stakeholder experiences with past capacity building initiatives.</p> <p>ESOs can include pre-accelerators, accelerators, consultancy firms, NGOs, philanthropic organisations, universities, government agencies, parastatals and others. For gender and ESG, NGOs that specialise in these topics will also be supported.</p> <p>Venture investors include VC firms, impact investors, local banks with MSE-facing operations, foundations, etc.</p>
	<p>Number of ESOs and venture investors in Latin America whose staff benefit from training in gender equality and</p>	<p>Gender training attendance sheets</p>	0	<p>TBD</p> <p>(to include at least 60% of the EE's sen-</p>	<p>TBD</p> <p>(to include at least 80% of the EE's sen-</p>	

	diversity for ventures and venture portfolios			ior and middle management)	ior and middle management)	
	Number of ESOs and venture investors in Latin America whose staff benefit from training in applying an ESG framework that is compliant with international E&S standards to their own organisations as well as supported ventures	ESG training attendance sheets	0	TBD	TBD	
Output 1.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in Latin America generate innovative climate business ideas	Number of innovators and entrepreneurs who participate in climathons implemented in Latin America	Climathon attendance sheets	0	TBD	TBD	<p>1 climathon will be held in each participating country per year. Climathons will be attended by a range of stakeholders, including public sectors, ESOs, academics, NGOs, software developers, etc. – not just innovators and entrepreneurs. The estimated proportion of attendees who are innovators / entrepreneurs is based on past Climate-KIC climathons, as well as expectations of regional stakeholders.</p> <p>Mid-term and final target number of attendees can be only determined once the number of climathons is known which depends on the number of Latin American countries which express interest in participation in this programme and provide a NoL.</p>
	Number of climate business solutions ideated during climathons in Latin America	Climathon reports	0	TBD	TBD	
	Proportion of climathon keynote speakers and jury members in Latin America who are women	Climathon reports	0	30%	30%	
	Number of institutions with an explicit gender-oriented mandate (public sector, parastatal, NGO and/or private sector) that participate in each climathon in Latin America	Climathon attendance sheets	0	2	2	

Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts	Proportion of ESO and venture investor staff in West Africa who are coached in assessing venture climate impacts and co-benefits and, as a result of the coaching, confirm a very good understanding of the use and business case of such tools	Workshop / training session questionnaires	0	55% of ESO staff (with no significant gender skew: i.e. the gender composition of the trained staff will be approximately the same as the gender composition of the total ESO workforce)	70% of ESO staff (with no significant gender skew: i.e. the gender composition of the trained staff will be approximately the same as the gender composition of the total ESO workforce)	Proportions based on regional stakeholder experiences with past capacity building initiatives. ESOs can include pre-accelerators, accelerators, consultancy firms, NGOs, philanthropic organisations, universities, government agencies, parastatals and others, including local implementation partners. For gender and ESG, NGOs that specialise in these topics will also be supported. Venture investors include VC firms, impact investors, local banks with MSE-facing operations, foundations, etc.
	Number of ESOs and venture investors in West Africa whose staff benefit from training in gender equality and diversity for ventures and venture portfolios	Gender training attendance sheets	0	TBD (to include at least 60% of EEs' senior and middle management)	TBD (to include at least 80% of EEs' senior and middle management)	
	Number of ESOs and venture investors in West Africa whose staff benefit from training in applying an ESG framework that is compliant with international E&S standards to their own organisations as well as supported ventures	ESG training attendance sheets	0	TBD	TBD	
Output 2.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in West Africa	Number of innovators and entrepreneurs who participate in climathons implemented in West Africa	Climathon attendance sheets	0	TBD	TBD	1 climathon will be held in each participating country per year. Climathons will be attended by a range of stakeholders, including public sectors, ESOs, academics, NGOs, software developers, etc. – not just innovators and entrepreneurs. The esti-

generate innovative climate business ideas	Number of climate business solutions ideated during climathons in West Africa	Climathon reports	0	TBD	TBD	<p>mated proportion of attendees who are innovators / entrepreneurs is based on past Climate-KIC climathons, as well as expectations of regional stakeholders.</p> <p>Mid-term and final target number of attendees can be only determined once the number of climathons is known which depends on the number of West African countries which express interest in participation in this programme and provide a NoL.</p>
	Proportion of climathon keynote speakers and jury members in West Africa who are women	Climathon reports	0	30%	30%	
	Number of institutions with an explicit gender-oriented mandate (public sector, parastatal, NGO and/or private sector) that participate in each climathon in West Africa	Climathon attendance sheets	0	2	2	

Component 3: CATALI.5°T Trans-Regional Advisory, Capacity & Knowledge Support (TRACKS)

Output 3.1: Capacities of Executing Entities, selected ESOs and venture investors in Latin America and West Africa are developed to boost climate ventures' impacts	Proportion of ESO and venture investor staff in Latin America and West Africa who are coached in assessing venture climate impacts and co-benefits and, as a result of the coaching, confirm a very good understanding of the use and business case of such tools	Workshop / training session questionnaires	0	60% of ESO staff (with no significant gender skew: i.e. the gender composition of the trained staff will be approximately the same as the gender composition of the total ESO workforce)	73% of ESO staff (with no significant gender skew: i.e. the gender composition of the trained staff will be approximately the same as the gender composition of the total ESO workforce)	<p>Proportions based on regional stakeholder experiences with past capacity building initiatives.</p> <p>ESOs can include pre-accelerators, accelerators, consultancy firms, NGOs, philanthropic organisations, universities, government agencies, parastatals and others, including local implementation partners. For gender and ESG, NGOs that specialise in these topics will also be supported.</p> <p>Venture investors include VC firms, impact investors, local banks with MSE-facing operations, foundations, etc.</p>
	Number of ESOs and venture investors in Latin America and West Africa whose staff benefit from training in gen-	Gender training attendance sheets	0	TBD (to include at least 60% of EEs' senior and middle management)	TBD (to include at least 80% of EEs' senior and middle management)	

	der equality and diversity for ventures and venture portfolios					
	Number of ESOs and venture investors in Latin America and West Africa whose staff benefit from training in applying an ESG framework that is compliant with international E&S standards to their own organisations as well as supported ventures	ESG training attendance sheets	0	TBD	TBD	
Project/programme co-benefit indicators						
Co-benefit 1: Creation of green jobs	<p>Number of additional full-time jobs (employees) created by climate ventures that are graduates of the regional CATALI.5°T acceleration programmes in Latin America and West Africa, broken down by:</p> <ul style="list-style-type: none"> Formal sector Informal sector 	Quarterly reports from ventures to acceleration programme Executing Entities (Tec de Monterrey in Latin America; IPED in West Africa)	0	TBD	TBD	<p>Green jobs are defined as: (i) full-time positions (minimum of 35 hours' work per week); (ii) employees of the ventures (i.e. excluding consultants and contractors); and (iii) additional jobs created during the implementation period of the CATALI.5°T Initiative (i.e. net of any jobs that already existed when a venture joined the acceleration programme).</p> <p>Job creation by early-stage ventures is complex, subject to various unknowns, including the national economic context, venture failure and growth rates, the sectoral and technological context, etc.²¹⁰ Mid-term and final targets will be set during programme implementation, as soon as the national and sectoral profiles of the accelerated ventures are known with sufficient detail to be able to develop meaningful job estimates.</p> <p>Because of these uncertainties, no gender-related targets will be set. However, the CATALI.5°T Initiative will monitor job creation at the individual venture level, which will enable gender-differentiated statistics to be generated: (i) job creation by male-led ventures and female-led ventures; and (ii) the gender composition of the jobs created. This will provide an invaluable</p>

²¹⁰ For example, see: Harvard Business Review (2016), *Do Start-Ups Really Create Lots of Good Jobs?*: <https://hbr.org/2016/06/do-startups-really-create-lots-of-good-jobs>

						source of empirical data on green job creation and possible gender dimensions of such job creation.
Co-benefit 2: Enhanced climate resilience	Number of climate ventures that are graduates of the regional CATALI.5°T acceleration programmes in Latin America and West Africa and whose products / services are actively providing climate resilience co-benefits to consumers	Climate resilience assessments of accelerated ventures, undertaken by Climate-KIC and (later) by Tec de Monterrey (Latin America) and IPED (West Africa)	0 ventures	5% (3 ventures)	10% (6 ventures)	<p>Climate resilience of good / services will be assessed and quantified by tools developed and utilised by the CATALI.5°T Initiative: i.e. resilience co-benefits will be assessed in a standardised way across climate ventures. Climate resilience must contribute to one or more of the GCF adaptation Result Areas.</p> <p>The resilience co-benefit must, in this context, be considered substantive. Many goods / services can be said to offer climate adaptation co-benefits, but these co-benefits may be negligible in magnitude or indirect in terms of causality. To count towards the target, the resilience co-benefit of a good / service must be direct and must achieve a minimum score using a standardised assessment methodology. This threshold score will be determined (by GIZ and Climate-KIC) after the CATALI.5°T Initiative resilience toolkit has been developed and calibrated.</p> <p>The mid-term and final targets assume that half of the accelerated climate ventures that are actively selling low-emission goods / services at those times are offering goods / services with substantive resilience co-benefits. This fraction has been estimated on the basis of consultations with regional stakeholders, including pre-accelerators / accelerators and VC firms.</p> <p>Indicator data will be collected on a venture basis and can therefore be analysed and reported according to need – for example, by archetype, Result Area, region, male-led ventures vs female-led ventures, etc.</p>
Co-benefit 3: Enhanced inclusivity in climate entrepreneurialism	Proportion of female entrepreneurs supported by the CATALI.5°T Initiative	Workshop attendance sheets Climathon attendance sheets Selection Committee records for ventures accepted into the pre-acceleration and acceleration programmes	0 ventures	33%	33%	<p>The gender targets apply to entrepreneurs who receive direct support from the CATALI.5°T Initiative: they receive capacity building support, they actively participate in a climathon or they are inducted into the pre-acceleration or acceleration programmes. Less direct support, such as being reached by CATALI.5°T Initiative awareness-raising or media outreach, is not included.</p> <p>Given the gender imbalance evident in the cleantech / venture sector in Latin America and West Africa, the mid-term and final targets are regarded as ambitious.</p> <p>Based on past experience, the Executing Entity responsible for organising the climathons, Climate-KIC, estimates the</p>

					number of participants per climathon per year per country to be approximately 100.
E.6. Project/programme activities and deliverables					
Activities	Description	Sub-Activities	Deliverables		
Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures' impacts					
Activity 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America	<p>At the start of Output 2.1 in 2023, climate advisory services (climate impact potential assessments, paradigm shift and systems transformation potential assessments, and climate resilience potential assessments) and gender-climate entrepreneurship and ESG advisory services will be delivered by staff of the Executing Entity Climate-KIC, as well as its delivery partners.</p> <p>In 2024 and 2025, however, these services will be increasingly delivered by the staff of Tec de Monterrey and by local consultants. To facilitate this transition, Climate-KIC will provide comprehensive capacity-building of Tec de Monterrey and associated consultants in 2023 to be able to apply the climate and gender tools and frameworks.</p> <p>GIZ will also develop the capacities of Tec de Monterrey to comply with the CATALI.5°T Initiative's Gender Action Plan (GAP) and Environmental and Social Safeguards Framework (ESMF), additionally incorporating the latest ESG developments in venture capital.</p>	<p>Sub-Activity 1.1.1.1: Climate mitigation impact assessment</p> <p>Sub-Activity 1.1.1.2: Climate resilience co-benefits assessment</p> <p>Sub-Activity 1.1.1.3: Paradigm shift and systems transformation potential</p> <p>Sub-Activity 1.1.1.4: Gender equality and diversity</p> <p>Sub-Activity 1.1.1.5: ESG frameworks</p>	<ul style="list-style-type: none"> • 2 test-run workshops on updated CIF and MORSE tools are held in Latin America. • A training programme for Tec de Monterrey staff as well as other ESOs, venture investor staff and associated consultants, consisting of at least 5 stand-alone training sessions / workshops, is implemented in Latin America to cover the tools and frameworks utilised by the CATALI.5°T Initiative (e.g. CIF, transformation potential, etc.). • A 1-day workshop is held to develop a learning framework and a communications strategy of Tec de Monterrey. • An annual climate impact report is published to showcase ongoing CATALI.5°T Initiative achievements. • Communications and outreach material is developed by Tec de Monterrey • A longitudinal study of Tec de Monterrey gender capacity and improvement is implemented, with the results / lessons learned published. 		
Output 1.2: Inclusive and diverse local communities of climate entrepreneurs in Latin America generate innovative climate business ideas					
Activity 1.2.1: Community-building and ideation activities in Latin America	<p>To source and develop early ideas for climate ventures and to ensure a large number of high-quality applications to the pre-acceleration programmes, the local delivery partners of the pre-acceleration programme will run climathons – community-building and ideation events. Climathons will be promoted within each country through the local delivery partner's existing stakeholder network (social media, alumni, local partners, etc.). Calls for participation in local climathons will be actively promoted in women's networks and among entrepreneurs with backgrounds usually under-represented in start-up and innovation programmes (such as entrepreneurs living in rural areas). Following their participation in the climathons, (potential) entrepreneurs will be invited to join an open</p>	<p>Sub-Activity 1.2.1.1: Latin America climathons</p> <p>Sub-Activity 1.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in Latin America</p>	<ul style="list-style-type: none"> • 1 climathon is held in each participating country in Years 1-3 of CATALI.5°T Initiative implementation, synchronised (where possible) with Global Climathon Week. • Climathon participants are inducted into the global Climathon Network. • The regional digital network for promoting women and diversity in Latin American climate entrepreneurship is established to connect like-minded entrepreneurs and share knowledge. 		

	digital community for advancing women and diversity in climate entrepreneurship in Latin America.		
Output 1.3: Selected ventures in Latin America have launched their climate products in local markets			
Activity 1.3.1: Latin America climate venture pre-acceleration programme	<p>The Latin America pre-acceleration programme will support climate ventures at the pre-seed funding stage to develop minimum viable climate products or services and to be ready to enter local / regional markets. The programme will be implemented on a cohort basis, with 4 cohorts over 36 months.</p> <p>The technical assistance will encompass business development, climate impact, gender and ESG.</p> <p>In total, the pre-acceleration programme will support 60 climate ventures.</p>	<p>Sub-Activity 1.3.1.1: Call for applications and venture selection</p> <p>Sub-Activity 1.3.1.2: Pre-acceleration programme</p> <p>Sub-Activity 1.3.1.3: Pre-Acceleration programme: straight grants</p>	<ul style="list-style-type: none"> 60 climate entrepreneurs / ventures are admitted pre-acceleration programme (15 per cohort), subject to competitive entry on the basis of scored criteria. They will benefit from <ul style="list-style-type: none"> a combination of online training (business, climate, gender, E&S), mentoring and 2 cohort workshops. an in-depth climate mitigation assessment, one-to-one coaching and grant payments to cover pre-agreed business / climate costs.
Output 1.4: Selected climate ventures in Latin America with MVPs in local markets are empowered to rapidly scale their business and climate impact			
Activity 1.4.1: Latin America climate venture acceleration programme	<p>The Latin America acceleration programme aims to achieve the commercial investment readiness of 30 Latin American climate ventures over 3 years, with each venture benefiting from 10 months of acceleration support. The acceleration programme will provide comprehensive technical assistance –related to business development, climate impact, gender and ESG – and repayable grant funding of EUR 100,000 (on average) per venture.</p> <p>Unlike the acceleration programme in West Africa (Activity 2.4.1), the Latin America acceleration programme will be implemented on a cohort basis (and not on a rolling, venture-by-venture basis): 3 cohorts of 10 ventures over 36 months.</p>	<p>Sub-Activity 1.4.1.1: Call for applications and venture selection</p> <p>Sub-Activity 1.4.1.2: Acceleration programme - technical assistance</p> <p>Sub-Activity 1.4.1.3: Acceleration programme - repayable grants</p>	<ul style="list-style-type: none"> Approximately 60 climate ventures (approximately 20 per cohort) are assessed for entry into the acceleration programme. 30 climate ventures (approximately 10 per cohort) are accepted into the acceleration programme (1 cohort per year for Years 1-3 of CATALI.5°T Initiative implementation), having successfully passed a highly selective assessment. At the beginning of the acceleration programme, each of the 30 ventures will develop an individual growth and impact plan and have to pass a due diligence to receive a repayable acceleration grant. The grant repayment will be triggered in two circumstances: (i) when a venture achieves annual revenues of at least USD 1,000,000, the grant will be subsequently repaid in quarterly instalments equivalent of 3% of quarterly revenues; (ii) when a venture closes a funding round of more than USD 5,000,000, in which case the grant (or any amount yet to be repaid under the previous point (i)) will be repaid in a bullet payment for the outstanding amount.
Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts			
Activity 2.1.1: Capacity-building of Executing Entities, ESOs and venture	At the start of Output 2.1 in 2023, climate advisory services (climate impact potential assessments, paradigm shift and systems transformation potential assessments, and climate resilience potential assessments) and gender-climate entrepreneurship and ESG advisory services	Sub-Activity 2.1.1.1: Climate mitigation impact assessment	<ul style="list-style-type: none"> 2 test-run workshops on updated CIF and MORSE tools are held in West Africa. A training programme for Impact Hub Abidjan, IPED and local implementation partner staff as well as other ESOs, venture investor staff and associated consultants, consisting of

<p>investors in West Africa</p>	<p>will be delivered by staff of the Executing Entity Climate-KIC, as well as its delivery partners.</p> <p>In 2024 and 2025, however, these services will be increasingly delivered by the staff of IPED and Impact Hub Abidjan (both Executing Entities) and associated local delivery partners. To facilitate this transition, Climate-KIC will provide comprehensive capacity-building of IPED, Impact Hub Abidjan and associated delivery partners in 2023 to be able to apply the climate and gender tools and frameworks.</p> <p>GIZ will also develop the capacities of IPED, Impact Hub Abidjan and local implementation partners to comply with the CATALI.5°T Initiative's Gender Action Plan (GAP) and Environmental and Social Safeguards Framework (ESMF), additionally incorporating the latest ESG developments in venture capital.</p>	<p>Sub-Activity 2.1.1.2: Climate resilience co-benefits assessment</p> <p>Sub-Activity 2.1.1.3: Paradigm shift and systems transformation potential</p> <p>Sub-Activity 2.1.1.4: Gender equality and diversity</p> <p>Sub-Activity 2.1.1.5: ESG frameworks</p>	<p>at least 5 stand-alone training sessions / workshops, is implemented in West Africa to cover the tools and frameworks utilised by the CATALI.5°T Initiative (e.g. CIF, transformation potential, etc.).</p> <ul style="list-style-type: none"> • A 1-day workshop is held to develop a learning framework and a communications strategy for Impact Hub Abidjan and IPED. • An annual climate impact report is published to showcase ongoing CATALI.5°T Initiative achievements. • Communications and outreach material is developed by Impact Hub Abidjan and IPED • A longitudinal study of Impact Hub Abidjan and IPED gender capacities and improvement is implemented.
<p>Output 2.2: Inclusive and diverse local communities of climate entrepreneurs in West Africa generate innovative climate business ideas</p>			
<p>Activity 2.2.1: Community-building and ideation activities in West Africa</p>	<p>To source and develop early ideas for climate ventures and to ensure a large number of high-quality applications to the pre-acceleration programme, the local implementation partners of the pre-acceleration programme will run climathons – community-building and ideation events. Climathons will be promoted within each country through the local delivery partner's existing stakeholder network (social media, alumni, local partners, the Impact Hub Network, etc.). Calls for participation in local climathons will be actively promoted in women's networks and among entrepreneurs with backgrounds usually under-represented in start-up and innovation programmes (such as entrepreneurs living in rural areas). Following their participation in the climathons, (potential) entrepreneurs will be invited to join an open digital community for advancing women and diversity in climate entrepreneurship in West Africa.</p>	<p>Sub-Activity 2.2.1.1: West Africa climathons</p> <p>Sub-Activity 2.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in West Africa</p>	<ul style="list-style-type: none"> • 1 climathon is held in each participating country in Years 1-3 of CATALI.5°T Initiative implementation, synchronised (where possible) with Global Climathon Week. • Climathon participants are inducted into the global Climathon Network. • The regional digital network for promoting women and diversity in West African climate entrepreneurship is established to connect like-minded entrepreneurs and share knowledge.
<p>Output 2.3: Selected ventures in West Africa have launched their climate products in local markets</p>			
<p>Activity 2.3.1: West Africa climate venture pre-acceleration programme</p>	<p>The West Africa pre-acceleration programme will support climate ventures at the pre-seed funding stage to develop minimum viable climate products or services and to be ready to enter local / regional markets. The programme will be implemented on a cohort basis, with 4</p>	<p>Sub-Activity 2.3.1.1: Call for applications and Phase 1 venture selection</p> <p>Sub-Activity 2.3.1.2: Pre-acceleration programme – Phase 1</p>	<ul style="list-style-type: none"> • Approximately 160 applicant climate entrepreneurs / ventures are shortlisted for entry into the pre-acceleration programme (40 per cohort). • 80 climate entrepreneurs / ventures are admitted into Phase 1 of the pre-acceleration programme (20 per cohort), subject to competitive entry on the basis of scored criteria.

	<p>cohorts over 36 months. For each cohort, the pre-acceleration programme will be implemented in two phases:</p> <ul style="list-style-type: none"> Phase 1: 20 climate ventures will be provided with technical assistance over a period of 6 months. Phase 2: 15 climate ventures from Phase 1 will be selected for 4 months of additional one-on-one coaching, as well as each receiving a EUR 15,000 grant to cover pre-agreed expenses. <p>The technical assistance will encompass business development, climate impact, gender and ESG.</p> <p>In total, the pre-acceleration programme will support 80 Phase 1 climate ventures and 60 ventures that complete both Phase 1 and Phase 2.</p>	<p>Sub-Activity 2.3.1.3: Phase 2 venture selection</p> <p>Sub-Activity 2.3.1.4: Pre-acceleration programme – Phase 2</p>	<ul style="list-style-type: none"> 80 climate entrepreneurs / ventures (20 per cohort) benefit from a combination of online training (business, climate, gender, E&S), mentoring and 2 cohort workshops. 60 climate entrepreneurs / ventures are admitted into Phase 2 of the pre-acceleration programme (15 per cohort), subject to competitive entry on the basis of scored criteria. 60 climate entrepreneurs / ventures (15 per cohort) benefit from an in-depth climate mitigation assessment, one-to-one coaching and grant payments to cover pre-agreed business / climate costs.
Output 2.4: Selected climate ventures in West Africa with MVPs in local markets are empowered to rapidly scale their business and climate impact			
<p>Activity 2.4.1: West Africa climate venture acceleration programme</p>	<p>The West Africa acceleration programme aims to achieve the commercial investment readiness of 30 West African climate ventures over 6 years, with each venture benefiting from 3 years of acceleration support. The acceleration programme will provide comprehensive technical assistance –related to business development, climate impact, gender and ESG – and repayable grant funding of EUR 100,000 (on average) per venture.</p> <p>Unlike the acceleration programme in Latin America (Activity 1.4.1), the West Africa acceleration programme will be implemented on a rolling, venture-by-venture basis (and not a cohort basis). Venture screening and selection will occur continuously in the first 3 years of the West Africa acceleration programme.</p>	<p>Sub-Activity 2.4.1.1: Venture screening and selection</p> <p>Sub-Activity 2.4.1.2: Acceleration programme – repayable grants</p> <p>Sub-Activity 2.4.1.3: Acceleration programme – technical assistance</p>	<ul style="list-style-type: none"> Approximately 60 climate ventures (approximately 20 per year for 3 years) are assessed for entry into the acceleration programme. 30 climate ventures (approximately 10 per year for 3 years) are accepted into the acceleration programme, having successfully passed first assessment, a mandate-fit check and due diligence. Tailor-made Value Creation Plans are co-developed (venture and IPED) for 30 climate ventures. Repayable acceleration grants are issued to 30 climate ventures to enable them to accelerate market and product development in the context of the ventures' Value Creation Plans. Grant repayment is triggered by a milestone associated with each venture.
Output 3.1: CATALI.5°T Trans-Regional Advisory, Capacity & Knowledge Support (TRACKS)			
<p>Activity 3.1.1: Climate impact and co-benefits assessment</p>	<p>Climate impact' must be embedded in the way the pre-acceleration and acceleration programmes in Latin America and West Africa are designed and delivered, and the way lessons are learned from them. Most venture ecosystem stakeholders (e.g. pre-accelerators, accelerators, VCs and ventures themselves) in Latin America and West Africa have limited knowledge of climate innovation to fully understand and address these challenges. Advisory, capacity-building and knowledge support activities under Activity 3.1.1 will, therefore, allow stakeholders to gain the capabilities to:</p>	<p>Sub-Activity 3.1.1.1: Climate mitigation impact assessment</p> <p>Sub-Activity 3.1.1.2: Climate resilience co-benefits assessment</p> <p>Sub-Activity 3.1.1.3: Paradigm shift and systems transformation potential</p>	<ul style="list-style-type: none"> Tools are developed, including updated, regionally-calibrated versions of the CIF and MORSE tools; climate resilience assessment tools and methodologies, accompanied by case-studies and training materials; and transformation potential assessment tools. 4 test-run workshops on updated CIF and MORSE tools are held in the 2 CATALI.5°T Initiative regions. A training programme for Executing Entities' staff, as well as local implementation partners, other ESOs, venture investor staff and associated consultants, consisting of at least 10

	<ul style="list-style-type: none"> Assess the climate impact potential of climate ventures: measure, track and validate ventures' contributions to emission reductions / carbon sequestration, as well as – where relevant – their climate adaptation co-benefits. Identify and support ventures with the most climate-transformative potential: to channel more support to ventures that have the potential to be innovative and disruptive in the target market, thereby catalysing genuine rupture ('paradigm shift') with respect to business-as-usual practices. Shift mind-sets: arm entrepreneurs with the ability to apply the single-minded focus they need to scale-up their climate solutions, but also to understand where their solution fits into the bigger system/picture. 		<p>stand-alone training sessions / workshops, is implemented in Latin America and West Africa to cover the tools and frameworks utilised by the CATALI.5°T Initiative.</p> <ul style="list-style-type: none"> Bootcamps are held for pre-acceleration ventures on practical application of climate resilience tools and deep-dive training is provided on priority topics for acceleration ventures. Two 1-day workshops are held to develop a learning framework and a communications strategy for the Executing Entities. An annual climate impact report is published to showcase ongoing CATALI.5°T Initiative achievements. Communications and outreach material is developed by Executing Entities
<p>Activity 3.1.2: Gender equality and diversity – implementing the CATALI.5°T Initiative Gender Action Plan (GAP)</p>	<p>Activity 3.1.2 provides actionable and practical guidance to programme Executing Entities, local implementation partners, climate ventures and other ESOs on how they can integrate gender equity interventions, become more gender-smart and enhance diversity in climate entrepreneurship.</p>	<p>Sub-Activity 3.1.2.1: Gender equality and diversity</p>	<ul style="list-style-type: none"> 2 gender climate entrepreneurship toolkits are developed – 1 for 'enablers' (Executing Entities, local implementation partners and ESOs) and 1 for ventures. Bespoke gender-climate training modules are designed and provided (based on demand from partners) to zoom-in on specific gender-related topics. A longitudinal study of Executing Entities and supported ventures (in the pre-acceleration and acceleration programmes) is implemented to track gender capacities and improvement, with the results / lessons learned published.
<p>Activity 3.1.3: ESG frameworks – implementing the CATALI.5°T Initiative ESMF</p>	<p>To facilitate the Executing Entities' and local implementation partners' engagement with CATALI.5°T Initiative implementation, to strengthen their advisory roles vis-à-vis supported climate ventures in the pre-acceleration and acceleration programmes, and to build post-Initiative sustainability (such that these institutions can continue to promote high-grade E&S standards in the context of future climate ventures), Activity 3.1.3 will provide capacity building for the regional Executing Entities and local implementation partners. Specific needs for capacity building will be defined as the CATALI.5°T Initiative progresses and will, to an extent, be shaped by the types of climate ventures (sectors, technologies, geographies) that are admitted into the pre-acceleration and acceleration programmes – and, hence, what types of E&S issues the Executing Entities and local implementation partners are exposed to.</p>	<p>Sub-Activity 3.1.3.1: ESG frameworks</p>	<ul style="list-style-type: none"> A comprehensive, first-of-its-kind toolkit is designed to equip pre-accelerators, accelerators and VCs with practical resources to start and sustain their ESG integration (e.g. ESG due diligence material and portfolio support) in a co-production effort. The toolkit is tested on a cohort of CATALI.5°T Initiative partners and is revised based on their feedback. A training course (online or in-person) is designed and provided, consisting of 6 interactive sessions on ESG-topics (including the toolkit) and based on internationally-informed best practices and co-production. The training curriculum and materials are tested on a cohort of CATALI.5°T Initiative partners and are revised based on their feedback. A training-of-trainers plan to deliver the training to the full range of CATALI.5°T Initiative partners is developed and implemented.

The CATALI.5°T Initiative will also foster the integration of ESG by: (i) supporting the regional Executing Entities and local implementation partners to develop the internal capacities needed to guide and assist supported climate ventures in becoming 'ESG-ready'; and (ii) supporting the two regional VC communities to develop the ESG understanding, screening and assessment capabilities, and tool and methodology use increasingly expected of them by ventures and by other ecosystem actors.

E.7. Monitoring, reporting and evaluation arrangements

E.7.1 Monitoring, Reporting and Evaluation Arrangements

226. Monitoring, reporting and evaluation arrangements (in addition to ESMP and GAP monitoring) will comply with the relevant GCF policies, as stipulated in the AMA, FAA and programme-related Financing Agreements and Implementation Agreements with Executing Entities and Implementation Partners, which Executing Entities will extend to sub-grantees.

227. The CATALI.5°T Initiative will apply a customised results-based Monitoring and Evaluation (M&E) system. The system will be based on:

- GIZ Standard Operating Procedures ('GIZ's evaluation policy – principles, guidelines and requirements').
- The CATALI.5°T Initiative logical framework.
- The CATALI.5°T Initiative implementation schedule.
- Requirements of the GCF's Annual Performance Report.
- Procedures and requirements of programme partners and stakeholders.

228. The M&E system will track CATALI.5°T Initiative Outputs, Activities, Sub-Activities and Impacts, as well as associated financial flows, across all components. The overall responsibility and oversight for M&E and reporting will lie with the GCF AE Unit of GIZ head office. The GIZ AE Unit will coordinate with the 3 CATALI.5°T Initiative Management Units – Latin America (Component 1), consisting of Climate-KIC, GIZ and Tec de Monterrey; West Africa (Component 2), consisting of GIZ, Impact Hub Abidjan and IPED; and trans-regional (Component 3), consisting of GIZ Executing Entity – to carry out the M&E operations.

229. The budget for implementing M&E measures is presented separately in the Programme Budget (Annex 4a) and is outlined in the Monitoring and Evaluation Plan (Annex 11a).

Recruitment of M&E staff

230. Immediately when the CATALI.5°T Initiative commences, GIZ's GCF AE Unit at head office in Germany will make available one expert to oversee, coordinate and manage the programme M&E and reporting routines. He/she will cooperate closely with the 3 CATALI.5°T Initiative Management Units and GIZ Executing Entity staff to coordinate the implementation of the CATALI.5°T Initiative's M&E system. As soon as GCF proceeds become available in Latin America and West Africa, the regional Management Units will recruit one full-time M&E specialist.

Independent monitoring and evaluation studies

231. GIZ's AE unit will initiate an **interim evaluation** in Year 3 of the CATALI.5°T Initiative (or at any time that GIZ, the NDAs and/or the Global Advisory Committee (GAC) consider necessary). GIZ will competitively select and assign an independent consultant for this task. The Interim Evaluation will duly involve CATALI.5°T Initiative stakeholders, including target groups, beneficiaries and contributing partners. The Interim Evaluation will include:

- A review of the institutional, administrative, organisational, environmental, social, economic, technical and financial aspects of the CATALI.5°T Initiative based on the assumptions and risks included in the design (among others, as specified in the Funding Proposal and the Regional Feasibility Studies) and M&E system.
- A review of covenants to assess whether they are still relevant or need to be changed or waived due to altered conditions.
- A review of the viability of remaining planned impacts.
- An assessment of the need to restructure or reformulate the CATALI.5°T Initiative and the effects of such restructuring on the Initiative's objective and long-term goals.

GIZ's AE Unit will make available an Interim Evaluation report to the GCF Secretariat and CATALI.5°T Initiative stakeholders.

232. **Final evaluation:** In due time before the completion of the CATALI.5°T Initiative, GIZ's AE Unit will initiate a programme completion mission, in which the implementation of the CATALI.5°T Initiative based on the financing and implementation agreements, the delivery of outputs and the achievement of CATALI.5°T Initiative targets will be evaluated. The mission will duly involve CATALI.5°T Initiative stakeholders, including target groups, beneficiaries and contributing partners. At the time of the CATALI.5°T Initiative's physical completion and commissioning, and before the expiry of the guarantee period, GIZ's AE Unit will make available a final report to the GCF Secretariat and CATALI.5°T Initiative stakeholders.

233. **Interim evaluation and final evaluation:** GIZ evaluations are carried out by GIZs' independent evaluation unit. This unit is steered by a corporate unit that is separate from operational business and reports directly to the Management Board. Moreover, evaluations are conducted with the support of external evaluators. GIZ applies the 'Evaluation criteria for German bilateral development cooperation' (2006, revised 2020) on a standard basis in project evaluations. These are based on the 6 evaluation criteria agreed by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD): relevance, effectiveness, efficiency, overarching development results (impact), coherence and sustainability. Additional to the 6 OECD DAC evaluation criteria, the following 5 GCF criteria will be evaluated: gender equity, country ownership, innovativeness in results areas, replication and scalability, as well as unexpected results.

234. Regarding GCFs' Evaluation Principle: Impartial, Objective and Unbiased and Relevance, Use and Participation: all provisions for upholding the GCF evaluation principles described in Chapter V (a-d) of the Evaluation Policy will be followed (see DAC standards and DeGEval evaluation standards). In line with UNEG norms, evaluation team members selected by GIZ will not be directly responsible for the policy setting, design or management of an evaluation project. Regarding GCFs' Evaluation Principle: Credibility and Robustness: as a matter of principle, GIZ takes care to use an appropriate combination of quantitative and qualitative methods of empirical social research in evaluations. The mix of methods is adapted to the object of the evaluation and the evaluation questions. To ensure robust evidence, GIZ uses a theory-based approach as a minimum standard for its central project evaluations. The contribution analysis has proven to be a suitable design. The aim of contribution analyses is to collect empirical evidence on whether and to what extent contributions to observed

changes can be associated with a project. Furthermore, the analyses should increase the understanding and knowledge of what works, what does not work and why.

235. The GCF programme will be rated based on the 6 OECD/DAC and on the 5 GCF evaluation criteria. Each of the OECD/DAC and GCF criteria is rated on a scale of 1 to 100. Using a points system serve to increase the transparency of ratings, whilst enabling better comparability between individual projects.

Data collection and frequency

236. The Trans-Regional Management Unit will coordinate data collection for implemented activities (indicators, implementation challenges and financial status) with the two regional Management Units on a regular base.

E.7.2 Measurement, Reporting and Verification (MRV) of Climate Mitigation Impacts

Scope of MRV

237. The CATALI.5°T Initiative's emission reductions will be achieved through the use of low-emission goods / services sold to customers by the Initiative-supported ventures. Because ventures in the regional pre-acceleration programmes will be selected precisely for the purpose of developing minimum viable products (MVPs), they are not expected to be at a sufficient stage of development to make any commercial sales of products / services – and certainly not at scale. Seed-stage ventures may make some commercial sales while they are receiving intensive technical assistance in the regional acceleration programmes, and their market activity is expected to truly ramp-up in the latter ('light touch') stages of the regional acceleration programmes and thereafter. Thus, the bulk of the CATALI.5°T Initiative's emission reductions will be generated by the accelerated ventures.
238. Indirect emission reduction benefits are certainly anticipated from the CATALI.5°T Initiative – for example, stemming from venture sourcing and ideational support (including among women entrepreneurs), capacity building of ventures and entrepreneur support organisations (ESOs), the replication and role-model effects of building successful climate ventures, etc. However, such indirect mitigation impacts are challenging to track and attribute, so they are not considered in the CATALI.5°T Initiative's MRV.

Data Collection for MRV

239. To calculate CATALI.5°T Initiative emission reductions, two data points are required:
- An emission reduction estimate per functional unit of each good / service sold: for example, the emission reduction associated with each energy efficient appliance sold, or each rooftop PV unit installed, or each tonne of compost produced, or each hectare of low-emission agriculture applied. These per-unit emission reductions will be calculated using the Climate Impact Forecast (CIF) tool.²¹¹

Application of the CIF tool, accompanied by third-party expert validation, will take place 3 times during programme implementation: (i) at the end of the pre-acceleration programme; (ii) when a venture is accepted into the acceleration programme (except the case where the applicant venture has recently graduated from the pre-acceleration programme); and (iii) at the end of the acceleration programme, using updated data (updated emission

²¹¹ <https://impact-forecast.com/>

factors, updated baseline context, etc.). The CIF tool enables unique, very specific GHG mitigation estimates to be computed for each venture, incorporating (for example) Tier 2 and Tier 3 emission factors.

The CIF tool generates life-cycle emission reduction estimates, encompassing a good / service's production, consumption and disposal. To ensure consistency with the GCF's approach to emissions accounting, the CIF tool's life-cycle emission reduction estimates will be annualised: the life-cycle emission reductions will commence at the time of sale and will be evenly distributed across the years spanning the product / service expected lifetime – for example, 8 years for home battery solutions, 20 years for rooftop solar PV systems or 1 year for low-emission packaging (bioplastics, multi-use plastics, etc.). Product / service lifetimes are provided in Annex 22c.

- **Sales data** – the number of functional units sold by each venture per time interval. This data will be collected from the accelerated ventures on a quarterly basis by the Executing Entities responsible for the regional acceleration programmes – Tec de Monterrey in Latin America and IPED in West Africa – as part of their venture engagement processes.

The Executing Entities will endeavour to validate the reported sales data to the extent possible – for instance, by requesting ventures' sales receipts or bank records, or through discussions with retailers and other distribution channels. Where sales figures cannot be validated with reference to venture or retailer records, suitable documentation measures will be put in place by the relevant venture(s) to ensure reliable data reporting in the future.

The Executing Entities will pass the sales data onto the Trans-Regional Management Unit for aggregation, processing and onward reporting (e.g. to GIZ AE, the GCF, programme publications, etc.).

240. At the end of the CATALI.5°T Initiative (i.e. at the beginning of Year 7, after all venture support operations have ceased), the MORSE model will be re-run using the updated venture-specific (CIF) data. Almost all programme-supported ventures – particularly in Latin America – will by then have recorded at least some (1-3 years) post-acceleration programme experience (with some also having successfully raised Series A or equivalent financing). Re-running the MORSE model with 'actuals' in Year 7 will, therefore, provide a more accurate update of expected post-programme mitigation performance.

Reporting of Climate Impacts

241. An ex-ante estimate of each venture's future mitigation impact will be generated using the CIF tool when each venture enters the acceleration programme. These ex-ante estimates will be reported to the GCF in the relevant Annual Performance Report (APR), on a venture-by-venture and aggregated basis (e.g. by Result Area, by archetype, by cohort, by region, etc.). They will also be reported in other literature generated by the programme, for both internal and external audiences.²¹²

242. Where a venture generates sales during its participation in the acceleration programme, these sales will be collected, validated and stored on a quarterly basis. Using the per-functional-unit mitigation parameter generated by the CIF tool at the beginning of the venture's acceleration support, these sales data will be used to produce ex post emission reduction estimates. Such estimates will be generated on a quarterly basis (matching the frequency of sales data

²¹² Where a venture's sales data are considered to be commercially-sensitive, it may not be possible to report GHG mitigation on a venture-by-venture basis to external audiences. In such cases, mitigation impacts (ex ante and ex post) will be reported on an aggregated basis (e.g. by Result Area or region). Venture-specific data will, though, be reported on a confidential basis to the GCF.

collection). They will certainly be reported on an annual basis, in APRs to the GCF; they may be reported more frequently than an annual basis in programme literature.

243. At the end of a venture's acceleration programme, the CIF tool will be re-run. As a result, the per-functional-unit mitigation parameter may be updated – e.g. to reflect more precise emission factors or new baseline conditions. Where relevant (i.e. where a venture has recorded sales during the acceleration programme and where it is felt appropriate to retrospectively apply the updated per-functional-unit mitigation parameter to these past sales), emission reduction estimates for the previous years will be updated using the new per-functional-unit mitigation parameter. These amendments will be reported to the GCF in the APR of the year in which the amendments are made. They may also be reported in programme literature.
244. The updated CIF tool will also be used to generate updated ex ante GHG emission reduction estimates for the programme lifespan. These updated ex ante estimates will be reported in GCF APRs, as well as other programme literature.
245. The updated per-functional-unit mitigation parameter will be used to produce ongoing quarterly ex post emission reduction estimates for each venture. They will certainly be reported on an annual basis, in APRs to the GCF; they may be reported more frequently than an annual basis in programme literature.

Mid-Term and Final Evaluations

246. A mid-term evaluation will be undertaken after Year 3 of programme implementation and a final evaluation will be undertaken after Year 6 of programme implementation. Among other functions, these evaluations will provide opportunities for evaluators to assess (i) the CATALI.5°T Initiative's GHG impact methodology and (ii) the ex-post and ex-ante estimates of programme mitigation impact. The evaluations will be shared with the GCF. Where the evaluations make recommendations to improve the methodology or the numerical impact estimates, these recommendations will be discussed with programme stakeholders (notably, Executing Entities) and with the GCF Secretariat, and will be acted upon accordingly.

RISK ASSESSMENT AND MANAGEMENT

F.1. Risk factors and mitigations measures

A detailed analysis of CATALI.5°T Initiative implementation risks is provided in the Regional Feasibility Studies (Annexes 2b and 2c). Environmental and social risks are considered in the Environmental and Social Management Framework (ESMF, Annex 6). Gender-specific risks are considered in the Gender Assessment (Annex 8a) and the Gender Action Plan (Annex 8b).

From a safeguards perspective, the ESMF rates the CATALI.5°T Initiative risk as medium (I-2).

Selected Risk Factor 1: Economic shocks impacting the venture economy

Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Medium</u>

Description

A country / regional / global financial or economic crisis that impacts either or both regions and leads to low liquidity / market opportunities or changed government priorities, negatively impacting ventures and venture financing, and jeopardising a sufficient pipeline of robust, high-quality climate ventures for induction into the CATALI.5°T Initiative. Both regions enter 2022 facing an uncertain outlook, notably in the context of the evolution of the COVID pandemic, a potential deceleration of economic growth and, in a number of Sahelian West African countries, domestic security. There are signs of potential macroeconomic distress, partly due to growing national debts and inflationary pressures.

Mitigation Measure(s)

This risk is not directly manageable by the CATALI.5°T Initiative. However, it is important to note that as the world emerges from the COVID crisis and as the climate crisis accelerates, it is likely that pent-up demand for 'green' products and services will be an important part of the recovery, which is expected to underpin market opportunities for climate ventures. Governments have demonstrated their ongoing commitment to addressing climate change, as reflected in updated NDCs and a range of domestic policies and strategies.

A healthy SME sector is essential to both regions' economic recovery, and it is expected that the sector will remain supported and will play an increasingly significant role in shaping growth strategies, employment and social cohesion. Governments have already enacted a raft of policy packages to support SMEs, as they increasingly recognise the importance of ventures as a driver of growth. In 2021, ventures in both regions received record amounts of VC funding and early indications are that H1 2022 has out-performed H1 2021.

Multilateral institutions such as the IMF, the IFC, the World Bank and regional development banks are launching post-COVID recovery programmes in both regions. These explicitly support government policies that recognise the importance of ventures and SMEs as drivers of post-COVID green growth.

While an economic shock may disrupt longer-term trends, these trends are well-established and are unlikely to be entirely erased by such a shock, as indicated by governments' commitment to addressing climate change, accelerating investments into SMEs and growing market size due to population growth and rising incomes. Nonetheless, the CATALI.5°T Initiative will continuously monitor the overall economic situation in Latin America and West Africa, and will be prepared to put in place dynamic and specific responses, as required.

Selected Risk Factor 2: Political instability and policy reversals

Category	Probability	Impact
<u>Governance</u>	<u>Low</u>	<u>Medium</u>

Description

Political instability, leading to downgrading of climate change as a policy priority and/or lower confidence in economic prospects – and, consequently, lower demand and support for climate ventures and innovation. Historically, both regions have experienced a combination of high inequality, poor economic performance and weak political institutions, leading to periodic political volatility and social discontent. The political instability risk is country-specific rather than an overall regional risk, with 3 West African countries in particular – Burkina Faso, Mali and Niger – facing domestic security challenges.

Mitigation Measure(s)		
<p>This risk is not directly manageable by the CATALI.5°T Initiative. However, the risk is somewhat mitigated by the fact that the CATALI.5°T Initiative is not tied to a single country's political stability for success and that the largest national economies in each region – for example, Mexico in Latin America and Senegal and Cote d'Ivoire in West Africa – tend to be the most politically stable.</p> <p>Screening and due diligence of ventures prior to their admission into the pre-acceleration and acceleration programmes will place heavy emphasis on ventures' market growth prospects, and potential political instability will form part of this assessment.</p> <p>Climate change mitigation and SME support are increasingly significant areas of policy development: although there may be targeted policy reversals (such as the Mexican government's recent closure of the Climate Change Fund), it is unlikely that future governments will wholly disregard the development of these sectors. Moreover, the CATALI.5°T Initiative works through the private sector – climate ventures, pre-accelerators, accelerators and VC firms – as its 'transmission mechanism' for climate impact; public sector involvement is welcome (and will be encouraged), but it is not central to the CATALI.5°T Initiative's theory of change or implementation. The CATALI.5°T Initiative is supportive of national climate policies and objectives (including NDCs), but is not so closely tied to them that changes to them will jeopardise programme progress.</p> <p>NDA's will be invited to participate in the CATALI.5°T Initiative's Global Advisory Committee (GAC) meetings, which will be held twice a year (plus ad hoc meetings as required). This will enable the CATALI.5°T Initiative to closely follow local policy and political developments through liaison and dialogue.</p>		
Selected Risk Factor 3: Executing Entity performance		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
<p>Executing Entities fail to perform satisfactorily. This could include sub-optimal delivery of the pre-acceleration or acceleration programmes – for example, by insufficient sourcing and retention of high-quality climate ventures, or through provision of irrelevant or poor-quality technical assistance that jeopardises the climate ventures' ability to grow sustainably and attract VC funding.</p>		
Mitigation Measure(s)		
<p>GIZ has selected Executing Entities on the basis of robust eligibility criteria that require, inter alia, demonstrated experience in supporting ventures over a sustained period of time, track-records of implementing technical support programmes in conjunction with international development partners, and regional expertise (see also section B.4.2). GIZ has undertaken detailed due diligence assessments and capacity needs assessments of all the Executing Entities.</p> <p>The CATALI.5°T Initiative contains dedicated activities precisely to address Executing Entity capacity needs identified during Initiative preparation. GIZ will, as the AE, closely monitor the performance of the Executing Entities to ensure that they perform satisfactorily and will remedy any performance shortcomings through contractual or capacity building measures.</p>		
Selected Risk Factor 4: Access to VC funds for growth stage		
Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>
Description		
<p>Venture sustainability is negatively affected if access to follow-on VC finance for the venture growth stage is not available. More than 40% of entrepreneurs in Africa cite access to finance as the major factor limiting their growth, and the majority of venture failures in Latin America are attributable to lack of finance (or, just as importantly, lack of knowledge of how to access this finance).</p>		
Mitigation Measure(s)		
<p>The CATALI.5°T Initiative will integrate 'VC readiness' into the regional pre-acceleration and acceleration programmes at every stage, also giving entrepreneurs the opportunity to meet and pitch to VC funds, and to adapt business ideas and models on the basis of VC feedback. Such close familiarity, accompanied by the ability to shape ventures at an early stage, is expected to increase VC funds' readiness to invest in the CATALI.5°T Initiative-supported ventures. I&P,</p>		

a key VC fund active in West Africa (and parent to IPED, an Executing Entity) and Dalus Capital, a key VC fund active in Latin America, have, among other investors, collaborated closely with GIZ to design the CATALI.5°T Initiative to make it genuinely useful and attractive to VC funds. Their extensive networks in both regions (including multiple offices in the regions), and beyond, will ensure that CATALI.5°T Initiative beneficiaries have maximum exposure to potential financiers.

Additionally, the CATALI.5°T Initiative's technical assistance for the ventures has been designed in such a way that it is responsive to VC needs: i.e. it is explicitly intended to equip entrepreneurs with the business skills and resources needed to pass through the stringent selection processes of VC funds, with the aim of increasing their attractiveness and enhancing their prospects for receiving Series A finance. The record funding by VC funds in both regions in 2021 is indicative of the strong expectation – expressed by many, diverse stakeholders during programme preparation – that the VC sector generally, and the climate VC sector specifically, will keep growing with appropriate barrier-removal interventions in place.

Selected Risk Factor 5: Challenging local business environments

Category	Probability	Impact
<u>Technical and operational</u>	<u>Medium</u>	<u>Low</u>

Description

The business environment in both regions can, in certain national and sectoral contexts, be challenging for enterprises – particularly for new ventures that lack experience, an entrenched market presence and brand, and established stakeholder networks (business groups, suppliers, customers, etc).

In addition to general 'ease of doing business' challenges, climate ventures in particular may struggle to: (i) find qualified workers and/or contractors to support them with the development and implementation of climate solutions, running their day-to-day business, and servicing and maintaining new technologies. In addition, (ii) internet connections are geographically patchy (particularly in rural areas) and often unstable, which could impede climate businesses with a significant digital component (e.g. data telemetry, app-based services, etc.).

Mitigation Measure(s)

The CATALI.5°T Initiative will be guided by market realities. Regardless of the theoretical attractiveness of particular technologies or services, the CATALI.5°T Initiative will adopt a highly pragmatic approach to screening and selecting climate ventures for pre-acceleration and acceleration support: if such ventures do not represent attractive prospects for significant market growth (in the context of all the challenges, deficiencies and delays apparent in that particular market), they will not be selected for inclusion in the CATALI.5°T Initiative. Given: (i) the highly entrepreneurial populations of both regions, (ii) the CATALI.5°T Initiative's emphasis on seeking out women entrepreneurs (and thereby increasing and diversifying the talent pool available to the Initiative), and (iii) the involvement of 3 respected pre-accelerator / accelerator organisations – Tec de Monterrey, Impact Hub Abidjan and IPED – that have established track-records of launching and nurturing new businesses in the regions, the CATALI.5°T Initiative expects to successfully navigate the challenges presented by the local business environment.

Particularly in the acceleration programme, but even in the pre-acceleration programme, ventures will be able to exercise a high degree of flexibility in 'picking and choosing' types of CATALI.5°T Initiative technical assistance. This flexibility extends to the EUR 15,000 pre-acceleration grants and EUR 100,000 acceleration repayable grants, which, subject to some exclusion criteria, can be spent by ventures on a broad range of potential activities, including staff, temporary contractors, market surveys and technologies. This will enable supported climate ventures to focus on the specific challenges that they face in their particular market contexts.

The CATALI.5°T Initiative's emphasis on mentoring and networking will also serve to pair ventures with role-models, who can advise ventures on how particular market challenges have been successfully addressed in the past or in other countries.

Selected Risk Factor 6: Limited mitigation benefits or climate maladaptation

Category	Probability	Impact
<u>Technical and operational</u>	<u>Low</u>	<u>Medium</u>

Description

Ventures pursue climate solutions that are either unambitious or positively climate-harmful – for example, entailing climate maladaptation or increased GHG emissions.

Mitigation Measure(s)

The CATALI.5°T Initiative will screen and select ventures in a competitive, transparent environment, using a set of explicit criteria and weightings – the most important of which will be ventures’ prospects for market growth and reducing / avoiding GHG emissions. A secondary criterion will be ventures’ potential climate adaptation co-benefits. Ventures’ mitigation impacts will be assessed using a credible, internationally-recognised assessment tool (CIF) and will be validated by third-party experts. Even allowing for significant programme mitigation under-performance – the equivalent of setting the GHG impact to zero for the top 10% of supported ventures – the programme would still be expected to generate 1.1 MtCO_{2e} of abatement benefits (compared with MtCO_{2e} under the expected, ‘central’, scenario).

Incremental climate solutions will be eligible for CATALI.5°T Initiative support, provided they offer substantial overall mitigation benefits: for example, a product or service may offer only a 5% reduction in GHG emissions compared with its baseline functional equivalent, but if this product / service is expected to achieve large-scale, rapid market penetration then its aggregate mitigation performance may justify programme support. However, during the pre-acceleration and acceleration programmes (and particularly during pre-acceleration, when ventures’ business models are fluid and still being formed), climate ventures will be educated on transformational climate mitigation approaches that represent genuine ruptures with business-as-usual practice. Where disruptive, highly transformational business ideas emerge, the ventures developing these ideas will be strongly supported by the CATALI.5°T Initiative to move forward and commercialise these ideas – subject to commercial viability considerations and the feedback provided by VC firms (risk vs reward trade-off).

The CATALI.5°T Initiative will closely monitor the development of supported ventures and will modify or cease its support should signs emerge that ventures’ mitigation performance is significantly falling short of expectations or if environmental and social harms, including maladaptation, are being generated. Under Activity 1.1.1 (Latin America) and Activity 2.1.1 (West Africa), ecosystem actors, including the ventures, the regional Executing Entities and VC firms, will be educated on climate mitigation, climate adaptation, gender and ESG frameworks.

GCF POLICIES AND STANDARDS

G.1. Environmental and social risk assessment

G.1.1. Environmental and Social Management Framework (ESMF)

247. The ESMF (Annex 6a) ensures that the CATALI.5°T Initiative will comply with GIZ's Safeguards and Gender (S+G) management system and with the GCF's Revised Environmental and Social Policy (dated September 2021). The CATALI.5°T Initiative will also comply with the national legislation of countries that supply climate ventures to the Initiative's pre-acceleration and acceleration programmes. IFC's Interpretation Note on Financial Intermediaries (IFC, 2012) has been used as guidance on the environmental and social management systems of some of the Executing Entities.
248. From an environmental and social safeguards perspective, the ESMF rates the programme risk as **medium (I-2)**. The potential negative environmental and social impacts of the CATALI.5°T Initiative during its implementation phase are limited, because the activities that could generate physical impacts – such as research and development, small-scale production, or testing of agricultural solutions on land plots, carried out by the CATALI.5°T Initiative-supported climate ventures – will be small in scale. The environmental and social footprint of the ventures' activities will be limited to employment, small-scale land use, moderate generation of pollution and waste, and use of moderate quantities of input materials, water and energy. Their negative impacts and risks will be limited, site-specific and can be reduced to acceptable levels with appropriate E&S management.
249. The ESMF is accompanied by a Stakeholder Engagement Plan (SEP) and a Grievance Redress Mechanism (GRM). Gender-specific risks, including SEAH, are considered in the Gender Assessment (Annex 8a) and the Gender Action Plan (Annex 8b).

G.1.2. Summary of Main Impacts, Risks and Mitigation Measures

250. The CATALI.5°T Initiative's principal environmental impact is the reduction of GHG emissions, which will be achieved through consumers' use of low-emission products and services that are sold by climate ventures supported by the CATALI.5°T Initiative. Additional environmental and social co-benefits, including enhancement of consumers' climate resilience, specific sectoral impacts (such as energy efficiency, resource efficiency or restored ecosystems), job creation and enhanced capital investment in low-emission technologies, are anticipated.
251. Negative environmental and social impacts may occur when the CATALI.5°T Initiative involves "specifically identified physical elements, aspects and facilities that are likely to generate environmental and social impacts" (as per the terminology employed in ESS1).
- During implementation, such impacts are mostly related to the activities of the climate ventures. The pre-acceleration programme in each region will encompass early-stage start-ups with fewer than (approximately) 5 workers; the acceleration programme in each region will encompass more developed climate ventures that already have minimum viable products, some pre-existing market presence and up to a maximum of 49 workers (though probably far fewer). Impacts and risks would occur if ventures perform activities such as construction of small buildings, prototyping, research, production, small-scale agriculture, etc. The travel associated with the CATALI.5°T Initiative's technical assistance activities will also generate moderate greenhouse gas emissions.
 - After the implementation period, successful ventures are expected to substantially scale up their activities. The bulk of the CATALI.5°T Initiative's positive climate change mitigation impact will be realised at this stage. This is also the period when the ventures may realise significant co-benefits, as well as unintended negative impacts or risks, due to the larger scale of their activities. After the CATALI.5°T Initiative implementation period, the ventures exit the direct responsibility of the programme; however, the CATALI.5°T Initiative has the potential to prepare them for appropriate E&S management, and hence mitigate future risks.

G.1.3. Detailed Safeguards Assessment and Programme Risk Mitigation Approach

Environmental and Social Standard 1: Assessment and management of environmental and social risks and impacts

To ensure that the CATALI.5°T Initiative reaches its overall climate mitigation target, in compliance with the principles of ESS1, the Executing Entities will adopt the following principles for E&S management:

- The CATALI.5°T Initiative's climate change mitigation impacts will be maximised, while ensuring that potential negative E&S risks and impacts are appropriately mitigated ('do-no-harm' approach).
- The CATALI.5°T Initiative does not support ventures with activities in the IFC exclusion list.
- The CATALI.5°T Initiative does not fund activities, carried out by the CATALI.5°T Initiative-supported climate ventures, that would have unmanageable E&S risks, considering the short time duration of CATALI.5°T Initiative support.
- Potential negative E&S risks and impacts of the ventures' activities are managed in compliance with the mitigation hierarchy.
- Potential positive environmental and social impacts of the ventures' current and future activities (other than their climate change mitigation impacts) are identified and enhanced.

The CATALI.5°T Initiative will offer support to the ventures with the highest potential climate mitigation impact. Among ventures with similar mitigation impacts, it will prioritise ventures that: (a) offer climate adaptation co-benefits, and (b) are women-led. The CATALI.5°T Initiative will not necessarily select ventures with the lowest negative environmental and social risks and impacts (as much as can be assessed at early business stages). This is because such practices may: (i) result in over-representation of certain types of ventures, such as those in the information technology sector, compared with other sectors, such as those in the agriculture, forestry and other land use (AFOLU) sector, that are in important need of assistance; and (ii) prevent ventures with strong climate change mitigation potential, but higher E&S management challenges, to benefit from the opportunity offered by the CATALI.5°T Initiative to improve their capacity for E&S management and their overall performance.

The CATALI.5°T Initiative will further develop methodologies for capturing E&S co-benefits as one of its outputs.

Following the principles of ESS1:

- Ventures that receive funding should comply with the GCF ESS for their complete activities, not only for the funded activities; but
- E&S assessment management will be adapted to the level of risks and impacts, and to the level of control that can reasonably be exerted.

Environmental and Social Standard 2: Labour and working conditions

- ESMF observation: Labour law exists in all the potential participating countries, but it is not always sufficiently enforced. Depending on the activity sector, enforcement may vary from zero to complete. Enforcement is expected to be weakest in the agricultural sector, where high risks of poor working conditions exist, and where some workers can be vulnerable. In sectors with higher-skilled personal, national labour regulations are expected to be better applied, and skilled workers are generally not vulnerable. Working conditions are generally expected to be poorer in small businesses than in large companies. In general, small businesses will not have workers' representation or workers' grievance mechanisms. From the consultations held with different stakeholders, it appears that there is a high risk of informal labour occurring among the funded ventures. Informal labour is not prohibited as such by international E&S standards, but informality increases the risk of non-compliance with relevant standards on health and safety, non-discrimination, inclusion of vulnerable people and workers' representation. According to the stakeholder consultations carried out with venture founders, health and safety risks can exist at early-stage business development, mainly in research and development activities involving chemicals, in prototyping/small-scale production activities, construction activities, and agricultural activities. These risks will typically be minor during pre-acceleration, but can, in some cases, become significant during acceleration.
- Impact rating: The magnitude of impacts and risks will depend on the sector and on the growth stage of the venture but is expected to vary from negligible to low in the pre-acceleration stage, and from negligible to moderate in the acceleration stage.

- **Mitigation approach:** All beneficiaries of the pre-acceleration and acceleration programmes will receive minimum awareness-raising and training on labour, working conditions, occupational health and safety. More detailed risks and impacts of the activities of each venture, relative to ESS2, will be assessed at intake into both the pre-acceleration and the acceleration programmes. If necessary, the regional Executing Entity will define actions, provide training and set targets so that the ventures improve their management of human resources and occupational health and safety. For pre-acceleration, these measures will mostly be in the form of awareness-raising and ad hoc support, but for acceleration more prescriptive requirements will be captured in management plans (depending on each venture's risks). The following minimum measures will be applied to all ventures:
 - Awareness-raising and training on occupational health and safety (OHS) as soon as pre-acceleration.
 - Identification of significant risks, and requirement for immediate solution for ventures receiving CATALI.5°T Initiative grants.
 - Awareness-raising, including on risks of the worst forms of labour and safety risks among sub-contracted workers and workers in the supply chain and in their sourcing of materials, in compliance with ESS2 requirements for third-party workers.
 - Training on avoidance of discrimination in employment.
 - Access to a workers' grievance mechanism.
 - Incident reporting.

