



Water Project Training Modules and Capacity Building in Accessing Climate Finance

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Regional Dialogue
2024



Theory of Change

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GCF regional water sector training – Day 2



LEARNING OBJECTIVES

- To understand the elements of the Theory of Change (ToC)
- To use climate science to support the ToC
- To incorporate governance insights to support the ToC
- To articulate links between the ToC and GCF's Investment Criteria:
- To connect the ToC to the Concept Note Section B:
- To examine a practical example of a ToC to illustrate best practices and key components.

THEORY OF CHANGE CONCEPT

The Theory of Change should be provided as a diagram illustrating the methodological approach in designing the project while linking project goals with outputs, outcomes and assumptions under which the project should be developed.

It's an overall framework to develop your project

ToC Element	Consideration
A Goal Statement	Showing the impact and paradigm shift
Outcomes	Describing what is needed to achieve the goal
Outputs	Concretely describing what your project aims to achieve
Activities	Describing what your project will do to establish the outputs
Assumptions & Risk	Establishing reasonable assumptions and risks to your project progress
Logical flow across the levels	Considering interlinkages across ToC elements

THEORY OF CHANGE CONCEPT



- The theory of change is an **outcomes-based approach**.
- It is a first step to set up long-term project **goals** and objectives
- It relies on robust, feasible and **science-based assumptions**.
- It pictures **why and how** the project contributes to the proposed vision of change and long-term climate objectives

ToC Element	Consideration
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THEORY OF CHANGE (FUND LEVEL)

- What exactly could GCF project/programme influence in terms of fostering a paradigm shift?
 - Directly
 - E.g. reducing vulnerability of marginalized population, increasing knowledge
 - Indirectly
 - E.g. Reputation of country in terms of climate change adaptation/mitigation, examples shared regionally or internationally

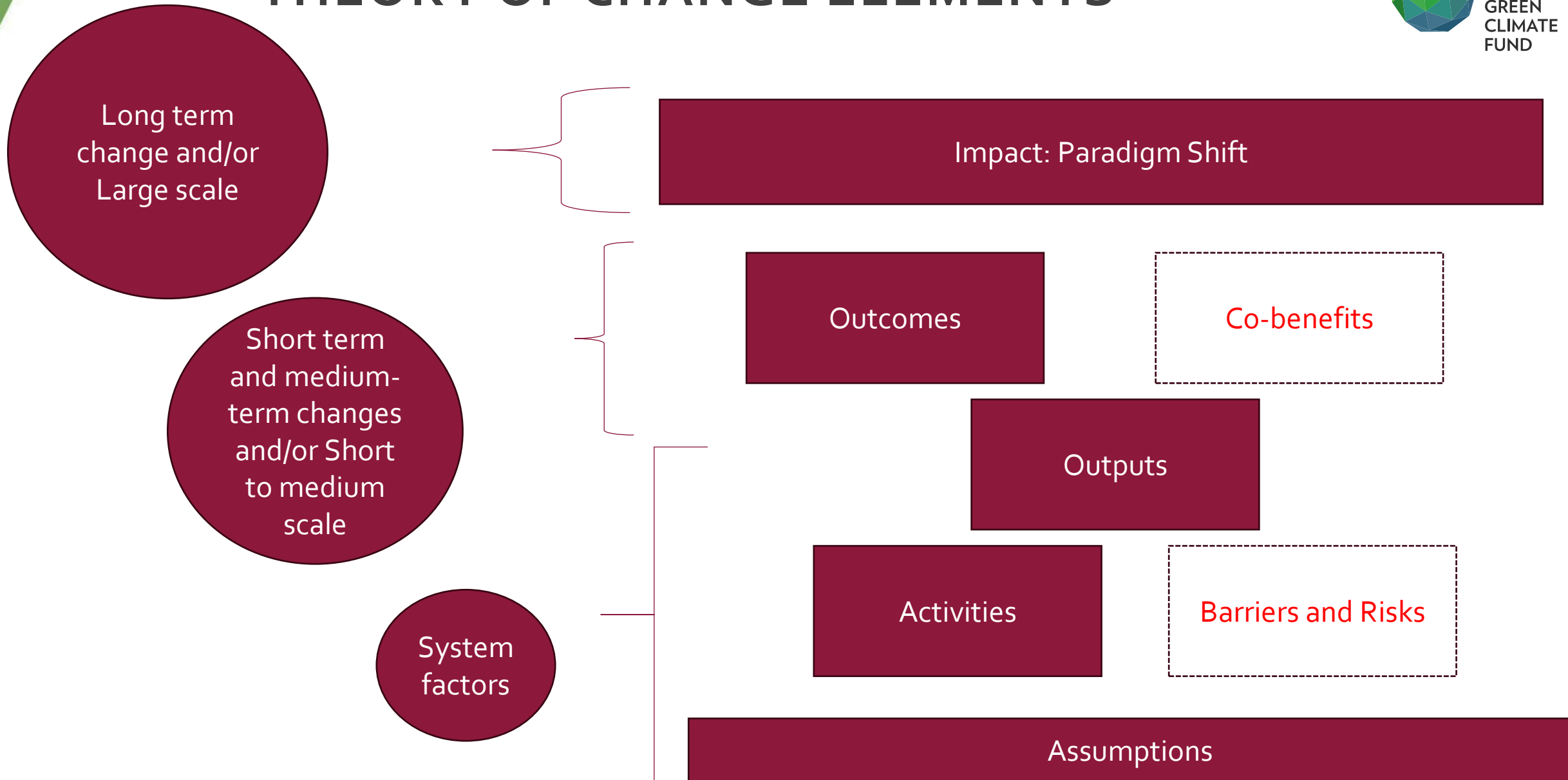
ToC Elements	Considerations
Impact level	Aggregate changes achieved in the GCF key strategic result areas
Outcome level	Aggregate changes achieved in the country or region, as well as in the relevant policies and policy documents
Output/project level	Disaggregated changes achieved as a result of project or programme activities
Activity	Direct services provided through GCF investments
Input	GCF grants, concessional loans, guarantees or other financial instruments, as well as human effort

THEORY OF CHANGE VS LOGICAL FRAMEWORK



Theory of Change	Logical Framework
Considers the big picture More than a results framework <u>Focus on How and Why</u> Conditional thinking (if, then, because) Considers feedback mechanisms Evidence-based	Matrix idea Results framework Focus on the 'How' Simple thinking (Plan --> result) Linear step by step Not necessarily evidence-based

THEORY OF CHANGE ELEMENTS



BUILDING YOUR THEORY OF CHANGE: RESULTS MAPPING EXERCISE



- **What is your climate problem?**
- **Define your project/idea goal**
- **Define a few short and medium-term changes**
- From your situational analysis yesterday, describe your climate problem in a few words, considering:
 - Factors that hinder change?
 - What capabilities are missing?
 - What external factors in the context are hindering the project development?