Environmental and Social Standard 3: Resource efficiency and pollution prevention

- **ESMF observation:** At pre-acceleration stage, prototyping activities could use water and energy and generate solid waste and effluents, but on a very minor scale. At acceleration stage, small-scale production activities are likely to use water, energy and materials, and to generate solid waste and effluents. In the agroforestry sector, and if some activities involve small-scale construction, besides use of water/energy and generation of waste, other types of impact sources – such as pest management, erosion and invasive species – may exist. In the manufacturing and IT sectors, the use of energy and the impacts of the use of equipment should be considered.
- **Impact rating:** The impact level will depend on the sector and on the growth stage of the ventures but is expected to vary from negligible to low in the pre-acceleration stage, and from negligible to moderate in the acceleration stage.
- **Mitigation approach:** All supported ventures will comply with national environmental laws. Supported ventures with physical impacts, such as use of resources and generation of waste, will comply with national environmental legislation and with ESS3 on resource efficiency and pollution prevention. For countries where national environmental legislation is insufficient, or insufficiently implemented, IFC/World Bank health, safety and environmental guidelines can be used, as well as WHO recommendations.

Risks and impacts of the activities of each venture, relative to ESS3, will be assessed during intake into the pre-acceleration stage and the acceleration stage. The ventures will perform assessments with the CIF tool, which is designed for climate assessment, but is also a powerful tool in understanding other impacts relevant to ESS3, such as use of energy, supply chain, use of water, use of materials, and generation of waste. All supported ventures will receive awareness-raising and training on energy efficiency, GHG emissions, water conservation, pollution control and waste management at pre-acceleration and acceleration stages. For those ventures in the acceleration programme, additional support for environmental management will be provided on a case-by-case basis: e.g. advice on solutions for effluent, materials and waste management, site visits, support for environmental permitting, etc. Additionally, for those ventures where potential impacts are identified during the screening, the ventures, assisted by the Executing Entities, will develop fit-for-purpose environmental management plans, including monitoring plans addressing relevant environmental parameters, and for monitoring environmental legal compliance if relevant.

A significant challenge in most of the CATALI.5°T Initiative countries is the lack of well-functioning waste management and sanitation infrastructure. Lack of complete management solutions remain acceptable at pre-acceleration and acceleration stages, but ventures will be encouraged to develop alternative waste management solutions, to circumvent poor local infrastructure and services, in their final business plan.

Environmental and Social Standard 4: Community health, safety and security

- **ESMF observation:** At pre-acceleration stage, impacts of the ventures' activities on communities are very unlikely. At acceleration stage, the ventures will start some scale of production, and may therefore generate minor to moderate risks and impacts for the public and communities living near production sites.
- **Impact rating:** The impact level will depend on the sector and on the growth stage of the ventures but is expected to vary from negligible to low in the pre-acceleration stage, and from negligible to moderate in the acceleration stage.
- **Mitigation approach:** ESS4 applies to the CATALI.5°T Initiative as follows:
 - The funded ventures' activities should not generate negative risks and impacts for the public.
 - All end-products should be safe and healthy for end-customers.

Risk mitigation is required in cases when technical assistance activities lead to gathering of people in buildings, concerning: (i) transmission of diseases and (ii) building safety. Impacts and risks will be identified during the venture screenings. Supported ventures will receive awareness-raising and training, and will be required to comply with ESS4. A special warning will be issued for all testing programmes involving customers. Such testing will not be allowed at the pre-acceleration stage. If it occurs at acceleration stage, a specific support programme will need to be developed.

Environmental and Social Standard 5: Land acquisition and involuntary resettlement

- **ESMF observation:** Some of the beneficiary ventures may require the use of land during their early development stages:
 - Urban land for construction of buildings or offices.
 - Land for testing of infrastructure solutions.
 - Land for demonstration or research purposes in the nature, forestry and agricultural sectors.

Use of land, or restrictions of access to land, may result in negative impacts on livelihoods, biodiversity, sacred sites, buried archaeological remains, etc. Such impacts may be difficult to manage in countries where the institutional frameworks for land tenure, for protection of human rights, for stakeholder engagement and for protection of cultural heritage are still weak or not sufficiently enforced. Due to the scale of the activities, the CATALI.5°T Initiative will not cause any significant involuntary resettlement. There are, however, very minor remaining risks that ventures would want to use land where:

- Previous owners have evicted dwellers in view of selling the land to the ventures.
- Small-scale informal economic activities, such as street vending, take place, provide a major fraction of the vendor's revenues, and cannot be easily relocated.
- The land is used for collection of flora and fauna, the activity is significant for the affected persons, and the activity cannot easily take place elsewhere.

Such cases of economic/physical displacement can be difficult to identify, and hence are more difficult to avoid.

- **Impact rating:** The risk of occurrence of such impacts is extremely low, as it would concern only a very small number of ventures. Impact magnitude (even without mitigation) would vary from very low to moderate.
- **Mitigation approach:** Under no circumstances will involuntary resettlement be tolerated by the CATALI.5°T Initiative. The approach of the CATALI.5°T Initiative regarding ESS5 is complete avoidance of involuntary economic or physical displacement, and restrictions of access to land, during pre-acceleration and acceleration. Ventures will be assessed for this risk during screening and will be excluded from CATALI.5°T Initiative support if a risk is presented. Furthermore, risks will continue to be assessed on an ongoing basis. To this end, the CATALI.5°T Initiative will implement the following procedures:
 - In case of any new land use by a supported venture: screening by the E&S specialist will verify that ESS5 does not apply or that ESS5 has been appropriately applied before the land is used by the venture.
 - Awareness-raising of supported ventures on risks and impacts of land use and land acquisition (when relevant for their activity sector).

- Training on ESS5 (when relevant), with a view to developing appropriate post-CATALI.5°T Initiative E&S management capacity for ventures that 'graduate' from the programme.
- Where potential temporary or partial impacts can be anticipated at the screening / due diligence stage, the CATALI.5°T Initiative will, in consultation with the relevant venture, stipulate prescriptive avoidance / remedial measures that are explicitly included in the venture's management plan.

Environmental and Social Standard 6: Biodiversity conservation and sustainable management of living natural resources

- **ESMF observation:** At the pre-acceleration and acceleration stages, the activities of the climate ventures are expected to have minimal adverse impacts on biodiversity, because of their limited scale. Minor impacts could be related to the use of land, to disturbance from construction activities, to noise or pollution, etc. A potentially significant impact is the risk of introduction of invasive species, because this impact could be irreversible even if starting at a small scale. Some activities could have biodiversity impacts in their supply chain, but, at this stage, these would be limited in magnitude. Outside of the bio-sector, any activity requiring construction of infrastructure could impact animal and plant species at a moderate scale. Interventions in biological corridors and rivers, even at a relatively small scale, require precautions because they can disrupt ecological continuity. Any significant reduction of river flows, and impacts on rivers bottoms, can be irreversible if not properly managed and should be avoided.
- **Impact rating:** The likelihood of occurrence of such impacts is low, and their magnitude would generally vary from low to moderate. However, some impacts can potentially be irreversible (invasive species, aquatic habitat destruction).
- **Mitigation approach:** Risks and impacts on biodiversity of the activities of each venture will be screened at pre-acceleration stage and assessed in a more detailed way at acceleration stage. Supported ventures with physical activities that could impact biodiversity will comply with standard ESS6 on biodiversity conservation and sustainable management of living natural resources. Biodiversity risk assessment and management will be included in capacity building programmes for the sectors concerned. If relevant, programme beneficiaries will receive training on ESS6 and on applicable standards such as organic/sustainable forestry certification programmes.

The implementation of ESS6 is challenging for impacts in natural and critical habitats²¹³; therefore, activities that would take place in habitats that are potentially natural and critical habitats, among which are nature protected areas²¹⁴, will not be eligible for support. They would require an in-depth biodiversity assessment, which is not feasible in the CATALI.5°T Initiative time-frame. The concerned ventures can receive training to prepare for such assessments in their future business stages. Activities that are also excluded from the CATALI.5°T Initiative are:

- Clear cutting of forest (as per the FAO²¹⁵ definition of forests);
- Disturbance of sea bottom or river beds;
- Damming and/or diversion of rivers and streams.

In case of impacts in other types of habitats, the biodiversity screening will determine if a further biodiversity assessment is still necessary, and if a biodiversity management plan should be prepared.

Environmental and Social Standard 7: Indigenous peoples

- **ESMF observation:** Most of the CATALI.5°T Initiative countries include population groups who self-identify as indigenous, tribal or autochthonous, whose lives are strongly related to certain territories and who, as such, have specific rights in international law – for example, under ILO's Convention No. 169 (Indigenous and Tribal Peoples Convention, 1989). The IWGIA (2020 and 2021), a mainstream source of information, identifies indigenous people (according to the ILO definition) in all Latin American countries except El Salvador and Honduras, where such groups are, however, identified by Minority Rights Group International. In West Africa, the IWGIA identifies indigenous people in Burkina Faso, Mali and Niger. The NGO, Minority Rights Group International (2022), provides more detailed information on other countries; it identifies potential risk situations related

²¹³ As per the definition of IFC PS6 and the guidance note dated June 2019.

²¹⁴ Except when it can be justified that the classification is no longer relevant.

²¹⁵ <https://www.fao.org/forest-resources-assessment/en/>

to disadvantaged ethnic groups in Mauritania in particular and also, to some extent, in Guinea (although no country should be considered to be entirely without risk).

- CATALI.5°T Initiative policy: The programme's policy with respect to indigenous people is as follows:
 - The CATALI.5°T Initiative will ensure that indigenous people (and historically under-served traditional local communities in sub-Saharan Africa) have equitable access to the programme's benefits and co-benefits.
 - The programme will ensure that potential negative impacts on indigenous people and other similar groups are avoided during the funding period.
 - The programme will increase the supported ventures' capacities to comply with the GCF's indigenous peoples policy in the longer term (post-implementation period).
 - Access of indigenous people to the programme's benefits:
 - The CATALI.5°T Initiative will encourage individuals or groups from ethnic minorities (including those qualifying as indigenous communities, as per the GCF's policy) with viable business ideas to apply for pre-acceleration or acceleration support. To this end, the Executing Entities will communicate by means and languages that are culturally adapted to indigenous peoples, and identify what kind of specific support is needed by indigenous-led ventures, so that they can fully benefit from the programme.
 - Such business ideas will be screened for full compliance with ESS7 and the GCF's indigenous people policy (as per the paragraphs below).
 - Impact assessment, impact avoidance and mitigation:
 - The Executing Entities will screen all ventures on applicability of ESS7 and the GCF's indigenous people's policy and will identify risks of negatively affecting indigenous people when ventures apply to the pre-acceleration and acceleration programmes, as follows:
 - By means of the E&S checklist provided in the ESMF.
 - By means of the due diligence at acceleration stage. Indigenous peoples experts will be involved in the due diligence.
 - These risks are more frequent in some sectors, such as the agroforestry sector, and more generally all sectors using land and water in rural areas.
 - The CATALI.5°T Initiative's policy is to avoid, during the pre-acceleration and acceleration stages, the funding of activities that could negatively impact indigenous people (including in the supply chains). However, the programme may in some cases accept into the programme ventures that are planning such activities in the longer term, provided their climate benefits outweigh such impacts, and provided compliance with the GCF's indigenous people's policy appears achievable. The CATALI.5°T Initiative will build the capacity of the ventures (when relevant: ventures in the agroforestry sector, for instance) to identify any potential risks and impacts and to manage these risks and impacts according to the GCF's policy. This will include training on the preparation of Indigenous People Plans (IPPs).
 - Some ventures may suggest business ideas that are not expected to negatively impact indigenous people, but which may still trigger the need to ensure equitable benefit sharing with indigenous people. In such cases, the GCF's policy requires, at minimum, careful and participative impact assessment of the proposed activities, as well as meaningful long-term stakeholder engagement and, in some cases, consent of the indigenous people. In such cases, Indigenous People Plans (IPPs) will be developed to define and ensure such meaningful participation and full impact mitigation, as well as benefit sharing.

Environmental and Social Standard 8: Cultural heritage

- ESMF observation: Potential impacts of the CATALI.5°T Initiative on cultural heritage are mainly related to the use of land and the risk of affecting burial places, archaeological remains, sacred sites or other types of tangible and intangible cultural heritage.
- Impact rating: As for the other land-related impacts, the risk of occurrence of such impacts is extremely low, as it would concern only a very small number of ventures. Impact magnitude without mitigation would vary from very low to moderate.
- Mitigation approach: The risks will be identified at an early stage in compliance with ESS8, and impacts either avoided or fully mitigated. Use of cultural heritage in a commercial manner will not be allowed. Significant risks will be eliminated during the intake screening, and the general CATALI.5°T Initiative's mitigation hierarchy will be applied to this topic.

Chance finds: The use of new land by ventures is expected to be extremely limited. In case of construction during the acceleration stage, the ventures will be required to develop a dedicated construction environmental and social management plan, which will include a chance finds procedure.

Non-discrimination and inclusion of vulnerable people

ESS1 establishes a requirement to include identification of vulnerable individuals or groups and assess potential impacts of CATALI.5°T Initiative activities on these persons. In the case of the CATALI.5°T Initiative:

- Vulnerable persons among venture founders or staff with specific needs of support will be identified by the E&S specialist at screening stage and will receive specific mentoring/coaching.
- Vulnerable individuals could exist among informal workers. Mitigation to this end is included under ESS2.
- For relevant sectors and activity-types (for instance, climate solutions in public transportation), where identification of vulnerable persons is important among end-customers, ventures will receive capacity building on these subjects at the acceleration stage.

Sexual Exploitation, Abuse and Harassment (SEAH)

SEAH is covered under the GCF's revised E&S policy and is, therefore, included in this section of the Funding Proposal and in the ESMF.

- Potential risks and impacts: For the CATALI.5°T Initiative, risks of sexual abuse, exploitation and harassment (SEAH) exist in the context of venture work relations, and when there are contacts between venture employees and the public. In Guinea, for example, women report that they are sometimes asked for sexual services in exchange for jobs. The CATALI.5°T Initiative does not exacerbate such risks, but it is necessary to include mechanisms to avoid SEAH, to monitor occurrence, and to implement a zero-tolerance policy.
- Mitigation: The following minimum measures in relation to SEAH risks are applied to all ventures:
 - All beneficiaries of the pre-acceleration and acceleration programmes will receive minimum awareness-raising and training on SEAH, as part of the ESS awareness-raising and training 'workstream' that is built into the programmes. Awareness-raising will include the topics of contracted workers and workers in the supply chain.
 - The Executing Entities will assess the risks and impacts of the activities of each venture relative to SEAH, at intake into the pre-acceleration programme (screening) and the acceleration programme (screening + due diligence).
 - Ventures receiving grants will be required to apply a zero-tolerance policy with regard to SEAH.
 - All workers and customers will have access to the SEAH grievance mechanism.
 - All ventures will report on SEAH occurrence as part of the E&S incident reporting.
 - In the pre-acceleration phase, ventures that are screened by the Executing Entities as having higher risks will receive additional training on handling complaints and enforcement of zero tolerance. Workers of these ventures (limited in numbers at this stage) will receive individual information on SEAH and each worker will be surveyed at least once individually during the programme.
 - In the acceleration phase, as part of the ESDD the Executing Entities will ensure that higher-risk ventures are sensitive to the zero-tolerance policy for any kind of SEAH, and sufficiently equipped to address this policy. To this end, they will use IPED's existing SEAH checklist for West Africa and develop an adapted version for Latin America. Actions will be integrated in each venture's action plan (for example: implementation / formalisation of a zero-tolerance policy for SEAH, raising awareness for the staff, implementation of mechanisms to respond, assess and improve).
- Grievance Redress Mechanism (GRM) and monitoring: A survivor-centred and gender-responsive GRM for SEAH-specific complaints / incidents, as well as dedicated monitoring, are included in the CATALI.5°T Initiative.

Emergency preparedness and response

During CATALI.5°T Initiative implementation, emergency preparedness and response standards apply to premises receiving members of the public during training, capacity building or co-working spaces. The Executing Entities have affirmed that they comply with building safety regulations and will be required to reaffirm compliance every year.

It is unlikely that any of the ventures will need to develop emergency preparedness and response procedures, but capacity building will be provided if relevant. This topic is included in the E&S screening and E&S assessment checklists.

Human rights

GCF's E&S policy, as well as GIZ's safeguards management system, put a significant emphasis on avoiding infringement of the human rights of others and addressing adverse human rights impacts that ventures may cause or contribute to. Each of the ESSs has elements related to human rights dimensions that a project may face in the course of its operations. For the CATALI.5°T Initiative, human rights risks and impacts are essentially related to employment (including in the supply chain and extraction of primary materials) and are assessed under this topic. The continuous impact screening and assessment process of the CATALI.5°T Initiative will enable potential human rights issues to be addressed under the different ESS categories.

G.2. Gender assessment and action plan

G.2.1 Gender Assessment

252. The Gender Assessment (GA) is provided in Annex 8a. The GA was conducted to ensure: a gender-sensitive, gender-responsive and gender-transformative approach and implementation of the CATALI.5°T Initiative, and to meet the standard requirements of the GCF and GIZ. The specific objectives of the GA were to: (i) provide an assessment of the gender dynamics in the two CATALI.5°T Initiative regions, including the gender equality issues faced by climate entrepreneurs and entrepreneur support organisations (ESOs); (ii) assess the gender equality policies and practices of the CATALI.5°T Initiative's Executing Entities; and (iii) provide recommendations on how the CATALI.5°T Initiative design can contribute to reducing gender inequalities and discrimination, as well as promote gender mainstreaming and increase women's access to the Initiative.

Gender and climate innovation

253. In order to drive the rapid economic transformation required to achieve the Paris Agreement, all sectors of the economy, from energy to agriculture, must adopt climate mitigation strategies. Significant technical and market innovation is needed, and this cannot be achieved without the support and participation of all stakeholders, including women. Women's unique experience, knowledge and skill-sets can – and do – strengthen climate mitigation efforts, as highlighted by the '2XClimate Finance Task-Force', in its recently launched Toolkit.²¹⁶ There is mounting evidence, particularly in Europe but also recognised and stated by one of the stakeholders consulted in Colombia²¹⁷, that women have different perceptions of the significance of climate change, and behave differently as a result. Women appear to be more likely to undertake actions that are perceived as beneficial to the environment: for example, consuming locally produced foods, recycling household waste and making decisions about the purchase of household appliances that take energy efficiency into account. The same stakeholder mentioned that women develop more mission-driven businesses, such as green ventures or inclusive businesses. It is not clear how far such findings can be generalised, but, at the very least, they point to the need to take gender into account in the design of entrepreneur support measures and consumer marketing strategies.

254. A World Bank study concludes that interventions in the energy sector can have significant gender co-benefits when interventions are carefully designed and targeted, based on a context-specific understanding of energy scarcity and household decision-making.²¹⁸ Likewise, in urban redevelopment and in the development of public transport systems, there is growing evidence that gender awareness in the design of such programmes can result in innovations that bring significant gender co-benefits.²¹⁹ The agriculture sector is a major contributor to climate change, producing ~25% of all greenhouse gas emissions globally. Industrial agriculture is also a major cause of ecological degradation, directly reducing the resilience and future productivity of lands and ecosystems. Women have important roles across agricultural value chains – as entrepreneurs, producers, processors, distributors and

²¹⁶ 2XClimate Finance Taskforce (2021), *The Gender-Smart Climate Finance Guide*: <https://www.2xcollaborative.org/2x-green-toolkit>

²¹⁷ Stakeholder consultation meeting with CleanTech Hub in Colombia.

²¹⁸ World Bank (2011), *Gender and Climate Change: Three Things You Should Know*: <https://openknowledge.worldbank.org/bitstream/handle/10986/27356/658420REPLACEM00Box374367B00PUBLIC0.pdf?sequence=1&isAllowed=y>

²¹⁹ Women's Budget Group (2021), *Towards Gender-Inclusive and Sustainable Transport Systems*: <https://wbg.org.uk/wp-content/uploads/2021/06/Gender-inclusive-transport-systems-V3.pdf>

consumers.²²⁰ Yet significant gender gaps across these value chains limit the ability of women to innovate, implement and lead climate solutions in agriculture. Empowering women throughout the sector can act as a key enabler of climate mitigation (and adaptation).

Status of regional gender equality

255. At the international level, West African and Latin American countries have ratified most international conventions and regional instruments, including the Committee on the Elimination of Discrimination against Women (CEDAW) and its Optional Protocol. The countries also have committed to implement the recommendations of international and African or Latin American conferences, including those of Mexico City (1975), Copenhagen (1980), Nairobi (1985), Cairo (International Conference on Population and Development, ICPD, 1994), Beijing+5 (2000), the African Women's Decade Programme 2010-2020, the 1994 Inter-American Convention on the Prevention, Punishment, and Eradication of Violence against Women (Convention of Belém do Pará) and the Sustainable Development Goals (SDGs). Additionally, the West African countries have operationalised UN Resolution 1325 on women, peace and security in Africa, for which Côte d'Ivoire was the first signatory. They are also State Parties to the Solemn Declaration of African Heads of State and Government on Gender Equality in Africa adopted in July 2004 (the so-called Maputo Protocol). Overall, Latin American countries have made greater progress in gender equality compared with those in West Africa. For example, they are generally ranked higher in the Human Development Index (HDI)²²¹ and the Gender Inequality Index (GII).
256. Latin America. Over the past 30 years, women participating in Latin America's workforce has increased by 11%. More than half of all women (aged 15 or over) in 18 countries in the region are working, with Peru taking the lead at 69% and, among the lowest, Costa Rica at 45% and Mexico at 44%. In Peru, for example, 90% of women with advanced education (which, in this case, refers to schooling beyond high-school level) are working, and 80% in Venezuela, with similar correlations in other countries in the region.²²² In addition to improvements in education, the increasing involvement of women in the labour market is attributable, inter alia, to the steady reduction in discriminatory regulations against women in the workforce. Nonetheless, there is still a substantial wage gap, with women earning on average 17% below men of the same age and economic status; unpaid labour (such as housework and childcare) is disproportionately allocated to women, resulting in an uneven balance of workload and compensation.²²³ Latin America has the highest female entrepreneurship rates in the world: for example, over 33% and 32% of working-age women are engaged in early-stage business activities in Ecuador and Chile, respectively.²²⁴ Approximately 17% of ventures in the region that successfully attract VC funding are female-founded, a higher proportion than any other region of the world.²²⁵ Entrepreneurship in Latin America is generally characterised by optimism, innovation and growth: two-thirds of Latin American entrepreneurs enter the field because they recognise the opportunity and potential innovation, rather than out of necessity.²²⁶
257. West Africa. Since the mid-2000s, almost every West African country and regional organisation has adopted a gender policy or strategy and is increasingly mainstreaming gender issues in different policy sectors.²²⁷ However, large gender disparities persist. Women and girls are disadvantaged in many areas and do not enjoy the same opportunities as their male counterparts. This is true for access to basic social services, property rights and the labour market. Only 10% of the West African ventures that have cumulatively raised US\$ 1 million or more in the past decade have had at least one female co-founder.²²⁸

Key barriers faced by women entrepreneurs in Latin America and West Africa

²²⁰ FAO (2011), *The Role of Women in Agriculture*: <https://www.fao.org/3/am307e/am307e00.pdf>

²²¹ Measures differences in male and female achievements in three basic dimensions of human development: health, education and command over economic resources.

²²² ECLAC/ILO (2019), *Employment Situation in Latin America and the Caribbean: Evolution of, and Prospects for, Women's Labour Participation in Latin America*: <https://www.cepal.org/en/publications/44917-employment-situation-latin-america-and-caribbean-evolution-and-prospects-womens/>

²²³ ECLAC/ILO (2019), *Employment Situation in Latin America and the Caribbean: Evolution of, and Prospects for, Women's Labour Participation in Latin America*: http://repositorio.cepal.org/bitstream/handle/11362/44917/1/S1900832_en.pdf

²²⁴ Statista (2020), *Start-Ups in Latin America – Statistics & Facts*: <https://www.statista.com/topics/4786/startups-in-latin-america/>

²²⁵ Tech Crunch (2020), *Latin America Takes the Global Lead in VC Directed to Female Co-Founders*: <https://techcrunch.com/2020/02/06/latin-america-takes-the-global-lead-in-vc-directed-to-female-co-founders/>

²²⁶ The Startup VC (2020), *Women Entrepreneurship in Latin America?*: <https://www.thestartupvc.com/startup-news/women-entrepreneurship-in-latin-america>

²²⁷ OECD/Sahel and West Africa Club Secretariat (2019), *Women and Trade Networks in West Africa*: https://read.oecd-ilibrary.org/development/women-and-trade-networks-in-west-africa_7d67b61d-en#page1

²²⁸ Vogue (2021), *Meet 6 Women at the Forefront of West Africa's Tech Boom*: <https://www.vogue.in/culture-and-living/content/west-africa-women-technology-industry-professionals>

258. Urban-rural divide. The most significant difference in the ability for women to become entrepreneurs is determined by where they live – in rural or urban settings. This disparity is grounded in unequal educational levels, diminished access to finance, and traditional social burdens of household care and childbearing (unpaid care work). For example, in Côte d'Ivoire, rural women represent 67% of the workforce and produce 60-80% of food – yet, 75% live under the poverty line.²²⁹ In Latin America, only 30% of the women who live in rural areas own agricultural land and fewer than 5% have access to technical assistance. Land tenure is a major barrier for women, as many have limited access to land tenure or formal land use rights. This has major implication for women's livelihood security and makes it difficult for many women to access credit/finance. In addition, access to essential services and actors is often limited to the capital cities. In Côte d'Ivoire, for example, international actors are almost entirely based in Abidjan, which is well serviced in terms of women's entrepreneurship empowerment programmes, but other large cities and rural areas are left out of programme implementation. There are a few exceptions, such as the Institut National Polytechnique Félix Houphouët-Boigny in Yamoussoukro, the political capital of Côte d'Ivoire, which has a pre-accelerators, and some organisations have occasional satellite programming, but this is not a widespread phenomenon.
259. Customary and traditional norms and practices. In both West Africa and Latin America, child marriage and teenage pregnancies are common. West Africa is said to have the highest rate of child marriage in the world and is unlikely to meet the 2030 SDG of ending child marriage.²³⁰ In Burkina Faso, 52% of girls are married before the age of 18 years, 10% of whom are younger than 15. In Niger, the rate is even higher, with 76% of girls married before the age of 18.²³¹ Maternal mortality in West Africa averages 26 deaths a day, a rate that is four times higher than anywhere else in the world.²³² Latin America, on the other hand, has the highest rates of pregnancy among adolescents, with 74 births per 1,000 adolescents between 15 and 19 years of age, as well a high maternal mortality of 34.6 deaths per 100,000 live births. Customary laws continue to be applied on a regular basis in many countries in West Africa. These customary laws are often based on patriarchal structures that negatively affect women, notably in terms of inheritance rights, land rights, access to credit and accessibility of the justice system.²³³ In Latin America, significant legal strides have been made in the past decade, and many countries have repealed laws identifying the husband as the head of the household, which was seen to limit women's capacity to administer properties.
260. Sexual and gender-based violence (SGBV) and Sexual Exploitation, Abuse and Harassment (SEAH). Although a number of measures have been implemented to combat SGBV on paper, SGBV remains prevalent in West African countries. A major form of SGBV in West Africa is female genital mutilation (FGM). Although laws criminalising FGM exists in most West African countries, Mali and Burkina Faso, for example, continue to record rates above 75% amongst women aged 15 to 49 years.²³⁴ In addition to loss of life, the practice causes life-long problems that hinder women from achieving their full potential. In Latin America, gender-based violence (GBV) remains a serious issue in Mexico. According to surveys conducted by INEGI and the National Institute for Women, around 63% of Mexican women (aged 15 or older) have been victims of GBV at some point in their lives. Femicide (the killing of women) is also a regional problem²³⁵, with Brazil reporting the highest number of cases at 1,738 and Mexico at 948 cases in 2020.
261. Access to entrepreneurship support and capacity building. Gender inequality with regard to illiteracy and lack of education is probably the most important factor affecting women's entrepreneurship potential in most countries in West Africa. For example, the latest census of Côte d'Ivoire (in 2014) indicates that 60% of Ivorian women are not educated, or only completed primary school, and that illiteracy is more pronounced among older generations.²³⁶ In Latin America, the problem is not typically related to education, as the region has one of the highest

²²⁹ Catalystas Consulting (2020), *Scoping Mission: Catalysing Women's Entrepreneurship in Cote D'Ivoire*: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

²³⁰ Plan International / Girls Not Brides (2020), *COVID-19 and Child Marriage in West and Central Africa*: https://plan-international.org/uploads/2021/12/waca-plan_and_gnb_joint_policy_brief_on_cm-final_eng-aug2020.pdf

²³¹ UNICEF (2011), *Child Marriage Database*: <https://data.unicef.org/topic/child-protection/child-marriage/>.

²³² OCHA Reliefweb (2021), *Child Marriage Kills More Than 60 Girls A Day*: <https://reliefweb.int/report/world/child-marriage-kills-more-60-girls-day>

²³³ UN Human Rights / UN Women (2013), *Realising Women's Rights to Land and Other Productive Resources*: <https://www.un-women.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2013/11/OHCHR-UNWomen-land-rights-handbook-WEB%20pdf.pdf>

²³⁴ UNICEF Global Database (2021), *Prevalence of Female Genital Mutilation/Cutting Among Girls and Women (% of girls and women ages 15-49)*: <https://data.unicef.org/topic/child-protection/female-genital-mutilation/>.

²³⁵ CEPAL (2020), *The Pandemic in the Shadows: Femicides or Feminicides in 2020 in Latin America and the Caribbean*: https://www.cepal.org/sites/default/files/infographic/files/21-00792_folleto_the_pandemic_in_the_shadows_web.pdf.

²³⁶ Catalystas Consulting (2020), *Scoping Mission: Catalysing Women's Entrepreneurship in Cote D'Ivoire*: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

literacy levels. However, as in West Africa, alternative education such as accelerators or business support programming are mostly limited to the wealthy part of the population, including women coming from well-off families, and are virtually unavailable outside of the cities. In West African capital cities, entrepreneurship support projects are located mostly in the same urban neighbourhoods, frequented by groups with access to the best educational institutions both in-country and abroad. The situation is similar in Latin America: for example, Mexico City hosts over 30% of all operational ventures in Mexico. This is also the case in Colombia, where more than half of all ventures are based in Bogotá and its immediate neighbourhood.

262. Lack of access to information. No matter the socio-economic or education level, women face an overall lack of access to information related to registering and opening a business, as well as accessing (or preparing to access) financial services. In West Africa, it was noted during stakeholder consultations that supportive government legislation and policies remain largely unknown beyond capital cities and are thus under-utilised. Women are under-represented in networking events and conferences where investors meet and network with entrepreneurs, partly because of the smaller numbers of women entrepreneurs but also because of the stigma of going out alone to an event, for safety reasons and due to the need (and/or expectation) of taking care of family and household tasks.
263. Limitations in access to finance. First, the lack of information makes accessing financial markets challenging beyond mobile money systems. The lack of information also limits women's ability to prepare themselves to apply for investment. Second, , women's lack of access and control over collateral assets limits their access to credit more than men. Third, there is an exaggerated gap in finance between micro- and large loan amounts that hinders business expansion, especially for women.²³⁷
264. Narrow perceptions of entrepreneurship. Consultations during preparation of the Gender Assessment reveal that the local perception of what entrepreneurship is, in both Latin America and West Africa, tends to be narrowly limited to an idea of Western businessmen and women in offices. For many women, the concept of entrepreneurship is reserved for suits and ties, formal offices and fast-paced environments with high revenue, expanding teams of employees and observable short-term growth. However, many of these same women engage in work – often entrepreneurial buying and selling in the informal economy – outside their primary role or occupation. In Latin America, stereotypes and gender roles continue to prevail. In Mexican society, for example, 48% of women aged 15 and older think women who work are not able to take care of their children properly; while 10% consider men and not women should hold decision-making positions.²³⁸
265. Under-representation of women trainers / coaches. The combination of needing general business experience, climate change knowledge and, typically, deep expertise in one or more sectors serves to limit the number of staff members of pre-accelerators or accelerators who can advise climate ventures. When the gender element is layered on top of this, the numbers of qualified women trainers / coaches reduces yet further. In general, female trainers have more empathy for other women and, by sharing own experiences during the training and coaching, they can support women to confront their challenges.

G.2.2 Gender Action Plan

266. The detailed Gender Action Plan (GAP), including interventions at the Activity and Sub-Activity levels, is provided in Annex 8b. For reasons of brevity, only the strategic recommendations are summarised below.

General recommendations for CATALI.5°T Initiative design

267. Recommendation 1: Ensure that the Executing Entities and local implementation partners have the capacities and necessary tools for gender-climate mainstreaming. Based on the institutional capacity assessment (see the Gender Assessment, Annex 8a), there is already strong, demonstrable gender commitment from all of the Executing Entities. However, gender expertise and capacities for gender mainstreaming in climate innovation is not the same across each of the Executing Entities. In this regard, the following recommendations are regarded as crucial for the CATALI.5°T Initiative:
- Develop a unified gender-mainstreaming document for the CATALI.5°T Initiative that provides essential tools for gender and climate innovation, addressing the two regional contexts.

²³⁷ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dlvoire.pdf>

²³⁸ GIZ (2018), *Gender Analysis for NAMA Project: 'Energy Efficiency in SMEs as a Contribution to a Low-Carbon Economy in Mexico'* [Internally shared document].

- Ensure Executing Entities and local implementation partners are adequately trained on gender mainstreaming in climate innovation. This training could, among other benefits, provide practical measures for creating more gender-smart and inclusive pre-acceleration and acceleration programmes and be able to advise and train climate ventures on gender-climate issues.
- Rather than appointing and training one focal point individual from each Executing Entity, ensure the staff of the two regional initiatives, including top and middle management of the Executing Entities, are trained. This will also create more buy-in and momentum for gender mainstreaming in the planning, implementation and monitoring of the Executing Entities' activities and, ultimately, lead to effective realisation of the Executing Entities' commitment towards implementation of the GAP.

268. Recommendation 2: Encourage, support and document cross-learning on climate gender mainstreaming between Executing Entities and regions. There is currently little documented evidence to gauge which strategies work best in securing a healthy pipeline of female ventures. But anecdotal evidence gathered from interviews with the Executing Entities reveals some promising strategies, such as focusing on ventures / value chains where women are predominant, establishing partnerships with women-oriented platforms and networks, and anchoring the pre-acceleration / acceleration programmes on coaching and mentoring programmes run by women. It is, therefore, recommended that such promising strategies are further tested during implementation of the CATALI.5°T Initiative and the most effective pathways are identified for learning and scaling. There is an opportunity for more deliberate and systematic learning, based on what gender and climate innovation strategies are found to work and where (particularly feeding country- and community-level voices and insights into gender and climate change innovation at the global level), and then replicating the lessons among the Executing Entities through, for example, workshops and reporting of best practices.

269. Recommendation 3: Review and update the CATALI.5°T Initiative's gender indicators. These indicators should be integrated in the CATALI.5°T Initiative's learning framework.

270. Recommendation 4: Include gender diversity in the CATALI.5°T Initiative's governance structure in both regions.

Recommendations for CATALI.5°T Initiative Executing Entities

271. Recommendation 5: Ensure calls for applications and scouting are inclusive and encourage applicants of all genders:

- Use different channels and networks to reach all genders.
- Hold information events and consider holding separate women-only events.
- Create promotional materials that are gender-inclusive and that integrate gender-sensitive language to avoid confusion in the French and Spanish interpretation of some gender-sensitive words.²³⁹
- In marketing materials, include messages to counteract negative stereotypes to encourage and attract female entrepreneurs: for example, by designing inspiring messages²⁴⁰, featuring female role models, or highlighting success stories of female and minority entrepreneurs that could help disrupt, for instance, the notion of what a stereotypical coder or climate entrepreneur or engineer (etc.) looks like.

272. Recommendation 6: Apply a gender lens when selecting ventures for the pre-acceleration and acceleration programmes in order to ensure that all genders have equal opportunity to be selected. This can be achieved through:

- Setting clear exclusion and selection criteria, including their weightings.
- Establishing gender-diverse selection panels. A study by the Global Accelerator Learning Initiative (GALI) found that "having more than 45% women on a selection committee is associated with significantly more women-led ventures in applicant pools."²⁴¹

273. Recommendation 7: Adapt the pre-accelerator and accelerator programme curriculum language to be inclusive of all genders, including showcasing successful women entrepreneurs to provide role models and examples that women participants can relate to.

274. Recommendation 8: During pre-acceleration and acceleration programme delivery, identify and enhance the capacity of the supported ventures to maximise gender benefits:

²³⁹ Including unambiguous use of plural pronouns. In both languages, masculine pronouns are applied to groups of mixed genders, which can cause confusion for female readers (are they being addressed or not?).

²⁴⁰ A simple note stating female and minority applicants are strongly encouraged to apply could go a long way in reassuring applicants.

²⁴¹ GALI (2020), *Accelerating Women-led Start-Ups: A Knowledge Brief by the Global Accelerator Learning Initiative*: <https://www.gali-data.org/publications/accelerating-women-led-startups/>

- At an early stage, introduce gender mainstreaming issues to the ventures, integrate gender into the ventures' capacity assessments and make available mechanisms for strengthening identified capacity gaps. Specific training should focus on: (i) raising ventures' awareness of gender disparities and power dynamics that impact their own entrepreneurial journeys, (ii) how to apply a gender lens to product / service development, (iii) how to reduce conscious and unconscious gender bias arising from their own actions, and (iv) mechanisms for identifying and eliminating SEAH.
- The ideation process should also capture women's and minority views. In West Africa, given the structural issues perpetuated by patriarchal norms, it is essential that ideation sessions are conducted separately, or at least have some sort of facilitation support, for male and female entrepreneurs to achieve maximum input from both sexes.
- Ensure training, mentoring and coaching venues and timings are suitable for female entrepreneurs to avoid exacerbating their time constraints.

275. Recommendation 9: Aim for gender diversity in programme delivery. This includes building a gender-diverse pool of mentors and coaches so that all participants', including female entrepreneurs', perspectives and experiences are understood and accommodated.

276. Recommendation 10: Help to create and maintain network support communities by:

- Inviting successful women climate entrepreneurs as keynote speakers and role models to community-building and promotional events.
- Ensuring the times for networking events are suitable for female entrepreneurs. Where events are undertaken online, video recordings (data protection mechanisms allowing) should be made available to the female entrepreneurs who were not able to attend.
- Creating a safe and supportive community of practice for women entrepreneurs. The strength of this community of practice will be rooted in the collaboration and support that women give to each other. In addition, creating exposure and linking venture founders with networks of individuals or groups containing sector experts, funders and other like-minded individuals will lower the informational barriers that women entrepreneurs can face.
- Inviting key institutions responsible for gender and gender mainstreaming, including public institutions supporting entrepreneurs in the respective regions, to community-building events.

Recommendations for supported climate ventures

277. Recommendation 11: At the pre-acceleration stage, ventures' leadership and management tend to be fluid. This provides an opportunity for the CATALI.5°T Initiative to make an early start on gender mainstreaming in ventures' management and operations. A tailored approach (products / services, venture needs, context and venture capacity) will be essential. For the ventures to become gender-smart, the following topics for specific training are recommended:

- Ventures should gain awareness of gender issues, including SEAH (see Recommendation 8).
- Ventures should recognise the value of including sex-disaggregated data in their market research and in their employee recruitment practices. Clarifying gendered differences will reveal opportunities, enable validation of specific products or services, and help refine and strengthen the business value proposition.
- Ventures should be willing to identify priority areas and the type of support needed to have their own capacities built in gender mainstreaming during their participation in the pre-acceleration programme.

278. Recommendation 12: At the acceleration stage, ventures, and especially those that have not gone through the pre-acceleration programme, may already have rigid structures in place and may not initially be interested in learning how to incorporate gender into their business. For many, the lack of awareness of the connection between gender inclusion and business performance will keep them focused only on trying to scale their business. If gender is not viewed as something that can impact the bottom line, it is less likely to be prioritised by the ventures. Accordingly, the commercial benefits of gender inclusion should be emphasised, including:

- Tailor-made products and services.
- Gender-disaggregated data, which can inform marketing tactics, strategic messaging and sales efforts.
- Attracting investment, particularly from international financiers with gender strategies and gender Key Performance Indicators.

Acceleration-stage ventures should also:

- Commit to ensuring equal opportunities and equal pay for the same jobs among their employees / labourers: for example, they should create a salary scale that does not discriminate based on gender, age, race, colour or religion.
- Continually and deliberately analyse their team compositions, particularly gender ratios among: (i) the top and middle management teams, and (ii) part-time vs full-time employees.
- Ensure gender inclusion in products and services. The ventures should be able to clearly specify what gender inclusion means for their products and services, what their ultimate target is, and how they intend to get there.
- The ventures should make women visible in order to challenge stereotypes and create market opportunities for their products. The ventures should provide senior women managers in their teams with opportunities to represent the business publicly through marketing and other channels. The advertisement of their products and services should also refrain from negative gender stereotypes and present women and marginalised groups in a dignified way.

G.2.3 Incorporation of the Gender Action Plan in the CATALI.5°T Initiative design

Table 16: Incorporation of GAP Recommendations

	GAP Recommendation	Response in CATALI.5°T Initiative Design
1	Ensure that the Executing Entities have the capacities and necessary tools for gender-climate mainstreaming	Activities 1.1.1 (Latin America) and 2.1.1 (West Africa) provide capacity building for the Executing Entities, local implementation partners, entrepreneur support organisations (ESOs) and venture investors. Sub-Activities 1.1.1.4 (Latin America) and 2.1.1.4 (West Africa) focus specifically on gender equality and diversity.
2	Encourage, support and document cross-learning on climate gender mainstreaming between Executing Entities and regions	Sub-Activities 1.1.1.4 and 2.1.1.4 include development of regional reports and a consolidated cross-regional report based on longitudinal studies of the Executing Entities. The report will inform individual and collective actions on gender.
3	Review and update the CATALI.5°T Initiative's gender indicators	The log-frame contains gender-differentiated indicators and targets, as well as Activities and Sub-Activities that specifically address gender-related issues.
4	Include gender diversity in the CATALI.5°T Initiative's governance structure	The CATALI.5°T Initiative will establish minimum quotas for women's participation in the Global Advisory Committee (GAC) and the 3 Management Units.
5	Ensure calls for applications and scouting are inclusive and encourage applicants of all genders	Calls for applications for the pre-acceleration and acceleration programmes will be in Spanish / French, will use gender-inclusive language, will be disseminated across women-oriented networks and will be accompanied by special events for women and other under-represented backgrounds. All major communications materials will be reviewed and approved by the CATALI.5°T Initiative's regional gender specialist (one per region).
6	Apply a gender lens when selecting ventures for the pre-acceleration and acceleration programmes	Gender considerations are incorporated in venture screening and venture selection, in both the pre-acceleration and acceleration programmes. <u>Screening:</u> ventures will be excluded if: (i) the venture's product or service has obvious negative implications for women: e.g. it would exacerbate wage disparities or require long working hours without extra compensation; and/or (ii) the venture has none of its founders and employees identifying as female and the venture has no intentions of diversifying its team members to include more women. Additionally, at commencement of the CATALI.5°T Initiative, a lean mechanism will be developed by the regional Executing Entities to reduce unconscious gender bias in the screening process; this will be approved by GIZ in its AE role. <u>Selection:</u> as part of the scoring system, a venture is favoured (up to 10% of the overall score) if: (i) it is female-led, defined as the founder being a woman or, where there is more than one founder, the majority of founders (50% or more) are women; and/or (ii) it will offer products or services that address a gender-related climate problem (e.g. gender stereotyping, increasing women's wages, increasing female participation in male-dominated sectors, etc.)
7	Adapt the pre-accelerator and accelerator programme curriculum language to be inclusive of all genders	Activities 1.3.1 and 1.4.1 (Latin America) and 2.3.1 and 2.4.1 (West Africa) will ensure curriculum materials are inclusive of all genders, includes examples of successful women entrepreneurs and content that women can relate to. All materials will be reviewed and approved by the CATALI.5°T Initiative's regional gender specialist (one per region).

8	Identify and enhance the capacity of the supported ventures to maximise gender benefits	The training programmes at pre-acceleration and acceleration stages will include gender modules. These will cover a range of topics, including (not exhaustive): business cases for gender in climate innovation and using a gender lens in ventures' business models (e.g., market research, consumer segmentation); and mechanisms for identifying and eliminating sexual exploitation, abuse and harassment (SEAH), as well as reducing unconscious gender biases.
9	Aim for gender diversity in programme delivery	The CATALI.5°T Initiative will establish minimum quotas for women's participation in the Global Advisory Committee (GAC) and the 3 Management Units. At the commencement of the CATALI.5°T Initiative, the Executing Entities will build gender-diverse pools of coaches and mentors in each region.
10	Help to create and maintain network support communities	Sub-Activities 1.2.1.2 (Latin America) and 2.2.1.2 (West Africa) will create digital networks for promoting women and diversity in climate entrepreneurship. The digital communities will be for female entrepreneurs to become inspired, build and successfully grow their businesses while learning from their peers and benefiting from the support of like-minded female founders. They will serve as online gateways to useful and inspiring information (including upcoming events such as climathons and application information / materials for the pre-acceleration and acceleration programmes).
11	Make an early start on gender mainstreaming in ventures' management and operations	While in the pre-acceleration and acceleration programmes, the climate ventures will receive intensive tuition and guidance on gender issues, including in relation to staff recruitment, staff retention, training, and workplace rules and norms (e.g. SEAH), as well as operational and strategic aspects (e.g. market segmentation, understanding consumers' gender-differentiated needs, etc.).
12	Emphasise the commercial benefits of gender inclusion	The commercial benefits to the ventures of gender inclusion will be emphasised throughout, including access to finance (which is a key consideration for most early-stage ventures that are navigating the 'Valley of Death').

G.3. Financial management and procurement

279. The Executing Entities – Climate-KIC, Tec de Monterrey, Impact Hub Abidjan and IPED – will sign subsidiary agreements with GIZ as the Accredited Entity, based on GIZ standard operating procedures for financing contracts. These agreements will establish the legal basis by which GIZ makes GCF funding available to the Executing Entities to manage and operate the programme. The Executing Entities are responsible for implementing and administering their activities in accordance with GIZ and their own standard operating procedures. As the Accredited Entity, GIZ has assessed the capacities of the Executing Entities and is satisfied that they are able to implement their respective tasks within the programme.

G.3.1 Disbursement and Procurement Arrangements

Fiduciary standards

280. The financial management of the programme will follow GIZ's internal rules and regulations. GIZ has bank accounts with Deutsche Bundesbank and Commerzbank. GIZ will not open a specific bank account for GCF proceeds and other GCF funds but will ensure that all funds provided are clearly identifiable and distinguishable from GIZ's other funds by setting up separate cost units exclusively for the funds disbursed by the GCF for each funded activity (ledger accounts). Funds received and expenditures incurred will be booked to the respective cost unit according to generally accepted accounting principles and procedures accepted by the German Government. As a general principle, GIZ disburses funds to recipients in accordance with the progress of the programme.

Procurement

281. In the case of procurement by GIZ, GIZ will follow its own procurement guidelines. GIZ is required to comply with the relevant contracting rules established in the German Act against Restraints of Competition (GWB), the German Regulation on the Award of Public Contracts (VgV) and, if applicable, the Contracting Rules for the Award of Public Service Contracts when procuring services, construction work and supplies. When awarding contracts for supplies and services (including consultancy services) to be financed in full or in part from the financing contract / grant agreement, the external Executing Entities will observe their own national regulations for public procurement and will in any case comply with the provisions mentioned in the Procurement Guidelines for projects and programmes funded by GCF/GIZ. The Procurement Guidelines shall not contradict the applicable national procurement law and/or regulations for public procurement, which apply in the Executing Entities' countries. In principle, the regulations of the Executing Entities' country are to be observed; the procurement procedures

mentioned in the Guidelines are obligatory minimum standards. While implementing a programme with public funds the Executing Entities should take reasonable account of economic efficiency as well as ecological and social aspects.

282. The CATALI.5°T Initiative's procurement plan is available in Annex 10a.

Independent external auditing

283. Independent external auditors will perform annual financial audits of the programme in line with International Auditing Standards. GIZ will be responsible for selecting and engaging the external auditors.

G.4. Disclosure of funding proposal

- No confidential information: The accredited entity confirms that the funding proposal, including its annexes, may be disclosed in full by the GCF, as no information is being provided in confidence.
- With confidential information: The accredited entity declares that the funding proposal, including its annexes, may not be disclosed in full by the GCF, as certain information is being provided in confidence. Accordingly, the accredited entity is providing to the Secretariat the following two copies of the funding proposal, including all annexes:
- full copy for internal use of the GCF in which the confidential portions are marked accordingly, together with an explanatory note regarding the said portions and the corresponding reason for confidentiality under the accredited entity's disclosure policy, and
 - redacted copy for disclosure on the GCF website.
- The funding proposal can only be processed upon receipt of the two copies above, if containing confidential information.

ANNEXES

H.1. Mandatory annexes

- Annex 1 NDA no-objection letter(s) ([template provided](#))
- Annex 2 Feasibility study - and a market study, if applicable
- Annex 3 Economic and/or financial analyses in spreadsheet format
- Annex 4 Detailed budget plan ([template provided](#))
- Annex 5 Implementation timetable including key project/programme milestones ([template provided](#))
- Annex 6 E&S document corresponding to the E&S category (A, B or C; or I1, I2 or I3):
[\(ESS disclosure form provided\)](#)
 - Environmental and Social Management Framework (ESMF)
 - Others (please specify – e.g. Resettlement Action Plan, Resettlement Policy Framework, Indigenous People’s Plan, Land Acquisition Plan, etc.)
- Annex 7 Summary of consultations and stakeholder engagement plan
- Annex 8 Gender assessment and project/programme-level action plan ([template provided](#))
- Annex 9 Legal due diligence (regulation, taxation and insurance)
- Annex 10 Procurement plan ([template provided](#))
- Annex 11 Monitoring and evaluation plan ([template provided](#))
- Annex 12 AE fee request ([template provided](#))
- Annex 13 Co-financing commitment letter, if applicable ([template provided](#))
- Annex 14 Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule

H.2. Other annexes as applicable

- Annex 15 Evidence of internal approval ([template provided](#))
- Annex 16 Map(s) indicating the location of proposed interventions
- Annex 17 Multi-country project/programme information ([template provided](#))
- Annex 18 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- Annex 19 Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
- Annex 20 First level AML/CFT (KYC) assessment
- Annex 21 Operations manual (Operations and maintenance)
- Annex 22 Assessment of GHG emission reductions and their monitoring and reporting (for mitigation and cross cutting-projects)
- Annex X Other references

* Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents.

Annex Number	Annex Document ²⁴²
1. NDA Approval	
1.1. Latin America	
1.1.1	NDA Letter of No Objection: Argentina
1.1.2	NDA Letter of No Objection: Costa Rica
1.1.3	NDA Letter of No Objection: Dominican Republic
1.1.4	NDA Letter of No Objection: Honduras
1.1.5	NDA Letter of No Objection: Mexico
1.2 West Africa	
1.2.1	NDA Letter of No Objection: Benin
1.2.2	NDA Letter of No Objection: Burkina Faso
1.2.3	NDA Letter of No Objection: Côte d'Ivoire
1.2.4	NDA Letter of No Objection: Guinea
1.2.5	NDA Letter of No Objection: Mauritania
1.2.6	NDA Letter of No Objection: Niger
1.2.7	NDA Letter of No Objection: Senegal
1.2.8	NDA Letter of No Objection: Togo
2. Feasibility Study	
2a	Scoping assessment study
2b	Feasibility study: Latin America
	Annex 1: Country tables
	Annex 2: NDCs and climate policies
	Annex 3: Baseline projects
	Annex 4: Stakeholder engagement
	Annex 5: Validation process and results
2c	Feasibility study: West Africa
	Annex 1: Country tables
	Annex 2: NDCs and climate policies
	Annex 3: Baseline projects
	Annex 4: Stakeholder engagement
	Annex 5: Validation process and results
2d	Report on current ESG integration status among VCs and accelerators in Latin America and West Africa
3. Economic and Financial Analysis	
3a	Economic and financial valuation model
3b	Economic and financial valuation summary
3c	Venture financing environment – Latin America
3d	Venture financing environment – West Africa
4. Programme Budget	
4a	Programme budget
5. Implementation Timetable	
5a	Programme implementation timetable
6. Environmental and Social Documents	
6a	Environmental and Social Management Framework (ESMF)
7. Stakeholder Consultations and Engagement Plan	
7a	Summary of stakeholder consultations
8. Gender Assessment and Action Plan	
8a	Gender assessment
8b	Gender action plan
9. Legal Due Diligence	
9a	Legal due diligence – regulation, taxation and insurance
10. Procurement Plan	
10a	Procurement plan

²⁴² Greyed-out annexes have not been included in the first submission. They will be made available to the GCF shortly.

10b	Procurement guidelines
<i>11. Monitoring and Evaluation Plan</i>	
11a	Monitoring and evaluation plan
<i>12. AE Fee Request</i>	
12a	AE fee request
<i>13. Co-finance Letters</i>	
13a	Co-finance letter - BMZ Division of Sustainable Economic Policy & Financial System Development
13b	Co-finance letter – BMZ Division Latin America
13c	Co-finance letter – BMZ Division of Coordination of Operations in Africa
<i>14. Term Sheet</i>	
14a	Term sheet
<i>15. Internal Approval</i>	
15a	GIZ letter of internal legal approval
<i>16. Maps</i>	
16a	Map of programme countries
<i>17. Multi-Country Programme Information</i>	
17a	Multi-country programme information
<i>19. Procedures for Controlling Procurement by Executing Entities</i>	
19a	Procedures for controlling procurement by third parties or executing entities undertaking projects financed by the entity
<i>20. KYC Assessment</i>	
20a	Capacity needs assessments of Executing Entities
<i>22. Assessment of GHG Emission Reductions</i>	
22a	MORSE model (Excel)
22b	MORSE model overview
22c	GHG methodology, impacts and sensitivity analysis
22d	Types of climate ventures – classified by GCF result area and archetype
22e	Transport emission reductions - explanation
<i>23. Other References</i>	
23a	Knowledge management plan
23b	Theory of change diagram
23c	IPED certificate of incorporation
23d	Case-studies of climate ventures – Climate-KIC
23e	Case-studies of climate ventures – IPED



*Undersecretariat of International
Financial Relations for Development*

To: The Green Climate Fund ("GCF")

Buenos Aires, 19 September 2022

Re: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationalen Zusammenarbeit (GIZ) GmbH regarding CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa

Dear Madam, Sir,

We refer to the programme titled *CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa* in Argentina, Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, Senegal and Togo as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationalen Zusammenarbeit (GIZ) GmbH to us on 23 August 2022.

The undersigned is the duly authorized representative of Argentina, Mr. Leandro Gorgal, the Undersecretary of International Financial Relations for Development of the Ministry of Economy, the National Designated Authority of Argentina.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Argentina has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Argentina;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

Mr. Leandro A. Gorgal
Undersecretary of International
Financial Relations for Development
Ministry of Economy
National Designated Authority of Argentina

DM-160-2022
June 21, 2022

Green Climate Fund (“GCF”)

Re: Funding proposal for the GCF by German Agency for International Cooperation (GIZ) regarding CATALI.5°T Initiative

Dear sirs

We refer to the programme titled “*CATALI.5°T Initiative: Concerted Action to Accelerate Local 1.5° Technologies – Latin America and West Africa*” in Costa Rica as included in the funding proposal submitted by German Agency for International Cooperation (GIZ) to us on 7 June 2022.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Costa Rica has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Cost Rica;
- (c) In accordance with the GCF’s environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

We acknowledge that this letter will be made publicly available on the GCF website.

Sincerely



Franz Tattenbach Capra
Minister of Environment and Energy
National Designated Authority
Costa Rica



To: The Green Climate Fund (“GCF”)

Santo Domingo, 15 August 2022

Re: Funding proposal for the GCF by the Ministry of the Environment and Natural Resources regarding the programme: CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies

Dear Madam, Sir,

We refer to the programme titled CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies in Dominican Republic as included in the funding proposal submitted by the Ministry of Environment and Natural Resources.

The undersigned is the duly authorized representative of the Ministry of Environment and Natural Resources, the National Designated Authority of the Dominican Republic.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Dominican Republic has no-objection to the programme as included in the funding proposal;
- (b) The project as included in the funding proposal is in conformity with the national priorities, strategies and plans of Dominican Republic;
- (c) In accordance with the GCF’s environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



Milagros De Camps
Deputy Minister of International Cooperation
Ministry of Environment and Natural Resources
Dominican Republic

Oficio No.-DMA-0355-2022

Tegucigalpa, M.D.C., September 16th, 2022

Ref.: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH regarding CATALI.5°T Initiative: Concerted Action to Accelerate 1.5° Technologies – Latin America and West Africa

GREEN CLIMATE FUND BOARD
Republic of South Korea

Dear Sir/Madam

We refer to the programme titled “**CATALI.5°T Initiative: Concerted Action to Accelerate 1.5° Technologies – Latin America and West Africa**” in Honduras as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 21 June 2022.

The undersigned is the duly authorized representative of the **National Designated Authority of Honduras**.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Honduras has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Honduras;
- (c) In accordance with the GCF’s environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed. We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



LUCKY HALACH MEDINA ESTRADA
Secretary of Energy, Natural Resources,
Environment and Mines
Honduras

Cc: Archivo

To: The Green Climate Fund ("GCF")

Mexico City, August 11th, 2022

Re: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH regarding 'CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa'

Dear Madam, Sir,

We refer to the programme titled *'The CATALI.5°T Initiative'* in selected countries in Latin America and West Africa as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 10 June 2022.

The undersigned is the duly authorized representative of Ministry of Finance and Public Credit (SHCP), Unit for Public Credit, the National Designated Authority of Mexico.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

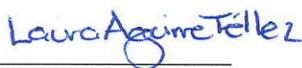
- (a) The government of Mexico has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Mexico;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



Laura Elisa Aguirre Tellez
General Director and National Designated Authority
Unit for Public Credit, Ministry of Finance and Public Credit (SHCP)
Mexico



MINISTÈRE DU CADRE DE VIE
ET DU DÉVELOPPEMENT DURABLE
REPUBLICQUE DU BENIN

01 BP 3502 - 01 BP 3621

Cotonou

Tél. : +229 21 31 80 45

dgec_mcvdd@cadredevie.bj

N° 338 /DGEC/MCVDD/SDCotonou, le 22/04/2022

To: The Green Climate Fund ("GCF")

Re: Funding proposal for the GCF by GIZ regarding CATALI.5°T Initiative:
Concerted Action To Accelerate Local I.5° Technologies – Latin America and
West Africa

Dear Madam, Sir,

We refer to the programme titled CATALI.5°T Initiative: Concerted Action To
Accelerate Local I.5° Technologies – Latin America and West Africa in Benin as
included in the funding proposal submitted by GIZ to us on 20 June 2022.

The undersigned is the duly authorized representative of Martin Pepin AINA, the
NDA of Benin.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have
reviewed, we hereby communicate our no-objection to the programme as included
in the funding proposal.

By communicating our no-objection, it is implied that:

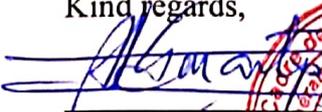
- (a) The government of Benin has no-objection to the programme as included in the
funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the
national priorities, strategies and plans of Benin;
- (c) In accordance with the GCF's environmental and social safeguards, the
programme as included in the funding proposal is in conformity with relevant
national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the
programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be
implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF
website.

Kind regards,


Martin Pepin AINA
General Director of Environment and Climate
NDA
Benin



No-objection letter template for programmes



**GREEN
CLIMATE
FUND**



PRIMATURE

SECRETARIAT GENERAL

**SECRETARIAT EXECUTIF DU FONDS VERT
POUR LE CLIMAT AU BURKINA FASO**

BURKINA FASO

Unité-Progrès-Justice

Ouagadougou, September 21 2022

N° **2022 - 031** /PM/SG/SE-FVC/BF

National Designed Authority

**To
The Green Climate Fund
("GCF")**

Republic of Korea

Re: Funding proposal for the GCF by Deutsche Gesellschaft
Fuer Internationale Zusammenarbeit (GIZ) GmbH
regarding regarding 'CATALI.5°T Initiative: Concerted Action To
Accelerate Local I.5° Technologies - Latin America and West Africa

Dear Sir,

We refer to the programme titled '***The CATALI.5°T Initiative***' in selected countries in Latin America and West Africa as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 23 May 2022.

The undersigned is the duly authorized representative of the Ministry of the prime Minister, the National Designated Authority of Burkina Faso.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:



- (a) The government of Burkina Faso has no-objection to the programme as included in the funding proposal ;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Burkina Faso ;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,



Issaka OUEDRAOGO
*Advisor to the Prime Minister
Inspector of Environment*

**MINISTÈRE DE L'ENVIRONNEMENT
ET DU DÉVELOPPEMENT DURABLE**

**DIRECTION DE LA COOPÉRATION
INTERNATIONALE ET DE LA
MOBILISATION DES FINANCEMENTS**

N° 015 MINEDD/CAB/DCIMF

To: The Green Climate Fund ("GCF")

RÉPUBLIQUE DE CÔTE D'IVOIRE

Union – Discipline – Travail



Abidjan, 14 July 2022

Re: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH regarding 'CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa '

Dear Madam, Sir,

We refer to the programme titled *"The CATALI.5°T Initiative"* in selected countries in Latin America and West Africa as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 23 May 2022.

The undersigned is the duly authorized representative of the Ministry of Environment and Sustainable Development, the National Designated Authority of Côte d'Ivoire.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Côte d'Ivoire has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Côte d'Ivoire ;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

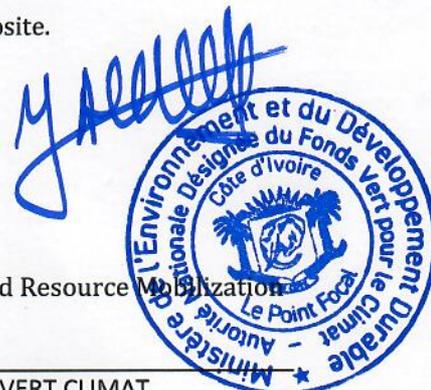
We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

 Name: Marcel YAO

Technical Advisor to the Minister in charge of International Cooperation and Resource Mobilization
National Designated Authority of Côte d'Ivoire



REUBLIQUE DE GUINEE
Travail-Justice-Solidarité
MINISTERE DE L'ENVIRONNEMENT ET DU
DEVELOPPEMENT DURABLE

30 AOUT 2022

No ...000030/MEDD/CAB/AND-FVC/2022
LE SECRETARIAT EXECUTIF DE L'AUTORITE
NATIONALE DESIGNEE DU FONDS VERT
POUR LE CLIMAT

To The Green Climate Fund ("GCF")

Re: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH regarding 'CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies - Latin America and West Africa '

Dear Madam, Sir,

We refer to the programme titled *'The CATALI.5°T Initiative'* in selected countries in Latin America and West Africa as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 23 May 2022.

The undersigned is the duly authorized representative of the Ministry of Environment and Sustainable Development, the National Designated Authority of Guinea.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Guinea has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Guinea;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

Pierre LAMAH
Executive Secretary of National Designated Authority for Green Climate Fund
Ministry of Environment and Sustainable Development
Republic of Guinea



The image shows a handwritten signature in blue ink, which is partially obscured by a circular official stamp. The stamp is also in blue ink and contains the following text: "Autorité Nationale Désignée du Fonds Vert pour le Climat" around the perimeter, and "Le Secrétaire Exécutif" in the center. There is a small star symbol between "Climat" and "Autorité".



A small, stylized handwritten mark or signature in blue ink, located in the upper right corner of the page.

République Islamique de Mauritanie
Honneur - Fraternité – Justice



الجمهورية الإسلامية الموريتانية
شرف - إخاء - عدل

وزارة البيئة والتنمية المستدامة

**Ministère de l'Environnement et du
Développement Durable**

مديرية المناخ والإقتصاد الأخضر

Direction Climat et Economie Verte

N° : 002/22

أنواكشو، 2022/07/23، Nouakchott, le ..

Le Directeur المدير

To: The Green Climate Fund (“GCF”)

Re: Funding proposal for the GCF by GIZ regarding CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa

Dear Madam, Sir,

We refer to the programme titled CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa in Mauritania as included in the funding proposal submitted by GIZ to us on 23.07.2022.

The undersigned is the duly authorized representative of Sidi Mohamed EL Wavi NDA/Focal Point of Mauritania.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Mauritania has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Mauritania;
- (c) In accordance with the GCF’s environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed. We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

Sidi Mohamed EL WAVI

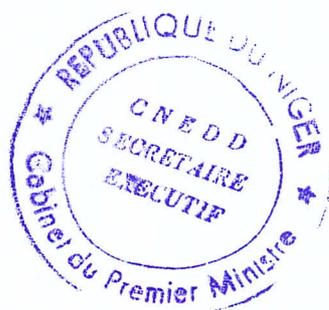


PF/AND –

Mauritania

Copy : MEDD

No-objection letter template for programmes



GREEN
CLIMATE
FUND

REPUBLIQUE DU NIGER



CABINET DU PREMIER MINISTRE

CONSEIL NATIONAL DE L'ENVIRONNEMENT
POUR UN DEVELOPPEMENT DURABLE

SECRETARIAT EXECUTIF

To: The Green Climate Fund ("GCF")

Niamey, September 7, 2022

Re: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH regarding 'CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa '

Dear Madam, Sir,

We refer to the programme titled *'The CATALI.5°T Initiative'* in selected countries in Latin America and West Africa as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 23 May 2022.

The undersigned is the duly authorized representative of the Executive Secretariat of the National Council of the Environment for Sustainable Development (SE/CNEDD), the National Designated Authority of Niger.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Niger has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Niger ;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

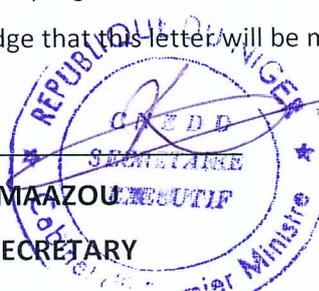
We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

Dr KAMAYE MAZOU
EXECUTIVE SECRETARY

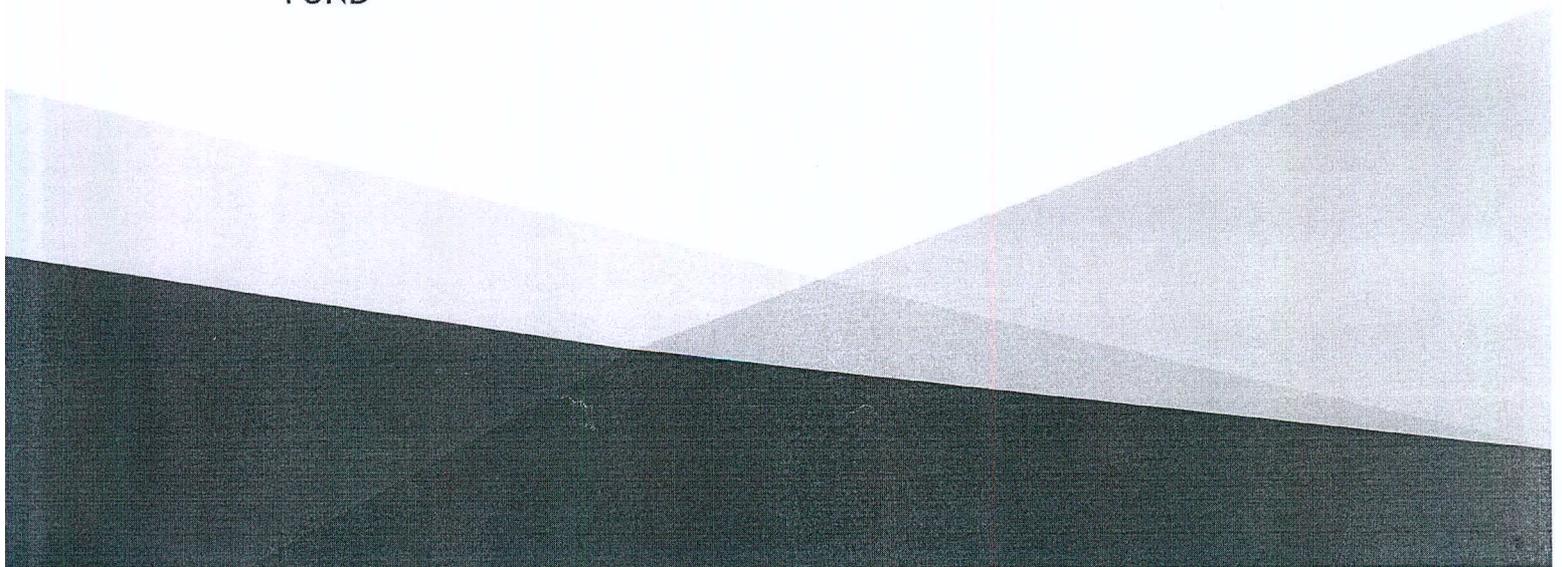


NATIONAL COUNCIL OF THE ENVIRONMENT FOR SUSTAINABLE DEVELOPMENT NIGER

No-objection letter template for programmes



GREEN
CLIMATE
FUND



REPUBLICQUE DU NIGER



Fraternité –Travail- Progrès

CABINET DU PREMIER MINISTRE

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CONSEIL NATIONAL DE L'ENVIRONNEMENT

POUR UN DEVELOPPEMENT DURABLE

=====

SECRETARIAT EXECUTIF

0202
N° _____/SE/CNEDD

A l'attention du : Fonds vert pour le climat (« FVC »)

Niamey, 19 Aout 2022

Objet : Proposition de financement du FVC en ce qui concerne Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH Initiative CATALI.5°T: action concertée pour Accélérer les technologies I.5° locales – Amérique latine et Afrique de l'Ouest (

Madame, Monsieur,

Nous nous référons au programme intitulé dans *'Le CATALI.5°T Initiative'* certains pays d'Amérique latine et d'Afrique de l'Ouest tel qu'inclus dans la proposition de financement qui nous a été soumise par Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH 23 mai 2022

Le soussigné est le représentant dûment autorisé du SECRETARIAT EXECUTIF DU CONSEIL NATIONAL DE L'ENVIRONNEMENT POUR UN DÉVELOPPEMENT DURABLE (SE/CNEDD) Autorité nationale désignée du Niger

Conformément à la décision B.08/10 du FVC, dont nous reconnaissons avoir examiné le contenu, nous communiquons par la présente notre non-objection au programme tel qu'il figure dans la proposition de financement.

En communiquant notre lettre de non-objection, il est implicite que :

- (a) Le gouvernement du Niger n'a pas d'objection au programme tel qu'il est inclus dans la proposition de financement ;
- (b) Le programme tel qu'il figure dans la proposition de financement est conforme aux priorités, stratégies et plans nationaux du ;Niger
- (c) En accord avec les principes de protection environnementale et sociale du FVC, le programme tel qu'il figure dans la proposition de financement est conforme aux lois et réglementations nationales vigueur.

C.N.E.D.D

BP : 10 193 Niamey

Tél : (227) 20 72 25 59/ 20 72 42 64

Email : biocnedd@intnet.ne

REPUBLIQUE DU NIGER



Fraternité –Travail- Progrès

CABINET DU PREMIER MINISTRE

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CONSEIL NATIONAL DE L'ENVIRONNEMENT

POUR UN DEVELOPPEMENT DURABLE

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SECRETARIAT EXECUTIF

Nous confirmons également que notre processus national visant à déterminer l'absence d'objection au programme tel qu'il figure dans la proposition de financement a été dûment suivi.

Nous confirmons également que notre non-objection s'applique à tous les projets ou activités à mettre en œuvre dans le cadre du programme.

Nous reconnaissons que cette lettre sera mise à la disposition du public sur le site Web du FVC.

Cordialement



DR KAMAYE MAZOU
SECRETAIRE EXECUTIF
CONSEIL NATIONAL DE L'ENVIRONNEMENT POUR UN DEVELOPPEMENT DURABLE
NIGER

N°.....MEDD/DEEC/DCC



Dakar, 20/09/2022

AND Senegal

To: The Green Climate Fund ("GCF")

Mr. Yannick Glemarec

G-Tower, 24-4 Songdo-dong, Yeonsu-gu

Incheon City, Republic of Korea

Re: Funding proposal for the GCF by GIZ regarding CATALI.5°T Initiative: Concerted Action to Accelerate Local I.5° Technologies – Latin America and West Africa

Dear Madam, Sir,

We refer to the programme "CATALI.5°T Initiative: Concerted Action to Accelerate Local I.5° Technologies – Latin America and West Africa" in Senegal as included in the funding proposal submitted by GIZ to us on June 2022.

The undersigned is the duly authorized representative of the NDA of Senegal.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Senegal has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Senegal;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,

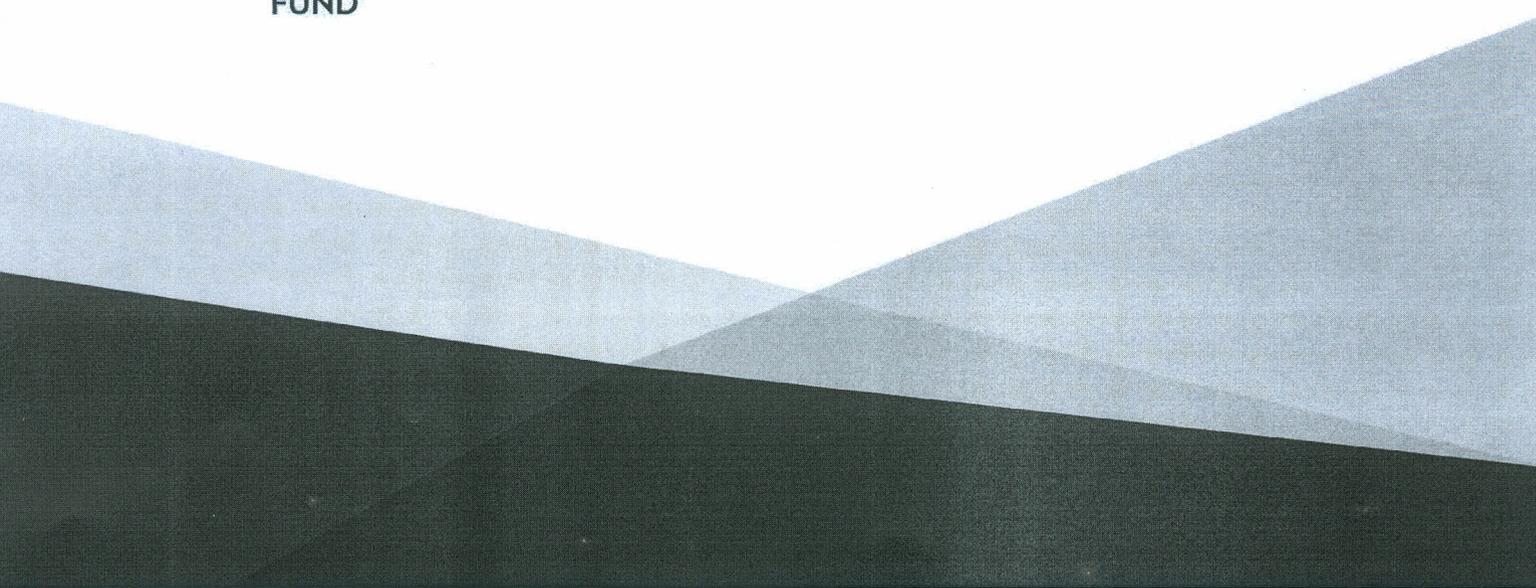
Madeleine Diouf SARR



No-objection letter template for programmes



GREEN
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MINISTERE DE L'ENVIRONNEMENT
ET DES RESSOURCES FORESTIERES

REPUBLIQUE TOGOLAISE
Travail-Liberté-Patrie

SECRETARIAT GENERAL

DIRECTION DE L'ENVIRONNEMENT

Lomé, le 26 AOUT 2022

N° 005 /DE

To: The Green Climate Fund ("GCF")

Re: Funding proposal for the GCF by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH regarding 'CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies - Latin America and West Africa '

Dear Madam, Sir,

We refer to the programme titled '*The CATALI.5°T Initiative*' in selected countries in Latin America and West Africa as included in the funding proposal submitted by Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH to us on 23 May 2022.

The undersigned is the duly authorized representative of the Ministry of Environment and forestry resources , the National Designated Authority of Togo.

Pursuant to GCF decision B.08/10, the content of which we acknowledge to have reviewed, we hereby communicate our no-objection to the programme as included in the funding proposal.

By communicating our no-objection, it is implied that:

- (a) The government of Togo has no-objection to the programme as included in the funding proposal;
- (b) The programme as included in the funding proposal is in conformity with the national priorities, strategies and plans of Togo;
- (c) In accordance with the GCF's environmental and social safeguards, the programme as included in the funding proposal is in conformity with relevant national laws and regulations.

We also confirm that our national process for ascertaining no-objection to the programme as included in the funding proposal has been duly followed.

We also confirm that our no-objection applies to all projects or activities to be implemented within the scope of the programme.

We acknowledge that this letter will be made publicly available on the GCF website.

Kind regards,




Méry YAOU
Director of Environment
Ministry of Environment and forestry resources
Togo

Environmental and social safeguards report form pursuant to para. 17 of the IDP

Basic project or programme information	
Project or programme title	CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa
Existence of subproject(s) to be identified after GCF Board approval	Yes
Sector (public or private)	Private
Accredited entity	Deutsche Gesellschaft fuer Internationalen Zusammenarbeit (GIZ) GmbH
Environmental and social safeguards (ESS) category	Category I-2
Location – specific location(s) of project or target country or location(s) of programme	<p><u>Latin America:</u> Argentina, Costa Rica, Dominican Republic, Honduras, and Mexico*</p> <p><u>West Africa:</u> Benin, Burkina Faso, Côte d’Ivoire, Guinea, Mauritania, Niger, Senegal, and Togo*</p>
Environmental and Social Impact Assessment (ESIA) (if applicable)	
Date of disclosure on accredited entity’s website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Environmental and Social Management Plan (ESMP) (if applicable)	
Date of disclosure on accredited entity’s website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Environmental and Social Management (ESMS) (if applicable)	
Date of disclosure on accredited entity’s website	Friday, September 16, 2022
Language(s) of disclosure	English, Arabic, French, and Spanish
Explanation on language	Spanish is the official language of the Latin American countries eligible under this Program. French and Arabic are the official languages of the West African countries eligible under this Program. The original documents are in English.

Link to disclosure	<p>For Latin America (English and Spanish)</p> <p>GIZ: English: https://cooperacionclima.mx/wp-content/uploads/2022/09/6-ESMF_CATALI.5T-Initiative_English_0-1.pdf</p> <p>Spanish: https://cooperacionclima.mx/wp-content/uploads/2022/09/6-ESMF_CATALI.5%C2%B0T-Initiative_Espanol_preliminary.pdf</p> <p>Tec de Monterrey (Executing Entity): English: https://emprendimiento.tec.mx/en/climate-change-hub</p> <p>Spanish: https://emprendimiento.tec.mx/es/hub-de-cambio-climatico</p> <p>ClimAccelerator (Executing Entity): English: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5T-Initiative_English.pdf</p> <p>Spanish: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5%c2%b0T-Initiative_Espanol.pdf</p> <p>For West Africa (English, Arabic, and French)</p> <p>GIZ regional project Make-IT in Africa: English: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5T-Initiative_English.pdf</p> <p>Arabic: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5%c2%b0T-Initiative_-Arabic.pdf</p> <p>French: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5%c2%b0T-Initiative_French.pdf</p>
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	<p><u>Impact Hub Abidjan (Executing Entity):</u> English: https://drive.google.com/drive/folders/1N9Nco8ysbA8KbBsfBcbOLE3D1ox-sI5h</p> <p>Arabic: https://drive.google.com/drive/folders/14d2S7gQxC400DMTyqldijkWngPiiB3ns</p> <p>French: https://drive.google.com/drive/folders/1YCNBOIpe4pMewhKmxOy1basHPFWCnvkr</p> <p><u>Investisseurs & Partenaires (I&P) (Executing Entity):</u> English: https://www.ietp.com/sites/default/files/1_Catalist_ESMF_CATALI.5T8Initiative_English.pdf</p> <p>Arabic: https://www.ietp.com/sites/default/files/1_Catalist_ESMF_CATALI.5T8Initiative_Arabic.pdf</p> <p>French: https://www.ietp.com/sites/default/files/1_Catalist_ESMF_CATALI.5T8Initiative_French.pdf</p> <p><u>ClimAccelerator (Executing Entity):</u> English: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5T-Initiative_English.pdf</p> <p>Arabic: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5T-Initiative_Arabic.pdf</p> <p>French: https://climaccelerator.climate-kic.org/wp-content/uploads/sites/13/2022/09/6-ESMF_CATALI.5T-Initiative_French.pdf</p>
Other link(s)	<p><u>GIZ:</u> English: https://cooperacionclima.mx/download-the-documents-of-the-catali-5t-initiative/</p> <p>Spanish: https://cooperacionclima.mx/descarga-los-documentos-de-la-iniciativa-catali-5t/</p> <p><u>GIZ regional project in Africa:</u> https://africa.make-it-initiative.org/news/supporting-climate-solutions-in-west-africa-and-latin-america</p>

	<p><u>ClimAccelerator (Executing Entity):</u> https://climaccelerator.climate-kic.org/news/climate-solutions-africa-latin-america-disclosure/</p> <p><u>Impact Hub Abidjan (Executing Entity):</u> https://abidjan.impacthub.net/catali-5-initiative/</p> <p><u>Investisseurs & Partenaires (I&P) (Executing Entity):</u> https://www.ietp.com/en/content/catali5t</p>
Remarks	An ESMS consistent with the requirements for a Category I-2 project is contained in the “Environmental and Social Management Framework”.
Any other relevant ESS reports, e.g. Resettlement Action Plan (RAP), Resettlement Policy Framework (RPF), Indigenous Peoples Plan (IPP), IPP Framework (if applicable)	
Description of report/disclosure on accredited entity’s website	N/A
Language(s) of disclosure	N/A
Explanation on language	N/A
Link to disclosure	N/A
Other link(s)	N/A
Remarks	N/A
Disclosure in locations convenient to affected peoples (stakeholders)	
Date	Friday, September 16, 2022
Place	<p>Physical copies will be available at all National Designated Authorities offices.</p> <p><u>Latin America:</u></p> <p>Argentina Under-Secretary of International Financial Relations for Development of the Ministry of Economy Yrigoyen 250, City of Buenos Aires, Buenos Aires, Argentina</p> <p>Costa Rica Ministry of Environment and Energy Calle 5. Av. 8-10, San José, Costa Rica</p> <p>Dominican Republic Ministry of Environment and Natural Resources Avenida Cayetano Germosén esq. Avenida Gregorio Luperón, Ensanche El Pedregal, Santo Domingo, Distrito Nacional, Dominican Republic (the)</p> <p>Honduras Edificio Principal, 200 metros al Sur del Estadio nacional, Tegucigalpa, Honduras</p> <p>Mexico Ministry of Finance and Public Credit (SHCP), Unit for Public Credit*</p>

	<p>Av. Insurgentes Sur 1971, Plaza Inn, Torre III, Piso 3, Col. Guadalupe Inn, Alcaldía Álvaro Obregón, Ciudad de México, Mexico</p> <p><u>West Africa:</u></p> <p>Benin Ministry of Living Environment and Sustainable Development 01 BP 3502 - 01 BP 3621, Cotonou, Benin</p> <p>Burkina Faso Prime Ministry 03 BP 7027 Ouagadougou 03</p> <p>Côte d'Ivoire Minister's Office, Ministry of Environment and Sustainable Development Cite Administrative, Plateau, Tour D, 10eme etage - 20 BP 650 Abidjan 20, Abidjan, Cote d'Ivoire</p> <p>Guinea The National Directorate of the Environment Coléah Lansébounyi, Commune de Matam, Conakry, Guinea</p> <p>Mauritania Ministry of Environment and Sustainable Development Autoroute Nouadhibou Immeuble n°79 Ext-Not.D.D Tevragh-Zeina , Nouakchott.</p> <p>Niger National Council of the Environment for Sustainable Development (CNEDD) Cabinet du Premier Ministre, PL 17 Rue du Gouverneur Jules Brévié, BP 10193, Niamey, Niger, Niamey, Niger (the)</p> <p>Senegal Ministry of Environment and Sustainable Development Parc Forestier de Hann, B.P. 4055 Dakar, Senegal, Dakar, Senegal</p> <p>Togo Directorate of Environment, Ministry of Environment 240 rue des Nîmes Lomé - Togo -, Lomé, Togo*</p>
Date of Board meeting in which the FP is intended to be considered	
Date of accredited entity's Board meeting	Monday, October 17, 2022
Date of GCF's Board meeting	Monday, October 17, 2022

Note: This form was prepared by the accredited entity stated above.

*Subsequent to the disclosure of the form to the Board and active observers on 16 September 2022, the following update has been made: Mali, Colombia, Ecuador, El Salvador, Guatemala, Paraguay, and Peru have been deleted as they have not provided the NOL by the B.34 publication deadline.

Independent Technical Advisory Panel's review of FP198

Proposal name:	CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa
Accredited entity:	Deutsche Gesellschaft für Internationalen Zusammenarbeit (GIZ) GmbH
Countries covered:	Latin America: Argentina, Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru West Africa: Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, Senegal, Togo
Project/programme size:	Small

I. Assessment of the independent Technical Advisory Panel

1.1 Impact potential

Scale: Medium – High

1. Countries in Africa and Latin America have a rich base of renewable energy resources. Despite this resource base, renewable energy has not penetrated at a level that will justify the resource base. This is because many barriers exist in-country that are preventing potential climate actions in the two regions (Latin America and West Africa) from developing, in particular the nascent state of the cleantech sector in both regions. Key barriers that limit the appreciable penetration of renewable energy systems in these regions include: limited technical capabilities; support networks and role-models; and the lack of 'industry standard' (widely-accepted, best-practice) tools and frameworks.

2. The basic pivot of the intervention proposed by Deutsche Gesellschaft für Internationalen Zusammenarbeit (GIZ), the accredited entity (AE), is to remove barriers to climate start-ups and other micro and small enterprises, collectively known as climate ventures (CVs), supporting them to access the climate change market in the regions of West Africa (WA) and Latin America (LA) ensuring they are well placed to make a difference in delivering climate action. If CVs are to have a game-changing role, a carefully designed programme is necessary to remove the barriers listed above.

3. The basic theories upon which the success of the proposed intervention hinges are given in the funding proposal under consideration as follows:

- a) Climate ventures in developing countries exist to demonstrate the market feasibility of innovative, low-emission technologies and business models, and to inject pace and ambition into private-sector mitigation efforts;
- b) Climate ventures in developing countries have significant opportunities to leap-frog emissions-intensive developments at limited risk to the economy:

- c) Climate ventures can provide solutions that are currently neglected by markets (so-called 'breakthrough technologies') and can improve products and services that are already available ('incremental technologies');
 - d) Climate ventures in developing countries are however being prevented from achieving the goals elucidated in (a) to (c) above due to the nascent state of the cleantech sector in both regions and the barriers indicated in paragraph 1 above, notably the sector's limited technical capabilities, support networks and role-models, and the lack of 'industry standard' (widely-accepted, best-practice) tools and frameworks, and the mismatch between the current capacities of climate ventures and those required to successfully access venture capital finance;
 - e) Although governments of countries in WA and LA are playing an important enabling role through the promotion of appropriate policies and regulatory frameworks, this alone will be inadequate to support climate ventures in the two regions to undertaking game-changing climate actions. The framework that will be delivered by the proposed project will contain actions that can incentivize and catalyse government interventions and foreign support to mitigate and remove the barriers that are impeding the roles that climate ventures can play in both regions to deliver innovative climate actions; and
 - f) When the objectives of the funding proposal are achieved, venture capital flows into the countries covered by this intervention will be enhanced. Before this intervention, venture capital inflow to countries of both regions is increasing rapidly, albeit from a low base (particularly in West Africa). Venture capital finance directed at climate mitigation represents a small but growing proportion of overall venture capital, and the countries and local venture finance firms have a strong appetite among regionally active venture capital firms to scale up climate funding.
4. The proposed interventions – Concerted Action to Accelerate Local I.5° Technologies (CATALI.5°T) is an initiative that was developed by GIZ to establish and implement regional technical assistance and investment grant platforms that will facilitate the building of a portfolio of early-stage climate ventures in Latin America and West Africa. The objective of each regional CATALI.5°T will be to:
- a) Trigger the flow of venture capital investments into start-ups and young businesses with the highest climate mitigation impact and business growth potential; and
 - b) Provide support for:
 - i. Climate ventures;
 - ii. Pre-accelerators, accelerators and entrepreneur support organizations (ESOs); and
 - iii. Venture capital firms and other venture investors.
5. At the core of each regional CATALI.5°T will be:
- a) An acceleration programme – With each acceleration programme focusing on providing support to 30 seed-stage climate ventures to rapidly scale up their minimum viable products and ensure investability for venture capital; and
 - b) Pre-acceleration programmes –CATALI.5°T foresees 60 less mature, pre-seed ventures in each region, which will receive support to develop minimum viable climate products or services through the two regional pre-acceleration programmes. The support will cover:
 - i. Technical assistance (capacity-building, mentoring, networking, etc.);



- ii. Financial assistance (in the form of a grant to each climate venture of EUR 15,000 to cover pre-agreed costs ;and
- iii. Further support to climate ventures will include:
 - Community-building and idea creation activities for potential climate entrepreneurs, including a special focus on women and other underrepresented groups in entrepreneurship; and
 - Technical assistance for the broader venture ecosystem in both regions, to enable ESOs and venture investors to leverage their current strengths in building businesses to build and sustain climate businesses;

6. The independent Technical Advisory Panel (independent TAP) observed that the approach used by the AE for originating this programme in the selected countries of WA and LA is different from the approach used in many mitigation projects (either single projects or programme of activities). The approach most commonly utilized in mitigation project submission to GCF for funding, usually emphasizes project level activities at country levels. Even where the projects are not clearly defined at the development stage, numerous potential projects can be directly taken from documents such as the nationally determined contributions of countries, climate change plans, and/or national development plans, all of which are usually available from government sources. The project-centric approach can help elucidate the types of projects that will be implemented to deliver greenhouse gas (GHG) emission reductions. In addition, there are direct linkages to GHG emission reduction projects covered by the intervention and to the countries where the climate benefits will be delivered. Clear funding allocations per project and per country are also available per project and per country for multi-country projects.

7. The key differences between the approach proposed in the CATALI.5°T programme and the status quo ante approach described in paragraph 6 above can be elaborated by a summary description of the CATALI.5°T approach as follows:

- a) Funding allocation for the CATALI.5°T Initiative per region: The allocation per region is determined by the ex-ante knowledge of the existence of CVs in each region. At this stage, information on climate mitigation projects that the CVs will be pursuing in this programme is unnecessary;
- b) Only climate ventures from countries whose national designated authority has provided a no-objection letter (NOL) will be eligible to apply to the regional programmes (pre-acceleration or acceleration).; and
- c) Allocation of investment between the LA and WA regions is determined by the budgetary needs of the executing entities (EEs) for each region for the programme. The characteristics of the budget allocation can be summarized as follows:
 - i. There will be no need for the submission of already identified mitigation project concept by the participating climate ventures as budget allocation has no relationship with the mitigation projects that will eventually be originated by each participating climate venture in each region but on the realities of the different emerging and frontier market levels of venture ecosystem maturity in each region (and hence the amount of training, venture 'hand-holding', country missions, etc. that must be provided);
 - ii. Participating climate ventures do not need to specify mitigation project at the level of entrance into the screening process, since the budgets per region will be based on status quo ante knowledge of the AE on the realities of the emerging and frontier markets in the two regions. The climathons that will be held per year in each selected country following the screening (one climathon per year

over three years for each participating country) will link selected countries will provide a basis for activities in each country that will participate in the CATALI.5°T Initiative... This will dictate the number and types of activities (training, venture "hand holding", country missions etc., that must be provided in each country.

- iii. A climathon¹ is a place-based programme that harnesses the power and imagination of stakeholders to co-create ideas to tackle local climate mitigation challenges. Over a span of 12–72 hours, a diverse group of participants, typically including entrepreneurs, business leaders, policymakers, professionals, youth representatives, civil society organizations (CSOs), academics, students, and software/technology hackers, come together to collaborate on forward-thinking ideas. Climathons represent a useful first step in the ideation and business creation process;
 - iv. If the application is successful, the climate ventures will receive technical and financial assistance from the CATALI.5°T Initiative. This financial assistance will consist of: (i) cash grants of EUR 15,000 to climate ventures in the regional pre-acceleration programmes (Latin America and West Africa); and (ii) repayable cash grants averaging EUR 100,000 to climate ventures in the regional acceleration programmes (Latin America and West Africa);
 - v. The CATALI.5°T Initiative will follow a market-led approach to scaling up the most promising opportunities for GHG mitigation. In both LA and WA this is subject to some limitations on eligibility (screening) and competitive selection (see Sub-Activities 1.3.1.1/2.3.1.1 relating to venture selection for the pre-acceleration programmes, and Sub-Activities 1.4.1.1/2.4.1.1 relating to venture selection for the acceleration);
 - vi. CVs will be selected based on compliance with the criteria mentioned in paragraph v. above without consideration of which country they are from, as long as their country has provided a NOL; and
 - vii. For this reason, it is not possible to estimate ex-ante how much GCF funding will go to countries, as allocations per country will be a pull-out from successful applications of climate ventures to the programme.
8. In the CATALI.5°T Initiative, the climate ventures will be selected without country quotas, as these would undermine the programme's intent to select only the ventures with highest potential and highest mitigation impact. There will therefore be no significant ex-ante country-based budget allocations.
9. The only direct budget will however be allocation for in-country annual climathons, but these represent a small fraction of the total programme budget. The Climathons are important activities in the identification of the CVs that will be sources of pre-acceleration and acceleration programmes in LA and WA.
10. Through the climathons and subsequent open screening, the CATALI.5°T Initiative will develop pipelines of pre-seed and seed-stage CVs in both regions and countries that have submitted NOLs. These CVs, will generate the CATALI.5°T Initiative's emission reductions through the sale of their products or services. (For reasons of conservative calculation, only the seed-stage ventures are considered to generate emission reductions).

¹ <https://climathon.climate-kic.org/>

11. The CATALI.5°T Initiative differs from typical programmatic approaches in that the venture capital companies are the vector for emission reductions, not projects. The finance companies will be selected for CATALI.5°T Initiative support based on their market prospects and their GHG mitigation potential. These are, in turn, determined by market size, market taste, consumer demand, business models, management team execution capabilities, etc. The mitigation context of each venture capital is unique: each sells a different product or service in a particular market context, in a particular country, in competition with (higher emission) baseline alternative products and/or services.
12. The GHG emissions reduction (ER) of each venture is estimated using the Climate Impact Forecast (CIF) tool. This tool enables unique, very specific GHG mitigation estimates to be computed for each venture, incorporating (for example) Tier 2 and Tier 3 emission factors. According to our desktop report on the use of CIF tool, combined with actual market sales data, the result is the estimates of post GHG mitigation estimates. Therefore, to calculate CATALI.5°T Initiative emission reductions, two data points are required:
 - a) An emission reduction estimate per functional unit of each good/service sold, for example: the emission reduction associated with each energy-efficient appliance sold, rooftop photovoltaic unit installed, tonne of compost produced, or hectare of low-emission agriculture applied. These per-unit emission reductions will be calculated using the CIF tool; and
 - b) Sales data: the number of functional units sold by each venture per time interval. This data will be collected from the accelerated ventures on a quarterly basis by the EEs responsible for the regional acceleration programmes – Tecnológico de Monterrey in Latin America and Investisseurs & Partenaires Entrepreneurs et Development (IPEd) in West Africa – as part of their venture engagement processes.
13. Application of the CIF tool, accompanied by third-party expert validation, will take place three times during programme implementation to estimate GHG emission reduction achieved by CV sales activity:
 - a) First at the end of the pre-acceleration programme;
 - b) Second when a CV is accepted into the acceleration programme (except when the applicant's venture has recently graduated from the pre-acceleration programme); and
 - c) Third at the end of the acceleration programme, using updated data (updated emission factors, updated baseline context, etc.).
14. There are uncertainties in the ex-ante estimation of the GHG emission reductions that will be delivered by the CVs that finally selected in the context of the CATALI.5°T Initiative. These uncertainties are handled in the following ways:
 - a) Using a road-tested and completely transparent estimation tool (the CIF tool), so that assumptions and parameter values can be scrutinized and tested;
 - b) Use of conservative assumptions relating to (inter alia) venture growth and survival rates, taper rates, the GCF attribution coefficient, etc.;
 - c) Use of Monte Carlo sensitivity modelling to contextualize mitigation estimates against statistical alternatives; and
 - d) Periodic updating of parameter values, such that the modelling reflects the latest empirical realities.
15. The independent TAP evaluated the CIF tool used to estimate GHG emission reductions in the CATALI.5°T Initiative and came to the following conclusions:

- a) The CIF tool is not in the same class as the project-level methodologies commonly used in mitigation projects submitted to GCF. While the status quo methodologies are designed to estimate GHG ER at the project granular level, the CIF tool has been designed to estimate GHG ER at venture/enterprise level as their products and services are the sources of GHG ER;
 - b) The tool used for the CATALI.5°T Initiative, which is based on the principle of avoided emissions potential, will deliver a very conservative GHG ER, which, in the view of the independent TAP is acceptable for establishing the climate metrics delivery (mitigation) – one of the six performance metrics of the GCF fund request reviews;
 - c) The avoided emissions potential – defined as the difference in lifecycle GHG emissions between an existing baseline solution (e.g. an internal combustion engine vehicle) and a climate venture’s product (e.g. an electric vehicle) – is calculated for each CV;
 - d) This will deliver conservative estimates of GHG ER because it focuses on the difference in lifecycle GHG emissions between an existing baseline solution (e.g., an internal combustion engine vehicle) and a climate venture’s product (e.g., an electric vehicle).
 - e) This will be calculated for each climate venture that is successful in receiving funding for each region and for countries that have delivered a NOL to the CATALI.5°T Initiative;
and
 - f) As stated in paragraph 13 above, the results of this estimation process will be reviewed and improved as more data becomes available from the stages of programme implementation. An independent expert will also be engaged to validate the data used and the GHG ER estimates.
16. The various types of project activities that may become outputs of climate ventures were described in the funding proposal and are presented below.

Table 1: Types of climate ventures that can participate in the CATALI.5°T Initiative

Result Area	Archetype ¹	Description
Energy access & power generation ventures	Biomass energy	Clean technology solutions to produce energy from renewable biomass sourced sustainably (combustion, pyrolysis, gasification, anaerobic digestion, etc.).
	Energy storage	Energy storage solutions for consumers and businesses, particularly those that increase the usability of renewable energy solutions (e.g. home energy storage).
	Renewable energy systems	Scaling-up the deployment and rehabilitation of generation technologies such as wind, solar and run-of-river hydro.
	Small-scale solar	Easy-to-use and affordable solar systems for households and premises such as clinics and offices.
	Smart grids	Responsive grid infrastructure and associated software and tools capable of managing intermittent renewable energy supply and optimising customers' electricity consumption.
Low-emission transport ventures	E-mobility	Electric vehicles (cars, bikes, etc.) and associated business models and tools to change user behaviour to use electric alternatives to fossil-fuel solutions.
	Shared mobility	Business cases around shared mobility solutions (car-pooling, last-mile solutions, car/bike sharing, etc.).
	Smart mobility	Route planning; apps for minimising journey times and energy consumption.
Buildings, cities, industries and appliances ventures	Energy efficiency	Platforms, technologies and equipment that require less energy than baseline alternatives (e.g. energy efficient lighting, heating, cooling, household appliances and commercial applications).
	Alternative materials	Alternatives to traditional packaging and other materials that offer smaller carbon footprints (during production, transport, use or disposal) – e.g. bioplastics, multi-use plastics, recycled paper and cardboard, etc.
	Smart city solutions	Analytics for mobility in cities and regions; development of smart / combined transportation systems.
	Smart manufacturing	Manufacturing processes and equipment that use less raw material, produce less waste and consume less energy.
	Sustainable building materials	Materials – such as cement, wood and insulation foam – that have smaller carbon footprints (during production, transport, use or disposal) than baseline alternatives; materials may also be zero-emission (e.g. sustainably harvested wood) or negative-emission (e.g. CO ₂ absorptive).
	Smart buildings	Systems and equipment that integrate discrete energy-saving or renewable energy technologies (e.g. smart lighting systems, smart cooling systems) or which incorporate low-emission features in their design (e.g. use of shading, orientation and natural ventilation).
	Urban planning	Solutions that address settlement-related emissions from a holistic perspective – e.g. integrated transport solutions, efficient zoning, provision of cycle routes, tree-planting schemes, etc.
	Sustainable consumption	Solutions that reduce the carbon footprint of consumer goods and services – e.g. reduced transport / logistics, multi-use or biodegradable packaging, reduced weight, alternative materials, improved power management, etc.
	Clean water / water availability	Technologies and processes – such as PV water pumping and solar disinfection – that lower the carbon footprint of the provision of clean water.
	Clean air	Solutions that reduce air pollution – where such solutions also reduce GHG emissions. ²
	Sanitation	Technologies and processes that reduce GHG emissions associated with sewage management – e.g. variable-speed pumps, energy-efficient stirring, methane avoidance or capture, etc.
Waste management	Solutions that avoid waste generation (e.g. composting, recycling) or reduce the GHG emissions from stored waste (e.g. landfill management).	
Forestry & land use ventures	AgroTech (land)	Solutions to increase efficiency and sustainability of land management – e.g. reduced till agriculture, agro-forestry, alternative crops, smart crop rotation, alternative wetting and drying (in paddy fields), etc.

¹ Please refer to Section D.1.1 for further details about archetypes.

² For example, this would not include vehicle catalytic converters – as they tend to increase carbon dioxide and nitrous oxide emissions (while also reducing non-GHG emissions, such as those of carbon monoxide and nitrogen oxides). However, improved cookstoves that use less firewood and produce less CO₂ would be eligible, for example.

17. The CATALI.5°T Initiative will be implemented with the following components:

- a) **Components 1 and 2:** Component 1 (Latin America) and Component 2 (West Africa) have almost identical structures. Each encompasses four Outputs and three or four corresponding activities (and associated sub-activities):
- i. Output 1.1 / 2.1: Capacities of EEs, ESOs and venture investors in Latin America / West Africa are developed to boost impacts of climate ventures;
 - ii. Output 1.2 / 2.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in Latin America / West Africa generate innovative climate business ideas;
 - iii. Output 1.3 / 2.3: Selected ventures in Latin America / West Africa have launched their climate products in local markets; and
 - iv. Output 1.4 / 2.4: Selected climate ventures in Latin America / West Africa with minimum viable products in local markets are empowered to rapidly scale their business and climate impact.
- b) **Component 3:** CATALI.5°T Trans-Regional Advisory, Capacity and Knowledge Support (TRACKS). Activities of this component will be carried out at the following output levels:
- i. Output 3.1: Capacities of EEs, selected ESOs and venture investors in Latin America and West Africa are developed to boost impacts of climate ventures;

There are several activities and sub-activities under this output covering:

- Climate impact and co-benefits assessment;
- Gender equality and diversity – implementing the CATALI.5°T Initiative gender action plan (GAP); and
- ESG frameworks – implementing the CATALI.5°T Initiative environmental and social management framework (ESMF);

- c) **Component 4:** CATALI.5°T Initiative Governance and Management; and
- d) **Component 5:** CATALI.5°T Initiative Monitoring, Reporting and Evaluation.

18. Differences between the approach in the CATALI.5°T Initiative when applied in the LA and WA regions and the detailed description of the activities and outputs are discussed in detail in the funding proposals and some of its annexes.

19. Although this funding proposal has been submitted by GIZ as the AE, GIZ will jointly implement this programme with the following entities serving under contract to GIZ as executing agencies for specific activities. The joint arrangement will be as follows:

- a) GIZ will serve as the accredited entity (AE) for the programme. It will also serve as the EE and co-financier for the financial assistance, targeting public and private sector projects, and to support the technical assistance dedicated to preparation of sub-projects.
- b) Tec de Monterrey² is a secular and co-educational private university based in Monterrey, Mexico. Under sub-contract to GIZ, Tec de Monterrey will serve as the EE, responsible in Latin America for the pre-acceleration and acceleration programmes under the CATALI.5°T Initiative. Tec de Monterrey will also manage the provision of the pre-seed grants (pre-acceleration) and repayable seed grants (acceleration) in Latin America.

² <https://climaccelerator.climate-kic.org/news/climate-solutions-africa-latin-america-disclosure/>

- c) IPED is a non-profit association dedicated to encouraging entrepreneurship in Africa. For the CATALI.5°T Initiative, IPED will be responsible for running the acceleration programme in West Africa. This support will take the form of technical assistance and financial assistance (in the form of a repayable grant to each climate venture). IPED will also manage the financial assistance element of the pre-acceleration programme, channelling grant payments to climate ventures to cover pre-agreed costs.
- d) Impact Hub Abidjan³ is a commercial pre-accelerator and accelerator (limited liability company) founded in 2019, offering services to entrepreneurs and innovators in Côte d'Ivoire and the West Africa region. Impact Hub Abidjan is a member of the Impact Hub global network, a collaborative community of ~25,000 entrepreneurs, support organizations and investors in over 60 countries.⁴ For the CATALI.5°T Initiative, Impact Hub Abidjan will run the technical assistance element of the pre-acceleration programme in West Africa (the financial assistance will be managed by IPED). To provide the technical assistance, Impact Hub Abidjan will draw on the expertise of other local ESOs capable of delivering specific aspects of the pre-acceleration programme.
- e) Stichting Climate Knowledge and Innovation Community (Climate-KIC) International Foundation⁵ is led by an independent Dutch non-profit with public benefit status in the Netherlands. The Climate-KIC International Foundation owns 90 per cent of Climate-KIC Holding B.V., a private limited liability company registered in the Netherlands that is focused on raising and allocating funds for climate-relevant innovation.⁶ Stichting Climate-KIC International Foundation will be the EE for the CATALI.5°T Initiative trans-regional activities. Climate-KIC International Foundation will receive a grant from GIZ to deliver targeted venture ideation services to trigger novel climate business ideas in Latin America and West Africa, as well as to deliver climate impact advisory services and climate-gender nexus support in the framework of the regional pre-acceleration and acceleration programmes.

20. Tables 2.1 to 2.3 contain summary information on the allocation of activities for each of the EEs described in Paragraph 19 above and more information on the outputs, activities and sub-activities for each of work components 1–5:

³ <https://abidjan.impacthub.net/une-nouvelle-vision-pour-l-agri-business/>

⁴ <https://impacthub.net/>

⁵ <https://www.climate-kic.org/>

⁶ The other 10 per cent of shares in Climate-KIC Holding B.V. are held by Association Climate-KIC, registered in the Netherlands, whose membership consists of European universities, research institutes, businesses and cities.



Table 2.1: Responsibilities of executing entities and activities under Component 1

CATALI.5°T Initiative Element	Executing Entity¹
Regional Component 1: Latin America CATALI.5°T	
<i>Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures' impacts</i>	
Activity 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America	Climate-KIC, GIZ
Sub-Activity 1.1.1.1: Climate mitigation impact assessment	GIZ, Climate-KIC
Sub-Activity 1.1.1.2: Climate resilience co-benefits assessment	Climate-KIC
Sub-Activity 1.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC
Sub-Activity 1.1.1.4: Gender equality and diversity	GIZ, Climate-KIC
Sub-Activity 1.1.1.5: ESG frameworks	GIZ
<i>Output 1.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in Latin America generate innovative climate business ideas</i>	
Activity 1.2.1: Community-building and ideation activities in Latin America	Climate-KIC, GIZ
Sub-Activity 1.2.1.1: Latin America climathons	Climate-KIC
Sub-Activity 1.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in Latin America	GIZ
<i>Output 1.3: Selected ventures in Latin America have launched their climate products in local markets</i>	
Activity 1.3.1: Latin America climate venture pre-acceleration programme	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.3.1.1: Call for applications and venture selection	Tec de Monterrey, GIZ
Sub-Activity 1.3.1.2: Pre-acceleration programme – technical assistance	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.3.1.3: Pre-acceleration programme – grants	Tec de Monterrey
<i>Output 1.4: Selected climate ventures in Latin America with MVPs in local markets are empowered to rapidly scale their business and climate impact</i>	
Activity 1.4.1: Latin America climate venture acceleration programme	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.4.1.1: Call for applications and venture selection	Tec de Monterrey, GIZ
Sub-Activity 1.4.1.2: Acceleration programme – technical assistance	Tec de Monterrey, GIZ, Climate-KIC
Sub-Activity 1.4.1.3: Acceleration programme – repayable grants	Tec de Monterrey

¹ Where a Sub-Activity is implemented by more than one Executing Entity, a Lead Executing Entity will coordinate the interventions of the other Executing Entities. The individual roles and responsibilities of each Executing Entity, for each Sub-Activity, are described in detail in the Project Activities chapter of each Regional Feasibility Study (Annexes 2b and 2c).

Table 2.2: Responsibilities of executing entities and activities for Component 2

Regional Component 2: West Africa CATALI.5°T	
<i>Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts</i>	
Activity 2.1.1: Capacity-building of Executing Entities, ESOs and venture investors in West Africa	Climate-KIC, GIZ
Sub-Activity 2.1.1.1: Climate mitigation impact assessment	GIZ, Climate-KIC
Sub-Activity 2.1.1.2: Climate resilience co-benefits assessment	Climate-KIC
Sub-Activity 2.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC
Sub-Activity 2.1.1.4: Gender equality and diversity	GIZ, Climate-KIC
Sub-Activity 2.1.1.5: ESG frameworks	GIZ
<i>Output 2.2: Inclusive and diverse local communities of climate entrepreneurs and innovators in West Africa generate innovative climate business ideas</i>	
Activity 2.2.1: Community-building and ideation activities in West Africa	Climate-KIC, GIZ
Sub-Activity 2.2.1.1: West Africa climathons	Climate-KIC
Sub-Activity 2.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in West Africa	GIZ
<i>Output 2.3: Selected ventures in West Africa have launched their climate products in local markets</i>	
Activity 2.3.1: West Africa climate venture pre-acceleration programme	Impact Hub Abidjan, Climate-KIC, IPED
Sub-Activity 2.3.1.1: Call for applications and Phase 1 venture selection	Impact Hub Abidjan, IPED
Sub-Activity 2.3.1.2: Pre-acceleration programme – Phase 1	Impact Hub Abidjan, Climate-KIC
Sub-Activity 2.3.1.3: Phase 2 venture selection	Impact Hub Abidjan, IPED
Sub-Activity 2.3.1.4: Pre-acceleration programme – Phase 2	Impact Hub Abidjan (TA), Climate-KIC (TA), IPED (grants)
<i>Output 2.4: Selected climate ventures in West Africa with MVPs in local markets are empowered to rapidly scale their business and climate impact</i>	
Activity 2.4.1: West Africa climate venture acceleration programme	IPED, GIZ, Climate-KIC
Sub-Activity 2.4.1.1: Funding announcement, venture screening and selection	IPED, GIZ
Sub-Activity 2.4.1.2: Acceleration programme – repayable grants	IPED
Sub-Activity 2.4.1.3: Acceleration programme – technical assistance	IPED, GIZ, Climate-KIC

Abbreviations: Climate KIC = Stichting Climate-KIC International Foundation or, for brevity, Climate-KIC) is an independent Dutch non-profit with public benefit status; ESO = Entrepreneur support organisations, GIZ = Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH , MVPs = Minimum Viable Products

Table 2.3: Responsibilities of executing entities and activities for Components 3, 4 and 5

Component 3: CATALI.5°T Trans-Regional Advisory, Capacity & Knowledge Support (TRACKS)	
<i>Output 3.1: Capacities of Executing Entities, selected ESOs and venture investors in Latin America and West Africa are developed to boost climate ventures' impacts</i>	
Activity 3.1.1: Climate impact and co-benefits assessment	GIZ, Climate-KIC
Sub-Activity 3.1.1.1: Climate mitigation impact assessment	GIZ, Climate-KIC
Sub-Activity 3.1.1.2: Climate resilience co-benefits assessment	Climate-KIC
Sub-Activity 3.1.1.3: Paradigm shift and systems transformation potential	GIZ, Climate-KIC
Activity 3.1.2: Gender equality and diversity – implementing the CATALI.5°T Initiative Gender Action Plan (GAP)	Climate-KIC
Sub-Activity 3.1.2.1: Gender equality and diversity	Climate-KIC
Activity 3.1.3: ESG frameworks – implementing the CATALI.5°T Initiative ESMF	GIZ
Sub-Activity 3.1.3.1: ESG frameworks	GIZ
Component 4: CATALI.5°T Initiative Governance and Management	
Latin America Management Unit	Tec de Monterrey, GIZ, Climate-KIC
West Africa Management Unit	IPED, Impact Hub Abidjan, Climate-KIC, GIZ
Trans-Regional Management Unit	GIZ
Component 5: CATALI.5°T Initiative Monitoring, Reporting and Evaluation	
CATALI.5°T Initiative monitoring, reporting and evaluation	GIZ (AE), supported by the 3 CATALI.5°T Initiative Management Units

21. Figures 1 and 2 below describe the interrelations between GIZ as the AE recognized for this role by the GCF and the entities that will serve as executing entities for the CATALI.5°T Initiative:

Figure 1: GIZ contractual arrangement with GCF and other funding sources

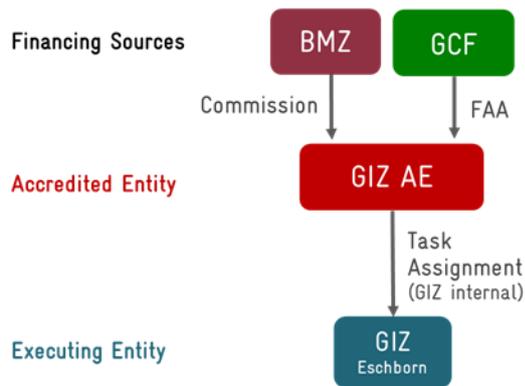
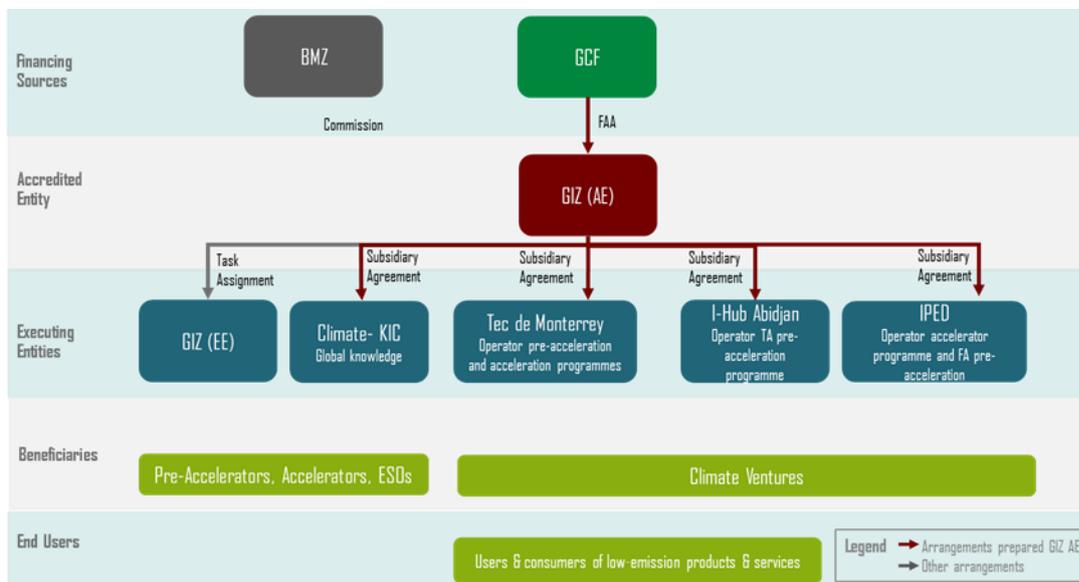


Figure 2: Contractual arrangement between GCF, GIZ and GIZ executing entities as contractors



22. The total financing needed (GCF financing plus co-financing) for this project is EUR_36.2 million. This is expected to be contributed as follows:

- a) GCF: EUR 25.8 million all grant funding; and
- b) Co-financing from BMZ: EUR 10.4 million as additional grant funding.

23. It is stated in the funding proposal that the grant funding will leverage additional financing of about EUR 395.4 million over the 20-year lifespan of the CATALI.5°T Initiative, in the form of external financing – convertible notes/SAFE notes,⁷ venture capital Series A, Series B and beyond equity, loans, etc. – for climate ventures that graduate from the regional acceleration programmes. A summary of the likely sources of the estimated leveraged fund will include:

- a) Convertible/SAFE notes: EUR 11.1 million;
- b) Venture capital series A: EUR 17.6 million;

⁷ SAFE: simple agreement for future equity

- c) Venture capital series B+: EUR 29.3 million;
- d) Loans: EUR 6 million; and
- e) Middle- and late-stage funding and initial public offering: EUR 330 million.

24. It is the independent TAP's view that the risk of the CATALI.5°T Initiative not delivering effective climate ventures in the two regions during the period of implementing the programme is likely to be low. However, the ability of the CVs to significantly contribute in the long run to deep GHG emission reductions in the countries eventually covered and to regional GHG reduction metrics will depend on the success of the CATALI.5°T Initiative leveraging funds into future activities of the CVs identified by this interaction.

25. The CATALI.5°T Initiative is expected to reduce 58 MtCO₂eq of GHG emissions during its 20-year lifespan (influence period). This will be achieved through the sale of low-emission products/services by the 60 CVs that will be supported by the two regional acceleration programmes of the CATALI.5°T Initiative.

26. The GHG reductions that will be delivered by the CATALI.5°T Initiative in the two targeted regions (LA and WA) were presented in annexe 22 submitted by the AE with the funding proposal. During implementation of the programme in the two regions (first six years) it is expected that some or all of the 60 CVs will yield GHG emission reductions and that after the GCF intervention, their GHG reduction will increase as better project information and leveraged funds become available to scale up the success. Given the fact that the methodology framework applied (MORSE and CIF tool) use the lifecycle assessment of GHG emissions between the baseline approach and the replacement products that will be sold by the 60 acceleration CVs, then the GHG ER calculations will be conservative.

27. The independent TAP considers that the expected mitigation impacts of this programme could be ranked as medium to high. This is because the characteristics of the activities that will produce the GHG ER (product of the climate venture) are not known with certainty at the time this estimate was made and given that there could be uncertainty in the fund leveraging ability of the CATALI.5°T Initiative intervention. Proper monitoring of programme results can be used to update the GHG ER results to document the actual mitigation benefits that will be delivered and update the climate mitigation metric of the intervention to a high scale.

1.2 Paradigm shift potential

Scale: High

28. The programme will deliver a paradigm shift as it will catalyse the development of CVs that can effectively deliver products that were absent in the base years in the medium to long term. Not only will the programme deliver this shift over the short to medium term, but it will also catalyse and engender the leveraging of private sector funds that can expand the horizon, quality and quantity of GHG ER that will be delivered by this intervention over a medium to longer term.

29. The flexible design of the CATALI.5°T Initiative will enable scaling up and expanding the idea to other countries in the two regions. Furthermore, the approach can be scaled up to other regions in Africa, and other Latin American countries and other developing regions and countries globally. This is important as the bottom-up nature of the approach used in the

CATALI.5°T Initiative will deliver ways and means to reduce or eliminate barriers that usually mitigate against the success of developing low carbon infrastructure in developing countries.

30. The successful delivery of products from the CATALI.5°T Initiative will contribute to increase the potential for scaling up the programme in the regions covered as well as in other similar regions in the world. The scaling-up potential will be created by the programme through capacity created in the intervention, proven cases of successful business models, lessons learned and reduced risks of such investments and knowledge products.

31. Successful implementation of the CATALI.5°T Initiative in the two regions will deliver very robust lessons learned. A knowledge management plan of the CATALI.5°T Initiative is provided in annex 23a. Over the years of the CATALI.5°T Initiative implementation, this plan will catalogue important lesson learned on climate venture sourcing, ideation, pre-acceleration and acceleration activities in other similar initiatives. Such information will become available to others planning similar initiatives in the two regions as well as other regions. The CATALI.5°T Initiative will facilitate continuous exchange of knowledge and lessons learned among stakeholders within and between the regional programmes. The knowledge-sharing platform will be:

- a) Online, free of charge, in every participating country in the regions covered; and
- b) Available in other regions covered by the CATALI.5°T Initiative and globally, thereby facilitating widespread diffusion of knowledge.

Feedback from the learning materials that will be created by the CATALI.5°T Initiative will deliver a lesson learned database that can be built into new programmes in the regions and beyond, that will result in the replicability of the CATALI.5°T Initiative elsewhere.

32. According to information included in the CATALI.5°T Initiative funding proposal and annexes reviewed, a summary of the knowledge base that will be created by successful implementation of the current initiative will include:

- a) Ideation and community-building;
- b) Regional pre-acceleration programmes;
- c) Regional acceleration programmes;
- d) Climate gender entrepreneurship toolkits; and
- e) ESG tools for pre-accelerators, accelerators and venture capital funds.

The CATALI.5°T Initiative will therefore deliver important knowledge-sharing, learning and information.