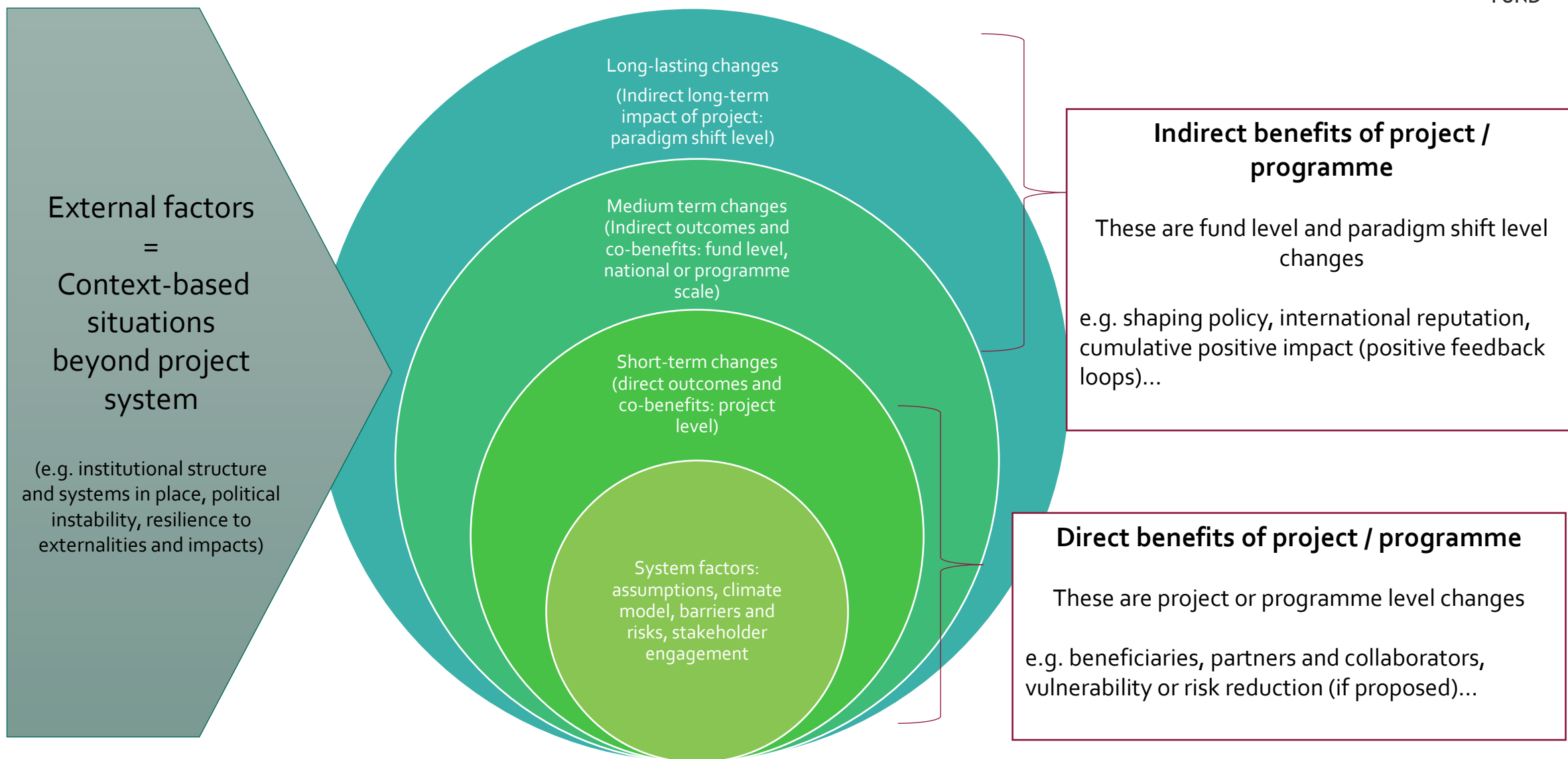
Example

Climate problem	Barriers and risks	Idea/Project Goal	Short term changes	Medium term changes
Lack of groundwater recharge due to less rainfall Polluted aquifer Increased water demand	Increasing water scarcity and heat stress Water use conflicts among users Lack of IWRM approach	Develop a wastewater treatment plant in Country X to facilitate the reuse of treated wastewater for the agricultural sector.	Increase crop yield Decrease urban water shortage Decrease water conflicts	Increase upstream natural storage and infiltration in aquifer. Foster collaboration among water users

Example Impact Statement

If a wastewater treatment plant is developed in Country X to facilitate the reuse of treated wastewater for the agricultural sector, **then** crop yields will increase and farmers will have a reliable water source for irrigation, **because** treated wastewater provides essential nutrients for plant growth and ensures a consistent water supply, especially in arid regions or during droughts.

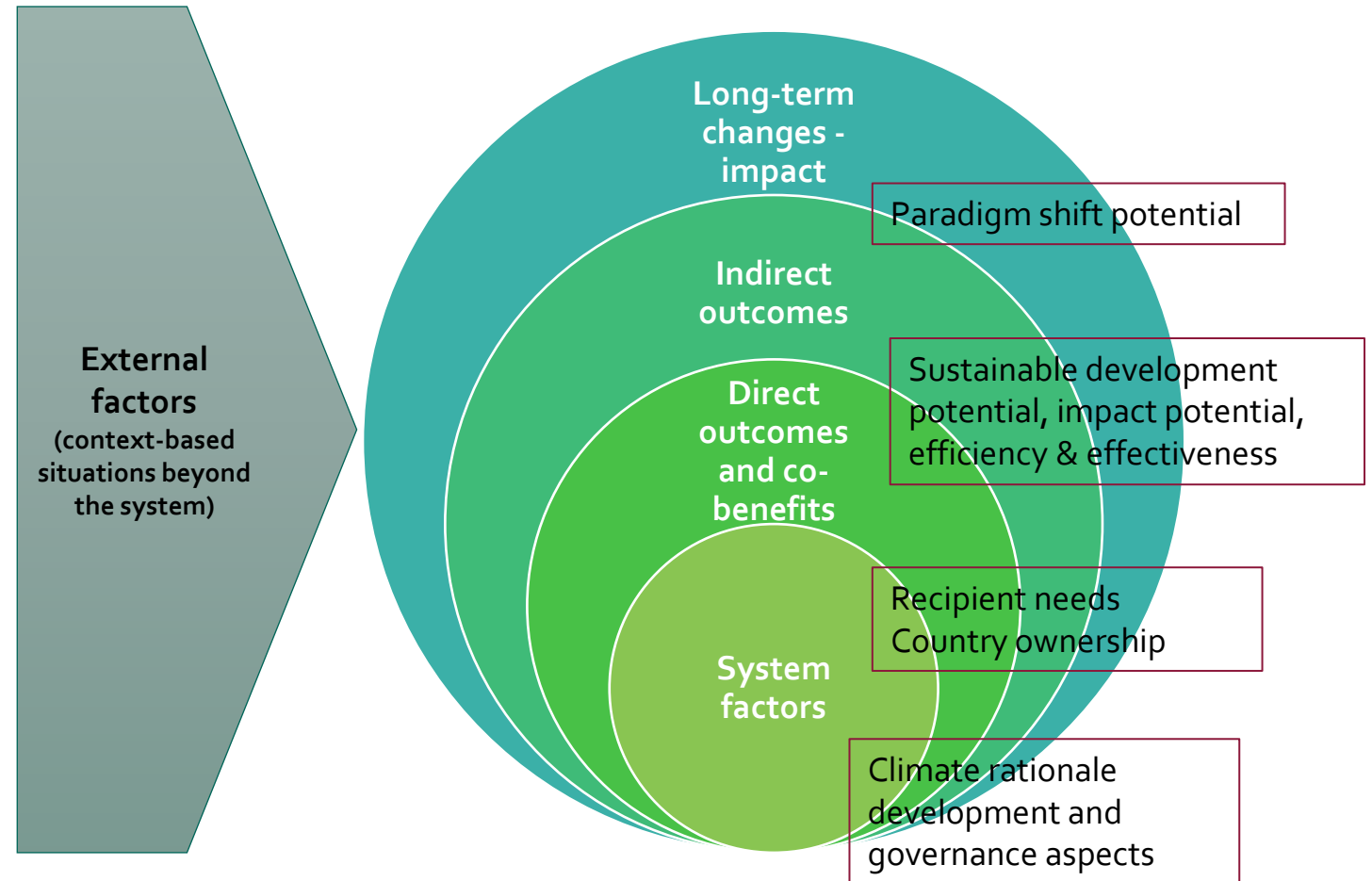
THEORY OF CHANGE: SEQUENCING & SCALE



THEORY OF CHANGE & INVESTMENT CRITERIA ALIGNMENT

- How ToC considerations can be embedded in the investment criteria?
- Which aspects refer to which criteria?

These links are not exclusive!



THEORY OF CHANGE INVESTMENT CRITERIA & CONCEPT NOTE ALIGNMENT

B.1. Context and baseline (max. 2 pages)

Describe the climate vulnerabilities and impacts, GHG emissions profile, and mitigation and adaptation needs that the prospective intervention is envisaged to address.

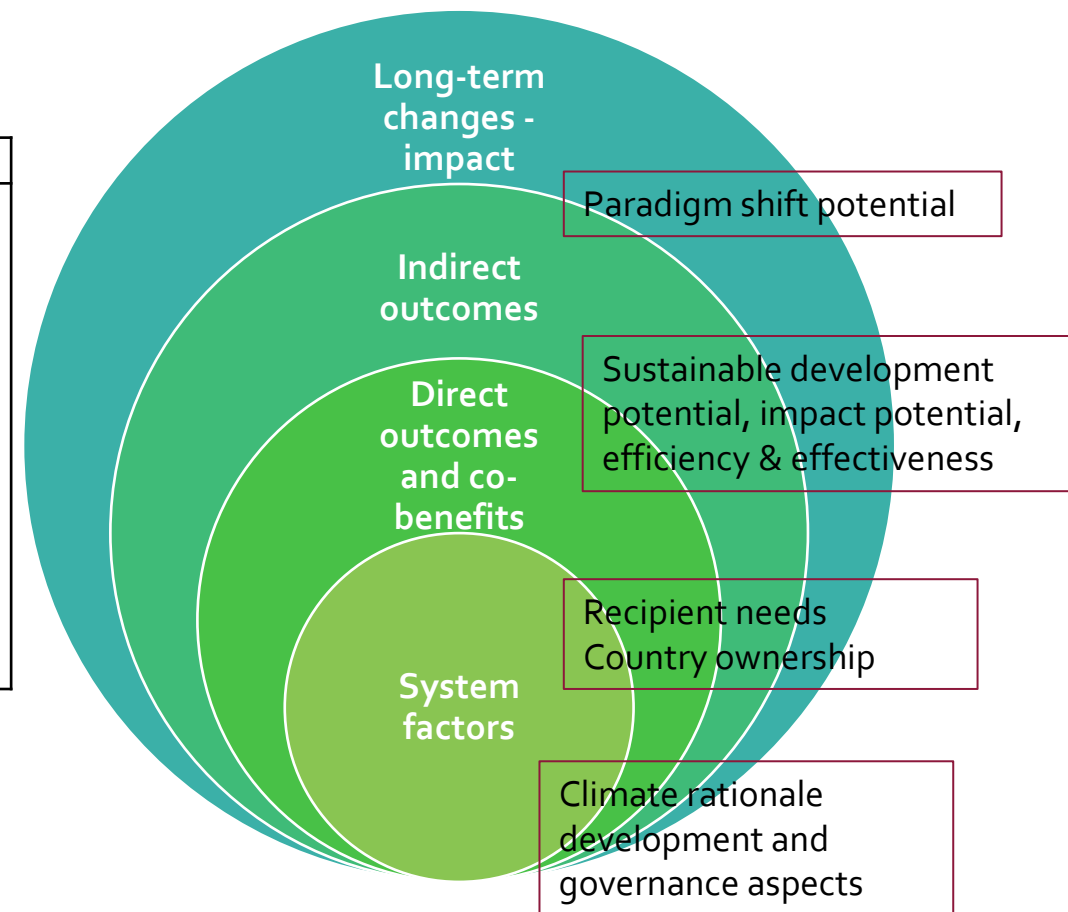
Please indicate how the project fits in with the country's national priorities and its full ownership of the concept. Is the project/programme directly contributing to the country's INDC/NDC or national climate strategies or other plans such as NAMAs, NAPs or equivalent? If so, please describe which priorities identified in these documents the proposed project is aiming to address and/or improve.

Describe the main root causes and barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed.

Where relevant, and particularly for private sector project/programme, please describe the key characteristics and dynamics of the sector or market in which the project/programme will operate.

Recipient needs

Country ownership
Sustainable development
potential



These links are not exclusive!

THEORY OF CHANGE INVESTMENT CRITERIA & CONCEPT NOTE ALIGNMENT

B.2. Project/Programme description (max. 3 pages)

Describe the expected set of components/outputs and subcomponents/activities to address the above barriers identified that will lead to the expected outcomes.

In terms of rationale, please describe the theory of change and provide information on how it serves to shift the development pathway toward a more low-emissions and/or climate resilient direction, in line with the Fund's goals and objectives.

Describe how activities in the proposal are consistent with national regulatory and legal framework, if applicable.

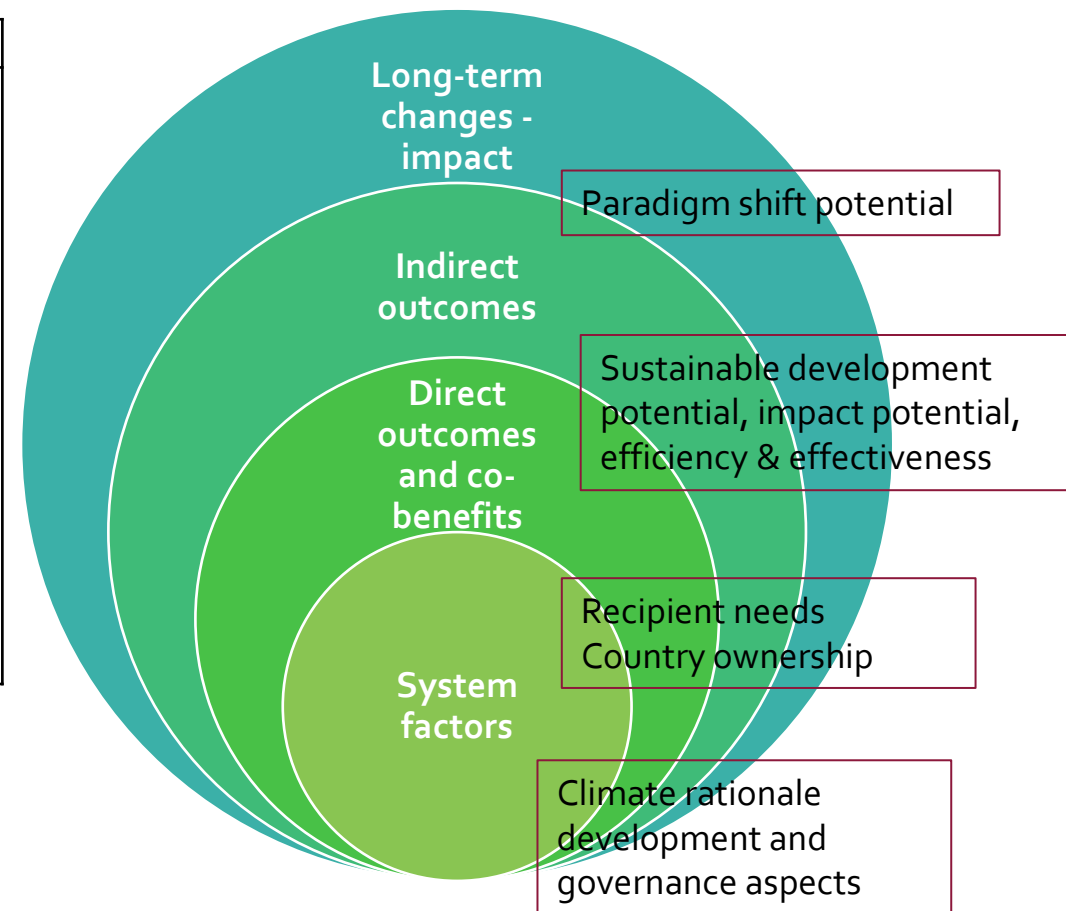
Describe in what way the Accredited Entity(ies) is well placed to undertake the planned activities and what will be the implementation arrangements with the executing entity(ies) and implementing partners.

Please provide a brief overview of the key financial and operational risks and any mitigation measures identified at this stage.