33. Other potential key paradigm shift metrics that will be delivered by the CATALI.5°T Initiative will include:

- a) Contribution to the regulatory framework and policies; and
- b) Contribution to climate-resilient development pathways.

These metrics, especially the means of successful delivery and their impacts on the success of the CATALI.5°T Initiative, will provide an enabling environment for a paradigm shift.

34. The programme will also be able to demonstrate paradigm shift potential by ensuring an effective monitoring, reporting and verification system and coordination of the programme aspects during implementation but more importantly during the operation of the relevant components of the CATALI.5°T Initiative in each region and country covered by this programme. This will enhance knowledge of the programme content and the potential to foreclose a “locking-in” of a high carbon alternative path as seen in previous efforts and actively promoting the implementation of low carbon development.

35. Many of the points presented in the paragraphs above point to the fact that the CATALI.5°T Initiative has very robust implementation components that will ensure high paradigm shift potential is delivered.

1.3 Sustainable development potential

Scale: High

36. The programme is well aligned with Sustainable Development Goals (SDGs) and aims to reduce GHG emissions. It will contribute significantly to SDG 5 (“Achieve gender equality and empower all women and girls”), SDG 8 (“Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”), SDG 9 (“Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”), SDG 10 (“Reduce inequality within and among countries”), SDG 13 (“Take urgent action to combat climate change and its impacts”), and SDG 17 (“Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development”).

37. Beneficiary CVs in the CATALI.5°T Initiative will deliver further contributions to other SDGs. The expected sectoral breakdown of beneficiary ventures in the West African acceleration programme, for example, is expected to be (approximately): 40 per cent energy access and power generation; 30 per cent agriculture, forestry and land-use; 20 per cent buildings, cities, industries and appliances; and 10 per cent low-emission transport. Such ventures have the potential to contribute to the following SDGs:

- a) SDG 2 (“End hunger, achieve food security and improved nutrition, and promote sustainable agriculture”) – through ventures that focus on agricultural technology, land-use monitoring systems, rural infrastructure and improved agricultural practices;
- b) SDG 6 (“Ensure availability and sustainable management of water and sanitation for all”) – through ventures that offer, for example, enhanced sanitation or water quality solutions that simultaneously reduce GHG emissions (e.g. through more efficient pumps or enhanced sewage treatment) and offer adaptation co-benefits (e.g. more efficient use of water);
- c) SDG 7 (“Ensure access to affordable, reliable, sustainable and modern energy for all”) – through ventures that focus on energy efficiency, distributed renewable energy solutions or pay-as-you-go energy access models;
- d) SDG 11 (“Make cities and human settlements inclusive, safe, resilient and sustainable”) – through ventures that offer mobility solutions, waste management products or services, and alternative and sustainable building materials for inclusive and sustainable urbanization; and
- e) SDG 12 (“Ensure sustainable consumption and production patterns”) – through ventures that focus on smart manufacturing, alternative food sources, waste management, recycling, composting and resource efficiency.

38. Major environmental co-benefits from this programme will be reduced emissions of air pollutants from the reduced use or complete elimination of fossil fuel combustion in the projects that will be delivered by energy sector products of the CVs included in the CATALI.5°T Initiative. Environmental co-benefits will also be delivered by the project through reduced noise emissions. The major concern for air pollution in the cities is PM_{2.5} and NO_x emissions.

39. Apart from the environmental co-benefits discussed above, the programme is expected to also deliver economic, social and gender co-benefits. The major social benefit is improved air quality and reduced noise in urban areas through use of cleaner energy systems in the CATALI.5°T Initiative. An economic co-benefit will be delivered through the monetary value of reduced air emissions (GHG and air pollutants). The programme includes a gender action plan

(GAP) that is expected to be applied to all activities in the programme. According to the funding proposal, the programme's GAP includes actions and targets on: (i) improved access for women e-motion public transportation; (ii) improved sex-disaggregated data collection on urban transport; (iii) improved access for women to jobs; (iv) interventions including awareness-raising and infrastructure to reduce sexual harassment in public transport. The programme implementation will therefore deliver gender co-benefits.

40. Given alignment of the programme to the range of SDGs discussed above and the various co-benefits that will be delivered, the independent TAP concluded that the potential of the the CATALI.5°T Initiative to significantly contribute to the sustainable development of countries in the two regions..

1.4 Needs of the recipient

Scale: High

41. The two regions targeted by the CATALI.5°T Initiative, (the LA and WA regions) and the countries in the two regions that are able to successfully include CVs in the initiative (and with NOLs in place) are susceptible to climate impacts. In the LA region for example, mean average temperature increases have translated into melting and shrinking of the Andean glaciers with the loss of a major source of fresh water for consumption, irrigation and hydropower. In addition, mean precipitation has also been altering as a result of climate change causing shifting rainfall across the region, with increase in rainfall in the north-west and south-east of the LA region, and decreases in the north-east and south-west. Sea level rise is a climate change problem in many of the coastal areas of the LA region. Relative sea-level rise is extremely likely to continue in the oceans around Central and South America, contributing to increased coastal flooding in low-lying areas and shoreline retreat along most sandy coasts, which threatens the large coastal population in the region. Other associated problems include contamination of freshwater aquifers and the increasing risk of storm surges. climate variability and extremes due to climate change, with climate change-related disasters increasing in frequency and intensity in the region.

42. The West African region is also exhibiting various negative impacts of climate change including increasing temperatures, shifting rainfall patterns and sea-level rise which are already affecting livelihoods, food security and economic and governance stability. Climate change vulnerability in the region is compounded by a high dependence on rain-fed agriculture, high population growth, widespread poverty and limited access to safe water and sanitation.

43. Countries in the two regions are clearly stressed by climate change and as such when the CATALI.5°T Initiative delivers large GHG emission reductions as expected, it will contribute to the global mitigation of climate change. This project therefore meets the needs of the two regions as well as the countries in each region.

44. The independent TAP concludes that when implemented successfully, the CATALI.5°T Initiative will contribute to the climate mitigation needs of the LA and WA regions and countries. The independent TAP therefore concluded that the programme has a high probability of meeting the needs of the recipients in the countries in the two target regions.

1.5 Country ownership

Scale: Medium – High

45. Country ownership of the programme intervention in each of the two regions may be established by the extent to which key national policies are included in the initiative for each country involved. According to information contained in the funding proposal and relevant

annexes (annex 2b and 2c), the CATALI.5°T Initiative is aligned with nationally determined contributions, national climate policies and strategies, National Communications to the United Nations Framework Convention on Climate Change, Technology Needs Assessments and National Adaptation Plans of countries qualified for the intervention in the two regions. To qualify, countries must have: signed a NOL; and selected CVs during the screening process of the CATALI.5°T Initiative.

46. Another strong indication of country ownership is the type of stakeholder interaction that was held during programme inception and planning. Some of the work activities during programme initiation and design were dictated by interactions with regional stakeholders. According to information provided in the funding proposal, some of these activities include: a scoping assessment study (annex 2a), two regional feasibility studies (annexes 2b and 2c), two regional venture capital finance assessments (annexes 3c and 3d), an environmental and social safeguards assessment (annex 6a) and a gender assessment (annex 8a). The design and development of these components involved interactions with stakeholders at the global, regional and country levels. Furthermore, it was stated that the interactions included a diverse range of stakeholders, including ventures and small and medium enterprises; ESOs (such as pre-accelerators and accelerators); venture capital funds and other sources of finance (angel investors, banks, micro-credit institutions, impact funds, philanthropic foundations); ministries of finance, industry, environment and gender, as well as parastatal bodies; CSOs, including educational/research organizations and environmental and gender-based non-governmental organizations; and multilateral/donor organizations and baseline projects.

47. It was also stated in the funding proposal that the consultations described in paragraph 46 above, were augmented by extensive dialogue with national designated authorities (NDAs) and by validation workshops in December 2021: for Latin America, these included an in-person workshop in Mexico City and a regional virtual workshop; and for West Africa, an in-person workshop in Abidjan and a regional virtual workshop were held. Full details of meetings, interviews and workshops held, including the names and institutional affiliations of stakeholders, are provided in annex 7. A summary is provided in **Error! Reference source not found.** of the funding proposal. Owners of climate ventures were also extensively covered in the stakeholder's interaction and yielded in particular sound programme development information such as what activities could be financed by the grants and the repayable grants, and what could be potential impacts (climate, business, environmental and social, gender, co-benefits, etc.) of small enterprises at their early development stages.

48. This is a good start to building strong country ownership into the programme. This first round of interaction with many stakeholders, including some public entities associated with country-level decisions on climate change policies in many sectors, is also an indication of the plan to carry along the country policymakers in the evolution of the programme. It was also stated in the funding proposal that stakeholder interaction will continue during implementation of the initiative. The key platform to continue these interactions with stakeholders is the Global Advisory Committee (GAC) that will be responsible for providing strategic direction to the CATALI.5°T Initiative (see Component 4, Section B.3.1). It is presented in the funding proposal that the membership of the GAC will consist of the EEs: GIZ, Climate-KIC, Tec de Monterrey, Impact Hub Abidjan and IPED. It was also stated that the GAC will meet twice a year and, additionally, on an ad hoc basis as required. During implementation of the CATALI.5°T Initiative, the GAC will periodically invite: (i) the NDAs of participating countries, (ii) representatives from the venture capital industry and from the international pre-accelerator/accelerator community; and (iii) other stakeholders – such as academia, non-governmental organizations, and development partners – in order to ensure full engagement and coordination with stakeholders.

49. According to information in the funding proposal, the AE has been engaging the NDA in each of the countries included in the CATALI.5°T Initiative development process, spanning early scoping, development of the concept note and development of the funding proposal. It was also

stated that in both regions, all NDAs have been regularly updated on progress and consulted via email. Additionally, GIZ has held video calls and in-person meetings with the NDAs of Brazil, Colombia, Honduras and Mexico in Latin America, and Benin, Côte d'Ivoire, Mali and Senegal in West Africa. All NDAs were invited to attend the validation workshops in December 2021 and a follow-up online consultation for West African NDAs was held in May 2022. No-objection letters are provided in annex 1. However, only four country NOLs – for Côte D'Ivoire, Benin and Mauritania in the West Africa region, and Costa Rica for the LA region – were included in the documents made available to the independent TAP. In a response from the query from the independent TAP to the AE on the issue of non-availability of NOLs for some of the programme countries in the LA and WA regions, the AE stated that:

- (a) The countries listed in the Funding Proposal are potential participants in the CATALI.5°T Initiative;
- (b) To date (as at August 26, 2022) the Initiative has received the NOLs from the following eight countries: Benin, Côte d'Ivoire, Mauritania, Niger (WA region) and Costa Rica, Dominican Republic, Honduras and Mexico (from the LA region);
- (c) Any country where a CV product is available for screening and where a NOL is not available will not be included in the screening. Thus the availability of a NOL is a necessary and sufficient condition to be included in the CATALI.5°T Initiative;
- (d) Discussions with NDAs and other government institutions are continuing and further NOLs are expected. The final list of countries will be updated in the funding proposal in early September; and
- (e) Since the availability of a NOL is a precondition for inclusion of a country in the CATALI.5°T Initiative, the independent TAP is of the opinion that countries without a NOL when this funding proposal is considered by the GCF Board may not be taken out of the programme. This is because a NOL is already made a prerequisite for acceptance of a country in the programme, thus a country without a NOL will automatically be deleted from the programme.

50. While the stakeholder engagement described in paragraphs 45 to 49 above sound like a strong interaction that will ensure the programme is effectively designed, it may be very weak in its alignment with the policy and regulatory framework for climate change in each of the countries included in the two regions. Despite the fact that this programme has been designed as a private sector intervention, it must be realized that a successful climate change sector intervention, even when privately funded, must be aligned with evolution of the public policy that is a purview of the government of the country. Without this alignment, the risk of failure will be high. The way in which the private sector intervention originated did not build a strong public sector engagement on climate change policy and relevant regulatory framework. The fact that the programme will be private funded does not mean that it should not be aligned with the changing policy and regulatory framework in the future. To reduce the associated risk, it is necessary that public policy and sector regulatory institutions in the country are involved in the entire project cycle from planning to implementation and operation to ensure these entities are in agreement with the project investors, infrastructure managers and operators. A key way to achieve this is to ensure that the government of each country have some inputs in the work of the GAC. This will ensure that country ownership is strong.

51. Given the observation in paragraph 50 The independent TAP scored this programme intervention as medium – high. To move this programme to a high country ownership score, there will be a need for the government entity responsible for climate change policies in each country to be a permanent member of the GAC to ensure that the risk of failure triggered by non-alignment of the CATALI.5°T Initiative does not exist. This will mitigate the observed weakness discussed above and ensure that the country ownership metric scores high.

1.6 Efficiency and effectiveness

Scale: Medium – High

52. Financial structure

- a) The project seeks grant financing from GCF that will be complemented by grant co-financing from BMZ. It is expected that the grant funding will leverage funding from other sources (mostly private). The funds will be used to implement the CATALI.5°T Initiative in the countries of two regions namely, in LA: Argentina, Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru; and in WA: Benin, Burkina Faso, Côte d’Ivoire, Guinea, Mali, Mauritania, Niger, Senegal, Togo.
- b) The breakdown of funding contributions from the sources described in (a) above, the types of fund and the total that will be provided for the project are presented in table 3.

Table 3: Project funding details

S/N	SOURCE	TYPE OF FUND	AMOUNT (MILLION EUR)
1.	GCF	GRANT	25.8
2.	BMZ	GRANT	10.4
TOTAL			36.2

- c) About 71.3 per cent of the total funding for the project is requested from GCF as grant funding.
 - d) The balance of required funding (28.7 per cent) will be provided by BMZ.
53. Over 20 years, the CATALI.5°T Initiative will achieve GCF-attributable emission reductions of 3.8 MtCO₂eq. Accordingly, the mitigation cost to GCF is EUR 6.8/tCO₂eq.
54. The main quantifiable economic benefit of the CATALI.5°T Initiative is the GHG emission reductions resulting from the ventures accelerated in the two regions. It is important to note that the 3.8 MtCO₂eq central estimate represents the emission reductions after the application of a 6.5 per cent attribution coefficient. This coefficient is intended to represent a realistic level of causality between the CATALI.5°T Initiative’s activities and the venture survival and growth rates. The attribution coefficient is calculated as the ratio of the GCF grant (EUR 25.8 million) to the total capital estimated to be raised by the ventures over 20 years, well beyond expiry of the GCF programme. A total of EUR 394 million is expected to be raised by the ventures over 20 years – approximately EUR 179 million in Latin America and EUR 215 million in West Africa.
55. Some of the important results of the analysis carried out on the CATALI.5°T Initiative reported in the funding proposal can be summarized as follows:
- a) The base-case assumption for the shadow price of carbon is EUR 60/tCO₂eq;
 - b) This estimate is the mid-range estimate of the required carbon price needed to meet the Paris Agreement’s goal of limiting global temperature increase to 1.5 °C by mid-century; and
 - c) With cumulative emission reductions of 3.8 MtCO₂eq, a carbon price of EUR 60/tCO₂eq, and a total programme budget of EUR 36.2 million (GCF grant + co-finance), the CATALI.5°T Initiative yields an attractive economic internal rate of return of 19 per cent. The economic net present value is estimated at EUR 31.2 million, based on a 10 per cent discount rate as customarily used in economic analyses.

56. The GHG emission reduction calculations that have been presented in this funding proposal were estimated using a bottom-up approach. The results delivered by this approach are likely to be conservative, compared to estimates that will be delivered when project level data is available. The feedback process that has been built into the programme implementation will improve the accuracy of the emission reduction calculations.

57. Another weakness that was identified in the independent TAP's review of the submission is the lower country ownership which the independent TAP believes results from inadequate engagement of relevant government institutions during implementation of the CATALI.5°T Initiative.

58. The independent TAP has concluded that the effectiveness and efficiency metrics of the CATALI.5°T Initiative are high.

II. Overall remarks from the independent Technical Advisory Panel

59. The independent TAP recommends this funding proposal for approval by the GCF subject to the following conditions being met prior to the execution of the funded activity agreement:

Delivery by the AE to GCF, in a form and substance satisfactory to the GCF Secretariat of:

- a) A clear plan documenting how the Climate Change National Designated Authority (NDA) in each participating Host Country in each of the two regions of the programme will be involved in the CATALI.5°T Initiative at national level during the implementation period. The plan should also be explicit about how long-term sustainability in each Host Country will be ensured beyond the CATALI.5°T Initiative implementation period; and
- b) A clear plan documenting how the Global Advisory Committee (GAC) of the programme will be expanded before programme inception to include, as members, two public sector representatives – one from Latin America and one from West Africa respectively, who will be nominated by, and who will represent, the NDAs of all the participating Host Countries in those regions.



Reply to the Independent Technical Advisory Panel assessment findings

Proposal name: CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa

Accredited entity (“AE”): Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Impact potential

Thank you for the positive assessment. No further comments.

Paradigm shift potential

Thank you for the positive assessment. No further comments.

Sustainable development potential

Thank you for the positive assessment. No further comments.

Needs of the recipient

Thank you for the positive assessment. No further comments.

Country ownership

Thank you for the positive assessment. No further comments.

Efficiency and effectiveness

Thank you for the positive assessment.

For information: in the last iteration of the funding proposal, GIZ updated the following parameters due to the following reasons

- BMZ co-financing was adjusted to EUR 9.7m (formerly EUR 10.4m) as a result of technical corrections in the budget calculations underlying annex 4;
- GCF funding was adjusted to EUR 26.8m (formerly EUR 25.8m) reflecting a) technical corrections in the budget calculations underlying annex 4; b) incorporation of iTAP’s recommendation to add customer surveys into the monitoring process.



As a consequence of these adjustments, the following ratios slightly changed

- Mitigation cost to the GCF is now EUR 7.1/tCO₂e (formerly EUR 6.8/tCO₂e);
- Economic Internal Rate of return (EIRR) of now 18,7% (formerly 19.0%)
- Economic Net Present Value is estimated now at EUR 30.5m (formerly EUR 31,2m), based on a 10% discount rate.

Overall remarks from the independent Technical Advisory Panel:

The AE would like to thank the ITAP for its review and assessment of the funding proposal 'CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa' and appreciates the overall remarks from iTAP including the proposed conditions.

The AE gladly accepts the iTAP Conditions as referenced below:

Delivery by the AE to GCF, in a form and substance satisfactory to the GCF Secretariat of:

- a) *A clear plan documenting how the Climate Change National Designated Authority (NDA) in each participating Host Country in each of the two regions of the programme will be involved in the CATALI.5°T Initiative at national level during the implementation period. The plan should also be explicit about how long-term sustainability in each Host Country will be ensured beyond the CATALI.5°T Initiative implementation period; and*
- b) *A clear plan documenting how the Global Advisory Committee (GAC) of the programme will be expanded before programme inception to include, as members, two public sector representatives – one from Latin America and one from West Africa respectively, who will be nominated by, and who will represent, the NDAs of all the participating Host Countries in those regions.*



CATALI.5°T INITIATIVE: CONCERTED
ACTION TO ACCELERATE LOCAL I.5°
TECHNOLOGIES – LATIN AMERICA AND
WEST AFRICA

GENDER ASSESSMENT

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ACRONYMS

AfDB	African Development Bank
AgTech	Agricultural Technology
AMEXCAP	Mexican Association of Private Capital
ANADER	National Rural Development Support Agency
ANDE	Aspen Network of Development Entrepreneurs
ANUIES	National Association of Universities and Institutions of Higher Education
AR4D	Agricultural Research for Development
AVEC	Association Villageoise d'Epargne et de Crédit
BAU	Business-as-usual
BCE	Bureau for the Support and Creation of Businesses
BDS	Business Development Service
BMZ	Federal Ministry for Economic Cooperation and Development
CEDAW	Committee on the Elimination of Discrimination against Women
CEO	Chief Executive Officer
CGECI	General Confederation of Enterprises of Côte d'Ivoire
CGFE	Gender and Woman Entrepreneurship Commission
C-KIC	Climate Knowledge and Innovation Community International Foundation
CIMMYT	International Maize and Wheat Improvement Centre
CONACYT	National Council for Science and Technology
COVID-19	Corona Virus Disease 2019
CSR	Corporate Social Responsibility
CTO	Chief Technology Officer
CSO	Civil Society Organisation
CO ₂	Carbon Dioxide
DER	La Délégation Générale à l'Entreprenariat Rapide
EAIF	Emerging Africa Infrastructure Fund
ECA	U.S. Government's Office of Cultural and Educational Affairs
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Community of West African States
EDIC	Estudio de Diversidad e Inclusión en el Capital Privado
EE	Executing Entity
ESG	Environmental, Social and Governance
ESO	Entrepreneur Support Organization
FAFCI	Support Fund for Women of Côte d'Ivoire
FAO	Food and Agriculture Organization of the United Nations
FinTech	Financial Technology

FCFA	West African Franc
FGM	Female Genital Mutilation
FJN	Fondation Jeunesse Numérique
FP	Funding Proposal
GA	Gender Assessment
GAMMA	Gender Assessment Method for Mitigation and Adaptation
GAP	Gender Action Plan
GBV	Gender-Based Violence
GCF	Green Climate Fund
GDP	Gross Domestic Product
GHG	Greenhouse Gas Emission
GEF	Global Environment Facility
GII	Gender Inequality Index
GIL	Gender Innovation Lab
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GUCCI	Gender into Urban Climate Change Initiative
GOM	Government of Mexico
HDI	Human Development Index
HGC	Heineken Green Challenge
I&P	Investisseurs & Partenaires
IBAN	Ivorian Business Angels Network
ICPD	International Conference on Population and Development
ICT	Information and Communication Technology
IDB	Inter-American Development Bank
IDB Lab/ WX	Inter-American Development Bank Innovation Laboratory / WeXchange
IFC	International Finance Corporation
iHub	Impact Hub
INADEM	National Entrepreneur Institute
INEGI	National Institute of Statistics and Geography
INMUJERES	National Institute of Women
ILO	International Labour Organization
I&P	Investisseurs & Partenaires
IPED	Investisseurs & Partenaires Entrepreneurs and Development
JTH	Jiggen Tech
KII	Key Informant Interview
KPI	Key Performance Indicators
LAC	Latin American and Caribbean
LACGIL	Latin American and Caribbean Gender Innovation Lab

LATAM	Latin America
LGBTI	Lesbian, Gay, Bisexual, and Intersex
LPG	Liquefied Petroleum Gas
MIT	Massachusetts Institute of Technology
MFFE	Ministry of Women, Family and Children
NAP	National Adaptation Plan
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NDP	National Development Plan
NGO	Non-governmental Organisation
NoL	No-objection letter
OECD	Organisation for Economic Co-operation and Development
OHADA	Organisation for the Harmonisation of African Business Law
PDESFI	National Financial Inclusion Strategy
PE	Private Equity
PEF	Federal Expenditure Budget
PES	Plan for an Emerging Senegal
PME	Agency for Promotion of Entrepreneurship
PROIGUALDAD	The Equality Programme (spanish: El Programa para la Igualdad)
PSEAH	Prevention of Sexual Exploitation, Abuse and Harassment
CATALI.5°T Initiative	Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa
R&D	Research and Development
RFS	Regional Feasibility Study
RGEM	Red de Género y Medio Ambiente
SDG	Sustainable Development Goal
SEMARNAT	Secretary of Environment and Natural Resources
SENER	Secretary of Energy
SGB	Small and Growing Business
SGBV	Sexual and Gender-based Violence
SME	Small and Medium Enterprise
SNEEG	National Strategy for Gender Equality and Equity
SNLVBG	National Strategy for Combating Gender-Based Violence
STEM	Science, Technology, Engineering and Mathematics
TRECC	Transforming Education in Cocoa Communities
TVET	Technical and Vocational Education and Training
UN	United Nations
UNAM	National Autonomous University of Mexico
UNDP	United Nations Development Programme

UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
VC	Venture Capital
VC4A	Venture Capital for Africa
WB	World Bank
WEA	WeEmpowerAsia
We-Fi	Women Entrepreneurs Finance Initiative

0 EXECUTIVE SUMMARY

Governments, international organizations and stakeholders across the globe have recognized that gender equality and women's empowerment are fundamental to socioeconomic development. A strong business case for gender in entrepreneurialism and the SME sector exists and is cogently articulated by recognized institutions. Even though women, low-income populations, and other disadvantaged groups are disproportionately vulnerable to the effects of natural disasters and climate change, harnessing gender equality is one of the most powerful instruments available to implement the Paris Agreement and an unequivocal way to mitigate trade-offs between climate and sustainable development action while leading to substantial development co-benefits. Gender equality is also key to reducing the existing gender credit gap in both regions e.g. Latin America's gender-related credit gap in 2019 stood at US\$ 93 billion (€88.2 billion) for women-led SMEs. In Africa, the finance gender gap in 2022 is estimated at US\$ 42 billion (€39.8 billion).

The Latin American countries are ranked higher in the Human Development Index (HDI) and the Gender Inequality Index (GII). Many West African countries are ranked among the bottom two deciles of the 189 HDI countries. Most of the countries in both regions (notably, Côte d'Ivoire, Senegal, Burkina Faso, Mexico, Ecuador, Colombia and Paraguay) have put in place measures to improve gender equality: e.g. ratification of international conventions and protocols, equal rights enshrined in the constitution, development of own gender strategies, etc. However, concrete actions – backed, crucially, with the necessary resources – have lagged behind, with the result that gender gaps in three key sectors that have direct links to climate entrepreneurialism (education, agriculture and energy) are prominent and persistent. Some of the existing gender barriers that continuously exacerbate factors of inequality, and thus the underlying drivers of gender inequality, include persistent Sexual and Gender-based Violence (SGBV) that is common in the two regions: e.g. high prevalence rates of Female Genital Mutilation (FGM) and child marriage in West Africa and femicide in Latin America. In West Africa, the problem is compounded by discriminatory customary and traditional norms, practices and beliefs.

In the Executing Entities' (EEs') host countries of Côte d'Ivoire, Senegal and Mexico, women entrepreneurs face numerous hurdles, stemming from a combination of structural and rigid social-cultural barriers and lack of broader enabling gender ecosystem. Although the lived experience of women entrepreneurs in West Africa is very different from that in Latin America, lack of status equality, lack of business training and role models, and lack of access to finance are common challenges across the two regions. For the Executing Entities, difficulties in recruiting large numbers of women into their pre-acceleration and acceleration programmes, and the limited number of female role models and mentors, are common features across the two regions. Due to the nascent status of 'cleantech', engagement with gender issues in the 'climate venture' space is less developed. While not all EEs have strong capacity in the gender and climate change nexus, all the project EEs have devised resourceful ways to tackle gender-related challenges and to create innovative strategies for women's inclusion. Sufficient gender mainstreaming capacities therefore exist among the EEs. IPED in West Africa, for example, demonstrates a substantive track-record of engagement with the gender-entrepreneur nexus, though not specifically in a climate change context. Climate-KIC, as a trans-regional EE, has well-recognized global capacity in the gender and climate change nexus and represents a considerable asset in the project gender capacity building measures.

Based on the findings of the Gender Assessment (GA), concrete recommendations have been developed. The recommendations act as the basis for the project Gender Action Plan (GAP) to be implemented by Impact Hub Abidjan and IPED in West Africa and Tecnológico de Monterrey in Latin America, with trans-regional support from Climate-KIC and GIZ.

1 INTRODUCTION

The CATALI.5°T initiative, hereafter named “the project”, is grounded in local knowledge and context, an investor mind-set and a determination to unlock entrepreneurial potential in order to avoid greenhouse gas emissions at scale and in accelerated timeframes. The project works with local/ regional pre-accelerators and accelerators to co-design and co-implement regional climate venture support programmes, one in Mexico for Latin America (CATALI.5°T América Latina) and one in Côte d’Ivoire/ Senegal for French-speaking West Africa (CATALI.5°T Afrique de l’Ouest). Each regional programme consists of a pre-acceleration element and an acceleration element for climate ventures, accompanied by technical assistance – tools, training and networking – to reinforce the capacity of the broader innovation ecosystem and financial assistance in the form of grants and repayable grants to cover pre-agreed costs.

The project has three main regional Executing Entities (EEs), which will coordinate the regional pre-acceleration and acceleration programmes:

- IPED in West Africa
- Impact Hub (iHub) Abidjan in West Africa
- Tecnológico de Monterrey in Latin America

A fourth EE, Climate-KIC International Foundation, will support beneficiaries in the climate change impact assessment of their solutions, and provide capacity building to the executing entities, as well as to a wider network of interested Entrepreneur Support Organizations (ESOs) including regional investors. Additionally, Climate-KIC will provide capacity building on how to integrate gender equality in interventions, support ventures to become gender-smart and enhance diversity in climate entrepreneurship.

GIZ will serve as a fifth EE, responsible for overseeing the project, providing capacity building to the executing entities running the pre- and acceleration programmes, and manage local implementation partners where required (primarily in the context of the West African pre-acceleration programme).

The following section details the structure of the Gender Assessment:

Chapter 1 details assessment background. In particular, the chapter provides the overview of the study objectives and enumerates the methodologies and tools used in the Gender Assessment (GA). It also enumerates the stakeholders consulted.

Chapter 2 presents the case for gender equality, including details on the nexus between gender and climate change.

Chapter 3 provides the progress and challenges of gender equality in Latin America and West Africa. First, the chapter introduces the status of gender equality in the two regions, including the typical gender-related risks that are often the underlying drivers of inequalities. Second, the chapter goes a step further and provides an overview of key barriers faced by women entrepreneurs in the two regions.

Chapter 4 undertakes a deep dive and provides extensive details on gender and climate innovation in the three Executing Entity (EE) host countries¹ of Côte d’Ivoire, Senegal and Mexico. This chapter provides details on the existing institutional mechanisms that govern the entrepreneurial ecosystems in the three countries. It also details the status of climate innovation in the education, agriculture and energy sectors, and identifies specific gender-related barriers on the demand (ventures²) and supply (incubators, pre-accelerators, accelerators and venture capital) sides of climate innovation.

¹ EE host countries are understood as those countries from which the envisioned CATALI.5°T pre-acceleration and acceleration programmes will be coordinated – through local partners, technical assistance missions and virtually.

² The term ‘venture’ is used in this document to refer to early-stage companies, businesses or start-ups that meet the IFC definition of a micro- or small-scale enterprise: i.e. if the business meets two out of three of the following criteria (employees, assets and sales): Micro enterprises: Employees: < 10 employees; Total assets US\$: <\$100,000 (€9,481) or Annual Sales US\$: <\$100,000(€

Chapter 5 provides an overview of the existing gender-related capacities of the Executing Entities (EEs).

Chapter 6 provides details of projects that could provide opportunities for learning and leveraging, particularly at the nexus between gender and climate innovation.

Chapter 7 draws the general conclusions of the assessment.

Chapter 8 provides recommendations for the project and its key stakeholders. These recommendations form the basis for the development of the Gender Action Plan (GAP).

1.1 OBJECTIVE OF THE GENDER ASSESSMENT

Gender mainstreaming is a core element of the project. This is because climate change initiatives are more sustainable, equitable and more likely to achieve their objectives when gender equality and women's empowerment considerations are integrated into the design and implementation of projects (see Testimony 1).

Testimony 1

"Gender-smart business is better business. If we can help apply a gender lens within the broader entrepreneurial ecosystem, the result will be more thriving businesses and better outcomes for all."

Richenda Van Leeuwen, Executive Director, ANDE

The GA has been conducted to ensure: a gender-sensitive approach and implementation of the project, and to meet the standard requirements of the Green Climate Fund (GCF) and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) gender strategy.

The specific objectives of the GA are to: i) provide an assessment of the gender dynamics in the two project regions, ii) assess the gender equality situation in the three Executing Entities' (EEs) host countries of Côte d'Ivoire, Senegal and Mexico by assessing gender equality status in key sectors as well as analysing the gender equality issues for climate entrepreneurs and entrepreneur support organizations (ESOs), iii) assess the gender equality, policies and practices of the project's EEs, iv) provide recommendations on how the CATALI.5°T project design could contribute to reducing gender inequalities and discrimination as well as increase women's access to the project. The GA is complemented by a Gender Action Plan (GAP) in order to make the CATALI.5°T Initiative a gender-responsive project.

1.2 METHODOLOGY

The implementation of the GA and the development of the Gender Action Plan (GAP) are based on the following approaches and stages:

- A. Concept phase with desk review; development of gender 'baseline' topics and a concept paper which formed the basis for the GA and GAP. During this phase, a list of stakeholders to be consulted as well as a guiding list of questions for the stakeholder's consultation meetings and interviews were developed.
- B. The consultant conducted stakeholder consultations with the key stakeholders identified by GIZ and the Regional Feasibility Study (RFS) consultants that were considered to be important for supporting and/or promoting women's entrepreneurship. These stakeholders include all the EEs, namely GIZ, Climate-KIC International Foundation, Tecnológico de Monterrey for Latin America, and Investisseurs & Partenaires Entrepreneurs and Development (IPED) and Impact Hub Abidjan for West Africa. In addition, interviews with selected entrepreneurs took place. Due to the COVID-19 pandemic, stakeholder consultations were primarily conducted through online key informant interviews (KIIs). Analysis of secondary data and extensive literature review also provided essential data and information for the regional and country overviews. The table in Annex 1 provides a summary of the stakeholders consulted and the tools used.

94,810). Small enterprises: Employees: 10-49 employees; Total assets US\$: \$100,000 (€ 94,810) - < \$3 million (€ 2.8 million) or Annual Sales US\$: \$100,000 (€ 94,810) - < \$3 million (€2.8 million).

C. Initial findings were presented at the regional validation workshops that were held on 30.11.2021 and 10.12.2021 in West Africa and Latin America, respectively.

2. GENDER EQUALITY, CLIMATE CHANGE AND CLIMATE INNOVATION

2.1. WHY DOES GENDER EQUALITY MATTER FOR CLIMATE CHANGE?

Both governments and international organizations have recognized that gender equality and women's empowerment are fundamental to socioeconomic development. The commitment to gender equality and women's empowerment is a central feature of the 2030 development agenda - as evidenced by Sustainable Development Goal (SDG) 5 on gender equality and assertions that gender is interrelated to achieving many other SDGs.

At the core of these international agreements lies the shared global understanding that women should enjoy the same social, political and economic rights as men, including the right to education, access to health services, employment and participation in decision-making processes³. Gender equality is a question of societal development and women's rights and is a prerequisite for the achievement of the SDGs⁴ (see Testimony 2⁵).

Testimony 2

Paying attention to gender is not just about having a social conscience, nor is it about adding to our list of environmental, social, and governance investment screens. Instead, gender capitalism is about applying a gender lens to highlight the ways that gender is material to financial outcomes and financial outcomes are material to gender."

S. Kaplan & J. VanderBrug

Gender equality is, at the same time, an opportunity for business development. Unlocking the full potential of the female economy and building inclusive work environments are key to boosting economic growth and individual company performance. Improving access to financing for women is, for example, vital to unlocking the potential of female entrepreneurship. However, there is significant gender credit gap in both Latin America and West Africa. Latin America's gender-related credit gap in 2019 stood at US\$ 5 billion (€4.74 billion) for women's microenterprises and US\$ 93 billion (€88.2 billion) for women-led SMEs⁶. In Africa, the finance gender gap in 2022 is estimated at US\$ 42 billion (€39.8 billion) and costs the continent US\$ 95 billion (€90.1 billion) per year⁷.

The empowerment of women and girls is a crucial element in the quest for inclusive, sustainable growth and development. The ripple effects of investing in women serve to accelerate sustainable local and global development given that women often make the best investments and their economic empowerment leads to better outcomes for society. This is because women typically invest 90% of their earnings back into their families and communities, compared to 30 to 40% for men⁸. Besides being an imperative for social justice, closing the gender gap in the labour force also offers an opportunity to increase total global gross domestic product (GDP) by US\$ 12 trillion (€11.4 trillion)⁹. The female economy – covering women in business, women in the value chain

³ Asian Development Bank (ADB), 2016. Mainstreaming Gender into Climate Mitigation Activities: Guidelines for Policy Makers and Proposal Developers. Accessible at <https://www.adb.org/sites/default/files/publication/217771/gender-climate-mitigation.pdf>

⁴ DEG and Syspons GmbH, 2020. Gender Lens Investing Paper. Accessible at https://www.deginvest.de/DEG-Documents-in-English/About-us/What-is-our-impact/DEG_Gender-Lens-Investing-Paper_Final.pdf

⁵ Kaplan, S & Vanderbrug, J. (2014). The rise of Gender Capitalism. Accessed at https://ssir.org/articles/entry/the_rise_of_gender_capitalism

⁶ Pro Mujer (2019) Pro Mujer & New Venture's VIWALA Join Forces: Financing Entrepreneurs with Impact. Accessed at <https://promujer.org/2019/11/25/pro-mujer-new-ventures-viwala-join-forces-financing-entrepreneurs-impact/>.

⁷ Toesland Finbarr (2022) Africa Finance and services: Finance gender gap costs Africa \$95bn (€90.1 billion) per year. African Business blog. Accessed at <https://african.business/2022/03/finance-services/finance-gender-gap-costs-africa-95bn-per-year/>.

⁸ Toesland Finbarr (2018) Women-led tech startups on the rise in Africa: Daunting obstacles remain in the tech industry. Africa Renewal E-magazine. <https://www.un.org/africarenewal/magazine/august-november-2018/women-led-tech-startups-rise-africa>.

⁹ McKinsey and Company (2019) One aspiration, two realities: Promoting gender equality in Mexico. Accessed at <https://www.mckinsey.com/featured-insights/americas/one-aspiration-two-realities-promoting-gender-equality-in-mexico>

and women in the community – therefore carries enormous potential and will be a key driver of future growth.

The Green Climate Fund (GCF) sees mainstreaming of gender perspectives as an essential decision-making element for the deployment of its resources and has thus placed gender as a key element of its programming architecture. Its commitment to gender equality centres on gender-responsive climate action programmes and projects that benefit women and men. The GCF Governing Instrument states that gender equality considerations should be mainstreamed into the entire project cycle to enhance the efficacy of climate change mitigation and adaptation interventions, and ensure that gender co-benefits are obtained.

UN Women sees the harnessing of gender equality and women's rights concerns as one of the most powerful instruments available to implement the Paris Agreement¹⁰ and an unequivocal way to avoid or mitigate trade-offs between climate and sustainable development action, and instead lead to substantial development co-benefits.

The 2012 World Development Report makes the case that gender equality is intrinsically important to development, as well as being smart economics¹¹. The mainstreaming of gender-transformative approaches is starting to happen across a range of climate actions, but much more needs to be done. According to the World Bank¹², in order to know 'why and how' to do more on gender mainstreaming, the following three key aspects related to gender and climate change need to be taken into account:

- 1. Women, low-income populations, and other disadvantaged groups** are disproportionately vulnerable to the effects of natural disasters and climate change where their rights and socio-economic status are not equal to those of men, and where they have less voice and influence than men in shaping policies and prioritizing how climate finance is used. Women's rights, socio-economic status and voice can all be strengthened through gender-sensitive and climate-smart development assistance. The World Bank (WB) framework allows for a shift away from a singular focus on women's and girls' vulnerability and their role as victims towards emphasizing their agency. This encourages a more nuanced and forward-looking approach to gender and climate change. In addition, gender equality and women's leadership can jump-start climate action and climate-smart solutions, to build environmental sustainability and resilience.
- 2. Empowerment of women is an important ingredient in building climate resilience.** There are countless examples where empowering women to exercise leadership within their communities contributes to climate resilience, ranging from disaster preparedness efforts in Bangladesh, Indonesia and Nicaragua, to better forest governance in India and Nepal, to coping with drought in the Horn of Africa. There is also strong and mounting evidence at the country level that improving gender equality contributes to policy choices that lead to better environmental governance, whether through increased representation and voice of women within their communities, in society at large, and at the political level, or through increased labour force participation.
- 3. Low-emission development pathways can be more effective and more equitable where they are designed using a gender-informed approach.** Billions of women around the world make decisions every day that influence the amount of carbon that is released into the atmosphere. This influence differs from that of men, owing to women's socially ascribed roles as home-makers (where decisions influence energy emissions: e.g. from domestic cooking), as farmers (influencing soil carbon emissions) and as consumers (purchasing decisions: influencing emissions throughout the entire lifecycle of production, consumption and waste disposal): see Chapter 4 below for sector specific

¹⁰ UN-Women, 2016. Leveraging co-benefits between gender equality and climate action for sustainable development – Mainstreaming gender considerations in climate change projects. Accessible at https://unfccc.int/files/gender_and_climate_change/application/pdf/leveraging_cobenefits.pdf

¹¹ World Bank, 2012. World Development Report 2012: Gender Equality and Development. World Bank. © World Bank. Accessible at <https://openknowledge.worldbank.org/handle/10986/4391>.

¹² World Bank, 2011. Gender and Climate Change: Three Things You Should Know. Washington, DC. © World Bank. Accessible at <https://openknowledge.worldbank.org/handle/10986/27356>

information. Women and men's choices can be expanded in ways that reduce carbon footprints, through gender-sensitive approaches – for example, through the design and commercialisation of improved cook stoves, advice on low-tillage agriculture, or product labelling and recycling, among many other examples. The strengthening of women's political representation and leadership roles within wider society is likely to contribute to the kinds of institutional transformation that are required to put countries onto low-emission development pathways.

2.2. GENDER AND CLIMATE INNOVATION

In order to drive the rapid economic transformation required to reach net zero emissions for meeting the Paris Agreement on temperature rise of 1.5 °C, all sectors of the economy, from energy to agriculture, must adopt climate mitigation strategies. While huge technical innovation is needed, transformation of this scale and speed cannot be achieved without the support and participation of citizens, including women. Women's unique experience, knowledge and skill-sets can – and do – strengthen climate mitigation efforts, as highlighted by the 2XCollaborative organisations of the '2XClimate Finance-Task-Force', in its recently launched Toolkit¹³. Furthermore, existing evidence demonstrates the importance of women's leadership as enablers of emission reductions and energy transition. Given the importance of clean energy to climate change mitigation, adaptation, resilience and just transition, together with the under-representation of women in the sector, the needs and potential opportunities for connecting climate and gender impact are undeniable.

There is mounting evidence, particularly in Europe but also recognized and stated by one of the stakeholders consulted in Colombia¹⁴, that women have different perceptions of the significance of climate change, and behave differently as a result¹⁵. Women appear to be more likely to undertake actions that are perceived as beneficial to the environment: for example, consuming locally produced foods, recycling household waste and making decisions about the purchase of household appliances that take energy efficiency into account. The same stakeholder mentioned that women develop more mission-driven businesses, such as green ventures or inclusive businesses. It is not clear how far such findings can be generalized, but, at the very least, they point to the need to take gender into account in the design of measures to reduce carbon intensity across different sectors.

A World Bank study concluded that interventions in the energy sector could have significant gender co-benefits when interventions are carefully designed and targeted based on a context-specific understanding of energy scarcity and household decision-making¹⁶. Likewise, in urban redevelopment and in the development of public transport systems, there is growing evidence that gender awareness in the design of such programmes can result in innovations that bring significant gender co-benefits, regardless of whether or not they also seek to lower net carbon emissions. The energy and transport sectors therefore offer opportunities for financing and addressing multiple climate and gender challenges in tandem, across regions and value chains.

The agriculture sector is a major contributor to climate change effects, producing an estimated 19-29% of all greenhouse gas emissions globally¹⁷. Industrial agriculture is also a major cause of ecological degradation, directly reducing the resilience and future productivity of lands and ecosystems. Allowing emissions to grow in a business-as-usual scenario will significantly undermine mitigation efforts in other sectors. A gender lens should be a central component in food system

¹³ 2XClimate Finance Taskforce, 2021. The Gender-Smart Climate Finance Guide. Accessible at: <https://www.2xcollaborative.org/2x-green-toolkit>

¹⁴ Stakeholder consultation meeting with CleanTech Hub from Colombia.

¹⁵ Agarwal, Bina, 2010. Gender and Green Governance: The Political Economy of Women's Presence Within and Beyond Community Forestry. Oxford: Oxford University Press. In: World Bank, (2011). Gender and Climate Change: Three Things You Should Know. Washington, DC. © World Bank. Accessible at <https://openknowledge.worldbank.org/handle/10986/27356>

¹⁶ Köhlin, Gunnar, Erin O. Sills, Subhrendu K. Pattanayak and Christopher Wilfong, 2011. Energy, gender and development: What are the linkages? Where is the evidence? Background paper prepared for WDR 2012. Policy Research Working Paper 5800. Washington, DC: The World Bank. In: World Bank, 2011. Gender and Climate Change: Three Things You Should Know. Washington, DC. © World Bank. Accessible at <https://openknowledge.worldbank.org/handle/10986/27356>

¹⁷ Climate Change, Agriculture and Food Security (CCAFS) (Website). Food systems. Accessible at <https://ccafs.cgiar.org/big-facts/#theme=food-emissions>

transformation. Women have important roles across agricultural value chains – as entrepreneurs, producers, processors, distributors and consumers. Yet significant gender gaps across these value chains limit the ability of women to innovate, implement and lead climate solutions in agriculture. Empowering women throughout the sector can act as a key enabler of climate mitigation and adaptation, contributing to a just transition by building an inclusive and resilient global food and agriculture sector.

3. THE STATUS OF GENDER EQUALITY AT REGIONAL LEVELS: PROGRESS AND CHALLENGES

3.1. STATUS OF REGIONAL GENDER EQUALITY

At the international level, West African and Latin American countries have ratified most international conventions and regional instruments, including the Committee on the Elimination of Discrimination against Women (CEDAW) and its Optional Protocol. The countries have also committed to implement the recommendations of international and African or Latin American conferences, depending on which region they belong to, including those of Mexico City (1975), Copenhagen (1980), Nairobi (1985), Cairo (International Conference on Population and Development, ICPD, 1994), Beijing+5 (2000), the African Women's Decade Programme 2010-2020, the 1994 Inter-American Convention on the Prevention, Punishment, and Eradication of Violence against Women (Convention of Belém do Pará) and the Sustainable Development Goals (SDGs). Additionally, they have also operationalized UN Resolution 1325 on women, peace and security in Africa, for which Côte d'Ivoire was the first signatory. They are also State Parties to the Solemn Declaration of African Heads of State and Government on Gender Equality in Africa adopted in July 2004, the so-called Maputo Protocol. The implementation of all these international conventions, protocols and laws has been the biggest challenge to the realization of gender equality in the two regions and West Africa in particular.

The Latin American countries have made significant progress in gender equality – e.g. progress in increasing women's access to labour force participation, advancement in women's education, etc – compared to West Africa. These changes are analysed in the sections below and at the focus country level. The Latin American countries tend to be ranked higher in the Human Development Index (HDI)¹⁸ and the Gender Inequality Index (GII)¹⁹. Of the total 189 countries, most of the West African countries are ranked above 160 in the HDI, with Burkina Faso ranking 182²⁰. Table 1 below provides an overview of some of the gender and human rights related inequalities in selected West African and Latin American countries²¹.

Table 1: Overview of selected Gender and Human Rights related inequalities in West Africa and Latin America

INDICATORS	CÔTE D'IVOIRE	SENEGAL	BURKINA FASO	MEXICO	COLOMBIA	ECUADOR
Human Development Index ranking	162	168	182	74	83	86
Gender Inequality Index (GII) ranking	153	130	147	71	101	86
Human Development Index (HDI), female	0.476	0.475	0.418	0.760	0.761	0.743

The paragraphs below provide some specific regional gender inequalities.

¹⁸ Measures differences in male and female achievements in three basic dimensions of human development: health, education and command over economic resources.

¹⁹ Factors that account for the loss of human development due to inequality between the genders. It is the measurement of gender disparity to quantify the loss of achievement within a country due to gender inequality. It uses three dimensions to measure opportunity cost: reproductive health, empowerment, and labour market participation (UNDP, Human Development Report 2020. Accessible at <http://hdr.undp.org/sites/default/files/hdr2020.pdf>)

²⁰ Ibid and UN data Statistics, at: <http://data.un.org/DocumentData.aspx?id=415>

²¹ Sources UNDP Human Development Report 2020. Accessible at <http://hdr.undp.org/sites/default/files/hdr2020.pdf>. And: <http://hdr.undp.org/en/countries>.

Latin America

According to the United Nations, over the past thirty years, women participating in the Latin America region's workforce increased by 11%. A study undertaken by the International Labour Organization (ILO) reveals that, overall, over half of all women (aged 15 or over) in 18 countries in the region are working, with Peru taking the lead at 68.7% and among the lowest, Costa Rica at 45.1% and 43.5% in Mexico. In Peru, for example, 90% of women with advanced education (which, in this case, refers to schooling beyond high-school level) are working, and 80% in Venezuela, with similar correlations in neighbouring countries²². Apart from improvement in education, the change is, among other drivers, attributable to the steady reduction in discriminatory regulations against women in the workforce. Nonetheless, the same study finds that there is still a substantial wage gap, with women earning on average 17% below men of the same age and economic status, and unpaid labour is disproportionately allocated to women, resulting in an uneven balance of workload and compensation.

Entrepreneurship in Latin America is also a dynamic sector; younger generations are pursuing venture efforts at impressive rates. According to a 2018 study from TechCrunch, 28% of ventures selected for accelerator programmes were female-founded. This is, in part, due to creative inspiration, education, resourcefulness and increased access to venture support initiatives²³. In 2017, the Global Networks Perspective deemed Latin America to be the second-most enterprising environment in the world. The 2020 Statista report identifies Latin America as having the highest female entrepreneurship rates in the world; specifically, over 33% of working-age women are working in early-stage business activities in Ecuador and close behind is Chile, with 32.4%. The Global Networks Perspective estimates as much as 8-25% of the working-age population in Latin American countries to be involved in forming a venture. As a result, entrepreneurship in Latin America is generally characterised by optimism, innovation and growth. The World Bank reports that two-thirds of Latin American entrepreneurs enter the field because they recognize the opportunity and potential innovation, rather than out of necessity. These opportunities appear most often in countries like Colombia, Mexico, and Brazil according to the 2020 Statista report²⁴. Unfortunately, women entrepreneurs have been impacted more than their male counterparts by the COVID-19 pandemic. The Mastercard Index of Women Entrepreneurs²⁵, which assessed the success of 58 economies in advancing women entrepreneurship, revealed that more than 50% of companies led by women in Brazil, Argentina, Ecuador and Uruguay have been negatively affected by the pandemic²⁶.

West Africa

According to the Organisation for Economic Co-operation and Development (OECD), in West Africa, large gender disparities persist. Women and girls are disadvantaged in many areas and do not enjoy the same opportunities as their male counterparts. This is true for almost all public sectors, ranging from unequal access to basic social services, unequal property rights, persistent gender gaps in the labour market and in the public sphere. Since the mid-2000s, however, almost

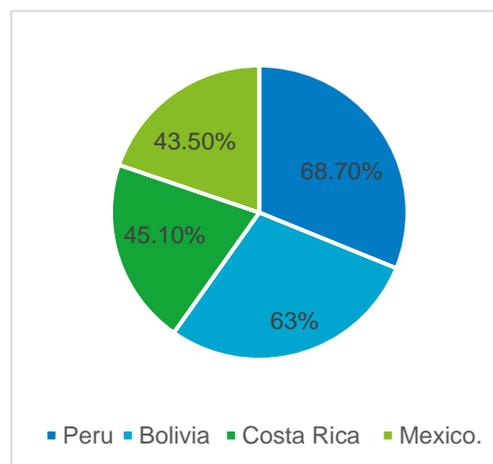


Figure 1: Percentage of women working in selected Latin American countries (ECLAC/ILO, 2019)

²² ECLAC/ILO, 2019. Employment Situation in Latin America and the Caribbean: Evolution of and prospects for women's labour participation in Latin America. Accessible at <https://www.cepal.org/en/publications/44917-employment-situation-latin-america-and-caribbean-evolution-and-prospects-womens/> and/or <https://news.un.org/en/story/2019/10/1050121>

²³ The Startup VC, 2020. Accessible at <https://www.thestartupvc.com/startup-news/women-entrepreneurship-in-latin-america>

²⁴ Statista, 2020. Start-ups in Latin America – statistics & facts. Accessible at <https://www.statista.com/topics/4786/startups-in-latin-america/>

²⁵ Mastercard, 2020. The Mastercard Index of Women Entrepreneurs. 2020 Report Accessible at https://www.mastercard.com/news/media/1ulpy5at/ma_miwe-report-2020.pdf

²⁶ International Policy Digest (Website). Women Entrepreneurship in Latin America. Accessible at <https://intpolicydigest.org/female-entrepreneurship-in-latin-america/>

every West African country and regional organization has adopted a gender policy or strategy and is increasingly mainstreaming gender issues in different policy sectors²⁷. Most West African countries have developed policy plans on science and technology dubbed ECOPOST: an integration plan which envisages investment laws being harmonized and forms the basis for creation of a regional investment promotion agency. Through the plans, the signatory states are urged to promote viable but efficient small and medium-sized enterprises that focus on technology and innovation as a path to increased productivity. In addition, a sub-regional development blueprint with a proposed road map for fostering public-private partnerships, improving governance and accelerating economic growth has been developed in most regions. However, ad-hoc approaches, operational ambiguity and lack of incentives have led to little progress being made on these goals. Key challenges cited include poor commercialization of research findings, limited technology transfer, and lack of stronger university-industry ties and inadequate boosting of indigenous knowledge²⁸. Political instability in the region – e.g. Liberia, Sierra Leone and Mali – have also slowed progress²⁹.

Overall, West Africa's tech scene has witnessed a boom in recent years, albeit at infant stage, with a dramatic increase in innovators and tech entrepreneurs using technology to provide simple and accessible solutions to numerous everyday problems. A major focus of the innovation has, however, been on creating access to easy and inclusive digital-banking solutions and less on other innovations. While it is worth celebrating such milestones, women's inclusion and participation in this booming tech sector has been challenging: since only 10% of the West African ventures that have cumulatively raised US\$ 1 million (€ 948,100) or more in the past decade had at least one female co-founder³⁰. In the broader sub-Saharan Africa region, women constitute only 30% of professionals in the tech industry.

Overall, there are a number of differences between West Africa and Latin America regions, as well as within each country in each region. Although there are a few aspects that might be mentioned as more generally applicable for each region, it is almost impossible to make generalisations. This is because of the differences in contextual dynamics and intersectionality of women, given that women are not a homogeneous group, and gender inequality cannot be seen as separate from other forms of discrimination and disadvantage that women (and/or men) in society face, such as racism, colonialism, ableism, homophobia and religious discrimination. Within regions, gender disparity also exists: for example, in Colombia and Ecuador, though both are Andean countries, differences exist between women belonging and living in the Andean regions compared to those living in other regions. The same applies to women from the Amazon region; although they are also part of the population of these countries, many indigenous women, from either the highlands or the tropical forest, have to face more challenges than women not belonging to indigenous groups.

3.2. GENDER-RELATED RISKS AND BARRIERS IN WEST AFRICA AND LATIN AMERICA

The following sections describe some of the general gender risks and barriers that exist in both regions. The barriers exacerbate factors of inequality and, in most cases, are the underlying drivers of gender inequalities.

3.2.1. THE RURAL VS. URBAN DIVIDE

The most significant difference in the ability for women to become entrepreneurs is not based on religion, ethnicity or political association but, rather, where they live – in rural or urban settings. This is because the settings and situations have an impact on the capacity, opportunities and potential for women, particularly when it comes to becoming business leaders and entrepreneurs.

²⁷ OECD/Sahel and West Africa Club Secretariat (Website). Gender. Analysing how women's trade networks function. Accessible at <https://www.oecd.org/swac/topics/gender/>

²⁸ The Conversation (Website). West African states have a science and technology plan. But it's going nowhere. Accessible at <https://theconversation.com/west-african-states-have-a-science-and-technology-plan-but-its-going-nowhere-1212733>

²⁹ Ibid

³⁰ Vogue (Website). Meet 6 women at the forefront of West Africa's tech boom. Accessible at <https://www.vogue.in/culture-and-living/content/west-africa-women-technology-industry-professionals>

This disparity is based on unequal educational levels, diminished access to finance, and traditional social burdens of household care and childbearing (unpaid care work) which often widens the rural-urban divide.

For example, in Côte d'Ivoire, rural women represent 67% of the workforce and produce 60-80% of food³¹. Yet, according to the World Bank, 75% of women live under the poverty line. The majority of women in Côte d'Ivoire fall into the rural grouping, a significantly more disadvantaged category than urban women, who have higher levels of education and the capacity to build scalable businesses, access finance and business-related information.

According to Oxfam³², in Latin America only 30% of 58 million women who live in rural areas own agricultural land and less than 5% have access to technical assistance. Further, in the agricultural sector, Latin American women are employed less than men, with Chile and Peru at 5% and 26%, respectively. Land tenure is a major barrier for women, as women in many countries in Latin America have lower access to land tenure or formal land use rights. This has major implication for women's livelihood security and makes it difficult for many women to access credit/finance.

The rural-urban divide also has a major influence on women's perceptions and attitudes. Generally, across the regions there is a major difference in perceptions between rural and urban women when it comes to their belief in their own entrepreneurial abilities. Despite the seemingly impossible tasks of balancing family and career, urban women are afforded more opportunities, including a more accepting society. Urban women are also more likely to be literate and have access to higher education, which paves their way for more work and entrepreneurial opportunities – which is out of reach for many rural women, who are structurally and culturally conditioned to accept roles of caring for children, a husband and extended family. The metropolitan nature of the cities often means that individuals have less traditional patriarchal influence over women's roles in society as compared to those of the rural or more traditional areas of the country. However, not all urban women enjoy these rights: for example, in both regions poor women in urban neighbourhoods could even be more disadvantaged than rural women, given their lack of access to basic inputs and social support systems.

In addition, access to essential services and actors is often limited to the capital cities. In Côte d'Ivoire, for example, international actors are almost entirely based in Abidjan, which is well serviced in terms of women's entrepreneurship empowerment programmes, but other large cities and rural areas are left out of programme implementation. There are a few exceptions, such as the Institut National Polytechnique Félix Houphouët-Boigny in Yamoussoukro, the political capital of Côte d'Ivoire, which has an incubator, and some organizations have occasional satellite programming, but this is not a widespread trend.

3.2.2. CUSTOMARY AND TRADITIONAL NORMS, PRACTICES AND BELIEFS

In both West Africa and Latin America, child marriage and teenage pregnancies are common practices. West Africa is said to have the highest rate of child marriage in the world; UNICEF, in a 2020 brief³³, estimates that countries in the West African region will have the highest number of girls forced to marry by 2050 and that West Africa will not meet the 2030 SDG of ending child marriage. Burkina Faso has 52% of its girls married before the age of 18 years, 10% of whom are even married before they turn 15. In Niger, 76% of girls are married before the age of 18³⁴(see figure 2 below). The Latin America region, on the other hand, has the highest rates of pregnancy among adolescents, with 74 births per 1,000 adolescents between 15 and 19 years of age, and a high maternal mortality of 34.6 deaths per 100,000 live births. Maternal mortality is even higher

³¹ Christiaensen, Luc and Patrick Premand (editors), 2017. Côte d'Ivoire Jobs Diagnostic — Employment, Productivity, and Inclusion for Poverty Reduction. World Bank, Washington, DC. In: Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

³² Oxfam International (Website). How rural women are adapting to climate change in Latin America and the Caribbean. Accessible at <https://www.oxfam.org/en/how-rural-women-are-adapting-climate-change-latin-america-and-caribbean>

³³ Plan International/Girls Not Brides, 2020. COVID-19 and Child Marriage in West and Central Africa. Accessible at <https://plan-international.org/publications/covid-19-child-marriage-west-central-africa>

³⁴ UNICEF Child Marriage Database August 2021. Accessed at <https://data.unicef.org/topic/child-protection/child-marriage/>.

in West Africa, at 26 deaths a day, a rate that is four times higher than anywhere else in the world³⁵. In addition, child marriage and pregnancies affect girls' education and limit their choices later in life.