Country ownership

Paradigm shift potential
Impact potential

Efficiency & Effectiveness



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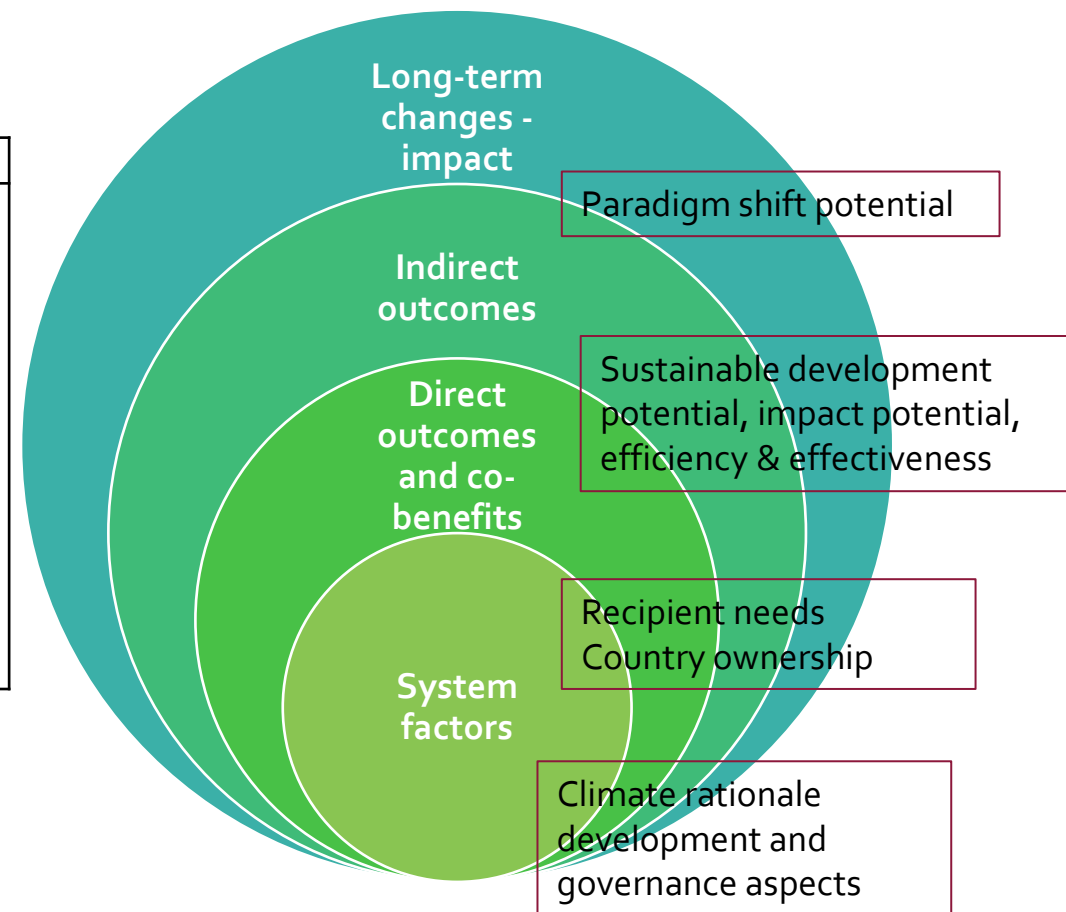
THEORY OF CHANGE INVESTMENT CRITERIA & CONCEPT NOTE ALIGNMENT

B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)

The GCF is directed to make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change, and promoting the paradigm shift towards low-emission and climate-resilient development pathways by limiting or reducing greenhouse gas emissions and adapting to the impacts of climate change.

Provide an estimate of the expected impacts aligned with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

These links are not exclusive!



EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF



PATHWAY 3: INTEGRATED WATER RESOURCES MANAGEMENT (IWRM) AND SDG



Communities in Niger Basin (est. 130M) are highly dependent on natural ecosystems – rainfed agriculture, livestock farming and fishing – all vulnerable to climate change. The growing aridity and dwindling of water flows observed (reduction of total annual rainfall between 20-40% over 60 years) have degraded natural resources, increased erosion, and the silting of the Niger River.

- **Investment/ activities:**
- Building the resilience of ecosystems and natural resources; Building the people's resilience; and program coordination and management.
- **Location:** Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Guinea, Mali, Niger and Nigeria.
- **Budget:** project cost 209.9 M US\$ AFDB (78 MUS\$), GCF (67,8 MUS\$), GEF (12.9 MUS\$), FIP (9 MUS\$), EU (18 M euros).
- **Status:** execution (2019/2025)
- **Beneficiaries:** 4 million small producers in the nine (9) countries of the Niger Basin
- **Website:** [Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin \(PIDACC/NB\)| GCF](#)

- The program applies an IWRM approach and address the **underlying drivers of degradation** of peoples living conditions and biodiversity of the basin. It considers the increasing climate variability, protection of water resources in a context of high water stress.
- **Considering upstream and downstream dimensions.**
- **Considering increasing water demand with population growth.**
- **Promote water resource demand management and reduction of loss.**
- **Measures to reduce silting of the river, improve natural resources management and enhance the population ability to adapt** (4 M directly and 10 M indirectly, ca 50% women).
- **Enhanced climate resilience landscapes** developed as a hedge towards climate extremes (40,000 ha forestry, 26,000 agroforestry; 10,000 of dunes stabilized; 110,000 ha of degraded land restored; mechanical and biological management of 45,000 (m3) of ravines undertaken.

THEORY OF CHANGE EXAMPLE

Impact: Paradigm Shift

To enhance climate resilience and sustainable development in the Niger Basin through the implementation of integrated water resources management (IWRM) and adaptation strategies that address environmental, social, and economic challenges.

Short-term Outcome
Initial improvements in water resource management and reduction of water loss

Co-benefit
Improved water availability and quality.

Medium-term Outcome
Enhanced natural resource management and reduction of river silting.

Co-benefit
Reduced soil erosion and land degradation

Medium-term Outcome
Increased resilience of communities to adapt to climate variability and extremes

Co-benefit
Empowerment of communities through participation in sustainable practices

Long-term Outcome
Integration of IWRM principles into local and national policies.

Output
Support for 4 million people directly and 10 million indirectly (ca. 50% women) to enhance their adaptation abilities.

Output
Development of climate-resilient landscapes (40,000 ha forestry, 26,000 ha agroforestry, 10,000 ha dunes stabilized, 110,000 ha degraded land restored).

Output
Measures to reduce river silting and manage natural resources.

Barrier/Risk:
Maladaptation

Activity
Strengthening tools for drought and floods forecast

Activity
Preparing a IWRM plan

Barrier/Risk:
Population growth, increased water demand.
Low agricultural production leading to food insecurity

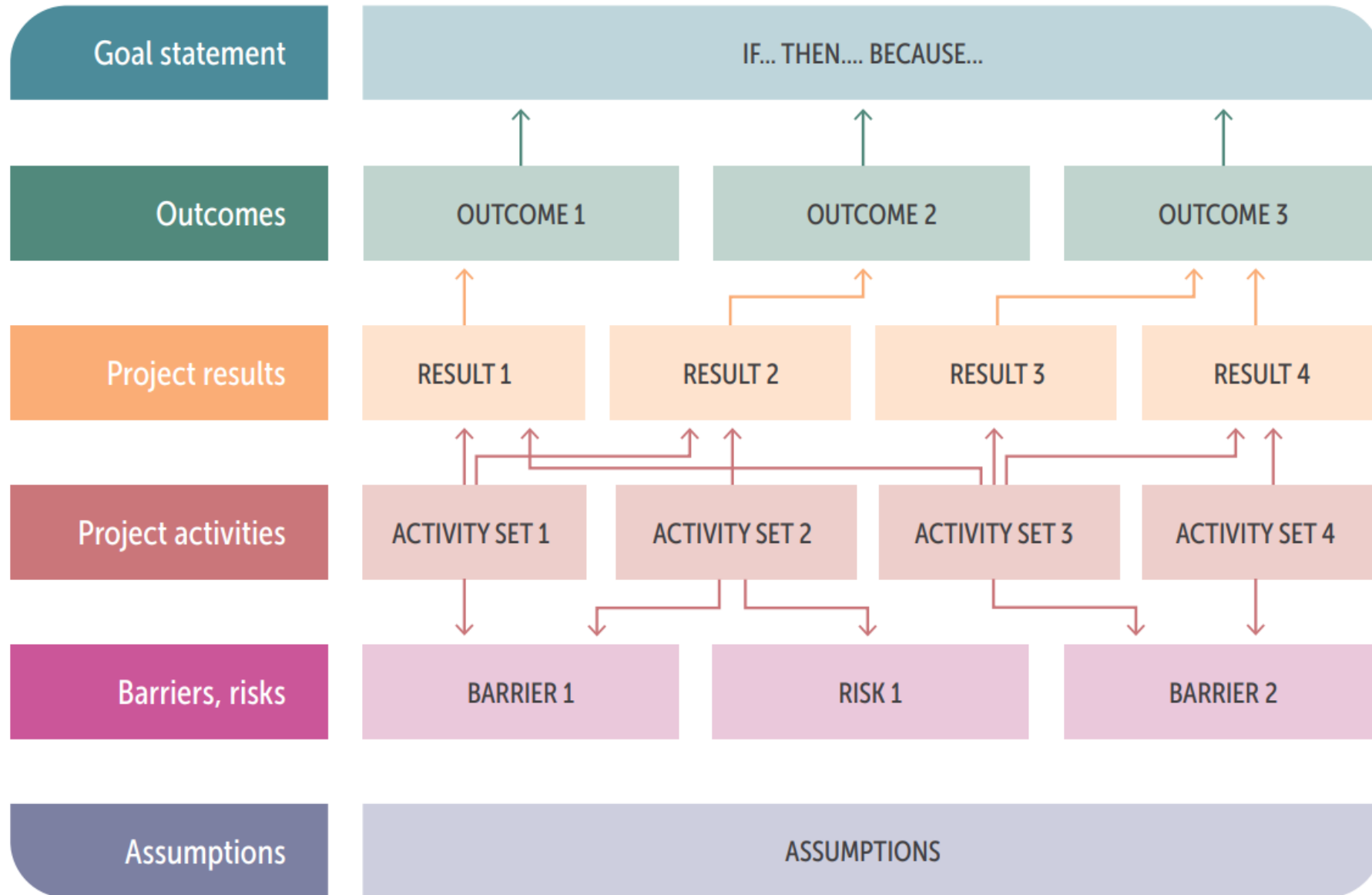
Barrier/Risk:
Environmental hazards such as water scarcity, heat stress and increased aridity

Assumptions
Effective collaboration and coordination among stakeholders, including government agencies, local communities, and international partners.
Ongoing environmental monitoring and adaptive management addressing emerging challenges and risks.

BUILDING YOUR THEORY OF CHANGE DIAGRAM

Short &
medium
term
changes

System factors



BUILDING YOUR THEORY OF CHANGE:



Tips

- Highlight opportunities for targeting innovative solutions
- Expected contributions to global low-carbon development pathways demonstrated through:
 - A theory of change for scaling up the scope and impact of the intended project
 - A theory of change for replication of the proposed activities of the project in other sectors, regions, communities and etc



Inserting climate science and governance in GCF's investment criteria

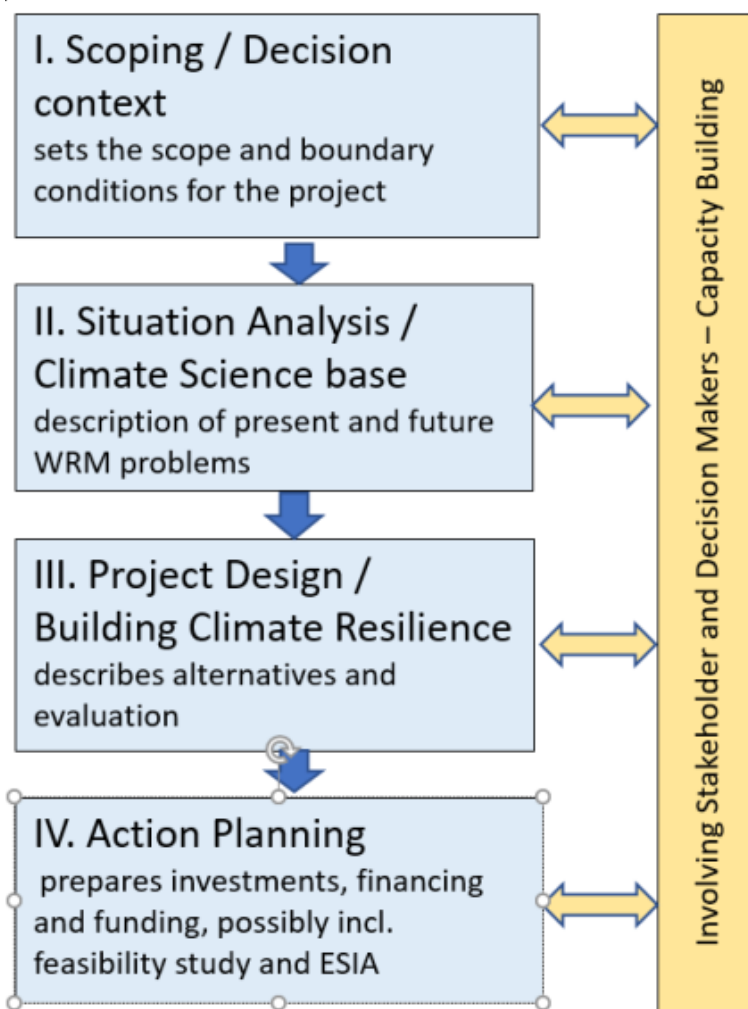
Viviane Cavalcanti (Deltares)

GCF regional water sector training – Day 2

LEARNING OBJECTIVES

- Know which knowledge to gather and analysis to perform to be able to convincingly meet the GCF's investment criteria.
- How to use climate science information to address impact, sustainable development potential and efficiency and effectiveness.
- How to use governance analysis to enhance paradigm shift, country ownership and recipient needs.

KEY STEPS OF THE GUIDELINES COVERED



Investment criteria	Information needed	Phase	Step	Concept note	Funding proposal
Impact Potential	Formulate objectives and indicators	Phase I - Scoping Phase - The Decision Context	Step I.3 Defining the analysis conditions, including climate change challenges	Describe the climate vulnerabilities and impacts, GHG emissions profile, and mitigation.	Describe project benefits for mitigation and/or adaptation, and how the project contributes to sustainable development pathways. Calculations necessary.
	Develop climate scenarios assessing current and future vulnerability. Identify problems and possible interventions.		Step I.4 Formulating the project objectives and climate resilience goal		
Paradigm shift	Determine the paradigm shift related to the project implementation	Phase II - Situation Analysis including climate rationale	Step II.4 Problem analysis	Environmental and social risk screening	Environmental and social impact assessment
			Step II.5 Identification and Screening of Potential Measures		
Sustainable development potential	Economic, social and environmental co-benefits related to the project	Phase I - Scoping Phase - The Decision Context	Step I.4 Formulating the project objectives and climate resilience goal	Estimation of expected impact aligned with paradigm shift potential.	Contribution to paradigm shift the project aims to support. Scale, replicability and sustainability dimensions to be considered.
			Step III.4 Formulation of the project		
Needs of the recipient	Identify and analyse financial, economic, social and institutional needs and barriers that prevent achieving the project objective	Phase III - Project Design - Building Climate Resilience	Step III.3 Evaluation and ranking of alternatives and decision making	Brief description of how project intends to benefit target population	Outcome mapping to GCF results areas and co-benefit categorization
			Step III.4 Formulation of the project		
Country ownership	Identify alignment with NDCs relevant national plans indicator, and/or enabling policy and institutional frameworks.	Phase I - Scoping Phase - The Decision Context	Step I.3 Defining the analysis conditions, including climate change challenges	Description of how project fits country's priorities	Policy context and plans part of the administrative and institutional framework should be considered
	Stakeholder engagement process, including national authorities	Phase I - Scoping Phase - The Decision Context	Step I.2 Setting up the stakeholder engagement process	Describe engagement among relevant stakeholders that took place and plan to develop funding proposal	Describe how the country takes ownership of and implements the project. Add links with existing climate strategy, alignment with policies and frameworks other GCF projects, capacity to deliver, engagement with stakeholders.
Efficiency and Effectiveness	Co-benefits and monetization coupled with efficiency and effectiveness assessment of alternatives.	Phase III - Project Design - Building Climate Resilience	Step III.3 Evaluation and ranking of alternatives and decision making	Justify rationale and level of concessionality, minimum requirements and most efficient plan for viable investment	Describe efficiency and effectiveness of project against its mitigation and/or adaptation objective. Include indicators and reinforce the need for GCF's funding for the project to take place.
	Institutional arrangements and financing	Phase IV - Action Planning, Financing and Implementation Arrangements	Step IV.1 Institutional context for implementing the project		