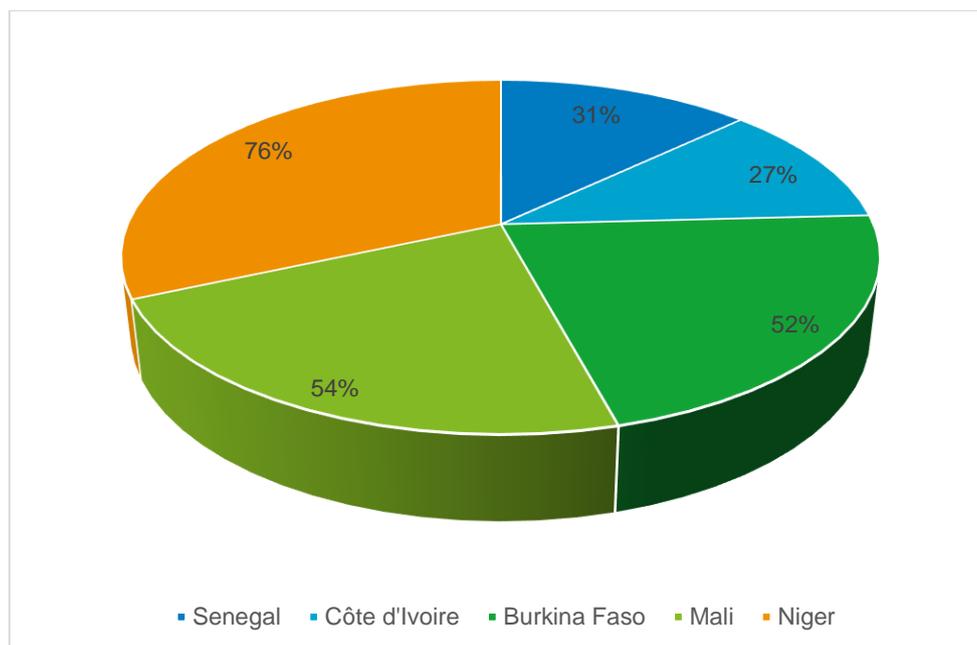


Figure 2: Percentage of girls married before they are 18 years old in West Africa (UNICEF Child Marriage Data 2021)

Catalystas Consulting's research³⁶ identifies a number of other cultural factors that hold back women from exploitation of their entrepreneurial potential. In West Africa, traditional beliefs, superstitions and shamanistic practices have, over the years, shaped a patriarchal structure that assigns value and mysticism to women based on virginity, chastity, menstruation and pregnancy, often with a negative impact. These breed detrimental systems that hinder women's autonomy and ability to participate in the economy. In addition, polygamy is still widely practised across all religious groups in West Africa. The practice prevents autonomy for women. Polygamists' value systems often make women dependent on their husbands, as it can be used to cut women - and their children - off economically should they behave in a way disapproved by their husband, such as finding work outside of the house.

Customary laws continue to be applied on a regular basis in many countries in West Africa. These customary laws differ for each region and tribe and are often based on religious, ethnic or traditional heritage that stems from patriarchal structures and negatively affect women. There are a number of examples where the implementation of customary laws over statutory laws affects women's ability to become entrepreneurs. These can be noted in areas of: i) access to inheritance rights; ii) access to credit; iii) access to land rights; and iv) accessibility of the justice system.

In West Africa, women's land rights and access and control have further weakened by the unpredictable weather changes that affect small landholders, who are often women with little capacity to adapt through technology or diversification. The proportion of women negatively affected by climate-related crop changes has significantly increased, with up to 48% reported in Burkina Faso. As a result, women are often the first to lose their claim on fertile soils³⁷.

In Latin America, significant legal strides have been made in the past decade, and many of the countries have repealed laws identifying the husband as the head of the household, which was

³⁵ Reliefweb (Website). Child Marriage Kills More Than 60 Girls A Day. Accessible at <https://reliefweb.int/report/world/child-marriage-kills-more-60-girls-day>

³⁶ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-d'Ivoire.pdf>

³⁷ UN Human Rights/Un Women, 2013. Realizing Women's Rights to Land and Other Productive Resources. Accessible at <https://www.ohchr.org/documents/publications/realizingwomensrightstoland.pdf>

seen to limit women's capacity to administer properties. FAO sees this as a positive opportunity to provide female household members with access to land, but it may also undermine women's bargaining power within the household – and thus their social position, since the land titles are often issued in the husband's name³⁸.

3.2.3. SEXUAL AND GENDER-BASED VIOLENCE (SGBV)

Women in West Africa and in Latin America encounter many challenges related to their physical integrity, such as violence against women. Shocks and disasters can contribute to an increase in Sexual and Gender-based Violence (SGBV). A case in point is the level of SGBV reported during the COVID-19 pandemic. Although a number of measures have been implemented to combat SGBV on paper, as shown by the treaties and conventions listed in Section 3.1, SGBV is very much prevalent in West African countries and not all countries have a specific law in place to address this problem, while others are not implementing the laws that do exist. A major form of SGBV in West Africa is female genital mutilation (FGM). Although laws criminalizing FGM exists in most West African countries, high prevalence rates still persist: e.g. according to data from UNICEF, Mali and Burkina Faso have rates at above 75% amongst women aged 15 to 49 years³⁹ (see figure 3 below). In addition to loss of life, the practice causes lifelong problems that hinder women from achieving their full potential.

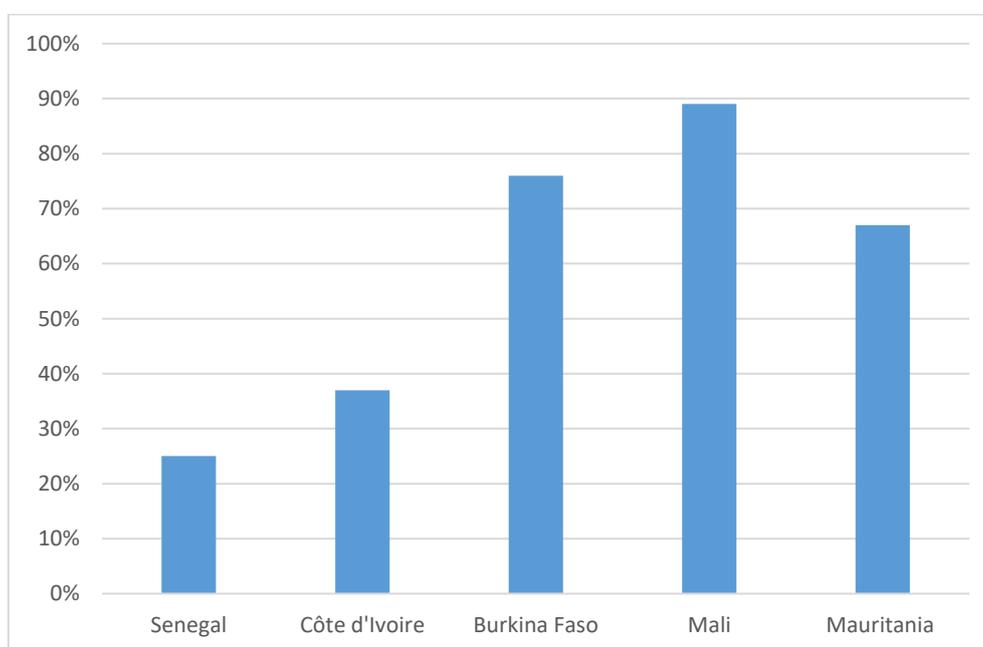


Figure 3: FGM Prevalence rates in selected West African countries (UNICEF Global Database 2021)

³⁸ ibid

³⁹ UNICEF Global Database July 20221. Prevalence of female genital mutilation/cutting among girls and women (% of girls and women ages 15–49). Accessed at <https://data.unicef.org/topic/child-protection/female-genital-mutilation/>.

Table 2: Reported cases of femicide in Latin America in 2020 (CEPAL 2020)

COUNTRY	REPORTED CASES
Brazil	1,738
Mexico	948
Colombia	182
Argentina	251
Ecuador	79

In Latin America, gender-based violence (GBV) remains a serious issue in Mexico. According to surveys conducted by National Institute of Statistics and Geography (INEGI) and the National Institute for Women, around 63% of Mexican women (aged 15 or older) have been victims of GBV at some point in their lives. Femicide (the killing of women) is also relatively common in Latin America⁴⁰, with Brazil reporting the highest number of cases at 1,738 and Mexico at 948 cases in 2020 (see table 2 below). SGBV not only affects women's well-being but also their ability to be confident entrepreneurs.

3.3. KEY BARRIERS FACED BY FEMALE ENTREPRENEURS IN WEST AFRICA AND LATIN AMERICA

Existing research on the entrepreneurial environment in both regions shows that the following challenges hinder women from becoming both entrepreneurs and successful business leaders.

- **Little to no accessible entrepreneurship education and capacity building:** A lack of literacy continues to be a big challenge in many West African countries. Gender inequality with regard to illiteracy and lack of education is probably the most important factor affecting women's entrepreneurship potential in most countries in West Africa: e.g. the latest census of Côte d'Ivoire (in 2014) indicates that 59.4% of Ivorian women are not educated, or only completed primary school, and that illiteracy is more pronounced among older generations⁴¹. In Latin America, the problem is not typically related to education, as the region has one of the highest literacy levels. However, as in West Africa, alternative education such as incubators or business support programming are mostly limited to the wealthy part of the population, including women coming from families with high resources, and are virtually unavailable outside of the cities. In West African capital cities, entrepreneurship support projects are located mostly in the same urban neighbourhoods, frequented by groups with access to the best educational institutions both in-country and abroad. The situation is similar in Latin America: for example, Mexico City hosts over 30% of all operational ventures in Mexico. This is also the case in Colombia, where more than half of all ventures are based in Bogotá and its immediate neighbourhood. Women in the capital cities also have a higher degree of autonomy than women in other regions of the country.
- **Challenges in legal rights related to ownership and inheritance:** In Burkina Faso, Côte d'Ivoire, Benin and Togo, for example, given the dualism in the law where customary and statutory laws are both recognized, local customary laws still mainly govern the ownership, use and transfer of land. Though few smallholders are legally registered land-owners, given the predominant use of customary laws women have de facto no secure access to land. In Côte d'Ivoire, despite the fact that there is progressive legislation related to women's rights, the reality is that more than 75% of the country continues to operate under customary law and these practices serve to limit women's ability to obtain and maintain the fixed capital often needed to access finance. Though not a common problem, legislative obstacles in some Latin America countries, e.g. Chile, have been noted, where the marriage law stipulates that a woman must seek permission from her husband before she can start a business, thereby making it difficult for women to start a business.

⁴⁰ CEPAL (2020). The pandemic in the shadows: Femicides or feminicides in 2020 in Latin America and the Caribbean. Access at https://www.cepal.org/sites/default/files/infographic/files/21-00792_folleto_the_pandemic_in_the_shadows_web.pdf.

⁴¹ Care, 2019. Context and policy analysis, action & advocacy strategy for the Women in Enterprise program. Report on their policy review as part of their Women in Enterprise program. In: Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-d'Ivoire.pdf>

- **Lack of access to information:** Given women's limited access to networks, that no matter the socio-economic or education level, women face an overall lack of access to information related to registering and opening a business, as well as accessing (or preparing to access) financial services. In West Africa, the government's legislation and policies remain largely unknown beyond capital cities and are thus underutilized or unimplemented.
- **Limitations in access to finance:** First, the lack of information makes accessing financial markets challenging beyond mobile money systems. The lack of information also limits women's ability to prepare themselves to apply for investment. Second, entrepreneurs' growth potential is restricted when they are denied credit as a result of excessive demands or interest rates that are too high. Third, women's lack of access and control over collateral assets limits their access to credit more than men. Fourth, there seems to be an exacerbated gap in finance between micro- and large loan amounts, hindering business expansion, research and development (R&D), and long-term success - especially for women⁴².
- **Narrow perceptions of entrepreneurship:** According to Catalystas Consulting⁴³, the local perception of what entrepreneurship is tends to be narrowly limited to an idea of Western businessmen and women in offices. For many women, both public and private sector employees, the concept of entrepreneurship is reserved for suits and ties, formal offices and fast-paced environments with high revenue, expanding teams of employees and observable short-term growth. However, many of these same women engage in work outside their primary role or occupation. In West Africa, for example, the largely individualized, small scale and informal economy of buying and selling activities is known as "*Gombo*". While *Gombo* is not limited to women, because traditional West African culture relegates the role of women to the home and family, income-generating activities conducted by women outside of formalized and salaried jobs are usually considered *Gombo*. In large part, this definition stems from a lack of entrepreneurial training opportunities in the educational system, especially outside of the capital cities.

In Latin America, stereotypes and gender roles continue to prevail. In Mexican society, for example, 47.6% of women aged 15 and older think women who work are not able to take care of their children properly; while 10.4% consider men and not women should hold decision-making positions⁴⁴. In Latin America, although employment opportunities are increasing for women in the region, there remains a steep gender pay gap. The Economic Commission for Latin America and the Caribbean (ECLAC) and the International Labour Organization (ILO) researched the issue in 2019⁴⁵. After analysing the data and figures, researchers concluded that for every hour worked, women earn 17% less than men in Latin America. In the study, researchers held position, education, age and economic status constant. The United Nations, along with countless other organizations and studies, recognize that resolving these problems is a top priority. Elevating women in the workforce will create a positive domino effect for the economy and Latin America overall. In addition, in Latin America and the Caribbean, according to a report published by the Inter-American Development Bank (IDB)⁴⁶, women hold only 15% of management positions and own only 14% of companies. According to the IDB, the participation of women

⁴² Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

⁴³ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

⁴⁴ INMUJERES – Instituto Nacional de las Mujeres/National Institute of Women, 2017. In: GIZ, 2018. Gender Analysis for NAMA Project 'Energy Efficiency in SMEs as a contribution to a low carbon economy in Mexico'. [Internally shared document].

⁴⁵ ECLAC/ILO, 2019. Employment Situation in Latin America and the Caribbean: Evolution of and prospects for women's labour participation in Latin America. Accessible at <https://www.cepal.org/en/publications/44917-employment-situation-latin-america-and-caribbean-evolution-and-prospects-womens/> and <https://news.un.org/en/story/2019/10/1050121>

⁴⁶ IDB, 2021. An Unequal Olympiad: Gender Equity in Latin America and Caribbean Companies. Accessible at <https://www.iadb.org/en/news/study-reveals-high-gender-inequality-companies-latin-america-and-caribbean>

in leadership positions, the level of training of the workforce, the use of advanced technologies, and a favourable business culture are the main factors that affect gender equality in companies in the region⁴⁷.

- **Formalization of business is blocked by a burdensome, bureaucratic and expensive regulatory system:** in West Africa, although some governments have made great efforts toward formalizing the informal economy, which accounts for 64% of business, the business registration and tax burdens are a major deterrent for existing informal businesses, as well as potential entrepreneurs, with regard to formalization and growth. Due to the fact that the majority of women-owned businesses remain in the informal sector, the impact of these complex business regulations has a heavily compounded negative effect on women.

While these issues are not exhaustive, they present a very clear snapshot of the current challenges women face when it comes to entrepreneurship, and provide the basis for creating a number of potential pathways for support and improvement which the foreseen CATALI.5°T initiative might support.

⁴⁷ Ibid

4. FOCUS ON THE EXECUTING ENTITY HOST COUNTRIES OF THE CATALI.5°T INITIATIVE

This chapter provides extensive details on gender and climate innovation in the three EE host countries (Côte d'Ivoire, Senegal and Mexico). It also provides details on the existing institutional mechanisms that govern the entrepreneurial ecosystems in the countries and describes the status of climate innovation in three key sectors: education, agriculture and energy. Finally, the chapter looks at specific gender-related barriers faced by climate ventures and entrepreneur support organizations (ESOs), including pre-accelerators, accelerators and venture capitalists.

4.1. CÔTE D'IVOIRE

4.1.1. INSTITUTIONAL MECHANISMS GOVERNING IVORIAN ENTREPRENEURIAL ECOSYSTEMS

Given the use of customary laws outlined in Chapter 3, the root cause of gender inequality in Côte d'Ivoire stems from patriarchal cultural norms⁴⁸. A study by Catalystas Consulting, conducted in 2020⁴⁹, found that although there are efforts towards women's empowerment in the country in the form of structural policies and cultural reforms as a pillar of development in national strategy, as far as gender equality is concerned the country presents an image of "*an elephant with feet of clay*"⁵⁰.

At the national level, the formal framework for gender equality is established by the Constitution of 2016, which enshrines the principles of gender equality between women and men, fights against discrimination in access to resources and their control, and equal opportunities in the labour market, in employment and elected assemblies.

Among the most important *action plans and national strategies* relating to gender are: the National Development Plan (NDP 2012–2015 and 2016–2020); the National Policy on Equal Opportunities, Equity and Gender was updated in 2018, but has not yet been adopted, and the National Strategy for Combating Gender-Based Violence 2014–2016 (SNLVBG). A national strategy for the empowerment of women is in the process of being finalized. Furthermore, it is noteworthy that the NDP addresses gender issues with a dedicated budget. The country is in the process of domesticating its international gender commitments. In this regard, the Ivorian legal system has been enriched by new laws that are more favourable to gender issues, such as the Marriage Act; abolishing the notion of head of family and moving towards joint management of households by the couple; and the Compulsory School Act for all children (girls and boys) from 6 to 16 years of age.

The Ivorian government has a ministry focusing on gender - the Ministry of Women, Family and Children (MFFE) – as well as an Office of the Special Advisor on Gender, which reports directly to the Prime Minister. However, gender equality has been noted as being considered as a single-subject concept, rather than a cross-cutting issue in policy and implementation, with frustration often expressed by bureaucrats attempting to reform or implement gender-empowering policy.

A key objective of the 2016–2020 National Development Plan (NDP) included economic programming aimed at pushing Côte d'Ivoire into the emerging market economies category, generally understood to mean a middle-income economy. Although the country has not yet reached this goal, there have been significant efforts made through the use of strategies such as the 2019 National Financial Inclusion Strategy (PDESFI), which has looked to expand credit availability at large scale, especially for rural areas, through the use of mobile banking, micro-financial institu-

⁴⁸ As recognized by UN Security Council Resolution 1325: on Women, Peace, and Security it is internationally recognized that war and conflict have a disproportionately higher negative impact on women. This higher vulnerability also includes a longer-lasting impact on the equality and value of women in post-conflict settings, especially in contexts where gender equality levels were unbalanced prior to the conflict.

⁴⁹ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote d'Ivoire. Accessible at: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

⁵⁰ Meaning these policies and reforms may appear powerful but in reality, they are weak, and can easily collapse.

tions, and specific strategies for formalizing and connecting SMEs, which make up 80% of businesses in Côte d'Ivoire. Despite all these initiatives, currently it is estimated that women account for only 15% of all SME owners.

As a national agenda topic, gender is still not seen as a cross-cutting issue across government ministries and the private sector, a reflection of the untapped potential and underserved population of would-be women entrepreneurs. There remain extensive challenges in the implementation of legislation throughout the various regions of the country. Though the country has made landmark improvements in legislation, the reality is that more than 75% of the country does not actively apply statutory law.⁵¹ Instead, many areas utilize customary law. In addition, given the weak legislative structure, many laws remain unknown to women, who, as a result, continue to lack understanding of – as well as having the ability to exercise – their legal rights as Ivorian citizens. As a result, resources and factors of production are unequally distributed between women and men, which most likely creates an imbalance in the evolution of Ivorian society⁵².

In the promotion of entrepreneurship, since 2011 Côte d'Ivoire has been a member of the Organization for the Harmonization of African Business Law (OHADA). OHADA is designed to streamline registration processes for businesses and entrepreneurs, create tax incentives, programmes and business centres to help existing informal businesses as well as potential entrepreneurs register and formalize their businesses.

In 2014, the government passed a number of regulations that led to the creation of the Agency for Promotion of Entrepreneurship (PME). Placed under the supervision of the Ministry of Commerce, the PME is charged with: i) supporting entrepreneurs, including the provision of technical and financial support; ii) providing advisory support services; iii) establishing a mechanism to provide bankruptcy support services to SMEs; iv) assisting in the establishment and administration of municipal & regional funds for SMEs; v) supporting the establishment and administration of a state-sponsored public procurement process, for which a designated percentage of contracts will be reserved for SMEs at both the local and national levels; vi) creating state-sponsored nurseries and business incubators in each territory across the country based on sector-specific needs, and to promote and maintain emerging projects via PME; and vii) establishing relations with banking institutions and finance mechanisms, and taking all necessary measures to facilitate reduced credit rates for young people and women entrepreneurs. The PME has also created a digital registration system for entrepreneurs and SMEs. In addition, the government has set up two funds, the Innovative Management Project of the National Fund “Women and Development” and the “Support Fund for Women of Côte d'Ivoire” (FAFCI).

However, a number of limitations have hindered entrepreneurs from full exploitation of PME's services. These are: i) much of PME's information and forms focus on digital pathways for accessibility and submission, thereby limiting rural women's access; ii) PME has three business centres, all located in the capital and none in other major cities or rural areas; iii) extensive record-keeping becomes obligatory once an applicant is registered as an entrepreneur, with limited information and support; iv) a number of tax breaks for SMEs have been established as incentives for formalization but often prohibitive registration processes, lengthy paperwork, stringent taxation through mandatory quarterly and annual declarations become exceptionally challenging for women who lack business experience. With the tax breaks, small enterprises could access corporate lending interest rates at 8-11% rather than the higher individual SME rates of 15-29%. It is, however, noted that SMEs have a low success rate (68%) when applying for these more concessional loans⁵³. This is attributed to a lack of knowledge about corporate borrowing and lending practices and investment readiness, which, in turn, often render the SMEs as risky investments from the perspective of traditional banking mechanisms that follow the international banking regulations of Basel I & II on lending and risk; and v) PME was provided with neither

⁵¹ Land Governance Assessment Framework (LGAF). 2014-2020 Land Portal Foundation / RSIN 854330045. Land Portal - Côte d'Ivoire. Accessible at <https://www.landportal.org/community/projects/land-governance-assessment-frameworks-completed>

⁵² FAO, 2020. Gender Assessment. SAP015: Promoting zero-deforestation cocoa production for reducing emissions in Côte d'Ivoire. Prepared by FAO, Côte d'Ivoire, 2020. Accessible at <https://www.greenclimate.fund/project/sap015>

⁵³ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Côte d'Ivoire. Accessible at: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>.

adequate budget nor the necessary capacity to fully serve the Ivorian ecosystem within its mandates.

Entrepreneurship regulations are also becoming a major issue for the informal sector in the country. In 2019, the country introduced new agreements to tax the informal sector, shifting the burden of tax collection to formal sector companies working with informal actors. The tax applies a rate of 2-5% on goods and services. The informal sector tax is lower than normal transaction taxes, but it is a starting point in the ongoing effort to strengthen regulation. Many business representatives in Côte d'Ivoire believe that this is evidence that the government is eager to regulate the informal economy. They therefore assume that considerably more regulations will be introduced in the coming years to address and regulate the informal economy. This could mean economic disadvantages for many small businesses, many of which are owned by women with limited technical capacity and an inability to bear the financial burden necessary to operate as fully formalized businesses.

During the project stakeholder feedback meeting in West Africa held on 30 November 2021, the workshop participants pointed out the presence of female entrepreneurship networks, platforms and partnerships in Côte d'Ivoire. Women entrepreneurs are organized into platforms and federations. The Women's Entrepreneurship Development Commission of the General Confederation of Businesses of Côte d'Ivoire is the largest in this respect. The Ivorian Federation of SMEs also has a Gender-Women-Entrepreneurship Commission. Other groups of entrepreneurs include the Ivorian Network of Women Entrepreneurs, the Coalition of Women Leaders of Côte d'Ivoire, the Federation of Women Entrepreneurs, the Women Entrepreneurs of the World-Côte d'Ivoire, the Federation of Entrepreneurs and Businesswomen of West Africa, and the Association of Women Inventors and Entrepreneurs of Côte d'Ivoire. They all promote the collective successes of female entrepreneurship in the country and influence decisions within institutions such as the General Confederation of Enterprises of Côte d'Ivoire (CGECI). Despite their low numerical weight, the CGECI has set up an entrepreneurial commission aimed at building the future generation of Ivorian entrepreneurs, which also contains the Gender and Woman Entrepreneurship Commission (CGFE). Among others, CGECI holds business plan competitions targeting women, as well as an accelerator offering theoretical and practical training, including a Masterclass and Speaker series, mentoring, and networking.

Despite these array of seemingly promising national mechanisms for the promotion of gender equality, studies⁵⁴ reveal that major gaps exist within the national mechanisms, which can be summarized as follows: i) lack of tools and mechanisms for integrating gender into policies, plans, development programmes and budgets, at both central and decentralized levels; ii) lack of disaggregated databases and up-to-date harmonized gender indicators in different sectors in order to provide information on the inequality situation in each sector of activity; iii) the lack of a comprehensive and integrated coordination framework between the structures in charge of gender promotion; iv) insufficient budgetary resources allocated to structures in charge of gender promotion – for instance, the percentage of the national budget allocated to the MFFE is 0.1%; and v) the persistence of socio-cultural factors that limit the understanding and ownership of the principles of gender equality - for example, the fact that gender mainstreaming continues to be treated as a separate issue whose added-value is not well perceived⁵⁵. All these factors have an effect on women entrepreneurs, on both the demand and supply sides of the market.

⁵⁴ EU/MFFE/UN Women, 2017. Pour une analyse sur l'égalité de genre en Côte d'Ivoire. [Internally shared document]

⁵⁵ FAO, 2020. Gender Assessment. SAP015: Promoting zero-deforestation cocoa production for reducing emissions in Côte d'Ivoire. Prepared by FAO, Côte d'Ivoire, 2020. Accessible at <https://www.greencclimate.fund/project/sap015>.

4.1.2. STATUS OF CLIMATE INNOVATION IN EDUCATION, AGRICULTURE AND ENERGY SECTORS

4.1.2.1. GENDER AND CLIMATE INNOVATION IN EDUCATION

Currently, Côte d'Ivoire maintains a rate of 65% illiteracy rate for women in the country, and it is particularly high in rural areas (78.2%). This is further disaggregated as 59.4% for those without any education level and 23.5% for those who stopped at a primary school level. The low literacy levels constrain female entrepreneurship, as well as blocking access to higher-paying jobs⁵⁶. Illiterate and/or poorly educated women are disadvantaged in terms of training and therefore will have difficulty assimilating the fundamentals and basics of management⁵⁷. The illiteracy problem not only hinders women from joining the venture world of entrepreneurs, but also the ability to create innovative products and stimulate demand for products and services that can favourably compete and attract accelerators and incubation services.

Based on 2018 data from the World Bank, only 7.6% of women and 11.0% of men in Côte d'Ivoire were enrolled in university. These low figures are further exacerbated by the fact that the higher education institutions in Côte d'Ivoire have mainly focused on teaching basic-science research, which has a weak link to private enterprises. Further, the institutions were not established from the outset to be the incubating grounds for entrepreneurs and inventors⁵⁸. The public sector and the universities also do not provide opportunities for mainstreaming gender-sensitive pedagogy and design. Often, the only space where students are provided with training applicable to entrepreneurship and the space to explore creativity and build business models is in student associations, while the study programmes provide the students more with the theoretical background⁵⁹.

In the Technical and Vocational Education and Training (TVET) centres, the proportion of men and women is almost equal (48% of women against 52% of men). However, the majority of girls/women attend training in tertiary activity sectors, and only 10% of female learners are found in training courses in industrial sectors. Hence, tertiary sectors are commonly called "female sectors" and industrial sectors are called "male sectors". These gender stereotypes negatively affect the economic participation of women in non-traditional jobs. For example, in the construction sector, only 2.3% of workers are women, while there is a much higher percentage of women working in the tertiary and informal sectors (68% of hotels and restaurants workers). Such stereotypes can kill innovation in these crucial sectors where women are under-represented.

At the ministry level, the Ministry of Higher Education and Scientific Research has a gender unit that works on gender mainstreaming. Actions, such as workshops to reflect on the access of young girls to scientific courses in higher education, have already been carried out. These workshops provide spaces for discussion and reflection to analyse and understand the factors that contribute to limiting girls' access to science and technology education. The appointment of a female university president from the six public universities symbolises the advancement of women in this Ministry. However, the discussions need to be moved into practicable actions that support and mentor women-led innovations. Budget constraints are a key challenge faced by the institution.

The technology-related education – "EdTech" – ecosystem in Côte d'Ivoire still remains nascent and is not focused on climate innovation. So far, none of the EdTech start-ups in the country have raised significant capital or reached considerable scale. According to a Transforming Education in Cocoa Communities (TRECC) report in 2018, grants of insufficient size are the main source of funding and there is a general lack of know-how about fundraising by founders⁶⁰. According to the report, investors criticized the average quality of ventures, which were seen to be

⁵⁶ Mohamed. "Context and Policy Analysis, Actions & Advocacy Strategy for the Women in Enterprise Program" May 2019 CARE. In: Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-d'Ivoire.pdf>

⁵⁷ Ibid

⁵⁸ The Conversation (Website). West African states have a science and technology plan. But it's going nowhere. Accessible at <https://theconversation.com/west-african-states-have-a-science-and-technology-plan-but-its-going-nowhere-121273>

⁵⁹ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-d'Ivoire.pdf>

⁶⁰ Trecc/Seedstars, 2018. The State of EdTech in Côte d'Ivoire. Accessible at <https://treccprogram.org/en/publications/the-state-of-edtech-in-ivory-coast/>

affected by three factors: first, the investors find it very hard to work with government schools, as the sales cycles are very long; second, EdTech ecosystem support is seen to be lagging in Côte d'Ivoire compared with other countries in sub-Saharan Africa. Third, many ventures are trying to serve the under-served with low disposable incomes while the costs of the solutions being offered are too high.

Women entrepreneurs face these challenges just like their male counterparts. In addition, structural issues, low education levels and perceptions limit their ability to get their products in front of the right audience and reach a mature stage. A number of public, private and CSO initiatives have been making efforts to bridge the gap in education among female entrepreneurs. Catalystas Consulting's study found that, despite their high potential to create impactful business ventures, some of these actors (e.g. NGOs that are providing essential incubation services in the form of training), do not have the capacity to provide the individualized business and pre-incubation training necessary to boost the educational capacity of promising women entrepreneurs and enable their participation in more elite incubation programmes. This study also found although some of the actors provide quality training that focuses purely on women, they often focus on serving very specific, elite and niche types of services. Some these actors include⁶¹: i) "*Empow'Her's*" programme, with a small-scale approach, ii), "*She Is The Code*", which focuses on women on a larger scale, and iii) *Fondation Jeunesse Numérique* (FJN), an incubator that focuses on women. While these actors offer gender benefits, their focus on the elite niche leaves out the majority of the Ivorian population that does not fit into this small socio-economic and educational segment. Until recently, EdTech incubators and accelerators were lacking in the country. This gap has been recently addressed by Investisseurs & Partenaires (I&P)⁶² through its work with the *TgMaster* University: a new institution that, since October 2020, offers innovative training courses in digital technologies and management on-campus in Abidjan, and soon in delocalized branches throughout Côte d'Ivoire. It also supports students wishing to access business school education in Europe through private tutoring, coaching and mentoring services to enable them to take certified international tests in support of their applications. Given that the University has just started its operations, its initiatives towards gender mainstreaming are mainly guided by I&P's and Comoé Capital's women empowerment strategy, which is a key aspect of their EU-funded programme.

4.1.2.2. GENDER AND CLIMATE INNOVATION IN AGRICULTURE

A general analysis of the Ivorian context reveals that there is poor consideration of women's interests in actions to combat climate change and, in addition, there is insufficient proven expertise on gender issues in natural resource management⁶³.

In the agriculture sector in Côte d'Ivoire, women represent 90% of actors in the food crops sub-sector, which employs 85% of the active agricultural population and represent two-thirds of the agricultural workforce. However, the income generated by their agricultural activities is derisory given that the production is not always valued or counted but is, instead, intended mainly for the subsistence of the family. In cash crops such as coffee, cocoa, cotton, oil palm and cashew nuts, men dominate the sector and women constitute 62% of the unpaid labour force⁶⁴. In addition, only 8% of women hold a land title or a sales certificate, compared to 22% for men. In general, men are involved in export crops and high value-added perennial crops. Women, on the other hand, are involved in both perennial and food crops.

In rural areas, women have organized themselves through the Association Villageoise d'Épargne et de Crédit (AVEC) system. In addition, with the support of development partners, women's groups benefit from funding to strengthen their activities and are supported by the National Rural Development Support Agency (ANADER). Indeed, to promote women's empowerment,

⁶¹ Catalystas Consulting, 2020. Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-d'Ivoire.pdf>

⁶² Investisseurs & Partenaires (I&P) is a pioneering group in impact investment, entirely dedicated to the financing and support of start-ups and small and medium-sized enterprises (SMEs) in Sub-Saharan Africa.

⁶³ EU/MFFE/UN Women, 2017. Pour une analyse sur l'égalité de genre en Côte d'Ivoire. [Internally shared document].

⁶⁴ FAO, 2020. Gender Assessment. SAP015: Promoting zero-deforestation cocoa production for reducing emissions in Côte d'Ivoire. Prepared by FAO, Côte d'Ivoire, 2020. Accessible at <https://www.greencclimate.fund/project/sap015>

ANADER and its partners have developed approaches so that women have access to technological innovations and are trained in good agricultural practices, both in terms of food crops and in export crops like cocoa. Specifically, female field schools are sometimes set up to facilitate learning for women.

In Côte d'Ivoire, like many other West African countries, the bulk of “green tech” has hitherto been used to support enterprises that have significant local environmental impacts, such as recycling ventures and the energy sector, and less on agriculture. In recent years, technological advancement in agriculture has established a foothold in Côte d'Ivoire and is causing significant excitement: for example, the use of drone technology by local start-up *Investive* is a case in point. The technology is envisaged to reduce extensive farm labour and increase productivity while also benefiting the environment. While such developments merit acknowledgement, caution is needed when introducing such technologies, as they may not be gender-friendly. First, the large-scale land required, as well as technological input cost, is out of reach for many smallholder women farmers. A reduction in labour requirements also reduces the opportunities for female employment, given that they are often the backbone of agriculture.

A number of ventures in agriculture further down the value chain (such as processing of agricultural foods), where women have a stronger presence, are emerging in the country. Innovative ventures in the food processing sector have been recently supported by I&P and Comoé Capital accelerators. Recent ventures that benefited from these accelerators and venture capitalists include; i) *Citrine Corporation*; a company that specializes in the processing of cassava into fresh *attiéké* (cassava semolina) and *placali* (cassava paste) in the Grand-Bassam area south of Côte d'Ivoire, ii) *Épices et Essences de Côte d'Ivoire (E'Sens)*, an agro-food venture that is specializing in the production of essential oils of citrus fruits (bitter orange, bergamot) and relies on own production and supplies from small producers in Côte d'Ivoire, iii) *Syn'el*; a female-headed agro-food company specialized in the artisanal production of sorbets on sticks under the *Paletas* brand, made from entirely natural juices and in Côte d'Ivoire the only producer of natural sorbets. Though growing steadily, most of these ventures are facing teething challenges, with poor governance and management and limited access to finance key among them.

4.1.2.3. GENDER AND CLIMATE INNOVATION IN THE ENERGY SECTOR

According to the World Bank, private operators in Côte d'Ivoire are currently responsible for 70% of energy production and 100% of its distribution. The grid is expected to cover 99% of the population by 2035, and 42% of the energy produced is envisaged to come from renewable sources⁶⁵.

According to African Development Bank (AfDB) research⁶⁶, much of the rationale for looking at energy through a gender lens in Côte d'Ivoire has been on the demand side: i.e. what happens once electricity arrives at the community and household: who has access, what is it used for, and how is it paid for? This is primarily because women's roles in the energy sector are seen to be important in the consumption stage.

The country's energy balance shows the predominance of traditional fuels. Fuelwood is dominant in rural areas, with a consumption of around 3.2 million tonnes; charcoal is more dominant in urban areas, with a consumption level of 0.8 million tonnes, which is double that of rural areas (0.46 million tonnes). As for butane gas, it is the fuel for urban areas, with a consumption level of around 0.3 million tonnes compared to 0.05 million tonnes in rural areas. To change these patterns of energy consumption, there are huge opportunities for innovative ventures based around clean household energy. As major consumers and managers of wood and biomass resources, women will play an essential role in the transition to a cleaner energy development path.

One noteworthy example to mention on gender mainstreaming in the energy sector is the regional policy adopted by the Economic Community of West African States (ECOWAS), which focuses on empowering the region's female population to have an active stake in West Africa's

⁶⁵ World Bank (2020) The secret to Côte d'Ivoire's electric success. Accessed at <https://www.worldbank.org/en/news/feature/2020/07/23/the-secret-to-cote-divoires-electric-success?msclkid=01e020e6cd3911ec993d48298b25dd27>.

⁶⁶ FAO, 2020. Gender Assessment. SAP015: Promoting zero-deforestation cocoa production for reducing emissions in Côte d'Ivoire. Prepared by FAO, Côte d'Ivoire, 2020. Accessible at <https://www.greencclimate.fund/project/sap015>

energy sector. The impetus for the policy was threefold: i) men and women in the community typically exhibited distinct patterns of energy needs, levels of access and impacts, ii) significant aspects of the community's energy policy and institutional architecture were gender-blind, and iii) women represent a significant untapped pool of workers, entrepreneurs and decision-makers who could be positively contributing to the regional transition to cleaner, more just and sustainable energy systems.

Based on the government's projections and IFC estimates, achieving Côte d'Ivoire's renewable energy target in full can create a US\$ 9 billion (€8.53 billion) investment opportunity by 2030. In the energy sector, the clearest opportunities lie in expanding renewable energy access that responds to the gender-differentiated needs of women, their households, businesses and communities. In addition, a gender lens may be applied to large-scale climate mitigation projects such as wind farms, as well as increasing opportunities for women's employment and innovation.

In order not to miss out on such opportunities, new ventures are engaging within the energy sector. For example, *Proparco Emerging Africa Infrastructure Fund (EAIF)*-funded *Biovéa Energie* in Aboisso, a town in Côte d'Ivoire, is expected to be the biggest agricultural waste-powered plant in West Africa, generating renewable energy for 1.7 million people every year and aiming to reduce 450,000 tonnes of palm tree waste that will, instead, be supplied to the power plant. The project will support 12,000 local farmers in the supply chain and increase their income by 20% as they provide biomass to the power plant. Once operational, it is anticipated that the *Biovéa Project* will prevent emissions equating to approximately 340,000 tonnes of CO₂ per annum. Such a project has the capacity to improve gender equality through the jobs created as well as increase the number of local farmers in the supply chain, a majority of whom are women.

4.1.3. KEY BARRIERS AND CHALLENGES FOR CLIMATE VENTURES AND ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOs)

A. THE CLIMATE VENTURES

Discussions with Impact Hub Abidjan, IPED and a number of ventures have revealed the following key gender-related challenges faced by female-led ventures in Côte d'Ivoire.

1. **Access to Finance:** Ventures in Côte d'Ivoire often face extremely high barriers to source initial seed funding. Generally, access to bank financing is scarce, the legal and fiscal framework is often unsuited to the needs of ventures and there is very little reliable market data. In addition, the cost of credit is excessive (12-15% per annum) for long-term investments and the supply of financing from banks, which tend to favour short-term financing, is inadequate. These initial high capital costs are often out of reach for many women and have overall effects on women entrepreneurs that serve to limit the expansion of their businesses. Specifically, female entrepreneurs' access to finance is further hampered by:

i) The lack of a regulatory mechanism for ensuring gender equality at the financial institution level. This is because Côte d'Ivoire currently has no commissions, regulations or laws that prohibit gender-based discrimination for accessing credit based on marital status. Women interviewed during the gender assessment reported how they were seen to be *risky borrowers* if unmarried (see Testimony 3); and ii) single female founders or female-only entrepreneurs have difficulties accessing credit from financial institutions. A survey conducted by Briter Bridges and the World Bank's Africa Gender Innovation Lab⁶⁷ found that unconscious bias against female loan applicants results in higher rejection rates for female borrowers, lower amounts of credit granted, and higher levels of collateral required. Although some authors find that the bias against female loan applicants is driven primarily by male employees, others find that bias is rooted in institutional

Testimony 3

Women entrepreneurs interviewed reported that they were asked about their marital status when applying for a loan, noting that if they were unmarried, they were considered risky for default, and if they were married with children, they were deemed at risk of default.

Female entrepreneurs' KII

Testimony 4

"My loan requests have been rejected twice because the bank claimed the business is less risky when there is "gender parity" and offered me advice that I should get a male associate if I want to get my credit approved".

KII with Female venture founder in Côte d'Ivoire

Testimony 5

"When I apply for a loan, despite having all the necessary documentation, I am often asked by the bank credit officers how many men work in my company or if I have male technicians. Often, because they are not convinced enough about my capability, they offer me loans with very little amount e.g. CFAs 3M -5M (€ 4,575 -7,625) instead of the full amount I applied for. I don't know any other sources of funding and such little amounts from the bank will not help me realize my dream of using more environmentally friendly materials and revolutionizing the real estate industry in Côte d'Ivoire".

KII with female venture in Côte d'Ivoire

norms and is common among both female and male staff. Women entrepreneurs interviewed during the gender assessment expressed their disappointment over how the formal financial institutions in Côte d'Ivoire insist on seeing a male either as a key decision maker or at least in charge of the technical areas in the venture before they will approve female applicants' loans (see Testimonies 4 and 5).

2. Capacity challenges: According to Impact Hub Abidjan and IPED, female entrepreneurs often lack confidence and are unable to structure and position their product proposals, as well as articulate their business strategy and products, in front of potential investors. These capacity challenges lock them out of competitive processes for obtaining funding from angel investors and other funding sources (see Testimony 6).

Testimony 6

"The investment team notice that women running small companies are less aware about their market, customers, they will not push the reflection as men. But when they passed that level of acceleration, women are more confident, more prepared and know what they want for their businesses."

KII with IPED's ESG impact experts

3. Lack of comprehensive business understanding: The majority of female entrepreneurs undertake small scale businesses for subsistence reasons and often lack comprehensive business understanding, such as identifying market niches for their business, developing business ideas/products that respond to market needs, conducting market research, re-evaluating revenue streams, looking for partnerships etc. As a result, according to Impact Hub Abidjan, women often

⁶⁷ WB Group Africa Gender Innovation Lab and Briter Bridges, 2021. In Search of Equity – Exploring Africa's Gender gap in Startup Finance. Accessible at <https://documents1.worldbank.org/curated/en/297001633493250648/pdf/In-Search-Of-Equity-Exploring-Africa-s-Gender-Gap-in-Startup-Finance.pdf0>

have difficulties in letting go of ideas that are not responding well to market needs (see also the supply-side challenges below).

4. **Female entrepreneurs face more technical challenges than their male counterparts.** Most ventures that attract funding in Côte d'Ivoire and the greater West Africa region are technology-driven. According to Impact Hub Abidjan, women entrepreneurs often pursue classical business and shy away from technology-related business. This is because women often feel they are not tech-savvy and therefore cannot develop technology-based products and services. This stops them from pursuing tech-related ventures that are crucial for driving innovation in the renewable energy and agricultural sectors, for example. In Impact Hub Abidjan's support groups, men who had similar level of education and background more readily came up with ideas and often pushed for more technological innovation.

5. **Female-led ventures find it harder to acquire talent and quickly constitute a team.** This is where core competencies in renewable energy, construction, ecosystem conservation/restoration and protection are required. Female education in these fields is rare. In addition, the female-led ventures are often careful and hire male team members only after considering the impact the potential male team members would have on their team dynamic and overall leadership. According to Impact Hub Abidjan, in female-led ventures where 80% or more of the team members (including venture employees) are female, group members have been seen to work well together and complement their abilities. On the other hand, in female-led ventures with 80% or more male members, some of the male members were seen to be questioning the female leader's management capacity and often assuming the leadership role themselves. In the latter group, Impact Hub Abidjan has noticed overall negative impact on the group's productivity. While this cannot be generalized across all mixed groups and regions, it is an aspect that needs to be paid close attention to when working with mixed groups.

Testimony 7

"I lost some contracts just because I am a woman. In some of these contracts my company wins the contracts but after agreeing with the client and completing all the formalities, I receive calls from the client that they are sorry, but they have found a man who can do the job for them and just like that the contract is gone ... I have tried to advertise my company around the town especially at construction sites. People see the adverts but often potential clients insist on talking to my husband or to the Managing Director (man) and when I tell them that I am the Managing Director and my husband does not work in this position, they do not show further interest"

KII with female venture in Côte d'Ivoire

6. **Female entrepreneurs in non-traditional enterprises such as construction have difficulty finding clients.** Even Although it is heartening positive that more and more women are becoming construction engineers and undertaking masonry work, still the clients continue to question the technical capacity of women and do not trust that they are capable of doing the job right (see Testimony).

B. ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOs): PRE-ACCELERATORS, ACCELERATORS AND VCS

Pre-accelerators and accelerators

In Côte d'Ivoire, there is a general lack of a strong entrepreneurial ecosystem, which constrains the development of pre-accelerator and accelerator models for climate innovation. Compared with other sectors, such as information and communications technology, where the idea of venture pre-acceleration/acceleration first emerged, many accelerator models are not designed for climate technologies, given that such technologies typically require longer pre-acceleration/acceleration periods.

Approximately 20% of the ventures Impact Hub Abidjan is supporting are engaged with climate-related business models in the sectors of renewable energy (solar power), energy efficient construction of modern buildings, household energy-saving devices, forestry, environmental conservation and sustainable agriculture. Impact Hub Abidjan shared some of the key gender challenges they face in its pre-acceleration programmes:

1. **Difficulties in recruiting women ventures into its programmes:** Although this has been resolved with time, it took a long time before Impact Hub Abidjan could find the right channels to attract female entrepreneurs into its pre-acceleration programmes. With time, targeting of specific NGOs, designing of calls that specifically target women and building networks has helped ease this problem.
2. **Resource constraints:** Women entrepreneurs have additional needs that must be factored into the design of pre-acceleration programmes. These are broadly categorized as follows:
 - i. Women entrepreneurs need additional soft skills in the pre-acceleration modules, as well as longer training time: Often the courses are held twice a week, but this becomes hard for women to attend given their need to balance the training time with other unpaid work burdens. To afford them more time, Impact Hub Abidjan holds one session a week for female entrepreneurs only, which stretches the training time and the costs. In addition, the course module includes an additional sub-module specifically designed to help women voice their own challenges arising from unpaid work, family pressure etc. in a safe and non-judging environment. Every three weeks, Impact Hub Abidjan provides an additional session where women meet role models, share technical and social experiences and tips.
 - ii. Given their limited business skills, women entrepreneurs need more support and accompaniment time to develop and test ideas compared to most male entrepreneurs in pre-acceleration programmes. To start with, women entrepreneurs were seen to have a hard time sharing their business ideas before they were ready for market. During the ideation stage, while most male entrepreneurs took two weeks to share their ideas, female entrepreneurs needed twice as long (a month). In addition, as stated at the ventures section above, many women have emotional attachment to ideas⁶⁸ and have difficulty confronting their ideas / letting go, even after they have been supported by Impact Hub with market research and the available information clearly shows a different idea/product is needed. Male entrepreneurs, in contrast, iterate more “first” ideas and are more willing to quickly try something else.

Both issues have resource implications for Impact Hub’s programme. As a rule of the thumb, Impact Hub Abidjan increases the final resources for female venture trainings by one-third to take care of the additional time and extra training modules required. Impact Hub Abidjan also increases women entrepreneurs networking opportunities through ecosystem events that they hold every three months and pairing women entrepreneurs with the existing over 200 (including 100 women-mainly in business and technology sector) role models and mentors in Côte d’Ivoire.

3. **High drop-out rates:** Even with the above efforts, women entrepreneurs disproportionately dropped out of Impact Hub pre-acceleration training or did not fully pursue entrepreneurship-related work after the course. For example, at least 50% of the 35 women targeted in Impact Hub Abidjan’s second pre-acceleration programme are no longer actively engaged in entrepreneurial activities. In con-

Testimony 8

“What I learnt from Academy for Women Entrepreneurs (AWE) incubation programme at Impact Hub Abidjan was so valuable for me. Since 2020 when I took part in the incubation programme, my overall turnover has increased five times from 30M CFAs (€45,762) in 2020 to 150M CFAs (€ 228,812) in 2022. However, I have come across a number of my female course mates who have stagnated and are in the same financial situation as when they joined the course. These women often ask why they have been left on their own without further accompaniment and linkages to financial support after the incubation programme”

KII with Female venture in Côte d’Ivoire

68 Women entrepreneurs interviewed are passionate about their business ideas and often want to solve socio-economic challenges in their community.

trast, over 70% of the male entrepreneurs are still actively engaged in businesses. A discussion with a female entrepreneur revealed that some of women who go through the programmes continue to expect support and handholding after the pre-acceleration programme ends (see Testimony 8).

At the acceleration stage, IPED and Impact Hub Abidjan shared the following challenges:

1. **Difficulties in finding mature female-led ventures for acceleration.** Women ventures often operate at small scale and few women entrepreneurs have mature businesses that are ready for acceleration. According to IPED, in Côte d'Ivoire the majority of the businesses are in the informal sector (62%). However, they tend to be entrepreneurs of necessity rather than opportunity and are usually engaged in low-value-added activities, especially in the agri-business field. Shifting from the informal sector to the formal sector remains a crucial issue in this context. To overcome this challenge, IPED had to devise strategies to attract female ventures into its acceleration programmes. For example, when they realized their initial target of high-performing ventures with €500,000 to €3000,000 grants attracted mostly male ventures, they introduced smaller grants of €30,000 to €300,000. Nevertheless, attracting mature female-led ventures remains a challenge.

2. **Women entrepreneurs need more prepping time to effectively pitch their ideas/products:** Given the confidence challenges described under the ventures section above, more time is needed in the acceleration programme for confidence building, pitching to investors and further business development.

3. **Stereotypical gender roles become an obstacle to mainstreaming gender equality among the ventures supported in acceleration programmes:** According to IPED, efforts to ensure gender equality in the management and operation of the ventures are sometimes met with resistance: e.g. positions for men referred to as directors or managers and women managers as assistants; or men given supervisory roles that women can easily do with the allegation that “women are less qualified to be supervisors and that they are less authoritative to maintain discipline in the team”; or where men and women are paid differently for doing the same job (e.g. packaging products because men are seen to be strong and can carry heavy loads). To deal with such issues, IPED mainstreams a code of conduct and insists on ventures having women among their top management. The latter is not initially easy, as the positions are often already occupied by men: but, following the acceleration programme, most of the ventures grow and IPED uses this opportunity to support the venture to restructure and increase women leadership at the venture management level.

4. **Female entrepreneurs' lack of ability to prepare and present adequate business cases and well-structured financial models.** In the application process for acceleration programmes, IPED has noted that proposals submitted by female ventures often have more of these challenges than those of their male counterparts. To deal with these challenges, IPED has adopted a pro-active approach: e.g. spending more time analysing projects submitted by women and enabling them to structure the proposals more effectively.

Venture Capital (VC) firms in Côte d'Ivoire and Senegal

The following information has been gathered from the literature review and discussion with the EEs. From the discussions, most of the challenges at the VC levels for Côte d'Ivoire and Senegal are similar and are, therefore, combined under this chapter instead of repeating the same information again under Senegal (4.2).

According to the UNFCCC⁶⁹, climate technologies are often capital-intensive and can sometimes take more than 10 years for the technology to reach profitability at scale. The potentially long period required for breaking-even also discourages most investors, who would rather lock-in investments in other low-capital alternatives that provide quicker returns. In addition, investors are discouraged by the inherent risk in technology development associated with experimentation and learning from failure, which investors view as high risk and therefore unattractive.

⁶⁹ UNFCCC, 2018. Climate Technology Incubators and Accelerators. Accessible at https://unfccc.int/tclear/misc/_StaticFiles/gnwoerk_static/incubators_index/ee343309e8854ab783e0dcae3ec2cfa6/c172d2f388234bdbbe3dd9ae60e4d7e9.pdf

According to VC4A⁷⁰, the VC ecosystem in West Africa is characterised by a lack of early-stage finance and fractured ecosystem as a result of limited investor interest; and a lack of local mentor-driven capital⁷¹ (also see Testimony). For female ventures, the situation is worse, given that women-led businesses are generally operating at a very small scale – generating, on average, less than (€ 190,000) in revenue per year or at an informal level and often operate without a business license, thereby leaving them ineligible for legal benefits and funding opportunities. As a result, about 44 % of women entrepreneurs finance their businesses by borrowing money from relatives, and only 3.5% borrow from banks, microfinance and other institutions⁷². Access to financing and accurate market information therefore continue to limit women-led businesses’ opportunities for substantial growth.

Testimony 9

“Major brands want to have the image of being close to the digital pioneers, but it’s only an institutional positioning. Start-ups win competitions and small envelopes but do not focus on the essentials”

Raymond Mendy, former Director of CTIC Dakar

According to Africa The Big Deal, in 2021 start-ups in Africa raised more than 2.5 times the amount they raised in 2020, with a combined total of about 4 billion(€4.05 billion)⁷³. However, across the continent, ventures with a female founder or a founding team made up exclusively of women still attracted barely any of the funding going to ventures in Africa. As shown in figure 4, it is evident that female single founders and female-only founding teams raised only 0.7% (less than 1%) of all the funding raised by start-ups in Africa in 2021. Male single founders and male-only founding teams raised 81.3% of the funding across the continent in 2021. In other words, for every € 1(€0.9) raised by female-only founding teams, male-only founding teams raised € 28,8 (€27,381).

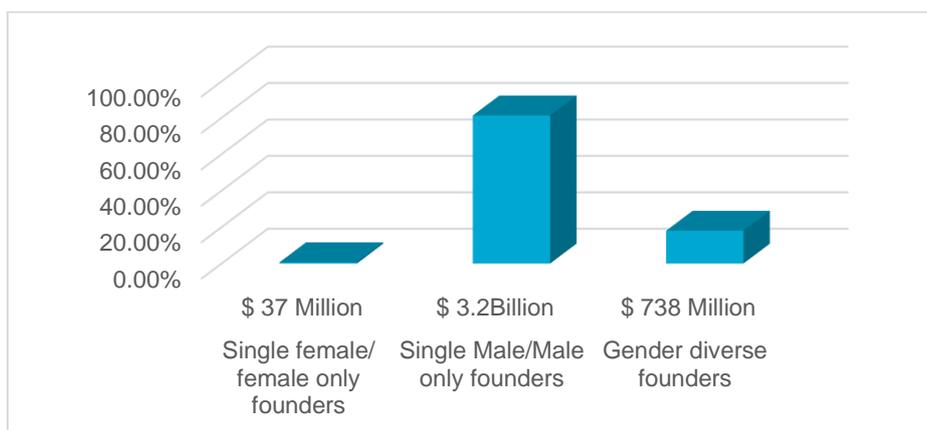


Figure 4: Funding raised by African venture in 2021 by gender (Africa: The Big Deal 2021)

A study by Harvard, MIT and Wharton School⁷⁴ showed investor discrimination at the level of pitching of business ideas. The study found that when the same idea was pitched by a male and a female voice, two-thirds of investors picked the male voice. This bias could be a product of the fact that 88% of decision-makers in venture capital firms are men⁷⁵. According to Catalystas Consulting, in West Africa it is estimated that only 5.1% of major VC companies have women on their boards.

⁷⁰ VC4A, 2018. Senegal Startup Ecosystem Analysis. Accessible at: <https://vc4a.com/senegal/>

⁷¹ Ibid.

⁷² USAID Marketlinks blog (2021) Women Investing in Women in Senegal: A Look at How One Fund is Using Gender Lens Investing to Reach Women-Led Businesses in West Africa. Accessed at <https://www.marketlinks.org/blogs/women-investing-women-senegal-look-how-one-fund-using-gender-lens-investing-reach-women-led>.

⁷³ Africa the Big Deal blog (2021) 2021 Strat-up funds in Africa in Numbers. Accessed from <https://thebigdeal.substack.com/>.

⁷⁴ A. Wood Brooks et al, 2014. Investors prefer entrepreneurial ventures pitched by attractive men. Article published in Proceedings of the National Academy of Sciences of the United States of America (PNAS). Accessible at <https://www.pnas.org/content/111/12/4427>

⁷⁵ Ibid.

Investors follow perception patterns and continue to be attracted to the same kinds of companies that have been supported before, leaving female founders behind⁷⁶ (see Testimony 10) In addition, female entrepreneurs are affected by a funding gap at early stage⁷⁷. This is largely because local founders in Africa tend to focus on building business that address problems they face in their home environment, whereas current financial models discourage them from doing so because they do not fit into the “Silicon Valley VC model”⁷⁸. Such challenges hinder VC fund managers from convincing investors to back ventures in Africa.

Testimony 10

“Most small businesses on the continent are not built for a venture capital trajectory” because “investors feel more comfortable investing in founders who speak their language, who adhere to the narrative of hyper-scale and have the same risk appetite—unfortunately, for many local founders, these attributes are not immediate priorities, and this has been detrimental to their capital-raising processes”.

Rajiv Daya from the Founders Factory Africa.

According to the 2021 Venture Capital Journal, there is also an expectation of a rapid investment cycle, from initial funding through to exit, which is not practically feasible, especially for women-led enterprises since they face not only financial challenges but also lack management experience. The Venture Capital Journal concludes that venture capital in Africa needs to be more risk-taking and need to be more patient⁷⁹.

With regard to Côte d'Ivoire and Senegal, the two countries have emerging but dynamic entrepreneurial ecosystems. The Ivorian entrepreneurial ecosystem is still very young and has yet to produce a significant number of ventures at scale. However, in recent years Côte d'Ivoire has developed a rapidly-growing economy but with a limited pool of early-stage investors, attributed by many to: i) national wealth being reserved among government officials and the upper class, who do not invest in private sector development and are not directly affected by the general lack of investor and angel network culture, ii) a lack of trust among investors due to hostile takeover practices and a general lack of guidelines and experience for investors, as well as the perception that big companies or investors are often out to steal ideas⁸⁰ and, iii) a lack of investor confidence in the fast-growing economy due to perceptions of risk based on political volatility and outbreaks of violence.

Senegal, on the other hand, has the most mature start-up ecosystem in Francophone Africa, and serves as a hub for the emerging regional venture capital industry⁸¹. The country has significant consumer and business markets, sophisticated entrepreneurship talent, and a strong corporate sector⁸². According to VC4A, Senegal's growth has been driven by: i) a strong effort from the private sector to organize through associations, ii) investment from corporate Senegal in accelerators, incubators and innovation programmes, iii) funds available for skill development, enterprise development and supplier development of SMEs, iv) investment from governments (local and international) in innovation funding, and v) a growing community of successful investors and entrepreneurs with growing track record⁸³.

⁷⁶ Lefcourt, J. 2021. Understanding the Venture Capital Gender Gap. HBR IdeaCast, episode 795. Accessible at <https://hbr.org/podcast/2021/05/understanding-the-venture-capital-gender-gap>

⁷⁷ Forbes (Website). This Female-led VC Fund Believes Democratizing Access to Venture Capital will drive Top Returns. Accessible at <https://www.forbes.com/sites/marijabutkovic/2021/10/26/this-female-led-vc-fund-believes-democratizing-access-to-venture-capital-will-drive-top-returns/>

⁷⁸ Venture Capital Journal. (Website). African VC gets ready for take-off. Accessible at <https://www.venturecapitaljournal.com/african-vc-gets-ready-for-take-off/>

⁷⁹ Jackson Ben (2021) African VC gets ready for take-off. Venture Capital Journal. (Website). Accessible at <https://www.venture-capitaljournal.com/african-vc-gets-ready-for-take-off/>

⁸⁰ Catalystas Consulting mention in their report that they had heard from FGDs with female entrepreneurs that they have personally experienced investors with motives to either steal trade secrets or attempt a hostile takeover of their businesses, making them wary of private investment. In: Catalystas report: Scoping Mission: Catalyzing Women's Entrepreneurship in Cote D'Ivoire. Accessible at: <https://www.rvo.nl/sites/default/files/2021/03/Scoping-Mission-Catalyzing-Womens-Entrepreneurship-in-Cote-dIvoire.pdf>

⁸¹ VC4A (2018) Senegal start-up ecosystem overview. Accessible at <https://vc4a.com/senegal/>

⁸² Ibid.

⁸³ Ibid.

The following is a summary of the gender-related challenges VCs face, gathered from KIIs with Impact Hub and IPED as well as from an extensive literature review:

1. **Difficulties in finding mature female entrepreneurs in climate innovation that have reached certain growth:** three reasons were given for this: i) women-led ventures in climate innovation are concentrated in the early, pre-acceleration stages, where less funding is required, rather than in later stages of acceleration, i.e. when moving from prototypes to commercialization, where the required amount of funding is higher. As a result of financial challenges, a lot of women innovators are forced to give up before reaching this stage⁸⁴; ii) female entrepreneurs have less confidence in believing in their competence. A review of World Bank impact evaluations⁸⁵ finds that female entrepreneurs in Africa are less likely than men to have confidence in their skills or think they make a good leader; and iii) the World Bank review also finds that female entrepreneurs “do not have the same access as men to large and diverse social networks that can support the growth and competitiveness of their business”⁸⁶. Given the cultural constraints that women face, female entrepreneurs are less likely to enter sectors with high potential for venture growth⁸⁷.

2. **Most women entrepreneurs are attracted to smaller funding packages.** Testimony 11

Related to the above challenge, most investors find that women often apply for smaller loans than their male counterparts, which investment firms assess as not profitable (see Testimony 11). I&P, for example, realized that, at the seed funding stage, there is a 50:50 ratio of women to men applying. However, even with their efforts to reach out to business associations and to provide specific services to support women, the larger funds only attract 20% female applicants⁸⁸. This might indicate that women business owners lack self-confidence in their ability to take on greater levels of investment than their male counterparts and are in need of confidence and capacity building support to expand their businesses beyond the initial start-up phase. In addition, I&P identified that even with the 20% female applicants, after due diligence, it is often noted that the companies pre-selected were not actually “investment-ready”, meaning that they did not have the capacity to design business plans to attract additional outside investment or qualify for bank loans. Some venture capital programmes, such as Comoe Capital and GroFin for example, take a specific approach, by enrolling businesses they choose to back in long-term capacity building programming in their specific field, often sourcing industry experts from outside the country to help support the businesses’ fast-paced growth and adaptation.