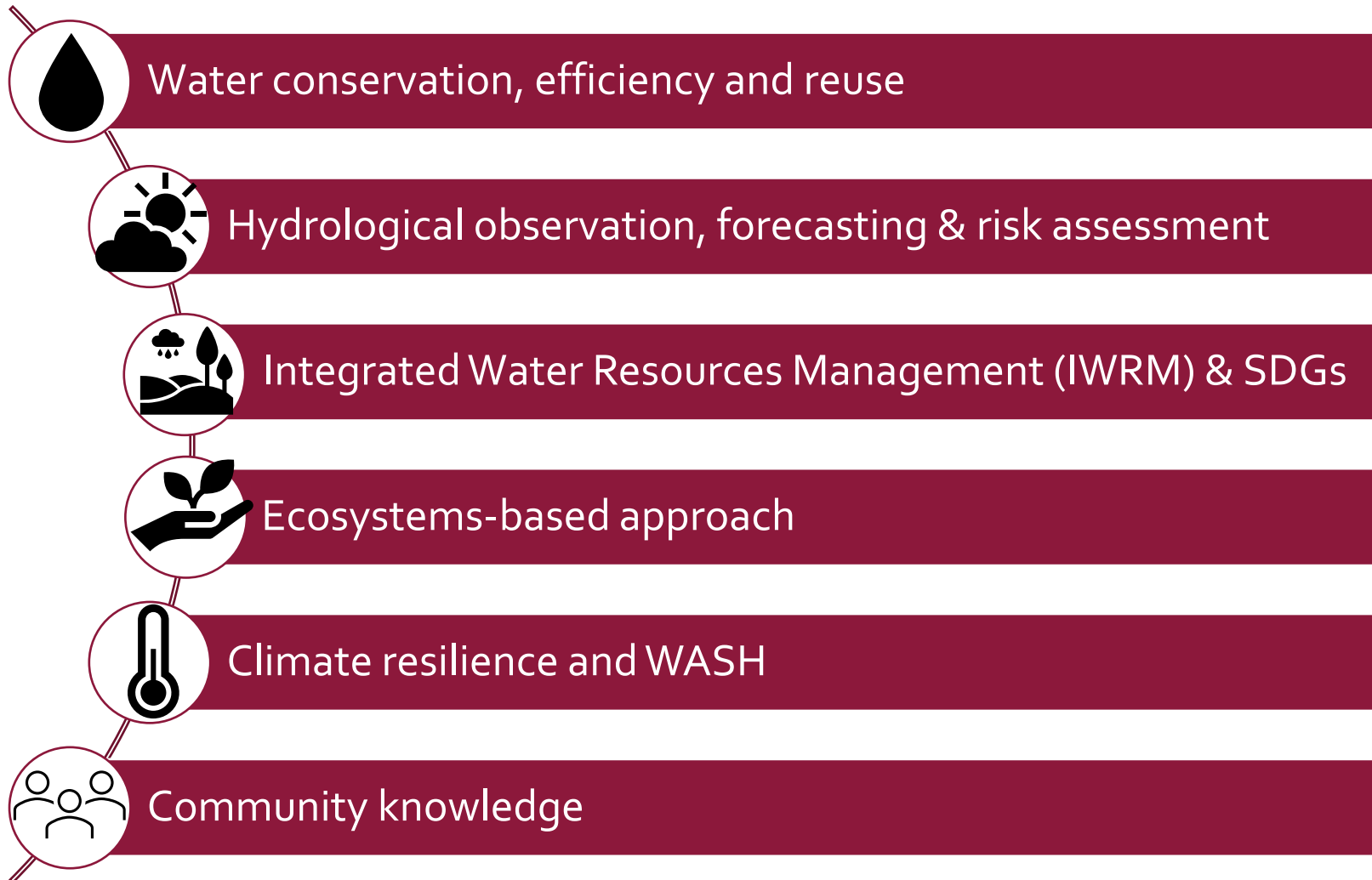
INVESTMENT CRITERIA

1. **Impact Potential** – Potential of the project or programme to contribute to the achievement of GCF's objectives and result areas.
2. **Sustainable development potential** – Degree to which the actions align with national SDG priorities and deliver wider benefits and priorities.
3. **Efficiency & effectiveness** – Economic and, if appropriate, financial soundness of the programme/project: Does the project foster cost-effectiveness and private sector funding mobilisation?
4. **Paradigm Shift Potential** – Degree to which GCF can achieve sustainable development impact beyond a one-off project or programme investment through replicability and scalability.
5. **Recipient needs** – Vulnerability and financing needs of the country and population.
6. **Country ownership** – Beneficiary country ownership of, and capacity to implement, a funded project or programme (policies, climate strategies and institutions).

The criteria indicators are used on an individual project context, therefore, a project can be more related to one criterion than others

PARADIGM SHIFT PATHWAYS

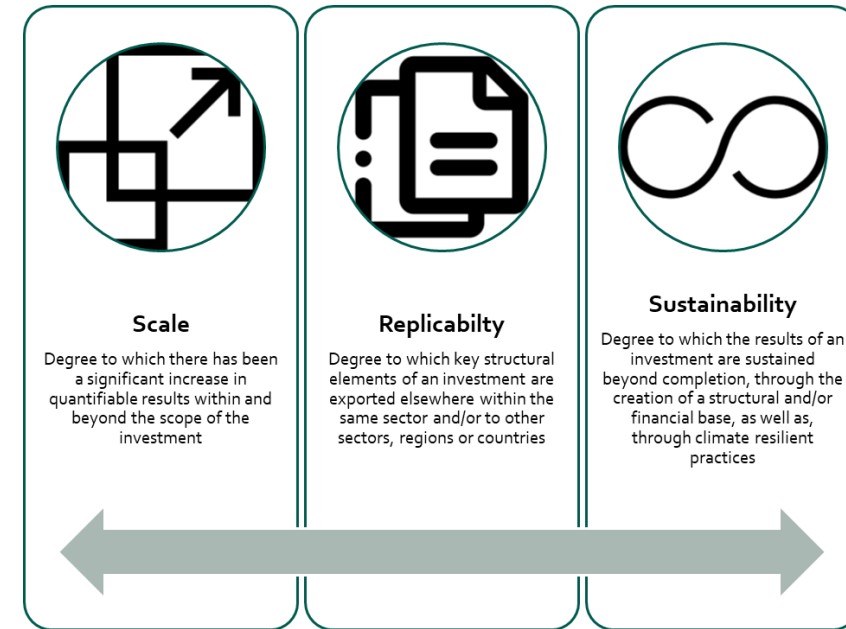
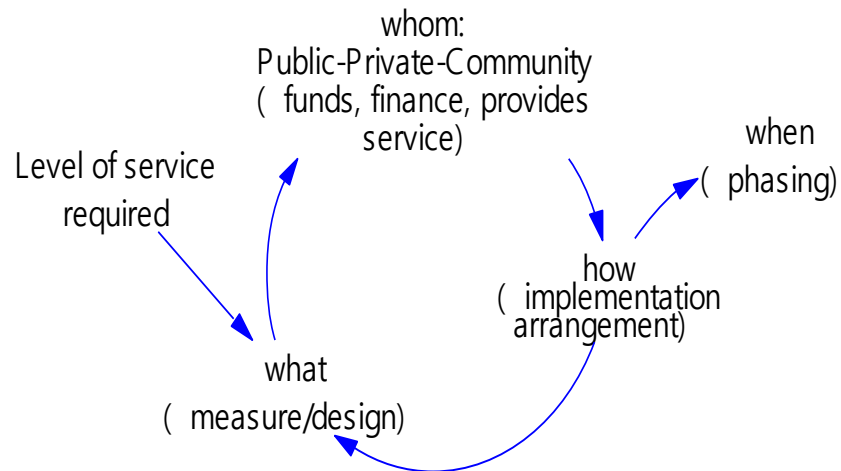
The Water Security Sectoral Guide outlines two major pathways for paradigm shifts that were later unfolded into 6 more detailed pathways:



PARADIGM SHIFT

The **Paradigm Shift Potential** gauges the extent to which sustainable development impact can go beyond individual projects, focusing on replicability and scalability.