“Many development finance institutions were looking to support funds with investment ticket sizes closer to US\$ 5 or 10 million (€4,740,500 or €9,481,000) per investee, and other funds were looking to deploy US\$ 1 million (€ 948,100). We believe that’s too much money for women-led businesses in the region; they aren’t ready for that amount of capital quite yet. That’s why I urge development actors to first think small, and later look for a big impact. In West Africa, we need to build the pipeline of women-led SMEs first, and for that to happen, we need smaller, focused pools of capital.”

Evelyne Dioh Simpa, Managing Director at WIC Capital – excerpt from USAID Marketlinks blog (2021), Women Investing in Women in Senegal: A Look at How One Fund is Using Gender Lens Investing to Reach Women-Led Businesses in West Africa

⁸⁴ Ewens. M, and Townsend: R. (2020) Are Early Stage Investors Biased Against Women? Journal of Financial Economics (JFE), vol. 135(3), pp 653-677

⁸⁵ The World Bank Group (2019) profiting from Parity . Accessed at <https://openknowledge.worldbank.org/bitstream/handle/10986/31421/135420-ProfitingfromParityFullReport.pdf?sequence=1&isAllowed=y>.

⁸⁶ The World Bank Group (2019) profiting from Parity . Accessed at <https://openknowledge.worldbank.org/bitstream/handle/10986/31421/135420-ProfitingfromParityFullReport.pdf?sequence=1&isAllowed=y>.

⁸⁷ The World Bank Group (2019) profiting from Parity . Accessed at <https://openknowledge.worldbank.org/bitstream/handle/10986/31421/135420-ProfitingfromParityFullReport.pdf?sequence=1&isAllowed=y>.

⁸⁸ This has been confirmed during interviews with stakeholder Investisseurs & Partenaires (I&P). See Annex 3 as well.

3. Women entrepreneurs are less visible in networking events and conferences where investors meet and network with potential investees. Women are also less likely to network as frequently as men, due to the stigma of going out alone to an event, for safety reasons, or due to the need (and/or expectation) of taking care of family and household tasks or the fact that women often have to rely on their husband's / male relatives' permission (see Testimony 12).

Testimony 12

"In one of our Ivorian enterprises that produces and processes cassava: the only woman among the four shareholders was forced to withdraw because her husband found that she worked too much and came home too late"

IPED -KII

4.2. SENEGAL

4.2.1. INSTITUTIONAL MECHANISMS GOVERNING SENEGALESE ENTREPRENEURIAL ECOSYSTEMS

Senegalese gender relations are shaped by socio-cultural norms and customs that establish hierarchical relationships in which males are dominant and females are subordinate. Although the degree and dynamics of these relationships vary by urban/rural residence and ethnic group and religion, in general the majority of women are expected to be wives and mothers, performing (unpaid) household responsibilities such as housework, child rearing and subsistence agricultural labour. Men are expected to be primary decision-makers, earn income through formal employment or entrepreneurship, and take active roles in public life, often as leaders and public officials. Ongoing gender issues, such as forced child marriage, a discriminatory family code (laws and institutional practices governing marriage, divorce and inheritance), and many forms of sexual and gender-based violence (SGBV), including female genital mutilation (FGM), limit Senegalese girls' and women's rights, dignity and well-being⁸⁹.

The Government of Senegal has made significant progress in creating a gender-sensitive environment through the adoption of the Parity Law, the Standard Operating Procedures on GBV, a National Action Plan on GBV/Human Rights & the Empowerment of Women, and the validation of the new National Strategy for Gender Equality and Equity. These measures have been developed and implemented under the technical leadership of the Ministry of Women, Family and Childhood⁹⁰.

These policies and plans have formed the basis for a strong legal and policy framework for women's rights and gender equality in every sector and sphere, from the household to community to local and national politics and civic life. Highlights of progress include:

- i. Legal guarantees and political representation. The 2001 Constitution and current legal framework establishes substantial equal rights for women and men. It reaffirms the principle of gender equality and equity and the prohibition of all discrimination based on sex. All development strategies must take into account a better balance between men and women in terms of both representativeness and decision-making. Articles 7 (gender equality) and 15 (equal access to land) of the constitution provide a key framework for gender equality.
- ii. Senegal has also endorsed the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, 1985), the Maputo Protocol to the African Charter on the Rights of Women (2004) and has ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (2005).
- iii. Additional key measures, while not without gaps, also provide key protections for women and girls: e.g. the Violence Against Women Act (1999), the Reproductive Health Act (2005), the HIV Act (2010), the Gender Equality Act (2010) and the Tax Equality Act (2008).

⁸⁹ USAID, (2017). Gender Analysis for the USAID/Senegal CDCS (2019-2024). Accessible at: https://pdf.usaid.gov/pdf_docs/PA00N5TN.pdf

⁹⁰ UN Women Portal. Accessible at: <https://africa.unwomen.org/en/where-we-are/west-and-central-africa/senegal>

- iv. There is greater openness among political leaders, ministers, and parliamentarians, with increased willingness to women's political participation and to ensuring gender mainstreaming in public policies.
- v. There have been attempts to strengthen protection and promotion of equal rights in agriculture, fisheries, livestock, health, education, employment and social protections.,
- vi. The numbers of women in occupations traditionally reserved for men, such as mechanical and civil engineering, are increasing. Small but encouraging gains include: of the 500 students enrolled in the *Programme d'Appui au Développement et à l'Intégration de l'Apprentissage*⁹¹ in the regions of Thiès, Kaolack, and Fatick, young women make up 2% of metalwork, 8% of cooling and refrigeration, and 9% of auto mechanics etc.

The Plan for an Emerging Senegal (PES), adopted in 2014, is Senegal's new development strategy and economic policy reference framework. It is based on three strategic pillars: (i) structural transformation of the economy and growth; ii) human capital, social protection and sustainable development; and iii) governance, institutions, peace and security. Aligned with the PES is the National Strategy for Gender Equality and Equity (SNEEG 2005-2015), which was developed with the support of UN Women and updated in 2016 (2016-2020). SNEEG aims at "contributing to making Senegal an emerging country in 2035 with a society without discrimination, where men and women will have the same opportunities to participate in its development and enjoy the benefits of its growth"⁹².

In addition, the National Parity Observatory, which was established by Decree No 2011-819 of 7 March 2011, is tasked with monitoring, evaluating and making proposals for promoting parity between men and women in public policy. The National Parity Observatory: i) undertakes annual gender monitoring exercises and develops sectoral gender profiles; ii) provides sex-disaggregated data on gender, best practices, constraints and gaps linked to gender; and iii) makes proposals to accelerate progress towards gender equality in Senegal.

La Délégation Générale à l'Entreprenariat Rapide – "la DER" – is a 30 billion FCFA (US\$ 50 million or €47,405,000) fund managed by the Delegation/ Commission for Rapid Entrepreneurship, with co-funding and management provided by both the public and private sectors. DER is an innovative fund for young entrepreneurs in Senegal, in technology as well as across a variety of other sectors. The principal aim of the fund is to catalyze entrepreneurship all around Senegal, targeting men up to 40 years and women from 18 years old and above with no upper age limit.

Under the fund, the model for entrepreneurs' financing is structured as follows; i) Small Financing, which focuses on "smaller, projects/businesses"; ii) Incubation funding, for incubation, empowerment or training programmes for young entrepreneurs; iii) Equity financing, a corporate finance fund that offers capital in exchange for equity in young companies that have been validated by external DER partners; and iv) Low-interest loans: at 4-5% interest rate with a specific focus on certain clustered economic activities or certain value chains (e.g. artisanal industries, livestock raising, food processing, agriculture production, digital/ICT, tourism etc.).

In 2019, Senegal became the second country in Africa to pass a Startup Act. The Act aims to positively impact the national economy by providing a governance framework and contains recommendations for tax policies, financing, data collection and data sharing with start-ups. The Act also provides a suitable legal condition for registering new start-ups in the country.

The implementation of the Act was reinforced by the provisions for amending the general tax code, which were introduced in the 2020 Finance Law that allows for, among others, certain tax exemptions for the first three years and the reduction in registration fees paid for the creation of companies from CFA 25 000 to CFA10 000 (about € 38 to € 15.2).

Though both the Startup Act and the tax provisions are at early stage of implementation, they are expected to boost female-led businesses in the country, by providing tax breaks and other

⁹¹ The programme had the objective to mobilize, train and integrate young people in Senegal into the job market.

⁹² UN Women Portal. Accessible at: <https://africa.unwomen.org/en/where-we-are/west-and-central-africa/senegal>

benefits to innovative businesses in fields from agriculture to mobile banking. The tax burden and complexity of the laws were initially seen as reasons why many talented businesswomen refrained from creating companies. Given that the reforms are new and implementation has been affected by the COVID-19 situation, the extent to which they are achieving their objectives remains to be seen.

Another reform from the Senegalese government is the initiative to ease the creation and legalisation of start-ups through creation of a dedicated government bureau: Bureau d'appui à la Création d'Entreprise, or "Bureau for the Support and Creation of Businesses" (BCE). The Bureau permits start-ups in Senegal to complete their registration process and officially create a business in six days only⁹³.

Given the cultural challenges faced by women entrepreneurs described above, it remains to be seen whether women can effectively exploit these new opportunities. However, at the very least, all the above reforms provide essential conditions for building vibrant and robust women- and youth-led enterprises.

Despite these advancements, and the fact that Senegal has ratified the main international and regional women's rights protection instruments, many of those provisions are not enforced in practice. The remaining major gaps at the country level include:

- Persistent discriminatory legislation, notably in family law that results in lack of women's legal rights and/or weak enforcement of such rights in marriage, divorce, and inheritance of wealth, land and other properties. This is exacerbated by the increasing influence of conservative cultural traditions, which limit women's equal rights in marriage, divorce and inheritance, as well as equal access to productive agricultural land and financial capital.
- Persistent prevalence of harmful traditional practices that perpetuate SGBV, such as early and forced marriage and female genital mutilation (FGM). Given the weak legal protection for women and girls, the practitioners exploit the existing gaps in legal and social services.
- Limited access to education, employment, decision-making positions, health services, land and property rights⁹⁴.
- Lesbian, gay, bisexual, transgender, and intersex (LGBTI) identifying groups and lower caste Senegalese also face severely restricted space, especially for the LGBTIs who face physical attacks, police harassment, arrest, and fines or prison sentences.
- Various forms of forced child labour and sex trafficking are also of significant concern.
- Low employment rates for women: according to a World Economic Forum report in 2021⁹⁵, only 36.4% of women in Senegal are in the labour force, corresponding to a gender gap of 62%.

There are also gaps within national institutions that need to be addressed, such as: i) lack of resources and staff with appropriate skills, knowledge and capacities to integrate gender in plans, policies, procedures and practices across government line ministries; ii) stereotypes in the government's gender units: e.g. positions in all ministry gender units are typically given to women without the necessary technical capacity in gender and/or sectoral expertise. In addition, unit staff are not provided with clear job descriptions, scope of work or specific results to achieve. Additionally, no men are employed in these units, thus isolating and stigmatizing the work of the units⁹⁶.

⁹³ Enpact blog (2021) SFI Overview of Senegal. <https://enpact.org/blog/news/sfi-overview-of-senegal/#/>.

⁹⁴ UNIDO, 2021. Policy Assessment for the Economic Empowerment of Women in Green Industry. Country report: Senegal. Accessible at: https://www.unido.org/sites/default/files/files/2021-06/Senegal_Country_Report_ENG_Final.pdf

⁹⁵ World Economic Forum(2021) Global Gender Gap Report. https://www3.weforum.org/docs/WEF_GGGR_2021.pdf.

⁹⁶ USAID, (2017). Gender Analysis for the USAID/Senegal CDCS (2019-2024). Accessible at: https://pdf.usaid.gov/pdf_docs/PA00N5TN.pdf

4.2.2. STATUS OF CLIMATE INNOVATION IN EDUCATION, AGRICULTURE AND ENERGY SECTORS

4.2.2.1. GENDER AND CLIMATE INNOVATION IN EDUCATION

Senegal is considered to be one of the sub-Saharan African countries that has made the most significant progress in girls' primary education. As early as the 1990s, even when the rest of the continent had an average enrolment of 30% for girls, Senegal had almost gender parity in primary school enrolment, with 77.3% and 80% enrolment for girls and boys, respectively.

However, while primary school gender parity has been achieved, it is not a reflection of true gender parity in education, given that transition and drop-out issues disproportionately affect girls from pursuing higher education. According to the World Bank, in 2016 87.9% of girls were enrolled in primary schools but only 63.5% of girls actually complete their primary education and only 48.4% enroll in secondary education⁹⁷. A Human Rights Watch report⁹⁸ states that more than 54% of young mothers dropped out of school between 2011 and 2014, and only 15% resumed their education. Reasons for dropping out include, among others, child marriage, teenage pregnancies and economic hardships. As a result, according to UNESCO, Senegal's literacy rate for the population aged 15 years and above is 64.81% for males and 39.8% for females, with rural areas having the highest difference between the sexes.

As in Côte d'Ivoire, a significant number of women and girls are in the technical and vocational education sector, representing an overwhelming majority of students (71%); far smaller numbers are active in industrial sectors (14%). Different factors and issues, such as socio-cultural, economic, lack of information and domestic work burdens, are significant causes of disparities in education. In fact, the allocation of domestic work time is estimated at around 30 minutes per day for men, against around seven hours for women. Although efforts are being made to remove the barriers limiting the attendance of women in male-dominated sectors, it is still rare to see women mechanics, agricultural technicians or electricians.

The information and communication technology (ICT) sector is the driving force behind Senegal's start-up successes in recent years. Though not focused on climate-related innovation, Senegalese women constitute 45% of ICT specialized baccalaureate students. Female researchers are mostly represented in medicinal sciences (31%), followed by social, agricultural and natural science, with 26%, 24% and 16%, respectively⁹⁹.

Despite having many educational institutions, no Senegalese university is listed in the global ranking of universities. The education system is not necessarily focused on climate innovation and most universities are strongly focused on theory, do not teach problem-solving skills and are more or less a copy of the French colonial university system¹⁰⁰. Senegalese educational institutions need to play a more prominent role in the climate venture ecosystem, "not only as producers of human capital but as capacity builders, enabling incubator and accelerator programmes for students at university levels"¹⁰¹.

4.2.2.2. GENDER AND CLIMATE INNOVATION IN AGRICULTURE

The agriculture and livestock sector is Senegal's main economic activity, representing approximately 17% of gross domestic product (GDP) and employing 70% of the population¹⁰². Climate change is projected to lead to rising temperatures, increased droughts and decreased rainfall in Senegal, which would have significant impacts on the agriculture sector and food security.

According to national data used to prepare the Third National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), the agricultural sector contributes approximately 49% of the country's total GHG emissions. The Government of

⁹⁷ World Bank (2016) Education Statistics (EdStats) girls enrolled in secondary education

⁹⁸ Submission by Human Rights Watch to the Committee on Economic, Social and Cultural Rights on Senegal 64th pre-sessional, 2019. <https://www.hrw.org/news/2019/01/15/submission-human-rights-watch-committee-economic-social-and-cultural-rights-senegal>.

⁹⁹ UNIDO/GEF Proposal, 2020. Promoting cleantech innovation for climate action in Senegal. Accessible at: <https://www.thegef.org/projects-operations/projects/10715>

¹⁰⁰ Enpact blog (2021) SFI Overview of Senegal, <https://enpact.org/blog/news/sfi-overview-of-senegal/#/>.

¹⁰¹ Enpact blog (2021) SFI Overview of Senegal, <https://enpact.org/blog/news/sfi-overview-of-senegal/#/>.

¹⁰² USAID Feed the Future ; Climate-Smart Agriculture in Senegal. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/SENEGAL_CSA_Profile.pdf.

Senegal recognizes the urgent need to implement adaptation and mitigation measures to increase the resilience of its ecosystems and populations to the impacts of climate change and to reduce greenhouse gas (GHG) emissions by 2030. Nevertheless, the government is struggling with capacity issues. According to UNDP¹⁰³, the country has experienced a low level of integration of nationally determined contribution (NDC) and national adaptation plan (NAP) priorities, particularly in the planning and budgeting process of the agriculture, livestock and fisheries sectors. Other challenges include: i) lack of coordination of climate actions and poor capacity in inter-sectoral planning and implementation, ii) lack of availability of data and information on climate risks and access to adaptation and mitigation measures for actors, especially at the farming level, iii) lack of effective monitoring and evaluation of transformative climate mitigation and adaptation actions¹⁰⁴.

These challenges affect women more than men, given the underlying socio-economic and structural barriers that women face in Senegalese society. Rural women represent almost 70% of Senegal's workforce and produce 80% of the country's food. Although gender equality is guaranteed under the 2001 Constitution, as stated above, in practice traditional and religious norms tend to dictate women's use of and rights to land and resources. For example, only 13% of women have access to land ownership in Senegal and even those that own land do not have the ability to assert themselves and make livelihood decisions independently¹⁰⁵. In addition, women are often susceptible to eviction if men claim the need for space for farming, thus displacing women to areas of lower quality¹⁰⁶ or most rugged land which is difficult to work with and has limited access to water¹⁰⁷.

Given all of these factors, in Senegal men are mostly identified as the farmers while women are considered to provide support on the farm¹⁰⁸. In addition, just as in Côte d'Ivoire, women's agriculture practices are often intended mainly for the subsistence of the family. As a result, cash crops sectors such as cocoa, cotton, oil palm and cashew nuts are male-dominated. However, women are, slowly but steadily, constructing new identities and labour market participation¹⁰⁹.

Unlike many other African countries, Senegal is making progress in climate innovation. The country's overarching policy framework, the Plan Sénégal Émergent (PSE), explicitly recognizes climate change issues as a national priority. The scope for mainstreaming climate adaptation and mitigation into thematic and sectoral policies in the country – e.g. the country's on-going effort to update various policy frameworks such as youth employment, women's economic empowerment or food security – can offer opportunities to incorporate gender-related climate resilience considerations¹¹⁰.

In recent years, innovative loan products, such as obligatory agricultural insurance to mitigate the effects of climate change on agriculture through Banque Agricole, have emerged. Other commercial banks operating in Senegal have been providing loans to acquire solar-powered water pumps and domestic biogas systems for some years. There are a number of ongoing initiatives that provide access to information to farmers that the GCF project could tap into. Examples include a small start-up, "PayDunya, Niokobok", which is offering paid climate-related

¹⁰³ UNDP (2021) climate change adaptation: Strengthening transformative approaches in Senegal's climate action plans. <https://www.adaptation-undp.org/scala-strengthening-transformative-approaches-in-senegal-climate-action-plans>.

¹⁰⁴ Ibid.

¹⁰⁵ Adesugba, M., Oughton, E. and Shortall, S. (2020) 'Farm household livelihood strategies', in Sachs, C. E. et al., Routledge Handbook of Gender and Agriculture. 1st edn. Edited by C. E. Sachs et al. Routledge, pp. 315–325. doi: 10.4324/9780429199752-29

¹⁰⁶ USAID Feed the Future(2016) ; Climate-Smart Agriculture in Senegal. https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/SENEGAL_CSA_Profile.pdf.

¹⁰⁷ Abastado, M.-F. (2018) Des agricultrices sénégalaises luttent pour l'accès à la terre, un lopin à la fois, Radio-Canada.ca. Radio-Canada.ca.

¹⁰⁸ Adesugba, M., Oughton, E. and Shortall, S. (2020) 'Farm household livelihood strategies', in Sachs, C. E. et al., Routledge Handbook of Gender and Agriculture. 1st edn. Edited by C. E. Sachs et al. Routledge, pp. 315–325. doi: 10.4324/9780429199752-29

¹⁰⁹ Ibid.

¹¹⁰ OECD(2021) Lessons on Engaging with the Private Sector to strengthen climate resilience. <https://www.oecd-ilibrary.org/docserver/09b46b3f-en.pdf?expires=1640188274&id=id&accname=guest&checksum=8925D5D1C3347F9C7A39A821EBE8CCBA>.

data and information to end-users in the agriculture and fisheries sector¹¹¹. In addition, large companies, many of which are French multinationals, such as *Orange*, *Free*, *Société Générale* and *BNP Paribas*, are engaged in Corporate Social Responsibility (CSR) programmes that provide climate information push alert text messaging systems¹¹². However, the biggest challenge is the limited digital penetration rate in the country, given that not all end-users, especially women, use digital technologies to access information.

There is a growing use of drones in the agricultural sector to increase productivity in Senegal. While the use of drones is nothing new, the initiatives led by the Senegal Programme of UN Women and BICIS¹¹³/BNP Paribas, which facilitate disadvantaged women farmers to become certified to use remote-controlled drones for mapping and data interpretation, is encouraging. When used on large farms, where women typically represent the majority of the workers, the technology can help to reduce women's workload and enable them to focus their time and energy on increasing their yields and the distribution chain while improving their environmental practices¹¹⁴.

The agricultural technology innovation hub, "*Yesaal Agrihub*", supported by BMZ/GIZ in Thiès region, focuses on Youth, ICT and Agribusiness, and acts as a focal point for IT-based technological innovation within the Senegalese agribusiness sector. *Yesaal Agrihub* offers a meeting place for interdisciplinary experts, entrepreneurs and agricultural and livestock producers, as well as a space for project collaboration, training and mentorship to network young ICT and agribusiness innovators and support start-up businesses with an agricultural focus. This hub could provide essential lessons for integrating women and youth in the CATALI.5°T initiatives' agricultural climate-related innovations.

Senegal is also one of the key players behind the *Great Green Wall Project*. Conceived by the African Union, the project entails cooperation among eleven countries in the region and aims to halt the advance of the Saharan desert through tree planting and growing¹¹⁵. The Senegalese National Strategy for Green Jobs was created in November 2015 and covers the period 2015-2030. In the strategy, the country identified the most promising sectors for providing green jobs as: agriculture, forestry, fishing, renewable energies, resource-intensive processing industries, recycling and recovery of waste, and construction using local materials.¹¹⁶

4.2.2.3. GENDER AND CLIMATE INNOVATION IN THE ENERGY SECTOR

A key component of Senegal's Plan for an Emerging Senegal (PSE) is the development of the power sector. The government aims to achieve universal access to electricity by 2025 by combining off- and on-grid energy with priorities aimed at: lowering the cost of generating power by increasing access to electricity, particularly in rural areas; reduction in dependence on imported liquid fuels; exploitation of the country's potential for developing solar and wind power; and development of its offshore natural gas.

According to the Minister of Petroleum and Energy, Senegal is looking not just to boost the development of the oil and gas sector, but also to develop new industries that are linked to hydrocarbons, such as petrochemicals, pharmaceuticals and fertilizers, as well as broad utilization of gas-to-power projects to lower the costs of production in sectors such as automotive manufacturing and mining. Recent changes in policies, driven by concerns over energy security, have improved the financial attractiveness of renewable energy and energy efficiency

¹¹¹ OECD (2021) Lessons on Engaging with the Private Sector to strengthen climate resilience. <https://www.oecd-ilibrary.org/docserver/09b46b3f-en.pdf?expires=1640188274&id=id&accname=guest&checksum=8925D5D1C3347F9C7A39A821EBE8CCB>.

¹¹² *ibid.*

¹¹³ BCIS Senegal is a national commercial bank and a subsidiary of BNP Paribas.

¹¹⁴ <https://africa.unwomen.org/en/news-and-events/stories/2021/02/innovation-et-technologie-au-service-des-femmes-agricultrices--du-nord-du-senegal>.

¹¹⁵ The Great Green Wall (<https://www.greatgreenwall.org/>). In: UNIDO, 2019. PCP Annual Report, Senegal. In: UNIDO, 2021. Policy Assessment for the Economic Empowerment of Women in Green Industry. Country report: Senegal. Accessible at: https://www.unido.org/sites/default/files/files/2021-06/Senegal_Country_Report_ENG_Final.pdf

¹¹⁶ UNIDO, 2019. PCP Annual Report, Senegal. In: UNIDO, 2021. Policy Assessment for the Economic Empowerment of Women in Green Industry. Country report: Senegal. Accessible at: https://www.unido.org/sites/default/files/files/2021-06/Senegal_Country_Report_ENG_Final.pdf

technologies in the country¹¹⁷. Although solar and wind energy, including the Taiba N'Diaye wind farm, are currently two of the sub-sectors that comprise the bulk of renewable energy projects in the country, the government is eager to explore other sources of renewables, such as biofuels to capitalize on cheap and readily available local input from agriculture by utilising more biomass and agricultural waste products.

A recent gender audit on energy policies in Senegal identifies a number of gender challenges in the energy sector:

- i. Senegal's Renewable Energy Policy includes women as a target group and the Policy incorporates gender awareness in its approach, operationalized by the development of gender desks or focal points within the line ministries. However, these desks/focal points lack focused activities and deliverables and they have not been allocated specific budgets.
- ii. At the macro-level, there is a political will to mainstream gender, as evidenced by the inclusion of gender in development plans. However, macro-level intentions are not translated into gender actions at the sectoral level because policy-makers lack the knowledge on how to mainstream gender. In addition, there is limited recognition of gender analysis as a planning tool and of gender mainstreaming strategies and action plans.
- iii. There have been no appropriate consultations on the needs of men and women during the formulation of energy policies. The majority of those who took part in the formulation process were male and therefore no proper assessment of women's energy needs was conducted.
- iv. There is an absence of gender-disaggregated data that would inform national energy budgets. The financial resource data used at the higher levels of decision- and policy-making are not disaggregated by gender. In addition, there is lack of financial resources to support gender programmes and policies.

The most recent data from 2018 indicates that the electricity access rate in Senegal is 67%; 44.2% of rural areas and 92.4% of urban areas have access to electricity¹¹⁸. Since women play a significant role in energy systems as part of their subsistence and productive tasks, they are disproportionately affected by energy shortages¹¹⁹. Women are disproportionately affected by energy poverty¹²⁰ because they lack "sufficient choice in accessing adequate, affordable, reliable, high quality, safe and environmentally safe energy services to support economic and human development"¹²¹. Even where energy supply infrastructure is physically available, women (especially poor women) are often hindered in its use by lack of finance, appliances, information and training or education. In addition, institutional structures are often skewed towards men and, in many households, men have a stronger decision-making role. For example, obtaining subsidized electricity connection or liquefied petroleum gas (LPG) registration may require a bank account and extensive paperwork, which places women and their enterprises (which are mostly informal) at a disadvantage¹²².

¹¹⁷ OECD (2021) Lessons on Engaging with the Private Sector to strengthen climate resilience. <https://www.oecd-ilibrary.org/docserver/09b46b3f-en.pdf?expires=1640188274&id=id&accname=quest&checksum=8925D5D1C3347F9C7A39A821EBE8CCBA>.

¹¹⁸ <https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS?locations=SN>. In: UNIDO, 2021. Policy Assessment for the Economic Empowerment of Women in Green Industry. Country report: Senegal. Accessible at: https://www.unido.org/sites/default/files/files/2021-06/Senegal_Country_Report_ENG_Final.pdf

¹¹⁹ Energia (2017) Energy Access and Gender Getting the Right Balance . <https://documents1.worldbank.org/curated/en/463071494925985630/pdf/115066-BRI-P148200-PUBLIC-FINALSEARSGenderweb.pdf>.

¹²⁰ The World Economic Forum defined energy poverty as the lack of access to sustainable modern energy services and products. conditions where there is a lack of adequate, affordable, reliable, quality, safe and environmentally sound energy services to support development.

¹²¹ Clancy et al. (2002). The Gender–Energy–Poverty Nexus: Finding Energy to Address Gender Concerns in Development. London: DFID (UK Department for International Development). In: UNIDO, 2021. Policy Assessment for the Economic Empowerment of Women in Green Industry. Country report: Senegal. Accessible at: https://www.unido.org/sites/default/files/files/2021-06/Senegal_Country_Report_ENG_Final.pdf

¹²² Energia (2017) Energy Access and Gender Getting the Right Balance . <https://documents1.worldbank.org/curated/en/463071494925985630/pdf/115066-BRI-P148200-PUBLIC-FINALSEARSGenderweb.pdf>.

Understanding energy use and decisions in household dynamics is key to delivering sustainable energy. According to the findings of a study conducted in Senegal¹²³, socio-economic characteristics (age, household size, land and house ownership, wealth, earnings, religion, region, type of residence, education) matter in the adoption of clean fuel. For example, an increase of a woman's intra-household bargaining power leads to an increase of clean fuel adoption and that households using clean fuel tend to contain women having high levels of bargaining power. Consequently, households with more empowered women would be more likely to engage in the uptake of clean fuel and thereby curb the harmful health and environmental effects of traditional fuels.

Overall, this research shows that empowering women is an effective response to climate change, as it would foster the adoption of clean technologies. . Furthermore, a study by Energia¹²⁴ reveals that “while women prioritize electric cookers, sewing machines and clothes washers, men prefer mobile/smart phones, hand power tools and televisions. These differences are particularly significant given the fact that, as a result of gender roles, women are generally in a worse position than men, with fewer opportunities, less decision-making power and limited influence”. Thus, a “gender-neutral” approach that overlooks gender differences could have unintended differential impacts and benefits in relation to energy use and greenhouse gas emissions.

4.2.3. KEY BARRIERS AND CHALLENGES FOR CLIMATE VENTURES AND ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOS)

A. CLIMATE VENTURES

The following is a summary of the key challenges in Senegal gathered from discussions with female climate ventures, Impact Hub and IPED.

1. **Limited access to finance is a key barrier for female-led cleantech ventures at early, growth and scale-up phases:** The reasons provided are similar to those for Côte d'Ivoire. In addition, the existing state-led funds that target women (e.g. La Délégation Générale à l'Entreprenariat Rapide – “la DER”) are not focused on climate innovation entrepreneurs, often offer smaller loans and are not well structured. Women entrepreneurs interviewed found the internal procedures of DER to be bureaucratic and discouraging for female entrepreneurs.
2. **Lack of training and mentoring services for thematic sectors related to climate innovation:** The major challenges faced by most female ventures are related to education. A high level of education - often a university degree in a relevant field - is required to be able to effectively incubate and accelerate ideas. Ventures in climate innovation sectors such as the circular economy (focused on recycling), ecological conservation, energy and water conservation, etc. identified the lack of thematic expertise and specific information to be a key challenge. Women climate entrepreneurs, in particular, lack key skills and know-how on how to transform climate innovation into a viable enterprise and the ability to develop robust business models. The problem is compounded by lack of female role models in renewable energy, ecological protection, integrated waste management and other ‘climate’ sectors in Senegal. According to IPED, the provision of technical assistance is key, also for improving environmental and social safeguards inherent in climate innovation initiatives: e.g. finding ways to value waste or reduce waste, improving health and safety at work practices, hygienic aspect of products, etc.

¹²³ Wang Sonne(2016) Understanding the determinants of clean fuel adoption in Senegal: do informal institutions and women's intra-household bargaining power matter? https://www.greengrowthknowledge.org/sites/default/files/C1_Sonne_Understanding_determinants_of_clean_fuel_adoption_Senegal.pdf.

¹²⁴ Ashden (2019) Revisiting the gender-energy nexus through a productive use lens. Dec 2019. [Off-grid appliances boost gender-positive 'productive uses' of energy – Ashden.](#)

3. Lack of pre-acceleration support at the ideation stage. Female ventures need more time to consider their business ideas, understand their viability, weigh what options to take etc. This is even more important for climate ventures, given that climate innovation is relatively new in Senegal. Yet few pre-acceleration programmes exist in Senegal. There are also no flexible funding sources to test entrepreneurs' ideas. The result is often high rates of venture failure. Impact Hub Dakar, for example, has recently started its first pre-acceleration programme to deal with these challenges(see Testimony 13).

Testimony 13

“Inspired by my own health experience and having suffered from allergic reactions as a result of paints and other materials used in modern houses, I intend to build ecological villages in Senegal. For the last two years, I have been looking for an incubator to help me further develop my idea of creating an ecological village using local recycle sustainable materials and creating self-sustaining water and energy at household level. But it has been difficult to find an incubation programme until two months ago when I joined Impact Hub Dakar’s new programme. I have started developing the first prototype and conducted early market research. One of the biggest challenges I face is the lack of technical information and existing research on ecological housing in Senegal. It is also already becoming clear to me that Senegalese people are not ready for ecological housing and the business might not be profitable, but I am passionate about my idea and would like to create cheap sustainable housing for many women who have health challenges”

Female entrepreneur at Impact Hub Dakar’s ideation incubation programme.
4. Youth as the target group for existing pre-acceleration programmes: Most of the existing pre-acceleration and acceleration programmes in Senegal offer programmes for young people under the age of 35. This locks out women, given that most women often focus on serious business engagement at a later stage in life.
5. Lack of adequate follow-up support after pre-acceleration programmes: Many women entrepreneurs feel they have been “abandoned” after graduating from pre-acceleration programmes and many drop out of pursuing business. There are currently no structured monitoring and bridging technical support initiatives: e.g. advice and linkages to public and private sector financial service providers, continuous mentoring and coaching support post-pre-acceleration. In addition, current pre-acceleration and acceleration programmes are not well integrated and dovetailed such that female ventures that achieve early growth can be quickly incorporated into the programmes.

B. ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOs): PRE-ACCELERATORS, ACCELERATORS AND VCS

Pre-accelerators and accelerators

Impact Hub Dakar supports ventures at both pre-acceleration and acceleration stages. In its circularity programme, for example, women-led ventures are developing innovative ideas such as designing toilets made of local recycled materials that have the capacity to recycle water and building ecological villages with self-sustaining energy.

1. Similar to Côte d'Ivoire, Senegalese female entrepreneurs need more personal development and lack business skills at pre-acceleration stage. They need more confidence building in pitching their products in front of investors. In a survey conducted by Briter Bridges and the World Bank’s Africa Gender Innovation Lab¹²⁵ female survey respondents showed less confidence in their ability to pitch to investors and in their firms’ ability to grow. This confidence gap occurred despite the fact that the female entrepreneurs in the

¹²⁵ Alibhai, S., Donald, A.A., Goldstein, M., Oguz, A.A., Pankov, A. and Strobbe, F., 2019. Gender Bias in SME Lending: Experimental Evidence from Turkey. World Bank Policy Research Working Paper, (9100). In: WB Group Africa Gender Innovation Lab and Briter Bridges, 2021. In Search of Equity – Exploring Africa’s Gender gap in Startup Finance. Accessible at <https://documents1.worldbank.org/curated/en/297001633493250648/pdf/In-Search-Of-Equity-Exploring-Africa-s-Gender-Gap-in-Startup-Finance.pdf>

survey sample were more educated, had the same professional experience as the male founders, and experienced similar revenue changes in the previous year.

2. **Women entrepreneurs face significant time constraints due to the persistence of traditional gender roles** that forces them to work more than the men and affect their ability to benefit from pre-acceleration services. For example, Jiggen Tech (JTH) an Engineering, Technology and Science & Mathematics (STEM) pre-accelerator, which is aimed at integrating women to the tech ecosystem in Senegal with networking, training, entrepreneurship coaching, mentoring and knowledge sharing, faced challenges emerging from women's time constrained. For example, in 2017, JTH enrolled 695 women to participate in its training courses; however, due to absenteeism and cancellations, the actual number of women who participated in the trainings was 387. The main explanation given for the absenteeism and cancellations were mostly related to family context, female household responsibility or lack of time off work, with many of the non-attendees responding "*I could not find someone to look after my children ... I did not get permission from my husband ... I had to cook, I was already late I did not want to come*"¹²⁶.
3. **Female entrepreneurs shy away from "risky businesses"**. The majority of the acceleration programmes in Senegal, especially in the energy and agricultural sectors, focus on tech-related ventures¹²⁷. However, according to Impact Hub Dakar the technology sector has a reputation as being "risky", given challenges related to patient capital or seed and non-dilutive capital returns only realized down the road. In addition, the sector, being relatively new, has regulatory uncertainty and there are no mechanisms for cushioning the ventures in their early phases when ideas are maturing. Given their social-cultural orientation, the majority of female founders are hesitant to invest in "risky" ventures (see Testimony). This "higher risk and lower returns" scenario casts a shadow over the long-term financial viability of the female-led ventures, making them drop out or fail before take-off or over-rely on public or philanthropic funding.

Testimony 14

"The premise of a start-up is to venture into something that is unsafe, risky and more difficult than usual. From a young age, culturally, women are groomed to believe that the kind of behaviour, work or endeavours that fit these descriptions are bad for them. Many times, women are not allowed to aspire 'too high.' As a result, they tend to participate in the least risky ventures ... financial institutions "weren't as quick to grant loans to female entrepreneurs as they were to male entrepreneurs, since men were seen as better risk takers and more likely to succeed."

Rosemary Egbo, Senegales writer and an entrepreneur
4. **Difficulties in attracting women into pre-acceleration and acceleration programmes:** According to Impact Hub Dakar, one possible reason why fewer women than men apply stems from the non-gender responsive French words often used in the announcement of the opportunities. Confusion often arises on the use of plural words that denote mixed gender¹²⁸ but could be misunderstood to mean only men are targeted.
5. **Difficulties in finding female trainers/coaches.** The combination of climate change and technology means there is a smaller number of technical experts in the country and, when the gender aspect is layered on top of this, the numbers of qualified coaches reduces yet further. Female trainers have more empathy for other women and, by sharing own experiences during the training and coaching, they support women to confront their challenges.

¹²⁶ Samoshkina. M. (2018) Towards Gender Equality: Gender Aware IT. MA Dissertation at the Instituto Universitario de Lisboa. Accessed at https://repositorio.iscte-iul.pt/bitstream/10071/17326/1/master_maria_samoshkina.pdf.

¹²⁷ In line with the country's NDC, which additionally emphasises the importance of technology transfer in the area of mitigation ([updated NDC Senegal](#))

¹²⁸ Plural for mixed gender, which some development actors label as "the masculine takes it all" since they take the masculine article 'les'.

Challenges faced by IPED in its acceleration programmes are similar to those in Côte d'Ivoire (see 4.1) and not repeated in this chapter.

4.3. MEXICO

4.3.1. INSTITUTIONAL MECHANISMS GOVERNING MEXICAN ENTREPRENEURIAL ECOSYSTEMS

In recent decades, Mexico has made significant progress with regard to gender equality, but it is still far from attaining the goals of full gender equality and women's empowerment¹²⁹. Women hold only 37% of parliamentary seats in Mexico and women in the Executive and Judicial branches have little access to executive and decision-making positions.

In the Mexican workforce, women represent only 20% of employers, and almost 40% of the self-employed, yet they represent more than half of the country's unpaid workers given that they shoulder nearly 77% of all unpaid housework in Mexico¹³⁰. The average Mexican woman spends six hours each day doing unpaid housework, compared with an average of two hours for men. A large household labour burden presents a serious challenge for women attempting to attend school or to work.

Employed women are concentrated in the lowest-paying jobs: while the proportion of men and women is roughly the same when looking at jobs that pay up to the minimum wage, the proportion of men in jobs that pay double the minimum wages is double that of women. Moreover, almost 30% of employees in Mexico work long hours (more than 40 hours in a usual week), far above the OECD average of 13%, which compounds the challenge of balancing multiple obligations and acts as a barrier to women's entry in the labour market¹³¹. In addition: i) women who do decide to participate in the labour market may not have access to a full-time job, because unemployment rates are higher for women than for men; ii) indigenous women are more likely to be unpaid or self-employed (at 59%); iii) gender differences regarding employment are also evident when examining the types of work and sectors where women work¹³².

The 4th Article of the Constitution of Mexico asserts that women and men are equal before the law, while Article 1 establishes that in Mexico all persons shall enjoy the human rights recognized in the Constitution and international treaties, and also guarantees their protection. Further, gender equality is stressed in the General Law for Equality between Women and Men, whose main objective is to regulate and guarantee equal opportunities and treatment between women and men and proposes guidelines as well as institutional mechanisms towards the fulfilment of substantive equality in the public and private spheres.

The 2020-2024 PROIGUALDAD¹³³ programme focuses on putting women and girls at the centre of government attention. Key among the objectives of the programme are: priority 1: enhancing the economic autonomy of women to close historical inequality gaps, and priority 2: generating the conditions to recognize, reduce and redistribute domestic and care work of people between families, the State, the community and the private sector.

In addition, Mexico has adopted a law for creating the National Institute of Women (INMUJERES), a Law on the Equality between Men and Women (2006), a general law on Women's access to a Violence-Free Life (2007) and a law on Human Trafficking (2012), as well as a Norm on Labour Equality and Non-Discrimination (2015). In addition, a National Network for Women's Attention and Development, made up of 24 houses for Indigenous Women and 200 Development Centres for Women, further promotes gender equality and women's protection in marginalized communities and areas.

¹²⁹ GIZ, 2018. Gender Desk Study for Änderungssangebot 2017: Mexikanische-Deutsch Klimaschutzallianz II (2018 04 06 Klimaallianz_III_Genderanalyse_final) [Internally shared document]

¹³⁰ International Bank for Reconstruction and Development / The World Bank, 2019. Gender Assessment Mexico. Accessible at: <https://documents1.worldbank.org/curated/en/377311556867098027/pdf/Mexico-Gender-Assessment.pdf>

¹³¹ Ibid.

¹³² Ibid

¹³³ Spanish for National Programme for Equality between Women and Men.

With all the above legal frameworks, at the national level Mexico has made important progress in establishing a legal and institutional architecture toward mainstreaming gender equality. Gender is considered to be a cross-cutting issue within the different ministries in Mexico^{134 135}.

But many women do not yet feel the effects of these policies at home, at work or in public, given that many of the laws and policies remain on paper and there are few concrete actions taken to ensure advancement of women's rights and dignity. Major advances are needed in mainstreaming gender in policy design and effective implementation, enforcement and evaluation, with the involvement of all state actors. With strong mandates and resources, Mexico can ensure that policies' intended effects are fully realized.

4.3.2. STATUS OF CLIMATE INNOVATION IN EDUCATION, AGRICULTURE AND ENERGY SECTORS

4.3.2.1. GENDER AND CLIMATE INNOVATION IN EDUCATION

Although the gender gap in education at all levels of schooling is closing, as there are more girls and adolescents who complete basic and high school education, almost 8% of women 15 years of age or older are illiterate, compared to less than 5% of men in the same age group¹³⁶. Also, 13.6% of girls aged 13 to 15 do not attend school, a proportion that increases to 50.2% among adolescents from 16 to 19 years old and to 75.3% among young women from 20 to 24 years of age¹³⁷.

However, there are important differences across regions and population groups. For instance, in Chiapas the illiteracy rate is as high as 5.17% for women, compared with 3.85% for men. Indigenous women are much more likely than their non-indigenous counterparts to have less than a primary education, and only a small share have tertiary education. Although there are substantial differences across age cohorts, with younger cohorts having higher levels of education than older cohorts, the differences between indigenous and non-indigenous women remains¹³⁸.

According to the National Association of Universities and Institutions of Higher Education (ANUIES), in the 2017/18 academic year women represented 50.3% of college enrolment, 55.2% of graduate enrolment at the master's level and 48.8% of graduate enrolment at the doctoral level. However, women are still under-represented in physics and mathematics majors at the National Autonomous University of Mexico (UNAM), the largest public university in Latin America. On the other hand, women are over-represented in the lowest-paid occupations and under-represented in the highest-paid occupations¹³⁹.

Testimony 16

"I have participated in two acceleration processes focusing on women and what I have noticed is that non-STEM ones tend to be more insecure than those with STEM professions. Being used to thriving in areas where there are more women, they feel more insecure when entering fields where the majority are men".

Excerpt from Endeavor y Mastercard (2021)

Although it is not at the same level as for male students, the number of women choosing science, technology, engineering and mathematics (STEM) studies is increasing. Having STEM knowledge is not necessary or decisive for entrepreneurship in the climate mitigation sector; however, having someone on the team who has academic qualifications in these areas can make a positive difference. STEM subjects are often the basis for innovative start-ups and incubators; in addition, academic preparation in these areas could increase women's self-confidence and encourage them to pursue technology-oriented careers, as well as increase their participation in

¹³⁴ KII with gender Focal Point (GFP) GIZ Mexico. See also Annex 3 for notes of KII

¹³⁵ GIZ, 2018. Gender Desk Study for Änderungssangebot 2017: Mexikanische-Deutsch Klimaschutzallianz II (2018 04 06_Klimaallianz_III_Genderanalyse_final). [Internally shared document]

¹³⁶ INMUJERES – Instituto Nacional de las Mujeres/National Institute of Women, 2017. In: GIZ, 2018. Gender Analysis for NAMA Project 'Energy Efficiency in SMEs as a contribution to a low carbon economy in Mexico'. [Internally shared document]

¹³⁷ GIZ, 2018. Gender Desk Study for Änderungssangebot 2017: Mexikanische-Deutsch Klimaschutzallianz II (2018 04 06_Klimaallianz_III_Genderanalyse_final). [Internally shared document]

¹³⁸ International Bank for Reconstruction and Development / The World Bank, 2019. Gender Assessment Mexico. Accessible at <https://documents1.worldbank.org/curated/en/377311556867098027/pdf/Mexico-Gender-Assessment.pdf>

¹³⁹ Ibid.

the workforce¹⁴⁰. See Testimony and Testimony from Colombian female entrepreneurs. In an analysis on the profiles of 160 women entrepreneurs in the STEM sector, it was found that only 27% have a STEM profile, while for men this percentage is equivalent to 53% (1,105 entrepreneurs)¹⁴¹.

Female leadership within Latin America's STEM sectors is on the rise and having a significant impact on the region. Fifteen percent of female founders in Latin America describe their business as EdTech, bringing technology to Latin America's educational system. However, EdTech ventures receive just 2% of capital across Latin America¹⁴². Over 35% of Latin America's FinTechs have female founders, the highest percentage in the world (5 times the global average). Financial inclusion is one of Latin America's most pressing problems and local female entrepreneurs are taking enormous steps to solve it¹⁴³.

On climate innovation, basic education programmes in Mexico do promote caring for the environment, but this is only a general approach to the problem, as the education programmes neither create the necessary awareness of the effects of climate change nor promote changes in attitudes and behaviours while protecting natural resources¹⁴⁴.

Testimony 15

"In general, we women tend to question constantly our abilities... the environment can limit or empower you, and in my case, it empowered me, but I do know cases of women, the majority of whom their family has not let them study, for example, medicine, because they wouldn't have time to have children".

Excerpt from Endeavor y Mastercard (2021)

Among the higher institutions of learning, *Tecnológico de Monterrey* University, which is also one of the key accelerators in Mexico and an Executing Entity (EE) for the project, supports entrepreneurs through three inter-related strategies: education, support and research. The support is provided through the university's campuses incubator, through which faculty and students develop businesses that have social impact and engage with the local communities; 14 accelerators work with the high-potential companies developed in the incubators, and technology parks support these efforts (see Section 5 for more details).

4.3.2.2. GENDER AND CLIMATE INNOVATION IN AGRICULTURE

According to the UN¹⁴⁵, the impacts of climate change in Mexico could lead to an increase in rain and tropical cyclones and intensify droughts across the nation – and could consequently aggravate inequalities in health, employment and access to food. Similarly, USAID¹⁴⁶ report that Mexico's unique geo-climatic context makes it especially vulnerable to climate change, which would increase the country's exposure to frosts, heat waves, tropical cyclones and floods. Moreover, Mexico's risk landscape is exacerbated by its ageing infrastructure and environment-dependent tourism industry. Despite being the birthplace of the wheat and maize innovations that led to the Green Revolution through the International Maize and Wheat Improvement Centre (CIMMYT), Mexico is the world's 13th-largest emitter of greenhouse gases according to the UN.

As stated by *Tecnológico de Monterrey*, the current government has neither the capacity in climate-related issues nor the ability to invest in ventures at the needed scale. The result has been under-funding of many of the major scientific and research initiatives, among others the National

¹⁴⁰ Endeavor y Mastercard, 2021. Whitepaper: La brecha de género en el sector de tecnología, una tarea pendiente en América Latina. Accessible at: <https://www.endeavor.org.mx/women-in-tech/>

¹⁴¹ Ibid.

¹⁴² LatamList (Website). 3 Sectors Where Female Founders Are Leading in Latin America. Accessible at <https://latamlist.com/3-sectors-where-female-founders-are-leading-in-latin-america/>

¹⁴³ Ibid.

¹⁴⁴ VOXLACEA (Website). In Mexico, fighting climate change could soon begin in the classroom, 2020. Accessible at https://vox.lacea.org/?q=blog/mexico_climate_change

¹⁴⁵ United Nations, (no date). Comments of Mexico on Climate Change and Security. Accessible at https://www.un.org/esa/dsd/resources/res_pdfs/ga-64/cc-inputs/Mexico_CCIS.pdf

¹⁴⁶ USAID, (no date). Mexico Climate Change Fact Sheet. Accessible at <https://www.usaid.gov/sites/default/files/documents/USAID-Climate-Change-Fact-Sheet-Mexico.pdf>

Council for Science and Technology (CONACYT), a federal programme in charge of the promotion of scientific and technological activities, setting government policies, and granting scholarships for postgraduate studies. Under the new government administration, the National Entrepreneur Institute (INADEM), a public federal programme which was the benchmark institution for venture promotion and initially set up (2013-2018) to promote innovation and competitiveness in SMEs through the provision of financial and technical support, was also wound up in order to align with the 2018-2024 strategy that allows for distribution of the resources for entrepreneurs through programmes directly promoted by the Ministry of Economy¹⁴⁷. This decision affected important pillars that supported the creation of ventures through incubators and accelerators, because many of them were receiving funds from INADEM to continue their ongoing operations¹⁴⁸.

The Mexican government is nevertheless making some efforts in the fight against climate change, including commitments to make climate change a top national priority and integrating climate change mitigation and adaptation priorities into development strategies, as Mexico's Secretary of Agriculture and Rural Development recently remarked (see Testimony).

At the federal level in Mexico, the Federal Expenditure Budget (PEF) has set aside resources for gender equality and climate change since 2012. Several national development programmes also provide resources and incorporate actions for promoting gender equity with respect to climate change, such as PROIGUALDAD, as well as different programmes from the Secretary of Environment and Natural Resources (SEMARNAT), etc. However, bureaucracy and inefficiency in the management of such initiatives hamper their implementation.

Unlike West African countries, women in the Mexican agricultural sector are under-presented. For example, according to Statista, by the end of 2020, nearly nine out of ten employees in the agricultural sector were men. The sector employed around 6.68 million people, of whom 5.88 million (88%) were men¹⁴⁹. Some of the reasons mentioned during the KIs with female entrepreneurs is that agriculture in Mexico mainly focuses on large-scale production of corn, wheat and vegetables that attract mobile seasonal labourers. Given their work burden and the fact that they must travel for work, this discourages many female labourers. In addition, the female KIs revealed that these kind of agricultural practices do not provide a conducive environment for women. Women are said to fear for their safety given growing alcoholism and drug abuse among male labourers.

Regarding land ownership, according to the World Bank a key challenge faced by women in agriculture in Mexico has been perpetuated by the 1992 land reform, which introduced a de facto asymmetry in land possession¹⁵⁰. For example, in 2015, of the 4.2 million Mexican community members, also known as *ejidatarios*, with land titles (private property rights), only 19.8 percent were women¹⁵¹. The World Bank observes

Testimony 17

"We remain committed to the idea that the future of agriculture should be based on scientific knowledge, provided that it assists in reducing and not widening existing productivity gaps among different types of producers, regions and even countries. "

Mexico's Secretary of Agriculture and Rural Development

that 23% of the women are property owners but do not have rights over common resources, and

¹⁴⁷ Sanchez, Melissa & Karimi, Matin & Elmalawany, Omar, 2020. "Access to Green Financing: A Case Study of Mexico," MPRA Paper 102347, University Library of Munich, Germany, revised 10 Aug 2020. Accessible at <https://mpra.ub.uni-muenchen.de/102472/>

¹⁴⁸ Ibid

¹⁴⁹ Statista (2022), Number of people employed in the agricultural sector in Mexico from 1st quarter 2016 to 4th quarter 2020, by gender Mexico: number of agricultural employees 2016-2020, by gender. Access at <https://www.statista.com/statistics/1014914/mexico-employees-agriculture-gender/#statisticContainer>,

¹⁵⁰ The 1971 land reform established that every community must have an "Agricultural and Industrial Unit for Women," known as "parcels of women" (parcelas de la mujer), exclusively for the productive use of women. However, in 1992, the new Agrarian Law eliminated this obligation. Currently only 19 % of community land corresponds to these land parcels and even then these land parcels are either far away from the households (thus impeding women from using them daily), are tilled by men, or are used for agricultural purposes (like cattle) that traditionally are not women's duties (see world bank report on reference 141)

¹⁵¹ World Bank, 2018. "Ensuring Gender Mainstreaming in the Design and Implementation of REDD+ Related Activities: A Behavioral Approach to Natural Resource Management." PowerPoint presentation, World Bank, Washington, DC. In: World Bank, 2019. Mexico gender Assessment. Accessible at: <https://documents1.worldbank.org/curated/en/377311556867098027/pdf/Mexico-Gender-Assessment.pdf>

42% are categorized as “settlers,” meaning they are inhabitants without private property rights or common use and without voting rights. Furthermore, only 12.5% of the 350,000 representatives, incumbents and alternates in management positions in local assemblies and governing bodies are women. Given that land tenure is linked to a vote in assemblies and decision-making power¹⁵², the implementation of this policy locks out women from effective innovation and adaptation to climate change.

With regard to climate innovation and agriculture, Agricultural Research for Development (AR4D) has been instrumental in benchmarking agricultural innovations across the globe. According to Badstue Lone et al¹⁵³, overall progress has been achieved in AR4D, particularly in identifying and targeting women’s needs and seeking to address the visible symptoms of inequality. However, inequalities are sometimes reinforced by AR4D because its traditional approaches overlook the ways in which social norms, attitudes and distributions of power and resources differentially frame women’s and men’s perceptions of, and capacities to seize, opportunities; those who are well positioned to take advantage of new opportunities do so, while others fall further behind (see Testimony 18).

In the AgTech start-up ecosystem, Argentina and Brazil account for 74% of the total AgTech ventures in the Latin America region. Reasons include large-scale markets, ecosystems favourable to technology-based ventures, and a critical mass of professionals working mainly with extensive agriculture, etc. The AgTech sector in Mexico generates around US\$ 49 billion (€46.457) every year, with the main exports being avocados, tomatoes and berries. In general, Mexico is considered to be one of the top 10 food producing and exporting countries. Mexico and Colombia are considered to have a particularly strong presence in the vegetables sector, not only in terms of production but also in terms of sales and distribution.

This has provided a conducive environment for ventures such as *Tierra de Monte*, which practices sustainable agriculture while reducing the use of agrochemicals through microbiological technology that restores ecosystem health. The company won the Social Impact Award from the Banamex Foundation¹⁵⁴ for being the company with the greatest social impact¹⁵⁵. *BICHO*, a Mexican venture led by women scientists, focuses on production of insect-based protein from crickets – this not only combats malnutrition and provides better economic opportunities to farmers in indigenous communities, but also reduces the high environmental footprint caused by alternative proteins, such as soya protein. The company is also addressing the current obesity challenges facing Latin America. Nevertheless, being a new venture, the company faces some longer-term challenges related to scalability and commercialization.

Testimony18

“These AR4D approaches can offer no assurance that women will be able to take advantage of or benefit from new opportunities or technologies because society’s understandings of what is acceptable for women and men to be, do, own and control may continue to impose barriers”

Badstue Lone et al. (2020)

¹⁵² World Bank, 2018. “Ensuring Gender Mainstreaming in the Design and Implementation of REDD+ Related Activities: A Behavioral Approach to Natural Resource Management.” PowerPoint presentation, World Bank, Washington, DC. In: World Bank, 2019. Mexico gender Assessment. Accessible at: <https://documents1.worldbank.org/curated/en/377311556867098027/pdf/Mexico-Gender-Assessment.pdf>

¹⁵³ Lone Badstue, Marlène Elias, Victor Kommerell, Patti Petesch, Gordon Prain, Rhiannon Pyburn & Anya Umantseva, 2020. Making room for manoeuvre: addressing gender norms to strengthen the enabling environment for agricultural innovation, *Development in Practice*, 30:4, 541-547, DOI: 10.1080/09614524.2020.1757624. Accessible at <https://www.tandfonline.com/doi/full/10.1080/09614524.2020.1757624>

¹⁵⁴ The Banamex Foundation has a Social Engagement Programme, with which it supports social and environmental entrepreneurship projects that improve the quality of life in Mexico. Accessible at <https://www.banamex.com/compromiso-social/desarrollo-social/index.html>.

¹⁵⁵ IDB LAB, 2019. Agtech Innovation Map in Latin America and the Caribbean. Accessible at https://publications.iadb.org/publications/english/document/AGTECH_Agtech_Innovation_Map_in_Latin_America_and_the_Caribbean_en.pdf. or *Tierra de Monte*, (no date). A proposal for regenerative agriculture. Accessible at <https://www.tierrademonte.com/post/a-proposal-for-regenerative-agriculture>

4.3.2.3. GENDER AND CLIMATE INNOVATION IN ENERGY

Mexico has signed both the United Nations Framework Convention on Climate Change (UNFCCC) as well as the Kyoto Protocol, and has submitted a detailed inventory of its greenhouse gas emissions (GHGs) in its Third and Fourth National Communication to the UNFCCC. The Government of Mexico (GOM) has made substantial efforts at the policy level to reduce GHG emissions by increasing the generation and use of renewable energy and by improving energy efficiency.

In 2007, the Government published the National Climate Change Strategy, followed by new legislation to remove barriers to advancing renewable energy and energy efficiency in 2008. The Special Programme for Climate Change (2009-2012) was adopted in 2009 and pledges to reduce Mexico's annual GHG emissions by 30% by 2020, and 50% by 2050 in relation to 2000 levels. However, on 30 December 2020 Mexico submitted its updated NDC: its targets, both conditional and unconditional, remained unchanged, while its emissions projections under business-as-usual (BAU) continue to increase. This reduces the country's mitigation ambition in absolute levels and moves the rating of this target one category lower to "Highly insufficient."¹⁵⁶

The Mexican Energy Transition Act, of the Secretariat of Energy (SENER), promotes generation of clean power to reach the levels set forth in the Climate Change Act for the electric power industry, including: a minimum share of clean energies in power generation of 25% by 2018, 30% by 2021 and 35% by 2024¹⁵⁷. To achieve environmental sustainability, Mexico has introduced a set of measures for promoting the production of clean energy and the protection of ecosystems.

The energy sector often has great impact in terms of gender equality, since society attributes differentiated roles to women and men, which condition their relationship to energy. Women are not only a group of interest in energy; they are the main consumers of, and often produce, energy. In addition, they have the power to influence the purchase decisions of their families. A market study conducted in 2014 by GIZ and Grupo Salinas¹⁵⁸ revealed that, among the members of the household, the mother is considered the figure that tries to save more domestic energy, followed by both (father and mother), then the father, daughters, and then "all"¹⁵⁹. Women also have great influence on energy as entrepreneurs in the sector, promoters of new technologies and activists for clean energy resources. However, energy is often perceived as being gender-neutral and women are absent from the sectors where decisions are made about energy resources, as it is considered to be a technical and gender-neutral issue.

Since 2001, the Ministry of Environment, SEMARNAT¹⁶⁰, has had a Gender Equity Directorate, which supports the process of institutionalizing and mainstreaming the gender perspective in the environmental sector. SEMARNAT also led the National Programme for Equality and Opportunities and Non-Discrimination against Women (2013-2018). The institution also works with the Gender and Environment Network (Red de Género y Medio Ambiente, RGEM) in order to promote the joint development of environmental policies with a gender perspective.

The energy sector in Mexico is undergoing important changes in the context of energy reform. For example, SENER's strategies are anchored in addressing the need to align and coordinate programmes and induce inclusive green growth with an intercultural and gender approach. SENER has the following structure: i) a Regulatory Improvement and Transversal Programmes Unit that, among other functions, prepares, proposes and coordinates the implementation and monitoring of the Action Plan for Gender Equality in the energy sector; ii) a Gender Equality and Non-Discrimination Unit that drives and promotes the implementation of PROIGUALDAD in

¹⁵⁶ Climate Action Tracker (Website). Mexico's updated NDC lowers its climate ambition and transparency, contrary to the Paris Agreement rules. Accessible at <https://climateactiontracker.org/climate-target-update-tracker/mexico/>

¹⁵⁷ Grantham Research Institute on Climate Change and the Environment (Website) Energy Transition Law. Accessible at <https://climate-laws.org/geographies/mexico/laws/energy-transition-law>

¹⁵⁸ A large group of companies that spans across many sectors, including mass media and appliances retail. This gender-sensitive initiative included 19 fairs reaching 7.000 people, the development of a best practices guide (7.000 copies distributed), online-courses (passed by 48.000 people), and a mass-media campaign reaching 13.000.000 people. Accessible at <https://gender-works.giz.de/competitions/mexico-energia-renovable-y-eficiencia-energetica-como-ruta-al-empoderamiento/>

¹⁵⁹ GIZ, 2018, Gender Analysis for NAMA Project 'Energy Efficiency in SMEs as a contribution to a low carbon economy in Mexico'. [Internally shared document].

¹⁶⁰ GIZ, 2021. Gender analysis for the project "Protection of the Mexican coastal regions and their marine ecosystems by reducing plastic waste"/ Mexico

SENER and coordinates the sector entities in this area; and iii) a Sub-Directorate of Institutional Culture and Gender Policies that implements actions for the implementation of PROIGUALDAD within SENER. SENER provides a good basis for gender mainstreaming in the sector, offering the opportunity to bring a gender perspective into the sector, and to ensure that the opening of new markets related to sustainable energy contributes to closing the gender gap instead of widening it.

The energy sector has the greatest opportunities and potential for accelerating climate innovation. In this spirit, a number of ventures are appearing in this sector - for example the start-up *Energryn*, which designs and develops solutions that use different renewable energies; its inventions span a range of renewable energy areas, including solar, wind, hydro, wave, tidal, geothermal and biofuels.

Testimony 19

“As a venture that is focused on improving global food security through sustainable sources of alternative protein, my four female co-founders and I were approached by an investment firm that liked the idea of our business and wanted to support us to scale our business. In exchange, the investment firm demanded a stake of 5% and that at least three out of the five co-founders dedicate full-time to the venture. While we were OK with the 5% equity, my co-founders could not commit 100% of their time to the venture since they are already juggling their time between family, full-time jobs and the venture”

KII with Mexican female entrepreneur.

4.3.3. KEY BARRIERS AND CHALLENGES FOR CLIMATE VENTURES AND ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOS)

A. THE CLIMATE VENTURES

The following challenges have been identified through literature review, discussions with Tecnológico de Monterrey and some of the female ventures interviewed during the Gender Assessment.

Limited access to finance: According to Colombia University, nearly 75% of all women-led SMEs in Latin America lack access to adequate financing¹⁶¹. Colombia University reports that a high number of women entrepreneurs in Latin America feel that they have been discriminated against because of their gender (27%, versus 4% for men) and 51% of the women surveyed affirm that there is a general inequality in entrepreneurial opportunities, including access to resources, adequate training and business advice. In Mexico only 19% of entrepreneurs are female, and only 1% of women have access to monetary resources necessary to starting their business¹⁶². Based on interviews conducted with female entrepreneurs, the root causes of the gender barriers in financial access can be identified as follows:

1. **Discrimination in access to credit:** Female entrepreneurs interviewed mentioned how many unmarried female entrepreneurs are seen as a “risky investment” by financial institutions, since they do not have a husband to support them with the repayments. In addition, given the low access to collateral assets (such as land, covered under the agriculture section 4.3.2.2), women entrepreneurs frequently do not have sufficient collateral to raise large funds from the banks.
2. **Bureaucratic processes in government financial support institutions:** Government institutions such as CONACYT (covered in detail in 4.3.2.2) have long, formal processes-in which entrepreneurs are expected to attend meetings and training courses before accessing funds. Given the heavy work burden women face, it is challenging for them to fully exploit opportunities for accessing funds, particularly if the women live in rural areas far from government offices.

¹⁶¹ Colombia University/Pro Mujer, 2020. Bridging the Gap between Women Entrepreneurs and Investors in Mexico. A Columbia University Capstone Report Spring 2020. Accessible at <https://promujer.org/content/uploads/2020/06/SIPA-Pro-Mujer-Capstone-Final-Report.pdf>

¹⁶² Davis Michael (2021) Breaking Down Barriers: Female Entrepreneurs in Mexico Fight for Gender Equity. Accessed at <https://latinarepublic.com/2021/11/16/breaking-down-barriers-female-entrepreneurs-in-mexico-fight-for-gender-equity/>.

3. **Apart from an equity stake, private investment funds ask for 100% commitment from venture founders.** As demonstrated by Testimony , female entrepreneurs are discouraged and continuously rely on their friends and family for financial support, Overall, as observed by the Colombia University¹⁶³, women-led ventures are often growing too slowly for venture capital, are too small for private equity and are too risky for banks¹⁶⁴.

Testimony 20

“Previously, I have attempted to create start-ups many times but failed. I now know that one of the key reasons for the failure was as a result of the limited knowledge I had about starting a business. I used to come to start a venture without doing any market research. I used to first start the venture and then try to convince people about what I perceived to be the problem and what my venture is doing to solve the perceived problem. I therefore never used to ask myself what the actual needs of the people are and then design my solutions around their needs”

KII with Mexican female founder in Mexico.
4. **Bankruptcy:** According to the Inter-American Development Bank, Latin America is the region with the second-highest rate of bankruptcies in companies run by women worldwide. While most male entrepreneurs indicate that they have closed their companies due to low profitability, women entrepreneurs point to the difficulty of obtaining financing as the main impediment to continue with their businesses¹⁶⁵. As a result, the Inter-American Development Bank claims the credit gap in Latin America is US\$ 5 billion (€ 4.74billion) for women-led micro businesses and US\$ 93 billion (€88.2) for women-led SMEs¹⁶⁶.
5. **Lack of business understanding:** As stated in the section below, female entrepreneurs interviewed in Mexico – even highly educated scientists who are pioneering ground- breaking research and business ideas in areas such as soil carbon sequestration – acknowledged during the KII discussions that there is general lack of business understanding among female entrepreneurs (see Testimony 20).
6. **Difficulties in achieving work-life balance:** According to Konfio¹⁶⁷, Mexican women spend 4 hours more per day on household chores and family care than men. The Mexican Ministry of Labour estimates that the economic value of women's unpaid work exceeds 4.4 billion pesos (€ 204 million) per year¹⁶⁸.

Testimony 21

“As Mexican women, I would say the greatest challenge we have is the inability to believe in our capabilities. We live in a society that does not value women very much outside their traditional roles. When women’s capacities are constantly questioned, it does not matter how educated or self-confident they are, at some point it will weigh them down, they will have doubts in their capacities and they will suffer from burn-out. I am lucky that my parents are well educated and are my greatest supporters, but many women are affected by these challenges and often give up”

KII with Mexican female founder
7. **Lack of confidence:** According to the Global Entrepreneurship Monitor¹⁶⁹, an important determinant of whether or not to start a business, and a significant influence on the success and longevity of the business, may be whether, and to what

¹⁶³ Colombia University/Pro Mujer, 2020. Bridging the Gap between Women Entrepreneurs and Investors in Mexico. A Columbia University Capstone Report Spring 2020. Accessible at <https://promujer.org/content/uploads/2020/06/SIPA-Pro-Mujer-Capstone-Final-Report.pdf>

¹⁶⁴ Colombia University/Pro Mujer, 2020. Bridging the Gap between Women Entrepreneurs and Investors in Mexico. A Columbia University Capstone Report Spring 2020. Accessible at <https://promujer.org/content/uploads/2020/06/SIPA-Pro-Mujer-Capstone-Final-Report.pdf>

¹⁶⁵ Inter-American Development Bank, 2021. Gender Assessment for FP173: The Amazon Bioeconomy Fund: Unlocking private capital by valuing bioeconomy products and services with climate mitigation and adaptation results in the Amazon. Accessible at <https://www.greenclimate.fund/document/gender-assessment-fp173-amazon-bioeconomy-fund-unlocking-private-capital-valuing-bioeconomy>

¹⁶⁶ Inter-American Development Bank, 2021. Gender Assessment for FP173: The Amazon Bioeconomy Fund: Unlocking private capital by valuing bioeconomy products and services with climate mitigation and adaptation results in the Amazon. Accessible at <https://www.greenclimate.fund/document/gender-assessment-fp173-amazon-bioeconomy-fund-unlocking-private-capital-valuing-bioeconomy>

¹⁶⁷ Konfio: Mujeres emprendedoras en México: datos y retos. Access at <https://konfio.mx/tips/creditos/mujeres-emprendedoras-en-mexico-datos-y-retos/>.

¹⁶⁸ Mujeres emprendedoras en México: datos y retos. Access at <https://konfio.mx/tips/creditos/mujeres-emprendedoras-en-mexico-datos-y-retos/>.

¹⁶⁹ Global Entrepreneurship Monitor 2020/2021. Global Report. Accesses at <https://www.gemconsortium.org/file/open?fileId=50691>.

extent, individuals see themselves as potential entrepreneurs. Interviews with female venture funders in Mexico indicate that female entrepreneurs' biggest challenge is believing in themselves and their ability to undertake successful business ventures (see Testimony 22).

B. ENTREPRENEUR SUPPORT ORGANIZATIONS (ESOs): PRE-ACCELERATORS, ACCELERATORS AND VCS

Pre-accelerators and accelerators

Tecnológico de Monterrey University has pre-acceleration programmes that largely target students from the University in all the stages (inspiration/exploration, boot-camp, incubation). At the acceleration stage, the University's alumni and external entrepreneurs are the key targets. The following are the key gender-related challenges that Tecnológico de Monterrey has faced while implementing its entrepreneurship programmes.

1. **Difficulties in recruiting more female entrepreneurs at both the pre-acceleration and acceleration stages.** As demonstrated by Table 4 below, which is a reflection of the experiences of participants in the 2021 Heineken Green Challenge (HGC)¹⁷⁰, the proportion of female entrepreneurs decreases along the 'start-up funnel' (*inspiration/exploration, boot-camp, incubation and acceleration*) – See also Figure 5. For example, while female entrepreneurs formed about 40% of the selected ventures in HGC at the inspiration stage, only 28% of ventures selected into the acceleration programme were female-led. As mentioned by Tecnológico de Monterrey, while no in-depth research has been undertaken, these statistics could be a reflection of the following:

- i. Female entrepreneurs are initially enthusiastic about the inspiration events and think they can start a small business, but without proper business understanding and/or technological know-how, they feel they are not equipped to progress successfully to the next stages.
- ii. The risk related with technology driven entrepreneurship, coupled with conservative Mexican culture (see point 4 below), makes women shy away from serious technology-related incubation programmes. While men receive support and understanding from their family and friends if their business fails, women entrepreneurs cannot afford to "experiment in business" and put their family income on the line (see Testimony 22).

To address some of these challenges, Tecnológico de Monterrey plans to create a 'climate' community within its programme *Zona Shero* (see Chapter 5), as it has found that well-designed ideation and community-building activities do increase the 'funnel' of start-ups or initiatives that apply to be part of the HGC; additionally, it plans to open and organize a similar event specifically

Testimony 22

"Women are careful and wait a bit more before going in fully into tech related entrepreneurship. They want to understand if the technology would work or if it would be financially viable and would rather follow the procedures step by step and go through the entire process before making any assumption and investing in a tech businesses. On the other hand, I have noticed among the men I mentor, that they are more excited about ideas, are quick to believe in their abilities and less careful of the consequences".

KII with Tecnológico de Monterrey

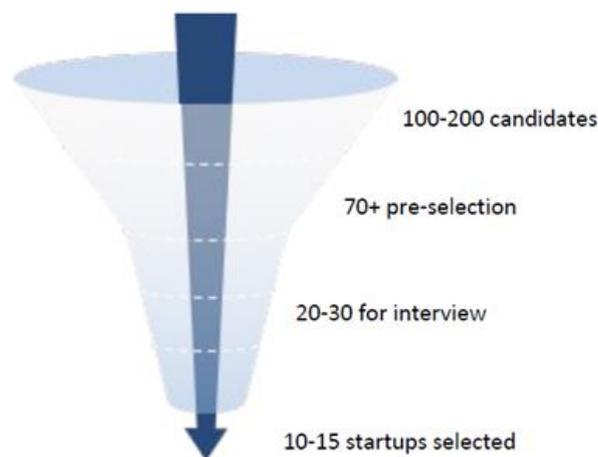


Figure 5: Demonstration of the start-up funnel (Tecnológico de Monterrey)

¹⁷⁰ The Heineken Green Challenge focuses on reduction of carbon emission, water, environmental conservation and improved agriculture techniques.

targeting women in climate change, which would allow Tecnológico de Monterrey to identify and encourage ‘women and climate’ entrepreneurs to apply to its technology-driven programmes.

Table 3: Percentage of women in the Heineken Green Challenges in 2021 (Tecnológico de Monterrey)

STAGE	DESCRIPTION	PARTICIPANTS %	
		F	M
Redux event 2021 (inspiration/ exploration stage)	Open and free events – where participants were registered and participated in the 3 days of ideation to construct a pitch and be selected. Winners received cash prizes and were encouraged to apply to the HGC.	40%	60%
Heineken Bootcamp2021 (Incubation stage)	Jury selected the top initiatives/companies with the most potential to impact and scale. Entrepreneurs from the selected ventures were invited to participate in a week-long bootcamp that provided access to mentors and specialized content to further develop their business model. At the end of the week, ventures were selected for the acceleration stage, where the top 10 received cash prizes. The top 5 got to pitch in front of thousands at the INCMTY ¹⁷¹ event.	33%	67%
2021 Heineken Acceleration Programme	The top ventures were invited to participate in an acceleration programme that is exclusively designed for HGC finalists. This programme is 3 months long and the objective is to start planning for scalability and access to investors.	28%	72%

2. **Difficulties in sourcing ventures with women in top positions:** According to Tecnológico de Monterrey, among the ventures it supports, it is less likely to see women in Chief Executive Officer (CEO) or Chief Technology Officer (CTO) positions unless they are in a team of only women. Several reasons were given for this:

- i. There is still a conservative culture in Mexico (especially in upper-class Monterrey), in which women are expected to be married and have children by a certain age. It is also expected for women to not work as a symbol of economic position.
- ii. In Tecnológico de Monterrey University, just as in many other learning institutions in Mexico, there are still more men than women studying STEM topics. Most of the high-tech or scientific ventures are made up of more men than women, coming from public universities where there are usually more male PhD students and full-time researchers. It is, therefore, less common for technology-driven start-ups to find women developers or CTOs. The few women who are part of these teams “usually have roles more related to the business side of the venture (accounting, finance, marketing, communication, etc.).” (see Testimony 23)

Testimony 23

The entrepreneurial ecosystem is facing the reality that technology areas within companies are mostly represented by men and increasing female participation within this is a really complex task. Shortage in talent is one of the biggest challenges in the ecosystem of entrepreneurship in the technology areas, and by adding the gender issue, this barrier becomes even more pronounced.... one stereotype in the entrepreneurship sector, and as well an additional challenge to emphasize, is women will not be able to dedicate the same amount of time to the start-up or venture as men, because they have other obligations such as marriage, children, house tasks etc.

KII with Tecnológico de Monterrey

3. **Lack of critical mass of female role models in climate entrepreneurship.** Overall, it has been difficult to find female role models for early-stage women entrepreneurs. Currently, Tecnológico de Monterrey is working with only one local female role model; the president and CEO of *Softtek* and a member of the University’s board.

¹⁷¹ INCMTY is the biggest platform of entrepreneurship in Latin America.

4. Difficulties in finding women mentors and judges: While Tecnológico de Monterrey has been actively seeking female mentors and judges, this has not been easy. For example, in the 2021 Heineken Bootcamp, of 57 mentors only 21 (37%) were female. In the same event, despite aiming and achieving a male-female ratio of 50/50

Testimony 24

“There has been increased interest by the donor and investment community in Mexico to invest in women. However, there are not very many women with great ideas that come to the pitching events. Those of us who go to such events and have good business ideas have an opportunity to shine, as the judges are sometimes excited to see a good female candidate. In the last pitching event I went to, I was the only woman among 10 finalists and I could see the judges’ excitement as soon as I entered the room”

KII with Mexican female founder

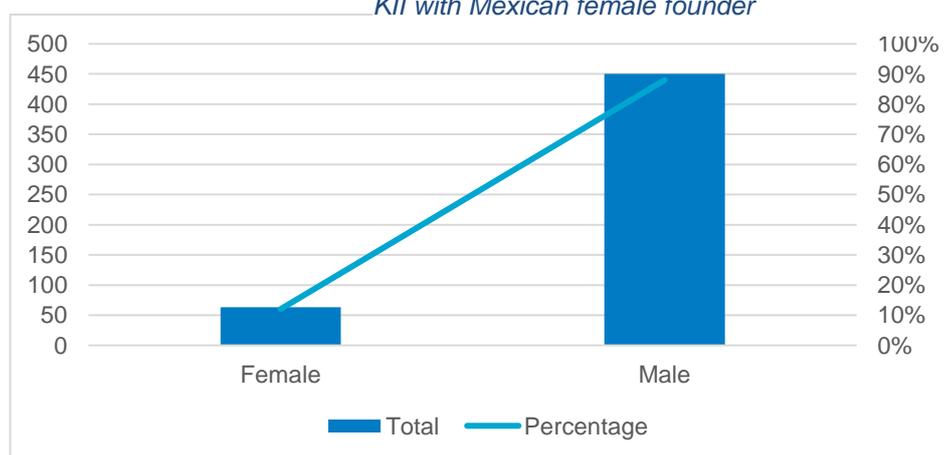


Figure 6: Enlace + Active Mentors and Board Members (Tecnológico de Monterrey)

judges in the semi-finals, female judges made up only 20% at the final event. In another of Tecnológico de Monterrey’s pre-acceleration and acceleration programmes, Enlace+¹⁷², the number of active mentors and board members was much higher, but the percentage of female to male still remained low (see Figure 6).

Venture Capital (VC) firms

Many investors in Mexico are aware of the business case for gender diversity¹⁷³ (see **Error! Reference source not found.**). However, many obstacles have to be cleared before gender equality can take root in the VC world. Implicit biases exist within the venture capital and private equity (PE) industries in Latin America, as “gender is not perceived as a particular issue or a priority”¹⁷⁴. Overall, the majority of investors in Mexico have a misconception that gender lens investing¹⁷⁵ only refers to providing finance to women-led enterprises and are confused about how to incorporate gender into their processes and analyses. According to Value for Women¹⁷⁶, some investors are concerned that they would be labelled as a “women's fund”, which could limit their future sources of funding.

Not all investors have an explicit strategy for ensuring gender lens investing, given that 71% of the funds do not have diversity and gender inclusion policies; however, 82% are willing to develop

¹⁷² Enlace + is one of Tecnológico de Monterrey’s acceleration programme that is run jointly with other collaborators (INCmty, Santos Elizondo among others). Each year, Enlace+ launches its call to attract ventures with the greatest potential to generate a positive impact in Mexico, to which it awards a 100% scholarship in the professionalization programme through Advisory Boards.

¹⁷³ Colombia University/Pro Mujer, 2020. Bridging the Gap between Women Entrepreneurs and Investors in Mexico. A Columbia University Capstone Report Spring 2020. Accessible at <https://promujer.org/content/uploads/2020/06/SIPA-Pro-Mujer-Capstone-Final-Report.pdf>

¹⁷⁴ Orejas, R., & Buckland, H. (2016). Study of Social Entrepreneurship and Innovation Ecosystems in the Latin American Pacific Alliance Countries. Country Analysis: Mexico. <https://publications.iadb.org/publications/english/document/Study-of-Social-Entrepreneurship-and-Innovation-Ecosystems-in-the-Latin-American-Pacific-Alliance-Countries-Country-Analysis-Mexico.pdf>.

¹⁷⁵ Gender Lens Investing is a strategy or approach to investing that takes into consideration gender-based factors across the investment process to advance gender equality and better inform investment decisions.

¹⁷⁶ Value for Women & Aspen Network of Development Entrepreneurs. (2019). A Landscape Report: Impact Investing with a GenderLens in Latin America. https://cdn.ymaws.com/www.andeglobal.org/resource/resmgr/research_library/landscape_report_gender_lens.pdf.

and implement such policies¹⁷⁷. A compelling reason for establishing gender diversity and inclusion policies and practices is linked to the need to respond to third-party requirements, specifically those of institutional investors.

Another key challenge is that investors are not collecting sex-disaggregated data on their investments, which limits gender-related impact analysis as well as the creation of gender-smart products and portfolios. This could explain why the total funds that flow to women is so limited. According to Value for Women, only 5% of total venture capital and private equity funding goes to women-led enterprises. A comparison of 2019 and 2020 overall venture performance is shown in Figure 7. In 2020, female-only ventures in Latin America attracted less than 1% of total investment, while mixed groups and male-only groups attracted 14% and 86%, respectively.

The following challenges have emerged from interviews and literature review:

- i. **The investment objectives used by most VCs are not gender-sensitive:** The most common investment objective of VC firms in Mexico is realising an exceptional return for their investors. Funds therefore tend to look for active, motivated and dedicated founders and management teams and projects that have the potential for scaling-up due to their importance within a specified industry or sector and their ability to disrupt that industry or

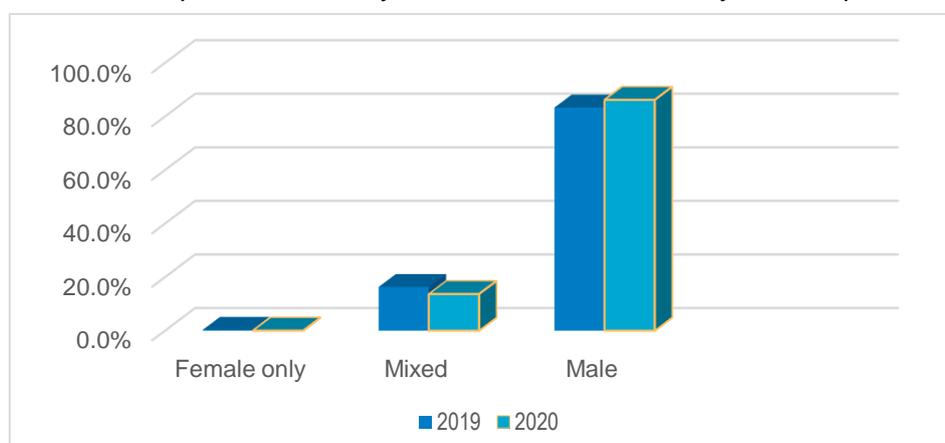
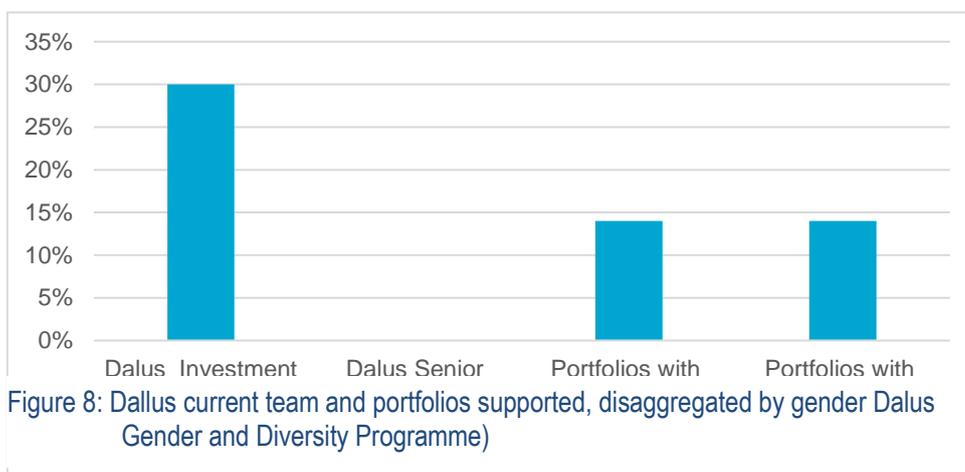


Figure 7: Total Investment in Latin American Ventures by gender (Crunchbase 2020)

sector. Some of these criteria often discourage women entrepreneurs, since women entrepreneurs have challenges of committing full-time to the business, as well as lack the business skills and know-how to quickly and effectively scale their business.

¹⁷⁷ Columbia University/Pro Mujer, 2020. Bridging the Gap between Women Entrepreneurs and Investors in Mexico. A Columbia University Capstone Report Spring 2020. Accessible at <https://promujer.org/content/uploads/2020/06/SIPA-Pro-Mujer-Capstone-Final-Report.pdf>

- ii. Limited number of women in investment teams and key decision-making positions: Gender bias in VC firms is not limited to their investment decisions and strategies, but also largely present in their own internal structures and administration. According to one study¹⁷⁸, 76% of the funds surveyed do not have senior women in their investment teams and almost a quarter (22%) do not have any women at all in their investment team. It was found that 91% of the decision-makers in investment teams are



men. In addition, the representation of women at the intermediate level and at the entry level was found to exceed that of the senior level. Women occupy 38% of the positions at the intermediate level and 42% of the positions at the entry level in the studied sample of the industry¹⁷⁹.

- iii. Despite the disappointing numbers, the market is recognizing the opportunity to invest in gender diversity and inclusion. Dalus, for example, uses its Gender & Diversity Strategy to help them track some key performance indicators (KPIs) - see Figure 8. Based on the KPIs, by 2023 Dalus plans to achieve the following outcomes: retain the women in their investment team at 30% and increase the women in senior management positions from 0% to 10%. For the portfolio companies that it works with, Dalus plans to increase the companies with female founders and companies with female representatives on their boards from 14% to 20%, respectively. **Limited networking opportunities:** according to IDB Lab / WX¹⁸⁰, women venture entrepreneurs in STEMtech are not benefiting from traditional financing options because they lack the appropriate networks to connect to investors. The report also suggests that there is discrimination in the investment process, since socio-cultural norms cause women-led businesses to be evaluated differently. Although the research was done for STEMtech, the challenges seem to cut across women in founder/venture categories:
- iv. **Investors cite women's lack of confidence as the cause for low investment:** The IDB Lab / WX Lab report states that investors claim women are more conservative and do not overstate their projections and that female entrepreneurs do not ask exactly for what they want, and they find hard to internalize their accomplishments. In addition, when female entrepreneurs pitch their ideas, "*women invest more emotion in their pitches and generally take feedback very personally.*" While the projection of lack of confidence seems to be a recurring theme, it is also clear that women in Mexico, just like their counterparts in West Africa, face discrimination during pitching – especially when the investors focus on questioning the women's ability to lead rather than the venture itself. This was confirmed by a Mexican founder based in Colombia who noticed that her male co-founders received

¹⁷⁸ AMEXCAP, 2020. Estudio de diversidad e inclusión en el capital privado 'EDIC'. Accessible at <https://amexcap.com/wp-content/uploads/2021/02/EDIC-AMEXCAP.pdf>

¹⁷⁹ Ibid.

¹⁸⁰ IDB Lab/ WX Insights 2020: The Rise of Women STEMpreneurs: A study on women entrepreneurs in STEM in Latin America and the Caribbean. Accessible at <https://publications.iadb.org/en/wx-insights-2020-rise-women-stempreneurs-study-women-entrepreneurs-stem-latin-america-and-caribbean>

more direct questions about long-term strategy, yet she attracted questions about her ability to lead¹⁸¹ (see Testimony 25). These lines of questioning make female entrepreneurs feel that they must be on the defensive and constantly justify why they belong, rather than having the opportunity to expound on their strengths.

Testimony 3

“As the female founder, they (the investors) also raised many questions on how the decisions within the founders were made, and questioned if I was able to do enough push-back on my decisions. This behaviour was very weird to note, as they did not question the same ‘assertive nature’ from my co-founders”; she adds, “the path is long and lonesome, always being the only woman at the table”

*Maite Muniz, the co-founder of Truora in Colombia:
Excerpt from IDB Lab / WX Lab report*

- v. Lack of strong personal and professional networks: The IDB Lab / WX Insights report found this to be the second-greatest challenge. The report states that access to capital has a strong link to whom the entrepreneurs know and that women entrepreneurs are “*not being very pro-active at building their own networks*”. This excludes them from Latin American culture, which is driven by relationships and essential networks. As one of the investors said, “*I pay more attention to the companies that come to me recommended by someone in my network*”. Networks are essential for obtaining access to information about investors. According to some investors interviewed by IDB Lab / WX Insights, women entrepreneurs approach them through other women in their network, particularly women within the investment team who often help other women. The report concludes that the more female-led funds, female mentors and role models there are, the better the ecosystem will be for future women entrepreneurs.

¹⁸¹ Forbes (Website). This Female-led VC Fund Believes Democratizing Access to Venture Capital will drive Top Returns. Accessible at <https://www.forbes.com/sites/marijabutkovic/2021/10/26/this-female-led-vc-fund-believes-democratizing-access-to-venture-capital-will-drive-top-returns/>

5. INSTITUTIONAL CAPACITY AND GAPS AMONG PROJECT EXECUTING ENTITIES FOR MAINSTREAMING GENDER IN THE CATALI.5°T INITIATIVE

This chapter summarizes the gender capacities within the four Executing Entities.

A. EXECUTING ENTITIES AT GLOBAL LEVEL

1. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

GIZ will be responsible for the project's overall management as well as for capacity-building measures in both regions in the area of environmental and social safeguards, governance and gender, climate impact forecast tools and impact data measuring & monitoring. GIZ undoubtedly has considerable experience with gender sensitivity in entrepreneurship. GIZ has strong internal and external mechanisms for promoting gender equality and the elimination of gender-specific disadvantages and discrimination within the services it provides and as part of its equal opportunity policies within the institution itself.

GIZ aims to create and expand opportunities for participation, develop potential and overcome existing gender inequalities and ensure inclusive economic growth. Internally, the GIZ Gender Strategy is a binding framework for all managers, staff and other employees of GIZ. The strategy also shapes the design and implementation of GIZ projects and programmes around the world. GIZ also expects its sub-contractors to adhere to its gender strategy. Annually, GIZ tracks and reports on the implementation of the gender strategy. The main results are included in the GIZ Integrated Corporate Report.

In the gender and climate innovation area, GIZ is a key authority. GIZ incorporates women as stakeholders in all climate action as follows:

- GIZ has regional gender focal points who review funding proposals and other important documents to ensure regional gender dynamics are thoroughly considered in the documents.
- Development of own guidelines" e.g. the "Accelerating Women Entrepreneurs: Project design guidelines for GIZ Advisors" publication.
- Implementation of multiple projects on gender and climate innovation around the world.
- Leading and facilitating panel discussions on key platforms such as the Gender Assessment Method for Mitigation and Adaptation (GAMMA) and Gender into Urban Climate Change Initiative (GUCCI) initiatives.
- Holding Gender Week events within the institution, as well as around the world.
- Holding annual gender competitions among staff implementing projects around the world and rewarding those who demonstrate exceptional approaches to the promotion of gender equality.

GIZ's strong experience with gender sensitivity and in entrepreneurship in different countries and regions in which it is working is important and represents added-value for the implementation of the CATALI.5°T initiative. GIZ also has a number of other accountability frameworks, such as Do No Harm and prevention of sexual exploitation, abuse and harassment (PSEAH) policies, which guide both its operational and implementation activities.

Capacity GAP

GIZ does not have a gender-related gap that needs strengthening by the project.

2. Stichting Climate-KIC International Foundation

The Stichting Climate-KIC International Foundation, hereafter named "Climate-KIC", is a non-profit organization with the objective to contribute to the protection of nature and the environment,

including the enhancement of sustainability, in aid of the common good, both ecological and human, by way of innovation of climate change mitigation and adaptation, and by stimulation of education and research in the field of climate change mitigation and adaptation. Climate-KIC aims to provide equal opportunities for all genders throughout its programmes, with the eventual goal of triggering a systematic change in gender across the climate innovation sector. Stichting Climate-KIC International Foundation builds up on the technical expertise, track record, policies and systems of Climate-KIC Holding.

Climate-KIC's Equality and Diversity Policy describes its commitment towards the elimination of discrimination and promotion of equality and diversity within its stakeholder network, as well as in the areas in which it has influence. The following elements relate to Climate-KIC's internal and external gender mainstreaming efforts:

- Climate-KIC has overall male to female ratio of 1:1 on its boards.
- In 2020, its management team was 83% female.
- At employment level, in 2020, 67% of Climate-KIC's 168 staff were female.
- Through its Diversity and Inclusion Working Group, multiple groups are active in ensuring gender mainstreaming: e.g. the management team working group on culture is taking responsibility for integrating diversity and inclusion in leadership and ways of working; the Gender Group is leading gender integration and inclusivity work within Entrepreneurship and Education programmes; and the Ethics Group develops, reviews and makes recommendations on the way Climate-KIC engages with external partners.

For Climate-KIC's community of partners, innovators and entrepreneurs, Climate-KIC strives to enable them to better attract and support women-led innovations and initiatives through the full lifecycle of development and acceleration. To achieve this, Climate-KIC has been working closely with partners to provide actionable and practical guidance to actors in the climate entrepreneurship ecosystem (e.g. entrepreneurs, accelerators, coaches, trainers, investors) on how they can integrate gender equity in their interventions and become more gender-smart. Recent developments on this includes working together with the UN Women programme, *WeEmpowerAsia* (WEA), on the development of two 'WeRise Toolkits', one Toolkit for Entrepreneurs¹⁸² and one Toolkit for Accelerators¹⁸³.

Many of the programmes implemented under Climate-KIC's climate entrepreneurship programme have been exploring the nexus between gender and climate innovation, with the Toolkit for Accelerators, in particular, serving as the guiding framework.

Both toolkits provide step-by-step guidance, ranging from organisational self-assessment on inclusive readiness, inclusive channels and criteria for selection of ventures and accelerators to action planning and network building. The tools provide essential building blocks for the GCF project's efforts in reducing gender biases and increasing gender mainstreaming among climate ventures, pre-accelerators, accelerators, and VCs.

Climate-KIC's current gender policy, practices and tools for mainstreaming gender within the organization and across the globe through its programmes and partners is substantive. Climate-KIC's envisaged role as Executing Entity for the project's Component 3 offers considerable scope for leveraging gender-related opportunities, notably in the context of the implementation of the Gender Action Plan and capacity building on gender climate entrepreneurship toolkits.

Capacity Gap

¹⁸² The Toolkit for Entrepreneurs has been created specifically for women entrepreneurs who own an SME in the so-called missing middle - too big to benefit from a microfinance institution but still too small or too risky for the average venture capitalist. This toolkit, co-created by women entrepreneurs for women entrepreneurs, is directly aimed at women entrepreneurs in this situation, providing them with guidance on how to improve their access to finance while becoming more gender-inclusive in their own business. Accessible at: <https://asiapacific.unwomen.org/en/digital-library/publications/2021/10/werise-toolkit-for-entrepreneurs>

¹⁸³ The Toolkit for Accelerators has been created specifically for and with accelerators that are focusing on becoming more gender-smart and providing better access to finance for the women-led SMEs they support. This toolkit was co-created in conjunction with entrepreneurs, accelerators and finance experts, and is accessible at: <https://asiapacific.unwomen.org/en/digital-library/publications/2021/10/werise-toolkit-for-accelerators>

Climate-KIC does not have gender related capacity challenges that need addressing by addressing.

B. EXECUTING ENTITIES AT REGIONAL LEVEL

I. LATIN AMERICA

Tecnológico de Monterrey

Tecnológico de Monterrey's "Entrepreneurship Institute Eugenio Garza Lagüera" is responsible for designing, implementing and promoting entrepreneurship within the University as well as through external programs. Tecnológico de Monterrey will be the Executing Entity for the pre-acceleration and acceleration programmes in the Latin American region.

Interviews with key management staff indicate that Tecnológico de Monterrey has been at the forefront of the creation of progressive internal diversity and inclusion policies. Additionally, within the University, the position of Vice Presidency of Inclusion, Impact Social and Sustainability¹⁸⁴ has been created, which, among others, has the objective to reinforce the recognition of human dignity, fostering an environment of inclusion, equal opportunities and unity in diversity. The University has special offices to deal with gender issues, such as the Human Dignity Recognition Centre, which also houses the Office of Gender and Safe Community¹⁸⁵. In addition, it has internal policies for ensuring that gender-related misconduct is prevented and addressed. Through the Office of Gender and Safe Community, different actions towards gender equality have been implemented, as described below:

- ✓ The Zona Shero programme¹⁸⁶, which is a collaborative effort between Eugenio Garza Lagüera Entrepreneurship Institute and Tecnológico de Monterrey University, is aimed at strengthening the progress and development of female students and entrepreneurs in the global entrepreneurship ecosystem.
- ✓ For climate change (though not exclusively for female entrepreneurs), the Heineken Green Challenge (HGC) is an initiative to bring together entrepreneurs who develop innovative projects, prototypes, business models and start-ups that identify opportunities and solve environmental problems in Mexico. Women entrepreneurs are strongly encouraged to participate.
- ✓ The University has a gender plan, laying out sets of measures for the equal treatment and opportunities for women and men in the institution's academic and administrative environment. To ensure the implementation of the gender plan, the Impulsa and Equalitec have been established. Impulsa is a committee that has the objective of assuring progress towards gender equality in the University's executive positions; Equalitec is a committee responsible for executing, following-up and enhancing the development of the gender equality plan.
- ✓ Tecnológico de Monterrey is also a member of UN Women's Global Movement HeforShe, with strategies for contributing to gender equality and prevention of gender violence.
- ✓ The University has also launched a research programme around entrepreneurship. In studying entrepreneurial success, Tecnológico de Monterrey employs traditional metrics, such as company creation rate, survival and longevity, and job creation, which could form an interesting basis for the collection of sex-disaggregated data and understanding gender patterns in climate innovation ventures. It would be interesting to cross-check the data from this research with IPED's ESG Impact metrics (see IPED section below).

¹⁸⁴ Tecnológico de Monterrey, 2020. Diversity and inclusion. 2020 Report. Accessible at <https://tec.mx/sites/default/files/2020-10/reporte-diversidad-e-inclusion-oct2020.pdf>

¹⁸⁵ Human Dignity Centre/Gender and Safe Community Office (Website). Accessible at <https://tec.mx/es/dignidad-humana/genero-y-comunidad-segura>

¹⁸⁶ Zona Shero (Website). Accessible at <https://tec.mx/es/emprendimiento/zona-shero>

For Tecnológico de Monterrey's broader entrepreneurship programmes, such as the HGC and Enlace+, Tecnológico de Monterrey applies a "Conscious Entrepreneurship Strategy", which incorporates gender considerations. All Tecnológico de Monterrey employees are required to take gender-focused courses and are subjected to all the gender policies as an institutional requirement¹⁸⁷.

Gender capacity gap

Tecnológico de Monterrey's Conscious Entrepreneurship Strategy has been created to drive gender equality in its initiatives. There has been substantial work undertaken at the institutional level to develop and enforce gender-related policies for students, staff, external partners and external beneficiaries (such as supported ventures).

However, with the growth of climate-specific entrepreneur events and processes which have not been traditionally part of the University's inclusive environment, the University has been evolving its gender practices. The management team of the Entrepreneur arm of the University feels that there is sometimes lack of clarity on the gender requirements, stemming from the fact that the institution's gender initiatives have not always been coordinated or 'joined up' and they are evolving over time. They have also identified this as an area for improvement: they plan to redesign their pre-acceleration and acceleration entrepreneurship programmes around more structured gender guidelines. This fits well with the proposed role played by Climate-KIC who could provide such a structured gender ecosystem approach for all stages of the entrepreneurship programmes. The EE is committed to ensuring gender equality in their programme. The staff are eager to receive gender related technical support from the GIZ and Climate-KIC. The risk to the project is therefore minimal. Nevertheless, the implantation of the GCF program GAP and adequately training the EE staff during the inception phase of the GCF programme would avert any potential gender related risks.

II. WEST AFRICA

A. Investisseurs & Partenaires Entrepreneurs & Développement (IPED)

IPED will assume the role of Executing Entity for the acceleration programme in West Africa, and will also manage the disbursement of support grants under the pre-acceleration programme.

IPED is affiliated with the impact investment group Investisseurs & Partenaires (I&P) and builds up on their technical expertise, track record, policies and systems.

IPED has a gender policy¹⁸⁸, which mainly focuses on: i) promoting gender equality/equity; and ii) integrating a gender lens in funds, programmes and investments. The policy operates at both IPED/I&P staff and investment vehicle governance levels.

The gender policy is clear and precise, detailing the different steps that must be taken at the different levels and implemented both internally and externally, with priority areas identified at the portfolio level which are tracked on an annual basis. From an internal perspective, the policy is deployed via recruitment policy and by promoting gender diversity in corporate governance bodies, senior management and investment teams, as well as through team-based awareness-raising initiatives. The policy is also pursued at investment portfolio level by factoring gender-sensitive policies into the key investment pillars of IPED's partners, as well as at SME corporate officer, employee, client and sub-contractor level. All of these elements provide strong evidence of IPED's commitment to, and knowledge of, gender equality issues and gender mainstreaming. The policy is implemented at all levels of the organization:

- Management level: for leadership and overall governance: e.g. 30% of women at management level.

¹⁸⁷ Human Dignity Centre/Office of Gender and Safe Community (Website). Accessible at <https://tec.mx/en/human-dignity/human-dignity-education>

¹⁸⁸ IP&IPED, 2018 Gender strategy. Opportunities to address the gender gap in African SMEs. Accessible at: <https://www.ieta.com/en/gender-policy>

- Employment level: development of women's access to decent jobs and training, including insurance and credit
- Client level: support to SMEs within specific acceleration programmes:
 - ✓ Gender objectives linked to the gender policy. Depending on the programmes and requirements of the institutional investors involved, the targets change. For example:
 - A target of 30% of women-owned businesses set up for an equity investment programme (IPAE).
 - ✓ Raising awareness among entrepreneurs on gender diversity benefits for their businesses (entering new markets, reaching new customers, etc.).
 - ✓ In the company's communications (website, impact reports, videos, interviews), emphasis is paid to the gender-sensitivity of the wording used especially in the French language; the representation of men and women entrepreneurs is balanced in case-studies, videos, etc.

In addition, IPED organizes their investment metrics by gender to ascertain the proportion of female entrepreneurs, senior executives, employees and customers they reach. They also track 2X Challenge criteria¹⁸⁹. 2X Challenge is a development institution-sponsored initiative to define women-friendly investments. For IPED, gender is now a pillar in itself that must be analysed in any project, making it easier to factor in opportunities for improvement and reducing gender inequality in action plans.

Capacity Gap

IPED does not have a specific person responsible for gender equality among its staff. However, gender equality is comprehensively addressed under its broader Environmental Social and Governance (ESG) umbrella, and there is an ESG & Impact Committee composed of high-level experts from all recent impact funds under IPED's implementation.

IPED has also built ESG impact tools that are adapted to each fund's theory of change and impact objectives, and that explicitly address ESG issues (including gender) in the screening, investment and monitoring process.

Discussions with the ESG Impact Measurement team in IPED revealed that gender mainstreaming efforts are programme-driven and are not systematically integrated in all programmes. In some cases, the environment and governance aspects of the ESG have more prominence than the gender aspect. Nonetheless, IPED has recognised this potential weakness and is currently updating its gender policy, tools, key performance indicators (KPIs) and practices, with the aim of strengthening gender integration across its programming.

B. Impact Hub Abidjan

Impact Hub Abidjan is a small institution of 13 employees founded by four women, who all, independently of each other, had previous experience as entrepreneurs. The founders' explicit objective is to contribute to the elimination or reduction of gender gaps and to improve the access of female entrepreneurs to technical assistance and finance in the entrepreneurship ecosystem.

Impact Hub Abidjan has been striving to ensure women ventures are given greater emphasis in the West Africa region, as demonstrated by the following:

- 100% of its founders and 80% of its board members are women.
- 62% of its trainers and coaching experts are women.
- After attracting fewer-than-expected female-led ventures in its early support projects, Impact Hub Abidjan now makes explicit inclusion efforts – for instance, by designing specific calls that target value chains that have large numbers of female entrepreneurs (e.g. agri-businesses oriented around local food staples).

- A dedicated programme focused on women entrepreneurs: the Academy for Women Entrepreneurs, supported by the U.S. Government's Office of Cultural and Educational Affairs (ECA).

Impact Hub Abidjan has a detailed understanding of the entrepreneurship ecosystem and the challenges female entrepreneurs face in Cote d'Ivoire and the broader region. However, climate innovation and climate-related ventures are new areas for them. To address this, Impact Hub Abidjan (and local implementation partners involved in the West African pre-acceleration programme) will receive capacity building support from the CATALI.5°T project to address issues related to identifying and managing portfolios of climate ventures – including assessment of the ventures' climate impact (reduced greenhouse gas emissions and potential adaptation co-benefits), ventures' potential to achieve climate transformation at a systemic level, and gender-related aspects of climate ventures (including gender climate entrepreneurship toolkits).

Impact Hub Abidjan's policies are not gender-specific, but they are gender-inclusive. Its knowledge and perspectives on female entrepreneurship in the region will be key for gender mainstreaming in the West Africa region and represent genuine added-value for CATALI.5°T Afrique de l'Ouest.

Gender capacity Gaps

Impact Hub Abidjan does not currently have its own in-house gender expertise (e.g. gender experts). The organisation has recently developed a gender policy and trained a number of its staff: these, combined with the founders' backgrounds and explicit objective of addressing gender inequalities, mean that gender mainstreaming is expected to be satisfactory. Nevertheless, given that Impact Hub Abidjan is new to climate innovation-related ventures, it could benefit from receiving support in; i) creating measures for demystifying climate innovation and the broader climate impact calculations for women entrepreneurs; ii) ensuring that gender in climate innovation is appropriately integrated into its general gender strategy, which is currently under development; and iii) related to this, Impact Hub Abidjan will also need support in attracting more women from the climate innovation sector, as well as building networks and enabling ecosystem support for climate innovation ventures.

Summary of the Capacity Gaps and Mitigation Measures

Capacity GAP	Mitigation
The Regional EEs do not have a specific personnel who focus on gender mainstreaming	Gender expertise will be provided through the provision of 2 regional Gender mainstreaming experts (GIZ gender specialist for Latin America and another gender specialist provided under IPED for the West Africa region). Hands-on support and trainings on gender mainstreaming will be conducted for all top and middle management, including local implementation partners.
The regional EEs do not have comprehensive experience with the gender and climate innovation nexus	The above trainings and hands-on support will be provided through the regional gender specialists. Climate-KIC will work with the specialist to ensure the trainings and hands-on support adequately cover the nexus.
Lack of comprehensive understanding of SEAH. Based on the interviews with the regional EEs, the full range of SEAH and mechanisms of preventing and mitigating it are not well understood and/or integrated across the regional Ees. Though all Ees have code of conducts against sexual harass-	<p>Identified possible risk areas</p> <ol style="list-style-type: none"> 1. Lack of clear policies and procedures on SEAH prevention and management 2. Lack of commitment /non- enforcement and compliance of SEAH policies and procedures 3. Beneficiaries unaware of SEAH risks and their rights 4. Lack of adequate investigation and documentation of SEAH issues 5. In adequate mitigation measures that could lead to dissatisfaction and non-reporting on the part of the survivors. <p>Prevention. The project will:</p> <ul style="list-style-type: none"> -Integration of SEAH and SGBV prevention and mitigation in the standardized programme gender policy

<p>ment to guide their internal operations and management, this is not (always) cascaded to the ventures level.</p> <p>At venture level, interviews revealed there is a limited understanding of SEAH, and most of the time ventures do not have any form of code of conduct in place. Those that have single gender founders and employees did not think SEAH issues could be of relevance for them even though some of the ventures interviewed had single gender founders and employees but different sexual orientation.</p>	<ul style="list-style-type: none"> -Ensure all programme EE staff and local implementation partner staff are trained on SEAH. Zero tolerance on SEAH is adequately communicated as well as punitive measures on violation of SEAH policy included in their contract. - Conducting context based and effective SEAH risk management assessments and develop adequate mitigations measures. -Integrate SEAH in the climate ventures code of conduct and in the gender trainings -Include SEAH awareness in the PR materials (including in local languages) on SEAH zero tolerance, beneficiaries' rights to the project benefits and available mechanism of accessing justice for the survivors. -Development of context-specific (including in local language), safe, accessible complaints feedback mechanisms e.g. free hotlines, complaint boxes, email and text messages, anonymous whistleblowing etc. to easily and conveniently report cases of SEAH and other SGBV. -In project events such as boot camps, ensure adequate security and, if needed, ensure presence of volunteers for policing the event etc. to avoid SGBV. - Conduct trainings and project events at times and places where women and other vulnerable groups <p>Mitigation</p> <ul style="list-style-type: none"> -Establish a sub-committee (under the management committee) who will deal with SEAH issues and establish direct reporting with GIZ and GCF. Female complaints should be handled by female committee members and male complaints by male committee members. -Train the committee on SEAH, effective investigation of SEAH cases (confidential and professional investigation of cases, survivor centred approaches), develop standardized Incident notification Forms, establish effective reporting procedures etc. -Develop SEAH management and response plan including survivor-centred approaches for those affected by the SEAH: e.g. safety and security provision, counselling services and working on other compensation mechanisms. -Integration of key SEAH risks in the monitoring plan that can be safely, easily and conveniently accessed <p>Monitoring of SEAH</p> <ul style="list-style-type: none"> -Monitoring compliance downstream – e.g. review adequacy of SEAH policy at EEs, local implementation partners and venture level (spot check on staff contracts, ventures' code of conducts etc.). -Monitoring the implementation of SEAH response and management plan e.g. number of cases received, number of cases adequately investigated, number of survivors supported etc. (all aggregated by gender and region). -Integrating beneficiaries feedback in progress/impact monitoring: e.g. beneficiaries' awareness level of SEAH and on existing project mitigation/ redress mechanism
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C. GENDER EXPERTISE NECESSARY TO THE PLANNED GCF PROGRAMME

The planned CATALI.5°T Initiative should employ a Gender Manager with in-depth knowledge and implementation experience in gender equality and mainstreaming in entrepreneur support programmes. The vacancy should explicitly require such expertise.

To ensure sound integration into all activities, this position would ideally be with a technical advisor. This person would be most appropriate to also become the overall general Gender Manager of the programme to oversee all gender mainstreaming efforts, this includes primarily the implementation of the Gender Action Plan (GAP) and overall GAP monitoring at programme management level. At regional level, the programme requires Gender Specialists that have the necessary expertise for implementation and to assist the Gender Manager.

Equally important is to ensure that Executing Entities (EEs) and local implementation partners are able to mainstream and operationalize gender within the pre-acceleration and acceleration programmes in both regions. To achieve this, the programme should invest in technical gender training in climate innovation aiming to enable the EEs’ and local implementation partners’ project staff to effectively integrate gender into all workstreams.

All standard procedures of the programme should be streamlined to review gender aspects throughout the course of the programme. The GIZ Gender Strategy, the Practical Guide to Gender-Responsive Programme Management and the Guidelines on Gender in Reporting provide useful guidance for the programme team.

Additional technical expertise to integrate gender into entrepreneurship is provided for example by GIZ in the *Guidelines for accelerating women entrepreneurs* (2022) and WUSC-EUMC (2021) *Design guidelines for Accelerating Women Entrepreneurs, Strategies for Incubators and Accelerators for strengthening ecosystems for women climate entrepreneurs*.

6. POTENTIAL LEARNING PROJECTS

Climate innovation being relatively new, it has been difficult to find many projects that address the nexus of gender and climate innovation that could offer the CATALI.5°T project opportunities for learning and leveraging. The following projects could provide some form of learning around integration of gender in innovative investments:

Table 4: Potential Projects for Learning

PROJECT	POTENTIAL AREAS FOR LEARNING
<p>Project Name: The Rallying Cry initiative Country: Piloted in Kenya and Zambia https://therallyingcry.org/?mscl-kid=b74d347dcf8e11ecb262b8c101b0d40a.</p> <p>Duration: 2022- 2027</p> <p>The Rallying Cry initiative is led, supported and resourced by an international collaborative of women business leaders and climate, gender, and development finance professionals and institutions. It is a 5-year initiative seeking to surface the female leadership needed to catalyze and scale private sector action on climate change. The first phase of work is focused on climate- and gender- responsive agriculture enterprises in Africa, piloting in Kenya and Zambia. The objectives are: i) developing a model for collective climate leadership, to drive more equitable solutions: climate and gender; ii) elevating previously unacknowledged successes of the women and enterprises already leading climate- and gender-smart action on the front lines; iii) creating global climate forums for the previously unseen and uncouneted to tell their stories and share new ways of leading and doing; and iv) engaging the international climate and investment communities to shift their perspectives on, and approaches to, investing in women and climate.</p>	<p>Although the project is not currently implemented in West Africa or Latin America, it is one of the few initiatives that are deliberately and aggressively addressing the nexus between climate and gender. It provides helpful analysis on the following areas which could provide the evidence base and data needed for CATALI.5°T project steering:</p> <ul style="list-style-type: none"> - Analysis of investor product mapping, including opportunities, risks and the product blueprints for intermediated debt and equity. - Analysis and conclusions from ongoing research to map climate- and gender-smart agribusiness enterprises in Africa, including sharing key learnings from African women business leaders on the goals of mitigation, adaptation, finance and collaboration through a different lens, as well as recommendations to decision-makers in the international finance community who can contribute to achieving this vision. - A directory of select climate-smart and gender-smart agribusinesses mapped in the project pilot countries of Kenya and Zambia. - In consultation with leading 2XCollaborative members and other capital allocators, The Rallying Cry maps financial and non-financial products and services with the potential to incorporate both a climate and gender lens.
<p>Project Name: Irish Aid Climate-gender smart acceleration project Project Duration: April 2022-May 2023</p>	<p>The aim of the project is to roll-out the gender toolkit developed by Climate-KIC together with Bopinc that has been designed to help</p>

Countries: Irish Aid directly supports Climate-KIC programming in Kenya, Mozambique, Nigeria, South Africa, Tanzania, Uganda, Vietnam and Colombia. The gender mainstreaming work will focus first on Climate-KIC's partners in these 8 countries, but with the intention of expanding to Climate-KIC partners across the globe.

The project builds on Climate-KIC's newly developed gender and climate tool for incubators and accelerators (previously funded by Irish Aid). Climate-KIC intends to go a step further on gender in 2022/3 by working with partners to:

- Strengthen local capacity-building structures related to gender mainstreaming in between 6-10 organisations from 6 African countries; Kenya, Mozambique, Nigeria, South Africa, Tanzania and Uganda.
- Incentivize partners to apply a gender lens to programme activities by either a) embedding new gender approaches into existing work or by b) designing programmes that specifically address gender needs.
- Showcase collective progress to crowd-in other Climate-KIC partners.

partners attract and support women-led businesses, as well as encourage change at an organizational level. The toolkit will help the partners to establish and consolidate sustainable local capacity-building structures to help accelerators and incubators provide climate entrepreneurs with effective gender equality training and empowerment for women entrepreneurs. The structured capacity building support will help partners to roll-out the gender toolkit through Climate-KIC's partners who are delivering incubation, acceleration and education programmes.

The project focuses on providing training to the partner organisations on how to use the toolkit so that they can increase and sustain the number of women participants in their programmes. Climate-KIC will also set up a granting facility, making funds available to partners to launch gender-focused pilot programmes in their local contexts. Funding will be dispersed based on actions plans to either: i) Transform partners' own organisation to better support women (e.g. develop new or adapt existing training and/or marketing materials, create videos with success stories, etc.), or ii) Provide direct support to women-led start-up teams (e.g. create a women peer support network, alumni events and networking opportunities etc.).

The project is expected to support more women entrepreneurs to develop an impact innovation idea and become entrepreneurially active through innovative concept-building on existing gender-focused activity. E.g. ecosystem activities to raise awareness and improve access to finance for women-led start-ups. While the funding will only be available within the Irish Aid sponsored countries, Climate-KIC will host workshops with a wider audience of partners, climate experts and other relevant actors in order to share learnings. By the end of the project, Climate-KIC will have case studies from each of the participating partners, in order to incentivise others to run similar programmes in the future and encourage uptake of the gender toolkit.

The gender toolkit will be an integral component of the CATALI.5°T project gender mainstreaming efforts. Lessons learnt from the above roll-out efforts will be essential for enriching the toolkit and, ultimately, the CATALI.5°T initiative gender outcomes.

Project Name: World Bank: Latin American and Caribbean Gender Innovation Lab (LACGIL). There is also an Africa GIL.

Countries: Latin America and Caribbean Countries.

The LAC Gender Innovation Lab provides World Bank operational teams, policy-makers and development practitioners with knowledge to promote gender equality and drive change in Latin America and the Caribbean. To this end, the Lab generates evidence through impact evaluations and inferential studies to find out what works to close gender gaps in human capital, economic participation, social norms and women's agency.

Since 2019, the GIL initiatives have been conducting evidence-based studies through impact evaluations and inferential studies and presenting the findings in working papers, reports, policy briefs and blogs through the GIL website.

The initiative provides the following:

1. A Gender Data Portal for each country: e.g. Mexico <https://genderdata.worldbank.org/countries/mexico>.
2. Gender Impact Evaluations, which offer:
 - Evidence-based impact data for LAC Governments, World Bank projects and other partners.
 - Dissemination of evidence and partnering across sectors and stakeholders to build knowledge on gender impact evaluations.
3. Publications: e.g. Women Entrepreneurs in Mexico: Breaking Sectoral Segmentation and Increasing Profit. <https://doc->

[uments1.worldbank.org/curated/en/337731602848034710/pdf/Women-Entrepreneurs-in-Mexico-Breaking-Sectoral-Segmentation-and-Increasing-Profits.pdf](https://documents1.worldbank.org/curated/en/337731602848034710/pdf/Women-Entrepreneurs-in-Mexico-Breaking-Sectoral-Segmentation-and-Increasing-Profits.pdf).

4. The Women Entrepreneurs Finance Initiative (We-Fi) supports women entrepreneurs by scaling-up access to financial products and services, building capacity, expanding networks, offering mentors, and providing opportunities to link with domestic and global markets.

Given all the above, the project provides the CATALI.5°T initiative with an immense body of evidence-based data and information for informing the design of the project – and, specifically, on how to best integrate women’s empowerment in the project.

7. GENERAL CONCLUSIONS

In summary, the gender assessment has brought to light the following:

- A strong business case for gender in entrepreneurialism and the SME sector exists and is cogently articulated by recognized institutions. Due to the nascent status of 'cleantech', engagement with gender issues in the 'climate venture' space specifically is less developed. However, a recognized global champion in this regard is Climate-KIC: its pool of expertise is expected to immeasurably benefit the project. IPED in West Africa also demonstrates a substantive track-record of engagement with the gender-entrepreneur nexus, though not specifically in a climate change context.
- The governments in Latin America and West Africa have ratified international and regional conventions and protocols on gender equality. They have also put in place numerous measures to improve gender equality. However, concrete actions – backed, crucially, with the necessary resources – have lagged behind, with the result that gender gaps in three key sectors that have direct links to climate entrepreneurialism (education, agriculture and energy) are prominent and persistent.
- Women entrepreneurs face numerous hurdles, stemming from a combination of structural and rigid social-cultural barriers and lack of broader enabling gender ecosystem. Although the lived experience of women entrepreneurs in West Africa is very different from that in Latin America, lack of status equality, lack of business understanding and role-models, and lack of access to finance are common challenges across the two regions.
- For the Executing Entities, difficulties in recruiting large numbers of women into their pre-acceleration and acceleration programmes, and the limited number of female role models and mentors, are common features across the two regions.
- The Gender Assessment also identifies some of the ways that the Executing Entities, local implementation partners and other ecosystem actors can tackle gender-related challenges and create innovative strategies for women's inclusion.

8. RECOMMENDATIONS

A. GENERAL RECOMMENDATIONS FOR PROJECT DESIGN

1. **Ensure EEs and local implementation partners have the capacities and necessary tools for gender-climate mainstreaming:** Based on the institutional capacity assessment (Section 5), it is clear that there is strong gender commitment from the different EEs. However, gender expertise and capacities for gender mainstreaming in climate innovation is not the same across all the individual EEs. In this regard, the following recommendations are seen to be crucial for the project:
 - i. Develop a **unified gender-mainstreaming document for the project** that provides essential tools for gender and climate innovation addressing the two regional contexts.
 - ii. **Ensure EEs and local implementation partners are adequately trained on gender mainstreaming in climate innovation.** The training could, among other benefits, provide practical measures for creating more gender-smart and inclusive pre-acceleration and acceleration programmes and be able to advise and train climate ventures on gender-climate issues.
 - iii. Rather than appointing and training one focal point person from each EE, ensure the **staff of the two regional initiatives** CATALI.5°^TAmérica Latina and CATALI.5°^TAfrique de l'Ouest, including top and middle management of the EEs and local implementation partners, **are trained**. It will also create more buy-in and momentum for gender mainstreaming in the planning, implementation and monitoring of the EEs' / local implementation partners' activities and, in the end, lead to effective realisation of the EEs' commitment towards the implementation of the GAP.
2. **Encourage, support and document cross-learning on climate gender mainstreaming between EEs and regions.** There is currently little documented evidence to inform what strategies work best in securing a healthy pipeline of female ventures, but anecdotal evidence gathered from interviews with the EEs reveals some promising strategies, such as focusing on ventures/value chains where women are predominant, establishing partnerships with women platforms and networks, and anchoring the pre-acceleration/acceleration programmes on coaching and mentoring programmes run by women. It is therefore recommended that such promising strategies are further tested during the project and the best pathways identified for learning and scaling. There is an opportunity for more deliberate and systematic learning based on what gender and climate innovation strategies are working and where (particularly feeding country- and community-level voices and insights into gender and climate change innovation at the global level) and then replicating the lessons among the EEs and local implementation partners through, for example, workshops and reporting of best practices.
3. **Review and update the project's gender indicators.** These indicators should be integrated in the project's learning framework.
4. **Include gender diversity in the project's governance** structure in both regions.