It's important to understand the level of governance engagement (local, regional, national) and the different overlapping water systems part of the planning, implementation and management beyond project life and replicability potential



“Implementation” considerations that are key to take into account in design/planning so as to ensure “sustainability” in service provision and avoid the delivery of “white elephants”:

- (National) institutional context and boundary conditions for the implementation of the plan. What is possible and what is not?
- Analysis per project/measure
- Implementation arrangements for sustainable service provision

PARADIGM SHIFT EXAMPLE

EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF

PATHWAY 3: INTEGRATED WATER RESOURCES MANAGEMENT (IWRM) AND SDG

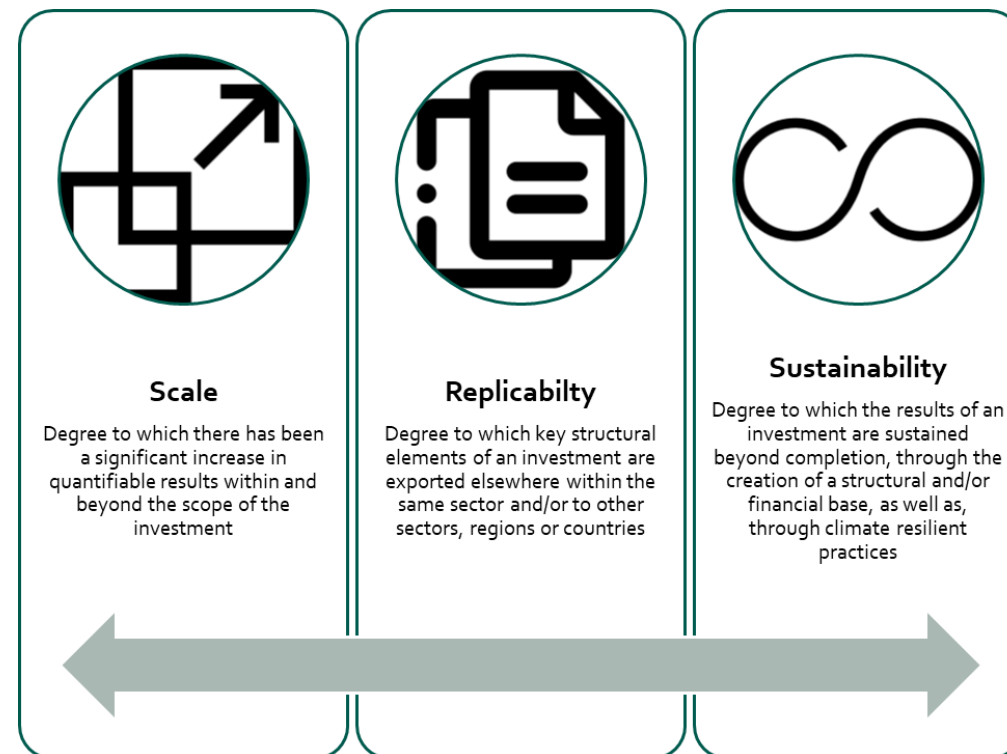
Integration of Disaster Risk Management (climate information and forecasting tools, IWRM based decision support tools for improved land and water management in the Niger river basin

Integrated landscape management to restore degraded areas in drylands, strengthen resilience, boost productivity, and improve livelihoods

PIDACC objective:

By 2025, contribute to improving the resilience of populations and ecosystems in the Niger Basin to climate variability and change through sustainable management and development of a shared basin natural resources.

[Source: Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin \(PIDACC/NB\) | GCF](#)



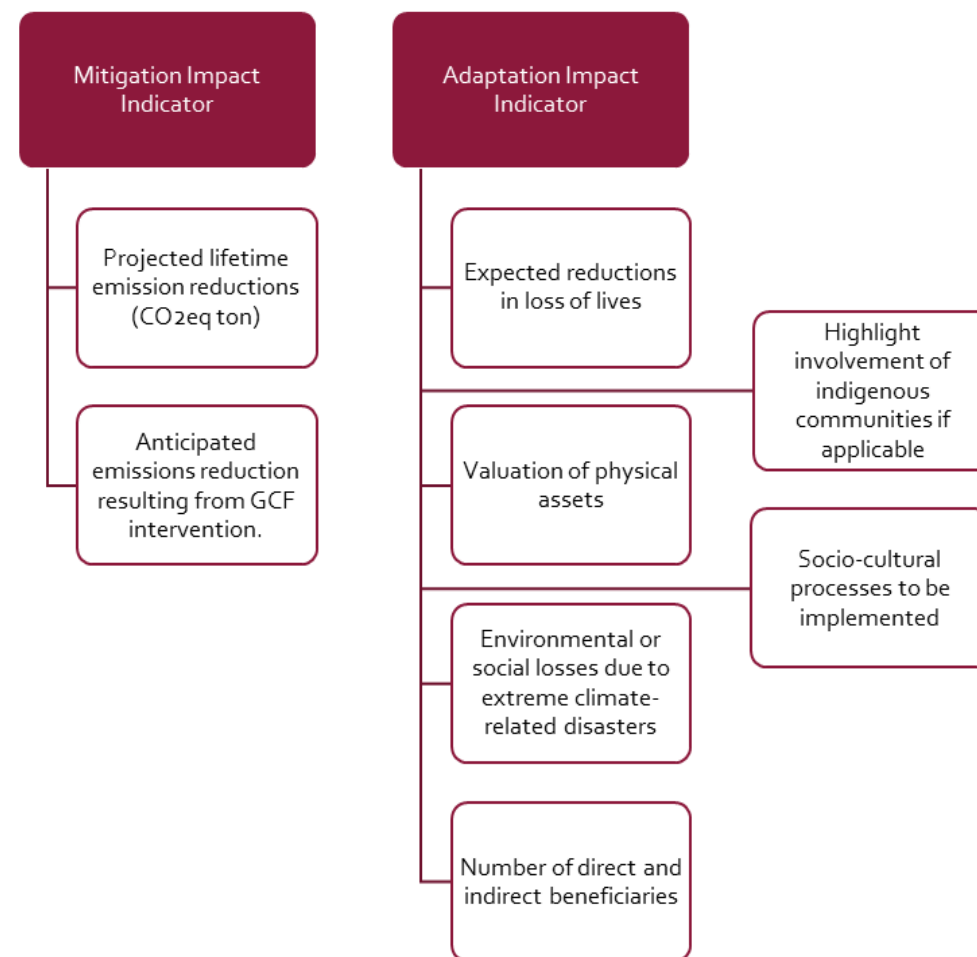
IMPACT POTENTIAL

How does the project contribute to increased climate-resilient sustainable development?

The climate rationale works as an overarching narrative that contributes to GCF investment criteria, especially the Impact Potential.

How to use the climate science to assess impact indicators?

- Use impact indicators prioritized in your systems analysis
- From your risk and adaptation analysis calculate expected reduction of impacts, which are specific for your system and context
- Try to monetize the reduction of impacts for proposed adaptation investments under different climate scenarios
 - Note that monetization can be difficult for indirect impacts
 - In that case use an MCA or scorecard analysis to show these benefits
- Estimate number of beneficiaries from the reduction of exposed area, communities, assets, etc.
- Where possible, make distinction between different vulnerability classes
- Describe how do enabling actions support reduction of impacts for specific groups



IMPACT POTENTIAL EXAMPLE



How does the project contribute to increased climate-resilient sustainable development?

EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF

The program will directly benefit about **4 million smallholder farmers** in the **nine (9) countries** of the Niger Basin, **51% of whom are women**. The project will strengthen the capacity of small-scale producers, women and young people through **training and the provision of equipment** for the production, processing and development of agricultural products

[Source: Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin \(PIDACC/NB\) | GCF](#)

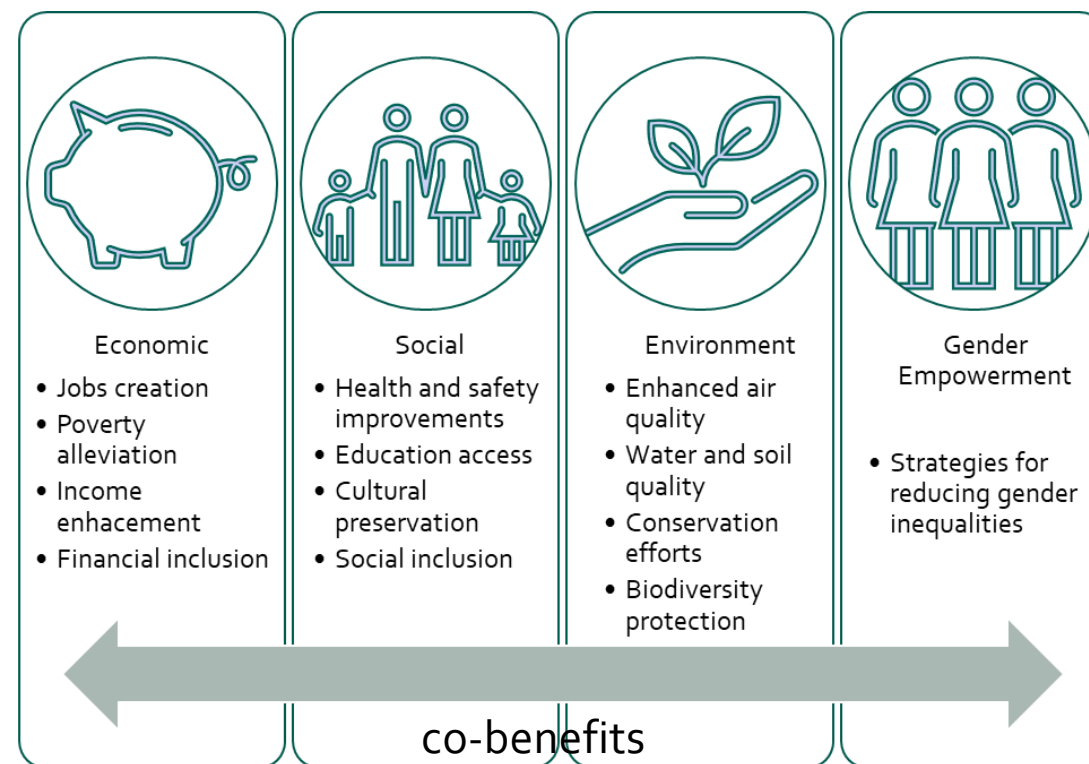
SUSTAINABLE DEVELOPMENT POTENTIAL

The **sustainable development potential** gauges the alignment of actions with national SDGs priorities and their delivery of broader benefits and priorities.