B. GENERAL RECOMMENDATIONS FOR THE EEs RUNNING THE PRE-ACCELERATION AND ACCELERATION PROGRAMMES

1. **Ensure calls for applications and scouting are inclusive and encourage applicants of all genders:**
 - i. Use different channels and networks to reach all genders
 - ii. Hold information events and consider holding separate women-only events
 - iii. Create promotional material that is gender-inclusive, that integrates gender-sensitive language to avoid confusion in the French and Spanish interpretation of some gender-sensitive words

- iv. In marketing materials, include messages to counteract negative stereotypes to encourage and attract female entrepreneurs, e.g. by designing inspiring messages¹⁹⁰, featuring female role models, or highlighting success stories of female and minority entrepreneurs that could help disrupt, for example, the notion of what a stereotypical coder or climate entrepreneur or engineer (etc.) looks like.
2. Apply a **gender lens when selecting ventures** for the pre-acceleration and acceleration programmes: to ensure all genders have an equal opportunity to be selected, this can be achieved through:
- i. Setting clear exclusion and selection criteria, including its weighting. The following criteria intended to provide overall guidance only; they will need to be reviewed, complemented and refined on an ongoing basis during project implementation.

Table 5 Ventures' exclusion and selection criteria

EXCLUSION CRITERIA	SELECTION CRITERIA
<p>Ventures will be excluded if:</p> <ul style="list-style-type: none"> a. Their products or services have obvious negative implications for women (e.g. exacerbating wage disparities or requiring long working hours without extra compensation). b. At the initial due diligence interviews, ventures found to have none of their founders and employees identifying as female and with no intentions of diversifying their team members to include more women. 	<p><u>Pre-acceleration</u></p> <p>A preferential score should be given to ventures that have:</p> <ul style="list-style-type: none"> a. At least 50% of their founders identifying themselves as female or marginalized groups. For Latin America, this could be differentiated with positions occupied by women: e.g. an additional preferential score for ventures with female CEOs or CTOs. b. Explicit plans for increasing the number of women in their top and middle level management teams, in line with their business growth plans. <p><u>Acceleration</u></p> <p>A preferential score should be given to ventures that:</p> <ul style="list-style-type: none"> c. Are 30%-owned by one or more women and/or have at least 40% of their top and middle management employees as women and or marginalized groups. For Latin America, this could be differentiated with positions occupied by women: e.g. an additional preferential score for ventures with female CEOs or CTOs. d. Have explicit key performance indicators for increasing the number of women and marginalized groups in their top and middle level management, in line with their business growth plan. e. Have products or services that address a gender-related socio-economic problem: for example, gender stereotyping; increase women's wages / reduce women unpaid work burden; unlock the potential of women-dominated sectors; or increase female participation in male-dominated sectors – e.g. climate-related technological innovation. f. Have basic policies or procedures for facilitating a safe and conducive working environment for all employees, including a code of conduct for prevention of sexual exploitation, abuse and harassment and equal recruitment and wage policies. g. Have capacity to mentor and network with women entrepreneurs and act as role models for successful women entrepreneurs at the pre-acceleration stage.

¹⁹⁰ A note stating female and minority applicants are strongly encouraged to apply could go a long way in reassuring applicants.

- ii. Establishing **gender-diverse selection panels**. A study by GALI found that “having more than 45% women on a selection committee is associated with significantly more women-led ventures in applicant pools”¹⁹¹.
3. **Adapt the pre-accelerator and accelerator programme curriculum language to be inclusive of all genders**, including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to.
4. **During programme delivery, identify and enhance the capacity of the ventures to maximize gender benefits:**
 - i. **Introduce gender mainstreaming issues early on** to the ventures, integrate gender in the ventures’ capacity assessments and make available mechanisms for strengthening identified capacity gaps. Specific training should focus on raising ventures’ awareness of gender disparities and power dynamics that impact their own entrepreneurial journey and how to apply a gender lens to product/service development as well as how to reduce conscious and un-conscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH.
 - ii. **Ideation process should also capture women and minority views**. In West Africa, given the structural issues perpetuated by patriarchal norms, it is essential that ideation sessions are conducted separately, or at least have some sort of facilitation support, for male and female entrepreneurs to achieve maximum input from both sexes. This is because research has shown that male dominance can be an issue in mixed groups during ideation, where “men are more likely to interrupt women, take more turns talking, and use disproportionate amounts of time when talking”¹⁹². It is, therefore, important that potential male dominance in mixed groups is prevented so that female voices and ideas are heard during ideation processes.
 - iii. **Ensure training, mentoring and coaching venues and timings are suitable for female entrepreneurs** to avoid exacerbating their time constraints.
5. **Aim for gender diversity to deliver the programmes**. This includes **building a gender-diverse pool of mentors and coaches** so that all participants, especially female entrepreneurs’ perspective and experience is understood and accommodated.
6. **Help to create and maintain network support communities** by:
 - i. **Inviting successful women climate entrepreneurs** as keynote speakers and role models to community-building and promotional events.
 - ii. **Ensure times for networking events are suitable for female entrepreneurs**. Where events are undertaken online, video recordings, (data protection mechanisms allowing) should be availed to the female entrepreneurs who may not have time to attend these.
 - iii. **Create a safe and supportive community of practice for women entrepreneurs**. The strength of this community of practice lies in the collaboration and support that women give to each other, which often goes beyond the project lifespan. In addition, create exposure and link venture founders with networks of individuals or groups containing sector experts, funders and other like-minded individuals.
 - iv. **Consider inviting key institutions** responsible for gender and gender mainstreaming including public institutions supporting entrepreneurs in **the respective regions** to community building events.

¹⁹¹ GALI, 2020. Accelerating Women-led Start-ups. A knowledge Brief by the Global Accelerator Learning Initiative. Accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>

¹⁹² Cuellar, Mr & Trageser, Dominick & Cruz Lozano, Ricardo & Lutz, Benjamin, 2020. Exploring the Influence of Gender Composition and Activity Structure on Engineering Teams’ Ideation Effectiveness Exploring the Relationship among Gender Composition, Activity Structure, and Brainstorming Novelty. 10.18260/1-2--34649. Accessible at https://www.researchgate.net/publication/343111303_Exploring_the_Influence_of_Gender_Composition_and_Activity_Structure_on_Engineering_Teams%27_Ideation_Effectiveness_Exploring_the_Relationship_among_Gender_Composition_Activity_Structure_and_Brainstormi

C. RECOMMENDATIONS FOR THE CLIMATE VENTURES

1. Pre-acceleration stage:

Ventures' leadership and management at this stage tends to be amorphous, which provides an opportunity for the project to have an early start on gender mainstreaming into the management and operations of the ventures. A tailored approach (product/services/venture needs/context and venture capacity) is essential. For the ventures to be gender-smart, the following topics for specific training are therefore recommended:

- i. Ventures should gain awareness of gender issues: e.g. disparities and power dynamics that impact their own entrepreneurial journey and how to apply a gender lens to product/service development as well as how to reduce conscious and unconscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH.
- ii. Ventures should recognize the value of including sex-disaggregated data in their market research on their customers (different ways that men and women use a product or a service) and in their employee recruitment practices. Clarifying gendered differences will reveal opportunities, enable validation of specific products or services, and help refine and strengthen the business value proposition.
- iii. Ventures should be willing to identify priority areas and the type of support needed to have their own capacities built in gender mainstreaming during their participation in the programme.

2. Acceleration stage:

For many ventures at this stage, especially those that have not gone through the project pre-acceleration programme, they may already have rigid structures in place and may not initially be interested in learning how to incorporate gender into their business. For many, the lack of awareness of the connection between gender inclusion and business performance will keep them focused only on trying to scale their business, become sustainable or, in some cases, just keep the lights on. If gender is not viewed as something that can impact the bottom line, it is less likely to be prioritized by the founders at this stage. To avoid inclusion issues being seen as additional burdens, the EEs should support the ventures to integrate gender thinking as early as possible within their venture products and structures. Just like the ventures at pre-acceleration stage, **ventures should gain awareness of gender issues**: e.g. disparities and power dynamics that impact their own entrepreneurial journey and how to apply a gender lens to product/service development as well as how to reduce conscious and unconscious gender bias arising from their own actions. During their participation in the programme, ventures in this stage:

- i. Should commit to ensuring equal opportunity and equal pay for the same jobs among their employees / labourers: e.g. they should create a salary scale that does not discriminate based on gender, age, race, colour and religion.
- ii. Should continually and deliberately analyze their team's composition by keeping an eye on gender ratios in the top and middle management teams and ensure venture growth plans reflect these. They should keep track of employee numbers and the gender composition of all part-time vs full-time employees.
- iii. Should ensure gender inclusion in products and services. The ventures should be able to clearly specify what gender inclusion means for their products and services, what their ultimate target is, and how they intend to get there. This is helpful in a number of ways:
 - It helps to design more **tailor-made products and services**: e.g. an AgTech business may want to ensure that the yield of its women users is equal to that of its men users and should, therefore, commit to ensuring its solution is designed with the digital gender gap in mind. This step will give the venture clarity on the product and market opportunities it can and will pursue.

- It helps to recognize **the value of gender-disaggregated data** – understanding who the end-user of its product is could be very useful for the venture’s business. Sometimes products can be purchased by a man but used by a woman: knowing this is helpful for changing marketing tactics, strategic messaging and sales efforts around sales and product upsell efforts. In some cases, if the sales representative’s gender and customer’s gender are matched it could also result better sales.
 - It also helps to **attract investment** from global financiers, who are becoming more interested in responsible and gender-inclusive investments.
- iv. **The ventures should make women visible in order to challenge stereotypes and create market opportunities** for their products. The ventures should celebrate women senior managers in their teams and provide them with opportunities to represent the business publicly through marketing and other channels. The advertisement of their products and services should also refrain from negative gender stereotypes and present women and marginalized groups in a dignified way.

9. ANNEX

Annex 1: List of stakeholders consulted¹⁹³

Country	Stakeholder type	Name	Date of call	Tool / method applied
For LATAM				
Mexico	Executing Entity	<i>TEC de Monterrey</i>	06.09.2021 29.10.2021 10.04.2022	SCM + KII
Mexico	Project Partner/VC Fund	<i>Dalus Capital</i>	02.09.2021 28.10.2021	SCM + KII
Mexico	Gender Focal Point	<i>GIZ Mexico</i>	15.10.2021	KII
Colombia	Innovation centre	<i>Cleantech HUB</i>	01.11.2021	SCM
Ecuador	Innovation hub	<i>Impaq'to</i>	08.11.2021	SCM
Mexico	Innovation centre	<i>Circular Influence</i>	04.11.2021	SCM
Mexico	Female entrepreneur	<i>Blcho</i>	07.04.2022	KII
Mexico	Female entrepreneurs	<i>Ambient</i>	08.04.2022	KII
tbc	Climate start-up	To be informed		SCM /KII
tbc	Climate start-up	To be informed		SCM/KII
Global	EE	Climate KIC	18.03.2022	KII/SCM
For West Africa				
Côte d'Ivoire and Senegal	Executing Entity	<i>Investisseurs & Partenaires Entrepreneurs and Development (IPED)</i>	02.09.2021 24.03.2022	SCM + KII
Côte d'Ivoire	Incubator / Innovation hub / Impact Hub	<i>Impact Hub Abidjan and impact Hub Dakar</i>	09.11.2021 21.03.2022	SCM + KII
Côte d'Ivoire	Female entrepreneur	<i>Corail Immobilier</i>	18.03.2022	KII
Côte d'Ivoire	Female entrepreneur	<i>Green Skills Africa</i>	21.03.2022	KII
Senegal	Female entrepreneur	<i>Ecological village project- Idea incubation stage with Impact Hub Dakar</i>	24.03.2022	KII
Senegal	Female entrepreneurs	<i>Nowelli</i>	22.10.2021	SCM/KII
Niger	Female entrepreneurs	<i>Hygiène Solution Niger</i>	21.10.2021	SCM /KII
Côte d'Ivoire	Gender Focal Point	<i>GIZ Côte d'Ivoire</i>	20.10.2021	KII
9 countries	Joint international initiative	<i>WE4F project</i>	01.11.2021	SCM
Côte d'Ivoire	International consultancy	<i>Catalystas</i>	n/a	(X)
Globally				
Any country from LATAM + West Africa	AE	<i>GIZ / S+G Desk</i>	GIZ proposal development staff continuous	KII
	Executing Entity	<i>Climate-KIC</i>	12.10.2021 18.03.2022	KII
	Accelerator	<i>Value for Women</i>	n/a	(X)
	Accelerator	<i>PFAN</i>	n/a	(X)
	Global Investment	<i>Gender Smart</i>	n/a	(X)

¹⁹³ Stakeholders consultation meetings (SMC-mostly in coordination with the EES and/or RFS Consultants) and consulting website (X).



CATALI.5°T INITIATIVE: CONCERTED
ACTION TO ACCELERATE LOCAL 1.5°
TECHNOLOGIES – LATIN AMERICA AND
WEST AFRICA

GENDER ACTION PLAN (GAP)

PRESENTED TO
DEUTSCHE GESELLSCHAFT FÜR
INTERNATIONALE ZUSAMMENARBEIT (GIZ) GMBH
DAG-HAMMARSKJÖLD-WEG 1 - 5
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AUGUST 2022

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1. INTRODUCTION

This Gender Action Plan (GAP) forms the basis for operationalizing the recommendations of the Gender Assessment (GA). In this sense, the GAP provides a tangible and explicit accountability framework for gender mainstreaming through all the CATALI.5°T Initiative activities and is intended to close the gender gaps women entrepreneurs face. At the same time, the GAP ensures the programme is compliant with the GCF's gender policy (GCF/B.24).

The GAP proposed below is indicative and may be further amended and adjusted by the AE during programme inception and implementation to reflect new knowledge gathered.

2. OVERVIEW RECOMMENDATIONS FROM THE GENDER ASSESSMENT

A. GENERAL RECOMMENDATIONS FOR PROJECT DESIGN AND IMPLEMENTATION

1. **Ensure the Executing Entities (EEs) and local implementation partners have the capacities and necessary tools for gender-climate mainstreaming:** Based on the institutional capacity assessment, it is clear that there is strong gender commitment from the different EEs. However, gender expertise and capacities for gender mainstreaming in climate innovation is not the same across all the individual EEs. In this regard, the following recommendations are seen to be crucial for the project:
 - i. Develop a **unified gender-mainstreaming document for the project** that provides essential tools for gender and climate innovation addressing the two regional contexts.
 - ii. **Ensure EEs and local implementation partners are adequately trained on gender mainstreaming in climate innovation.** The training could, among other benefits, provide practical measures for creating more gender-smart and inclusive pre-acceleration and acceleration programmes and be able to advise and train climate ventures on gender-climate issues.
 - iii. Rather than appointing and training one focal point person from each EE, ensure the **staff of the two regional initiatives** CATALI.5°T^{Amérique Latina} and CATALI.5°T^{Afrique de l'Ouest}, including top and middle management of the EEs and the local implementation partners, **are trained**. It will also create more buy-in and momentum for gender mainstreaming in the planning, implementation and monitoring of the EEs' / local implementation partners' activities and, in the end, lead to effective realisation of the EEs' commitment towards the implementation of the GAP.
2. **Encourage, support and document cross-learning on climate gender mainstreaming between EEs and regions.** There is currently little documented evidence to inform what strategies work best in securing a healthy pipeline of female ventures, but anecdotal evidence gathered from interviews with the EEs reveals some promising strategies. It is therefore recommended that such promising strategies are further tested during the project and the best pathways identified for learning and scaling. There is an opportunity for more deliberate and systematic learning based on what gender and climate innovation strategies are working and where (particularly feeding country- and community-level voices and insights into gender and climate change innovation at the global level) and then replicating the lessons among the EEs and local implementation partners through, for example, workshops and reporting of best practices.
3. **Review and update the project's GAP.** As applicable during implementation.

4. Include **gender diversity in the project’s governance** structure in both regions.

B. GENERAL RECOMMENDATIONS FOR THE EEs RUNNING THE PRE-ACCELERATION AND ACCELERATION PROGRAMMES

1. Ensure calls for applications and scouting are inclusive and encourage applicants of all genders:
 - i. Use different channels and networks to reach all genders
 - ii. Hold information events and consider holding separate women-only events
 - iii. Create promotional material that is gender inclusive, that integrates gender-sensitive language to avoid confusion in the French and Spanish interpretation of some gender-sensitive words
 - iv. In marketing materials, include messages to counteract negative stereotypes to encourage and attract female entrepreneurs.

2. Apply a **gender lens when selecting ventures** for the pre-acceleration and acceleration programmes: to ensure all genders have an equal opportunity to be selected, this can be achieved through:
 - i. Setting clear exclusion and selection criteria, including its weighting. The following criteria intend to provide overall guidance only; they will need to be reviewed, complemented and refined on an ongoing basis during project implementation.

Table 1 Ventures' exclusion and selection criteria

EXCLUSION CRITERIA	SELECTION CRITERIA
<p>Ventures will be excluded if:</p> <ol style="list-style-type: none"> a. Their products or services have obvious negative implications for women (e.g. exacerbating wage disparities or requiring long working hours without extra compensation). b. At the initial due diligence interviews, ventures found to have none of their founders and employees identifying as female and with no intentions of diversifying their team members to include more women. 	<p><u>Pre-acceleration</u></p> <p>A preferential score should be given to ventures that have:</p> <ol style="list-style-type: none"> a. At least 50% of their founders identifying themselves as female or marginalized groups. For Latin America, this could be differentiated with positions occupied by women: e.g. an additional preferential score for ventures with female CEOs or CTOs. b. Explicit plans for increasing the number of women in their top and middle level management teams, in line with their business growth plans. <p><u>Acceleration</u></p> <p>A preferential score should be given to ventures that:</p> <ol style="list-style-type: none"> c. Are 30%-owned by one or more women and/or have at least 40% of their top and middle management employees as women and or marginalized groups. For Latin America, this could be differentiated with positions occupied by women: e.g. an additional preferential score for ventures with female CEOs or CTOs. d. Have explicit key performance indicators for increasing the number of women and marginalized groups in their top and middle level management, in line with their business growth plan. e. Have products or services that address a gender-related socio-economic problem: for example, gender

	<p>stereotyping; increase women’s wages / reduce women unpaid work burden; unlock the potential of women-dominated sectors; or increase female participation in male-dominated sectors – e.g. climate-related technological innovation.</p> <p>f. Have basic policies or procedures for facilitating a safe and conducive working environment for all employees, including a code of conduct for prevention of sexual exploitation, abuse and harassment and equal recruitment and wage policies.</p> <p>g. Have capacity to mentor and network with women entrepreneurs and act as role models for successful women entrepreneurs at the pre-acceleration stage.</p>
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- ii. Establishing **gender-diverse selection panels**. A study by GALI found that “having more than 45% women on a selection committee is associated with significantly more women-led ventures in applicant pools”¹.
 - iii. Applying a **venture gender assessment checklist** (Annex 1)
3. **Adapt the pre-accelerator and accelerator programme curriculum language to be inclusive of all genders**, including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to.
4. **During programme delivery, identify and enhance the capacity of the ventures to maximize gender benefits:**
- i. **Introduce gender mainstreaming issues early on** to the ventures, integrate gender in the ventures’ capacity assessments and make available mechanisms for strengthening identified capacity gaps. Specific training should focus on raising ventures’ awareness of gender disparities and power dynamics that impact their own entrepreneurial journey and how to apply a gender lens to product/service development as well as how to reduce conscious and un-conscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH.
 - ii. **Ideation process should also capture women and minority views**. In West Africa, given the structural issues perpetuated by patriarchal norms, it is essential that ideation sessions are conducted separately, or at least have some sort of facilitation support, for male and female entrepreneurs to achieve maximum input from both sexes. This is because research has shown that male dominance can be an issue in mixed groups during ideation, where “men are more likely to interrupt women, take more turns talking, and use disproportionate amounts of time when talking”². It is, therefore,

¹ GALI, 2020. Accelerating Women-led Start-ups. A knowledge Brief by the Global Accelerator Learning Initiative. Accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>

² Cuellar, Mr & Trageser, Dominick & Cruz Lozano, Ricardo & Lutz, Benjamin, 2020. Exploring the Influence of Gender Composition and Activity Structure on Engineering Teams’ Ideation Effectiveness Exploring the Relationship among Gender Composition, Activity Structure, and Brainstorming Novelty. 10.18260/1-2--34649. Accessible at https://www.researchgate.net/publication/343111303_Exploring_the_Influence_of_Gender_Composition_and_Activity_Structure_on_Engineering_Teams%27_Ideation_Effectiveness_Exploring_the_Relationship_among_Gender_Composition_Activity_Structure_and_Brainstormi

important that potential male dominance in mixed groups is prevented so that female voices and ideas are heard during ideation processes.

- iii. **Ensure training, mentoring and coaching venues and timings are suitable for female entrepreneurs** to avoid exacerbating their time constraints.
5. Aim for **gender diversity to deliver the programmes**. This includes **building a gender-diverse pool of mentors and coaches** so that all participants', especially female entrepreneurs', perspectives and experiences are understood and accommodated.
6. Help to **create and maintain network support communities** by:
- i. **Inviting successful women climate entrepreneurs** as keynote speakers and role models to community-building and promotional events.
 - ii. **Ensure times for networking events are suitable for female entrepreneurs**. Where events are undertaken online, video recordings, (data protection mechanisms allowing) should be availed to the female entrepreneurs who may not have time to attend these.
 - iii. **Create a safe and supportive community of practice for women entrepreneurs**. The strength of this community of practice lies in the collaboration and support that women give to each other, which often goes beyond the project lifespan. In addition, create exposure and link venture founders with networks of individuals or groups containing sector experts, funders and other like-minded individuals.
 - iv. **Consider inviting key institutions** responsible for gender and gender mainstreaming including public institutions supporting entrepreneurs in **the respective regions** to community building events.

C. RECOMMENDATIONS FOR THE CLIMATE VENTURES

1. Pre-acceleration stage:

Venture leadership and management at this stage tends to be amorphous, which provides an opportunity for the project to have an early start gender mainstreaming into the management and operation of the ventures. A tailored approach (product/services/venture needs/context and venture capacity) is essential. For the ventures to be gender-smart, the following topics for specific training are therefore recommended:

- i. Ventures should gain awareness of gender issues: e.g. disparities and power dynamics that impact their own entrepreneurial journey and how to apply a gender lens to product/service development as well as how to reduce conscious and un-conscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH.
- ii. Ventures should recognize the value of including sex-disaggregated data in their market research on their customers (different ways that men and women use a product or a service) and in their employees' recruitment practices. Clarifying gendered differences will reveal opportunities, enable validation of specific products or services, and help refine and strengthen the business value proposition.
- iii. Ventures should be willing to identify priority areas and the type of support needed to have their own capacities built in gender mainstreaming during their participation in the programme.

2. Acceleration stage:

For many ventures at this stage, especially those that have not gone through the project pre-acceleration programme, they may already have rigid structures in place and may not initially be

interested in learning how to incorporate gender into their business. For many, the lack of awareness of the connection between gender inclusion and business performance will keep them focused only on trying to scale their business, become sustainable or, in some cases, just keep the lights on. If gender is not viewed as something that can impact the bottom line, it is less likely to be prioritized by the founders at this stage. To avoid inclusion issues being seen as additional burdens, the EEs should support the ventures to integrate gender thinking as early as possible within their venture products and structures. Just like the ventures at pre-acceleration stage, **ventures should gain awareness of gender issues:** e.g. disparities and power dynamics that impact their own entrepreneurial journey and how to apply a gender lens to product/service development as well as how to reduce conscious and un-conscious gender bias arising from their own actions. During their participation in the programme, ventures in this stage:

- i. Should commit to ensuring equal opportunity and equal pay for the same jobs among their employees / labourers: e.g. they should create a salary scale that does not discriminate based on gender, age, race, colour and religion.
- ii. Should continually and deliberately analyze their team's composition by keeping an eye on gender ratios in the top and middle management teams and ensure venture growth plans reflect these. They should keep track of employee numbers and the gender composition of all part-time vs full-time employees.
- iii. Should ensure gender inclusion in products and services. The ventures should be able to clearly specify what gender inclusion means for their products and services, what their ultimate target is, and how they intend to get there. This is helpful in a number of ways:
 - It helps to design more **tailor-made products and services:** e.g. an AgTech business may want to ensure that the yield of its women users is equal to that of its men users and should, therefore, commit to ensuring its solution is designed with the digital gender gap in mind. This step will give the venture clarity on the product and market opportunities it can and will pursue.
 - It helps to recognize **the value of gender-disaggregated data** – understanding who the end-user of its product is could be very useful for the venture's business. Sometimes products can be purchased by a man but used by a woman: knowing this is helpful for changing marketing tactics, strategic messaging and sales efforts around sales and product upsell efforts. In some cases, if the sales representative's gender and customer's gender are matched it could also result better sales.
 - It also helps to **attract investment** from global financiers, who are becoming more interested in responsible and gender-inclusive investments.
- iv. **The ventures should make women visible in order to challenge stereotypes and create market opportunities** for their products. The ventures should celebrate women senior managers in their teams and provide them with opportunities to represent the business publicly through marketing and other channels. The advertisement of their products and services should also refrain from negative gender stereotypes and present women and marginalized groups in a dignified way.

3. GENDER ACTION PLAN (GAP)

Table 2 CATALI.5°T Initiative - Gender Action Plan below summarizes the activities identified to address the gender gap for female entrepreneurs and minorities. It is organized according to the overall programme's logical framework up to the level of sub-activities.

The GAP indicators and activities are to be adjusted and reviewed during inception and implementation.

The budget allocations are included in the corresponding sub-activities of the programme and are subject to further review and update by the AE.

A. GENDER STAFFING AND RESPONSIBILITIES

The staffing and implementation arrangements for the gender management are to be integrated in the overall project management structure.

At overall project management level:

- One full-time Gender and Environmental and Social Safeguards Manager will oversee implementation of the GAP and will be responsible for overall GAP monitoring at project management level. This person will be a staff member of GIZ.

At regional level

There will be two regional Gender Specialists who will assist the Gender Manager. In West Africa it will be an IPED staff member, and in Latin America a GIZ staff member.

Monitoring

Monitoring arrangements will follow the standard GIZ and GCF policies and procedures:

- EEs act as the first line of consolidation of reporting;
- PMU to act as the second line of consolidation across regions and ensure distribution of results to donors.
- GIZ as the AE to ensure supervision and accuracy/timeliness of reporting.

Updating the GAP

The Gender Manager will be responsible for conducting periodic updates of the GAP, as required, in coordination with the regional Gender Specialists.

B. ACTIONS, INDICATORS AND RESPONSIBILITIES

Table 2 CATALI.5°T Initiative - Gender Action Plan

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
Cross-cutting	G 0.1. Appoint women as part of the project's governance structure	At least 25% of project's governing body/committee are women ³			GIZ (Gender & ESS Technical Expert)	0
	G 0.2: Ensure project learning around gender and climate entrepreneurship in each region.	Cross-regional learning sessions on climate-gender will take place annually	Annual	0	GIZ (Gender & ESS Technical Expert)	0 Included in the agenda of the annual meetings between the three Management Units (MUs) of the CATALI.5°T Initiative
Output 1.1: Capacities of Executing Entities, ESOs and venture investors in Latin America are developed to boost climate ventures' impacts						

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
Activity 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America						
1.1.1.4: Gender Equality and Diversity	Linked to Outputs 1.2., 1.3. and 3.2.					
Output 1.2: Inclusive and diverse local communities of climate entrepreneurs & innovators in Latin America generate innovative climate business ideas						
Activity 1.2.1: Community-Building and Ideation Activities in Latin America						
1.2.1.1: Latin America Climathons	G 1.1: Ensure context specific and adequate communication strategy, tools, language, outreach channels and materials attract all genders to participate in climathons	All regional public relations and outreach products developed, contain gender-sensitive language, are displayed in places where all genders can access them with an explicit statement inviting applicants from all genders female, male, minorities/ marginalized groups to apply	Annual	0	C-KIC Regional Project Coordinator Latin America	0
	G 1.2.: Invite successful female climate entrepreneurs as keynote speakers, jury members and role models at regional community-building events	Minimum 30% of the invited keynote speakers, jury members and mentors at	Annual	0	C-KIC Regional Project Coordinator	Included within the Gran Agreement Budget with C-KIC to implement

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
		regional levels are women ⁴			Latin America	sub-activity 1.2.1.1
	G 1.3.: Hold ecosystem support events for networking at times and places that are suitable for female entrepreneurs. In addition, consider making video recordings available where events are held online.	Annual ecosystem events held at times and places that suit female entrepreneurs	Annual	0	C-KIC Regional Project Coordinator Latin America	Included within the Gran Agreement Budget with C-KIC to implement sub-activity 1.2.1.1
	G 1.4.: Hold separate women-only community building events (1 event per year, 3 events in total)	At least one women-only event held for community building	Y1-Y3	0	C-KIC Regional Project Coordinator Latin America	Included within the Gran Agreement Budget with C-KIC to implement sub-activity 1.2.1.1
	G 1.5: Actively reach out to key private and government institutions that support entrepreneurs (e.g. CONACY PROIGUALDAD and SEMARNAT in	At least 2 public institutions, parastatal or private institutions	Y1-Y3	0	C-KIC Regional Project	0

⁴ The number takes into account the difficulties of finding successful female climate ventures with contextual understanding who could be invited by the Programme as role models.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institu-tion	Costs (estimated) €
	Mexico) by inviting them to the project's events/ activities and by sharing gender-disaggregated data	participate in events per year			Coordi-nator Latin America	
1.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in Latin America	G 1.6. Create a safe and supportive community of practice for women entrepreneurs for them to connect with and support each other	One digital community of practice created in Latin America, supporting female and minority entrepreneurs with space for interaction and learning	2023 (and maintained continuously for the project duration)	0	GIZ (Gender & ESS Technical Expert)	EUR 30,000 (EUR 10,000 per year)
Output 1.3: Selected ventures in Latin America have launched their climate products in local markets						
Activity 1.3.1: Latin America Climate Venture Pre-Acceleration Programme						
1.3.1.1: Call for applications and venture selection	G1.8. Ensure context-specific and adequate communication strategy, tools, language, outreach channels and materials attract all genders to apply to pre-acceleration programme	All regional public relations and outreach products developed, contain gender-sensitive language, are displayed in places where all genders can access them with an explicit statement	Annual	0	TdM ⁵ / GIZ (Gender & ESS Technical Expert)	0

⁵ Tecnológico de Monterrey.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
		inviting applicants from all genders female, male, minorities/ marginalized groups to apply				
	G 1.9. Include messages to counteract negative stereotypes at all stages of the pre-acceleration application processes (i.a. by displaying materials photos, videos and stories of successful women climate entrepreneurs)	All major communication materials developed are gender inclusive and reviewed/ approved by regional gender specialist	Annual	0	TdM/ GIZ (Gender & ESS Technical Expert)	0
	G.1.0 Actively invite successful female climate entrepreneurs as keynote speakers, jury members and role models to promote the pre-acceleration programme	Minimum 30% of the invited keynote speakers, jury members and role models are women ⁶	Annual	0	TdM	0
	G2.11.: Hold events to promote the pre-acceleration programme at times and places that are suitable for female entrepreneurs and marginalized groups. In addition, consider making video recordings available where events are held online.	Events per cohort held at times and places that suit female and marginalized entrepreneurs	Annual	0	TdM	Included within the Gran Agreement Budget with TdM to implement

⁶ The number takes into account the difficulties of finding successful female climate ventures with contextual understanding who could be invited by the Programme as role models.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
						sub-activity 1.3.1.1
	G 1.12. Monitor (and, as needed, refine) the gender screening criteria and selection criteria (including weights) for climate ventures seeking to enter the pre-acceleration programme, to ensure gender inclusivity.	Ratio women-led vs male-led ventures participating in and completing the programme Assessment criteria and weighting revised annually and adjusted as needed	Annual	0	TdM/ GIZ (Gender & ESS Technical Expert)	Included within the Gran Agreement Budget with TdM to implement sub-activity 1.3.1.1
	G 2.13. Ensure an equal gender-balanced Selection Panel	Minimum 30% of the Selection Panel are women ⁷	Per cohort	0	TdM/ GIZ (Gender & ESS Technical Expert)	0

⁷ GALI, 2020 (Accelerating Women-led Start-ups, accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>) found that having female representation in selection panels attracts more women-led ventures to apply. Therefore, a minimum of 30% has been seen to be achievable given that the panel for the pre-acceleration programme will be sourced from existing top and middle level management of the EEs and other relevant stakeholders..

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
1.3.1.2 Pre-Acceleration programme – technical assistance	G 1.14. Adapt curriculum language to be inclusive of all genders (including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to)	Curriculum materials developed are gender inclusive and reviewed/ approved by regional gender specialist (to be revised yearly)	Annual	0	TdM/ GIZ (Gender & ESS Technical Expert)	0
	G 2.15. Raise ventures' awareness on gender disparities and power dynamics that impact ventures' own entrepreneurial journey and train them on how to apply a gender lens to product/service, as well as how to reduce conscious and unconscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH	At least one training per pre-acceleration cohort ⁸ (4 trainings in total)	Per cohort	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1 closely linked to 1.3.1.2.
	G 2.17. Build a gender-diverse pool of coaches and mentors with the skills to recognize gender bias and the capacity to support female entrepreneurs to improve their skills on i.a. own confidence, ability to develop quality business plans, leadership and management, pitch their products/services	At least 40% of pool of coaches and mentors are women 60% entrepreneurs reported an increase in skill knowledge, by gender	Per cohort	30% on average (for all businesses, not just climate	TdM	Included within the Grant Agreement budget of

⁸ There will be 4 pre-acceleration cohorts in total in Latin America (implementation in Y1-Y3).

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
	and to develop more absorptive capacity and appetite for increased investment.	60% entrepreneurs have reported an increase in confidence in applying skills, by gender Percentage (%) mentors/coaches (by gender) rated positively by entrepreneurs		ventures)		TdM to implement 1.3.1.2
	G 2.18. Build climate ventures' capacity to integrate gender in their workplaces, products / services and marketing operations.	At least 55% of the supported climate entrepreneurs report increased capacity in gender mainstreaming	Per cohort	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1 closely linked to 1.3.1.2.
	G 1.20 Document gender and climate innovation success stories and lessons learnt	At least one gender and climate innovation success story and lesson learnt shared annually	Annually	0	TdM	Included within the Grant Agreement budget of TdM to implement 1.3.1.2.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institu-tion	Costs (estimated) €
	G 1.22. Evaluate if pre-acceleration programme promoted women and enhanced diversity in climate entrepreneurship	Ratio women-led vs male-led ventures participating in and completing the programme Report on number of ventures that meet the criteria: At least 51% women-owned or funded by one or more women	After each pre-acceleration cohort graduates	0	TdM	Included within the Grant Agreement budget of TdM to implement 1.3.1.2.
1.3.1.3 Pre-Acceleration programme – grants	G 1.23. Ensure contractual agreements between the EE and the climate ventures include gender-related clauses	At least one gender-clause is included in each contractual agreements between the EE and the climate ventures	Per cohort	0	TdM	0
Output 1.4.: Selected climate ventures in Latin America with MVPs in local markets are empowered to rapidly scale their business and climate impact						
Activity 1.4.1: Latin America Climate Venture Acceleration Programme						
1.4.1.1: Call for applications and venture selection	G1.7 Ensure context specific and adequate communication strategy, tools,	All regional public relations and outreach products developed,	Annual	0	TdM/ GIZ (Gender & ESS)	0

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
	language, outreach channels and materials attract all genders to apply to pre-acceleration programme	contain gender-sensitive language, are displayed in places where all genders can access them with an explicit statement inviting applicants from all genders female, male, minorities/ marginalized groups to apply			Technical Expert)	
	G 1.8. Include messages to counteract negative stereotypes at all stages of the acceleration application processes (i.a. by displaying materials photos, videos and stories of successful women climate entrepreneurs)	All major communication materials developed are gender inclusive and reviewed/ approved by regional gender specialist	Annual	0	TdM/ GIZ (Gender & ESS Technical Expert)	0
	G.1.9 Actively invite successful female climate entrepreneurs as keynote speakers, jury members and role models to promote the acceleration programme	Minimum 30% of the invited keynote speakers, jury members and role models are women ⁹	Annual	0	TdM	0
	G2.10: Hold events to promote the pre-acceleration programme at times	Events pro cohort held at times and	Annual	0	TdM	Included within Grant

⁹ The number takes into account the difficulties of finding successful female climate ventures with contextual understanding who could be invited by the Programme as role models.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
	and places that are suitable for female entrepreneurs and marginalized groups. In addition, consider making video recordings available where events are held online.	places that suit female and marginalize entrepreneurs				Agreement Budget of TdM to implement 1.4.1.1
	G 1.11 Monitor (and, as needed, refine) the gender screening criteria and selection criteria (including weights) for climate ventures seeking to enter the pre-acceleration programme, to ensure gender inclusivity.	Ratio women-led vs male-led ventures participating in and completing the programme Assessment's criteria and weighting revised yearly and adjusted as needed	Annual	0	TdM/ GIZ (Gender & ESS Technical Expert)	Included within Grant Agreement Budget of TdM to implement 1.4.1.1
	G 1.12. Ensure an equal gender-balanced Selection Panel	Minimum 30% of the Selection Panel are women ¹⁰	Per cohort	0	TdM/ GIZ (Gender & ESS Technical Expert)	0

¹⁰ GALI, 2020 (Accelerating Women-led Start-ups, accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>) found that having female representation in selection panels attracts more women-led ventures to apply. Therefore, a minimum of 30% has been seen to be achievable given that the panel for the pre-acceleration programme will be sourced from existing top and middle level management of the EEs and other relevant stakeholders.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
1.4.1.2 Acceleration programme – technical assistance	G 2.14. Adapt curriculum language to be inclusive of all genders (including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to)	Curriculum materials developed are gender inclusive and reviewed/ approved by regional gender specialist (to be revised yearly)	Annual	0	TdM	0
	G 2.15. Raise ventures' awareness on gender disparities and power dynamics that impact ventures' own entrepreneurial journey and train them on how to apply a gender lens to product/service, as well as how to reduce conscious and unconscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH	Participating ventures received at least one gender awareness training during the acceleration programme	Per cohort	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1 closely linked to 3.1.2.1.
	G 1.17. Build a gender-diverse pool of coaches and mentors with the skills to recognize gender bias	At least 40% of pool of coaches and mentors are women 60% entrepreneurs reported an increase in skill knowledge, by gender 60% entrepreneurs have reported an increase in confidence	Per cohort	30% on average (for all businesses, not just climate ventures)	TdM	Included within the Grant Agreement budget of TdM to implement 1.4.1.2

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
		<p>in applying skills, by gender</p> <p>Percentage (%) mentors/coaches (by gender) rated positively by entrepreneurs</p>				
	<p>G 1.18. Build climate ventures' capacity to integrate gender in their workplaces, products / services and marketing operations.</p>	<p>At least 55% of the supported climate entrepreneurs report increased capacity in gender mainstreaming</p>	<p>Per cohort</p>	<p>0</p>	<p>C-KIC</p>	<p>Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1 closely linked to 1.4.1.2</p>
	<p>G 1.19. Document gender and climate innovation success stories and lessons learnt</p>	<p>At least one gender and climate innovation success story and lesson learnt shared annually</p>	<p>Annually</p>	<p>0</p>	<p>TdM</p>	<p>Included within the Grant Agreement budget of TdM to implement 1.4.1.2</p>

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Base-line	Institution	Costs (estimated) €
	G 1.21. Evaluate if pre-acceleration programme promoted women and enhanced diversity in climate entrepreneurship	<p>Ratio women-led vs male-led ventures participating in and completing the programme</p> <p>Report on number of ventures that meet the criteria:</p> <ul style="list-style-type: none"> - At least 51% women-owned or funded by one or more women - At least one woman on the ventures' executive management team 	After each acceleration cohort graduates	0	TdM	Included within the Grant Agreement budget of TdM to implement 1.4.1.2
1.4.1.3 Acceleration programme - repayable grants	G 1.23. Ensure contractual agreements between the EE and the climate ventures include gender-related clauses	At least one gender-clause is included in each contractual agreements between the EE and the climate ventures	Per cohort	0	TdM	Included within budget 1.4.1.3.

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Baseline	Institution	Costs (estimated) €
Output 2.1: Capacities of Executing Entities, ESOs and venture investors in West Africa are developed to boost climate ventures' impacts						
Activity 2.1.1: Capacity-building of Executing Entities, ESOs and venture investors in West Africa						
2.1.1.4: Gender Equality and Diversity	Linked to Outputs 2.2., 2.3. and 3.2.					
Output 2.2: Inclusive and diverse local communities of climate entrepreneurs & innovators in West Africa generate innovative climate business ideas						
Activity 2.2.1: Community-Building and Ideation Activities in West Africa						
2.2.1.1: West Africa Climathons	G2.1: Ensure context specific and adequate communication strategy, tools, language, outreach channels and materials attract all genders to participate in climathons	All regional public relations and outreach products developed contain gender-sensitive language, are displayed in places where all genders can access them with an explicit statement inviting applicants from all genders female, male, minorities/ marginalized groups to apply	Annual	0	C-KIC Regional Project Coordinator West Africa	0.
	G2.2.: Invite successful female climate entrepreneurs as keynote speakers, jury members and role	Minimum 30% of the invited keynote speakers, jury members and mentors at regional levels are women ¹¹	Annual	0	C-KIC Regional Project Coordinator West Africa	0

¹¹ The number takes into account the difficulties of finding successful female climate ventures with contextual understanding who could be invited by the Programme as role models.

	models at regional community-building events					
	G2.3.: Hold ecosystem support events for networking at times and places that are suitable for female entrepreneurs. In addition, consider making video recordings available where events are held online.	Annual ecosystem events held at times and places that suit female entrepreneurs	Annual	0	C-KIC Regional Project Coordinator West Africa	Included within the Gran Agreement Budget with C-KIC to implement sub-activity 2.2.1.1.
	G2.4.: Hold separate women-only community building events	At least one annual women-only event held for community building (1 event per year, 3 events in total)	Y1-Y3	0	C-KIC Regional Project Coordinator West Africa	Included within the Gran Agreement Budget with C-KIC to implement sub-activity 2.2.1.1.
	G.2.5: Actively reach out to key private and government institutions that support entrepreneurs (e.g. PME in Côte d'Ivoire and DER in Senegal) by inviting them to the project's events/ activities and by sharing gender-disaggregated data	At least 2 public institutions, parastatal or private institutions participated in events per year	Y1-Y3	0	C-KIC Regional Project Coordinator West Africa	0

2.2.1.2: Open digital network for promoting women and diversity in climate entrepreneurship in West Africa	G 2.6. Create a safe and supportive community of practice for women entrepreneurs for them to connect with and support each other	One digital community of practice created in West Africa, supporting female and minority entrepreneurs with space for interaction and learning	2023 (and maintained continuously for the project duration)	0	GIZ (Regional Manager for Community building and Ideation West Africa)	EUR 30,000 (EUR 10,000 per year)
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Output 2.3: Selected ventures in West Africa have launched their climate products in local markets

Activity 2.3.1: West Africa Climate Venture Pre-Acceleration Programme

2.3.1.1: Call for applications and Phase 1 venture selection	G2.8: Ensure context specific and adequate communication strategy, tools, language, outreach channels and materials attract all genders to apply to the pre-acceleration programme	All regional public relations and outreach products developed contain gender-sensitive language, are displayed in places where all genders can access them with an explicit statement inviting applicants from all genders female, male, minorities/ marginalized groups to apply	Annual	0	Impact Hub Abidjan/ IPED (Gender Manager)	0
	G2.9: Include messages to counteract negative stereotypes at all stages of the pre-acceleration application processes (i.a. by displaying materials photos, videos and stories of successful women climate entrepreneurs)	All major communication materials developed are gender inclusive and reviewed/ approved by regional gender specialist	Annual	0	Impact Hub Abidjan / IPED (Gender Manager)	0

	<p>G.2.10: Actively invite successful female climate entrepreneurs as keynote speakers, jury members and role models to promote the pre-acceleration programme</p>	<p>Minimum 30% of the invited keynote speakers, jury members and role models are women¹²</p>	<p>Annual</p>	<p>0</p>	<p>Impact Hub Abidjan</p>	<p>0</p>
	<p>G2.11.: Hold events to promote the pre-acceleration programme at times and places that are suitable for female entrepreneurs and marginalized groups. In addition, consider making video recordings available where events are held online.</p>	<p>Events per cohort held at times and places that suit female and marginalized entrepreneurs</p>	<p>Annual</p>	<p>0</p>	<p>Impact Hub Abidjan/ GIZ</p>	<p>EUR 8,000 Included within the Grant Agreement budget with Impact Hub Abidjan and procured services of GIZ for communication consultants for Call for Applications to implement 2.3.1.1.</p>
	<p>G 2.12: Monitor (and, as needed, refine) the gender screening criteria and selection criteria (including weights) for climate ventures seeking to enter the pre-acceleration programme, to ensure gender inclusivity.</p>	<p>Ratio women-led vs male-led ventures participating in and completing the programme Assessment criteria and weighting revised annually and adjusted as needed</p>	<p>Annual</p>	<p>0</p>	<p>Impact Hub Abidjan/ IPED (Gender Manager)</p>	<p>Included within Grant Agreement Budgets of Impact Hub Abidjan and IPED to implement</p>

¹² The number takes into account the difficulties of finding successful female climate ventures with contextual understanding who could be invited by the Programme as role models.

	G 2.13. Ensure an equal gender-balanced Selection Panel	Minimum 30% of the Selection Panel are women ¹³	Per cohort	0	Impact Hub Abidjan/ IPED (Gender Manager)	0
2.3.1.2: Pre-acceleration programme – Phase 1	G 2.14. Adapt curriculum language to be inclusive of all genders (including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to)	Curriculum materials developed are gender-inclusive and reviewed/ approved by regional gender specialist (to be revised annually)	Annual	0	Impact Hub Abidjan / IPED (Gender Manager)	0
	G 2.15. Raise ventures' awareness on gender disparities and power dynamics that impact ventures' own entrepreneurial journey and train them on how to apply a gender lens to product/service, as well as how to reduce conscious and unconscious gender	At least one training per cohort Phase 1 pre-acceleration ¹⁴ (4 trainings in total)	Per cohort	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1 closely linked to 2.3.1.2

¹³ GALI, 2020 (Accelerating Women-led Start-ups, accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>) found that having female representation in selection panels attracts more women-led ventures to apply. Therefore, a minimum of 30% has been seen to be achievable given that the panel for the pre-acceleration programme will be sourced from existing top and middle level management of the EEs and other relevant stakeholders..

¹⁴ The pre-acceleration programme in West Africa is divided in two phases, there will be 4 pre-acceleration cohorts in total in West Africa (implementation in Y1-Y3).

	bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH					
2.3.1.3: Phase 2 venture selection	G 2.13. Ensure an equal gender-balanced Selection Panel	Minimum 30% of the Selection Panel are women ¹⁵	Per cohort	0	Impact Hub Abidjan/ IPED (Gender Manager)	0
2.3.1.4: Pre-acceleration programme – Phase 2	G 2.14. Adapt curriculum language to be inclusive of all genders (including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to)	Curriculum materials developed are gender inclusive and reviewed/ approved by regional gender specialist (to be revised yearly)	Annual	0	Impact Hub Abidjan/ IPED (Gender Manager)	Included within budget 2.3.1.4
	G 2.15. Build a gender-diverse pool of coaches and mentors with the skills to recognize gender bias and the capacity to support female entrepreneurs to improve their skills on i.a. own confidence, ability to develop quality business plans, leadership and management, pitch their	At least 40% of pool of coaches and mentors are women 60% entrepreneurs reported an increase in skill knowledge, by gender 60% entrepreneurs have reported an increase in confidence in applying skills, by gender	Per cohort	30% on average (for all businesses, not just climate ventures)	Impact Hub Abidjan, GIZ	Included within the Grant Agreement budget of Impact Hub Abidjan and GIZ to implement 2.3.1.2

¹⁵ GALI, 2020 (Accelerating Women-led Start-ups, accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>) found that having female representation in selection panels attracts more women-led ventures to apply. Therefore, a minimum of 30% has been seen to be achievable given that the panel for the pre-acceleration programme will be sourced from existing top and middle level management of the EEs and other relevant stakeholders.

	products/services and to develop more absorptive capacity and appetite for increased investment.	Percentage (%) mentors/coaches (by gender) rated positively by entrepreneurs				
	G 2.18. Build climate ventures' capacity to integrate gender in their workplaces, products / services and marketing operations.	At least 55% of the supported climate entrepreneurs report increased capacity in gender mainstreaming	Per cohort	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1 closely linked to 2.3.1.2
	G 2.19. Document gender and climate innovation success stories and lessons learnt	At least one gender and climate innovation success story and lesson learnt shared annually	Annually	0	Impact Hub Abidjan, local implementation partners	Included within the Grant Agreement budget of Impact Hub Abidjan and GIZ to implement 2.3.1.2
	G 2.21. Evaluate if the pre-acceleration programme promoted women and enhanced diversity in climate entrepreneurship	Ratio women-led vs male-led ventures participating in and completing the programme Report on number of ventures that meet the criteria: At least 51% women-owned or funded by one or more women	After each pre-acceleration cohort graduates	0	Impact Hub Abidjan	Included within the Grant Agreement budget of Impact Hub Abidjan and GIZ to implement 2.3.1.2

	G 2.22. Ensure that (female) entrepreneurs who complete the pre-acceleration programme are aware of further bridging support by other ESOs to continue developing their product/service after completing the pre-acceleration programme	At least 40% female entrepreneurs utilize further support to grow/scale their product/service	After each pre-acceleration cohort graduates	0	Impact Hub Abidjan, local implementation partners	Included within the Grant Agreement budget of Impact Hub Abidjan and GIZ to implement 2.3.1.2
	G 2.23. Ensure contractual agreements between the EE and the climate ventures include gender-related clauses	At least one gender-clause is included in each contractual agreements between the EE and the climate ventures	Per cohort	0	IPED (Gender Manager)	Included within the Grant Agreement budget of Impact Hub Abidjan and GIZ to implement 2.3.1.3.

Output 2.4.: Selected climate ventures in West Africa with MVPs in local markets are empowered to rapidly scale their business and climate impact

Activity 2.4.1: West Africa Climate Venture Acceleration Programme

2.4.1.1: Funding announcement, venture screening and selection	G2.8: Ensure context specific and adequate communication strategy, tools, language, outreach channels and materials attract all genders to apply to the acceleration programme	All regional public relations and outreach products developed, contain gender-sensitive language, are displayed in places where all genders can access them with an explicit statement inviting applicants from all genders female, male, minorities/ marginalized groups to apply	Annual	0	IPED (Gender Manager)	0
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	<p>G2.9: Include messages to counteract negative stereotypes at all stages of the pre-acceleration application processes (i.a. by displaying materials photos, videos and stories of successful women climate entrepreneurs)</p>	<p>All major communication materials developed are gender inclusive and reviewed/ approved by regional gender specialist</p>	<p>Annual</p>	<p>0</p>	<p>IPED (Gender Manager)</p>	<p>0</p>
	<p>G2.10: Hold events to promote the pre-acceleration programme at times and places that are suitable for female entrepreneurs and marginalized groups. In addition, consider making video recordings available where events are held online.</p>	<p>Events pro cohort held at times and places that suit female and marginalize entrepreneurs</p>	<p>Annual</p>	<p>0</p>	<p>IPED (Gender Manager)</p>	<p>Included within the Grant Agreement budget of IPED to implement 2.4.1.1</p>
	<p>G2.11. Monitor (and, as needed, refine) the gender screening criteria and selection criteria (including weights) for climate ventures seeking to enter the acceleration programme, to ensure gender inclusivity.</p>	<p>Ratio women-led vs male-led ventures participating in and completing the programme Assessment's criteria and weighting revised yearly and adjusted as needed</p>	<p>Annual</p>	<p>0</p>	<p>IPED (Gender Manager)</p>	<p>0</p>

	G 2.13. Ensure an equal gender-balanced Selection Panel	Minimum 30% of the Selection Panel are women ¹⁶	Rolling basis	0	IPED (Gender Manager)	0
2.4.1.2: Acceleration programme – repayable grants	G 2.24. Monitor (and, as needed, refine) the gender selection criteria (including weights) to assess if a start-up/ growth company is suitable to enter the programme and benefit from repayable grant, to ensure gender inclusivity.	Ratio women-led vs male-led ventures participating in and completing that receive repayable grants Assessment's criteria and weighting revised yearly and adjusted as needed	Annual	0	IPED (Gender Manager)/GIZ	Included within the Grant Agreement Budget of IPED to implement sub-activity 2.4.1.2.
	G 2.23. Ensure contractual agreements between the EE and the climate ventures include gender-related clauses	At least one gender-clause is included in each contractual agreements between the EE and the climate ventures	Rolling basis	0	IPED (Gender Manager)	0
2.4.1.3: Acceleration programme – technical assistance	G 2.14. Adapt curriculum language to be inclusive of all genders (including showcasing successful women entrepreneurs to provide role models and examples women participants can relate to)	Curriculum materials developed are gender inclusive and reviewed/ approved by regional gender specialist (to be revised yearly)	Annual	0	IPED (Gender Manager)	0

¹⁶ GALI, 2020 (Accelerating Women-led Start-ups, accessible at <https://www.galidata.org/publications/accelerating-women-led-startups/>) found that having female representation in selection panels attracts more women-led ventures to apply. Therefore, a minimum of 30% has been seen to be achievable given that the panel for the pre-acceleration programme will be sourced from existing top and middle level management of the EEs and other relevant stakeholders.

	<p>G 2.15. Raise ventures' awareness on gender disparities and power dynamics that impact ventures' own entrepreneurial journey and train them on how to apply a gender lens to product/service, as well as how to reduce conscious and unconscious gender bias arising from their own actions. Additionally, include training on mechanisms for identifying and eliminating SEAH</p>	<p>Participating ventures received at least one gender awareness training during the acceleration programme</p>	<p>Rolling basis</p>	<p>0</p>	<p>C-KIC</p>	<p>Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1.</p>
	<p>G 2.17. Build a gender-diverse pool of coaches and mentors with the skills to recognize gender bias</p>	<p>At least 40% of pool of coaches and mentors are women 60% entrepreneurs reported an increase in skill knowledge, by gender 60% entrepreneurs have reported an increase in confidence in applying skills, by gender Percentage (%) mentors/coaches (by gender) rated positively by entrepreneurs</p>	<p>Rolling basis</p>	<p>30% on average (for all businesses, not just climate ventures)</p>	<p>IPED (Gender Manager)</p>	<p>Included within the Grant Agreement budget of IPED to implement 2.4.1.3</p>

	<p>G 2.18. Build climate ventures' capacity to integrate gender in their workplaces, products / services and marketing operations.</p>	<p>At least 55% of the supported climate entrepreneurs report increased capacity in gender mainstreaming</p>	<p>Rolling basis</p>	<p>0</p>	<p>C-KIC</p>	<p>Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1.</p>
	<p>G 2.19. Document gender and climate innovation success stories and lessons learnt</p>	<p>At least one gender and climate innovation success story and lesson learnt shared annually</p>	<p>Annual</p>	<p>0</p>	<p>IPED (Gender Manager)</p>	<p>Included within the Grant Agreement budget of C-KIC to implement 2.4.1.3</p>
	<p>G 2.22. Evaluate if acceleration programme promoted women and enhanced diversity in climate entrepreneurship</p>	<p>Ratio women-led vs male-led ventures participating in and completing the programme</p> <p>Report on number of ventures that meet the criteria:</p> <ul style="list-style-type: none"> - At least 51% women-owned or funded by one or more women - At least one woman on the ventures' executive management team 	<p>After venture graduates</p>	<p>0</p>	<p>IPED (Gender Manager)</p>	<p>Included within the Grant Agreement budget of IPED to implement 2.4.1.3</p>

Project Sub- Activity	Actions	Indicators and Targets	Timeline	Baseline	Institution	Costs (estimated) €
Output 3.1: Capacities of Executing Entities, selected ESOs and venture investors in Latin America and West Africa are developed to boost climate ventures' impacts						
Activity 3.1.1: Climate Impact and Co-Benefits Assessment						
Activity 3.1.2: Gender Equality and Diversity – implementing the CATALI.5°T Gender Action Plan (GAP)						
3.1.2.1 Gender Equality and Diversity	G3.1: For each region, conduct country specific gender assessments	X country gender assessments Latin America X country gender assessments West Africa	During inception, and updated yearly in Y1-Y3	0	GIZ	90,000.00
	G3.2: Ensure that regional EE and local implementation partner capacities on climate-gender are strengthened and that gender is operationalized within the pre-acceleration and acceleration programmes by strengthening staff capacity.	2 tailor-made toolkits developed for the programme that address regional contexts (including language) At least 3 gender-climate trainings for pre-accelerators and accelerators 100% of regional CATALI.5°T teams within the regions participate in gender-related training At least 80% of the EEs' and local implementation partners'	Y1-Y2	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1.

		project staff trained on gender mainstreaming in climate innovation				
G3.3: EE and local implementation partner capacities to advise and train climate ventures at all stages of the pre-acceleration and acceleration programmes on gender-climate issues are strengthened and have a roadmap for creating more gender inclusive pre-acceleration and acceleration programmes		All the regional EEs have developed action plans that ensure the programmes are attractive and accessible to women-led ventures, and enable people of all genders to receive equal value from the programmes` activities	Y1-Y2	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1.
G 3.4. Document and share the results and impacts of the gender approaches applied in each region (i.a. promising strategies for mainstreaming gender in climate ventures, best practices, lessons learned)		Results, impacts, lessons learned shared yearly across regions Depending on the insights, aggregated data disseminated with a broader community	Annual	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1.
G 3.5. Identify and introduce relevant gender metrics to monitor, evaluate, learn, and steer the regional programmes to achieve gender objectives set together with the EEs		Longitudinal study designed and implemented for each regional EE	Annual	0	C-KIC	Included within the Grant Agreement budget of C-KIC to implement 3.1.2.1.
Activity 3.1.3: ESG Frameworks – implementing the project Environmental and Social Management Framework (ESMF)						
No specific gender activities foreseen under Activity 3.1.3						

TOTAL Budget for implementing the Gender Action Plan Activity 3.1.2. Gender equality and diversity (it includes staff costs, external experts and grant agreement with Climate-KIC).

2.135.537,64 €

(Additionally, Executing Entities will carry out actions of the GAP in the context of the activities they are responsible for: 1.1.1: Capacity-building of Executing Entities, ESOs and venture investors in Latin America; 1.2.1: Community-building and ideation activities in Latin America; 1.3.1: Latin America climate venture pre-acceleration programme; 1.4.1: Latin America climate venture acceleration programme; 2.1.1: Capacity-building of Executing Entities, ESOs and venture investors in West Africa; 2.2.1: Community-building and ideation activities in West Africa; 2.3.1: West Africa climate venture pre-acceleration programme; 2.4.1: West Africa climate venture acceleration programme; as stated in the grant agreements between the AE and EE).

4. ANNEX 1

The proposed checklist covers general gender aspects for climate ventures applying to any of the CATALI.5°T Initiative regional programmes. It could be included as part of the application form and intends to provide overall guidance only; the checklist will need to be reviewed, complemented, and refined on an ongoing basis during project implementation.

Venture Gender Assessment Checklist

CATALI.5°T Initiative: Concerted Action To Accelerate Local I.5° Technologies – Latin America and West Africa

A. Programme Information	
A.1. Which support programme has the venture been accepted into?	
Latin America pre-acceleration programme	<input type="checkbox"/>
Latin America acceleration programme	<input type="checkbox"/>
West Africa pre-acceleration programme	<input type="checkbox"/>
West Africa acceleration programme	<input type="checkbox"/>
A.2. Date of acceptance decision (month/year)	
B. Basic Venture Information	
B.1. Name of venture	
B.2. Venture home country (place of business registration or principal residence of founder(s))	
B.3. Venture address	
B.4. Venture telephone number	
B.5. Venture e-mail address	
B.6. Venture website (if applicable)	
B.7. Brief description of venture's business model (key product/service; key markets/consumer segments targeted)	
B.8. Venture Mitigation Result Area (principal sectoral focus of venture's low-emission goods/services)	
Result Area	
B.9. Venture Mitigation Archetype (principal sectoral focus of venture's low-emission goods/services)	

Energy access generation	Transport	Buildings, industries appliances	Land-use
C. Venture Gender Information			
C.1. Is the venture 'female-led'? <i>(50% or more of founders are women)</i>			
Female-led			
If yes, please provide details:			
C.2. Composition of senior management team			
What % of senior managers are women?			
Please provide details:			
C.3. Composition of workforce			
What % of employees are women?			
What % of contractors are women (approximately)?			
C.4. Have venture employees been exposed to gender training or awareness-raising?			
Gender training			
If yes, please provide details:			
C.5. Does the venture have a gender plan or strategy (or equivalent)?			
Gender plan			
If yes, please provide details:			
C.6. Does the venture have specific gender needs or requests for support?			
D. Additional Information <i>(e.g. relating to the venture's policies towards minorities and disabilities; future gender plans; etc.)</i>			