These co-benefits should be evaluated in at least two of the four coverage areas showed in the picture.

The co-benefits identified will also support reaching the desired performance.

Use information from your specific CBA/MCA analysis from your proposed investment strategy.



SUSTAINABLE DEVELOPMENT POTENTIAL EXAMPLE



Example

Economic co-benefits		Social co-benefits		Environmental co-benefits	
Action	Indicator	Action	Indicator	Action	Indicator
Create jobs	Number of jobs created indirectly of directly from project implementation	Develop strategies for reducing gender inequalities	% of positions created to be filled by women , men or young professionals	Disseminate climate smart agriculture practices and technologies	Improving irrigation system of small-scale producers by X%. (e.g. 5% more efficient)

What additional actions are needed to maximize your co-benefits?

SUSTAINABLE DEVELOPMENT POTENTIAL EXAMPLE



EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF

Economic and social co-benefits		Environmental co-benefits	
Action	Indicator	Action	Indicator
Create jobs	An estimated 150,000 jobs will be created at the end of the programme	Disseminate climate smart agriculture practices and technologies	Reforestation, regeneration of tree and forest areas (~40,000 ha), agro-forestry (~26,000ha), erosion and silt control.

[Source: Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin \(PIDACC/NB\) | GCF](#)

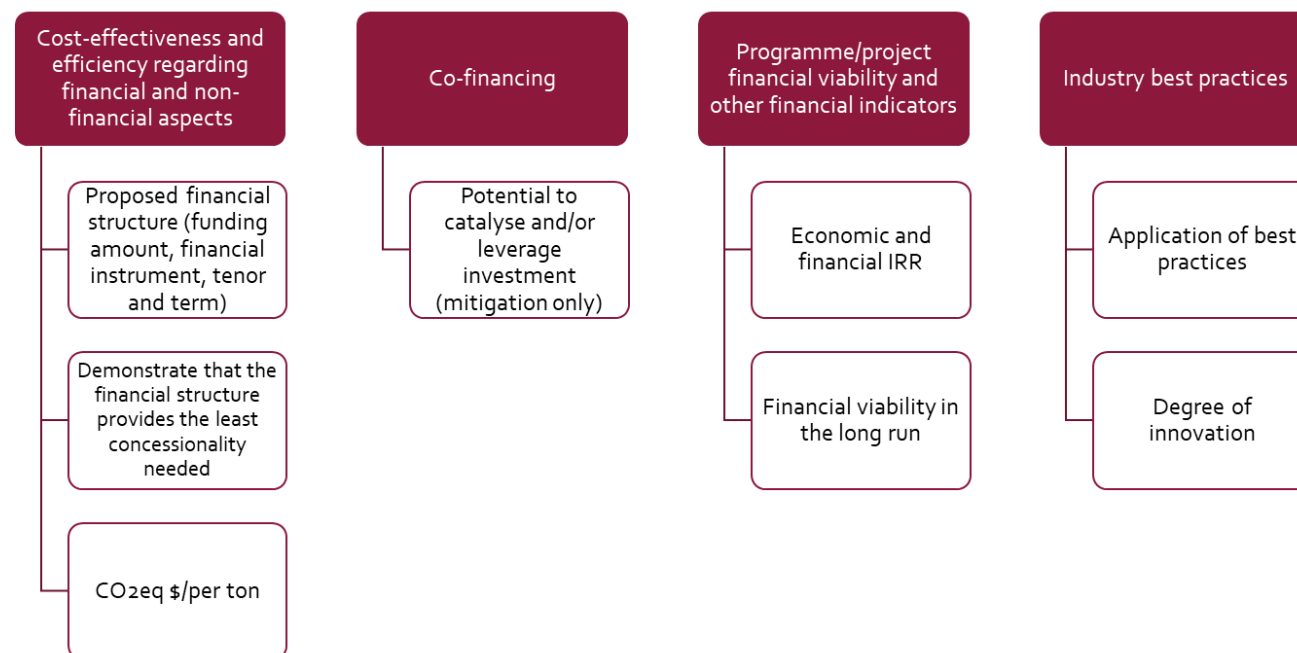
EFFICIENCY AND EFFECTIVENESS

The **efficiency and effectiveness** criteria evaluates the economic and, if applicable, financial viability of the project/program.

Use data from your CBA analysis [sustainability and impact potential criteria] to provide project financial viability information.

Estimate the cost to achieve desired performance based on current performance, accounting for climate change, when demonstrating the least concessionality needed (preferably none).

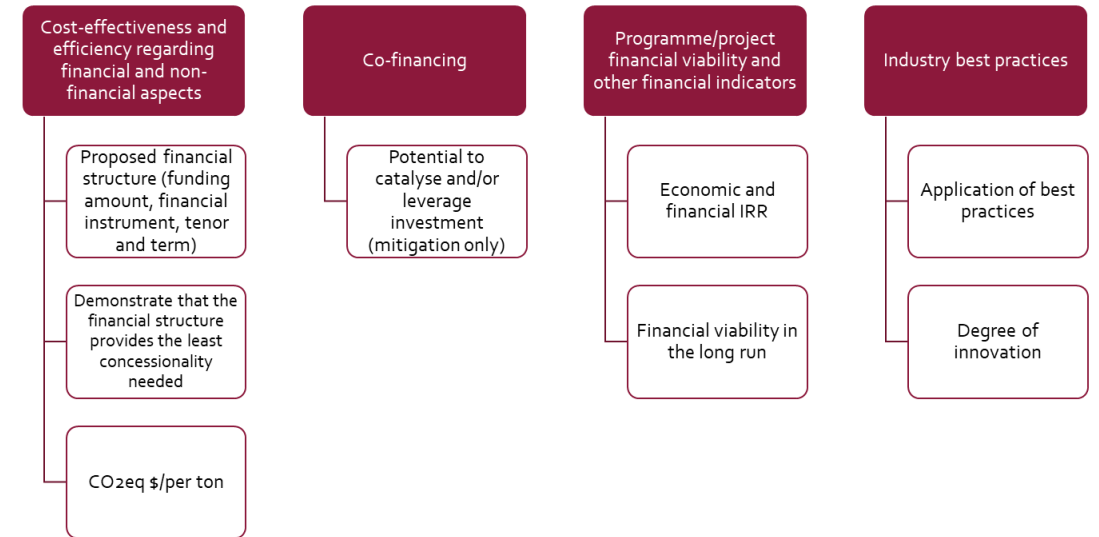
Highlight innovation degree from your governance analysis



EFFICIENCY AND EFFECTIVENESS EXAMPLE

EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF

- The programme impact assessment period is 25 years
- For households, the benefits of the project will also translate into improved nutrition and resilience among vulnerable groups (children, women of childbearing age and the elderly), reduced medical bills, less burdensome domestic chores and, in the long term, increased life expectancy for residents of the areas.
- A total co-financing amount estimated at USD 142 million, with co-financing ratio at 2: 1



Key Economic and Financial Indicators

NPV (baseline scenario)	\$ 171.66 million
IRR (baseline scenario)	20.7%
ERR (baseline scenario)	23.8%

the prices, outputs and average basic production costs for 2017 were used for the baseline situation in the project area in the nine countries

AN EXAMPLE OF BLENDED FINANCE FOR ADAPTATION

FLOOD PREVENTION – RIVER RESTORATION



Funding needs:

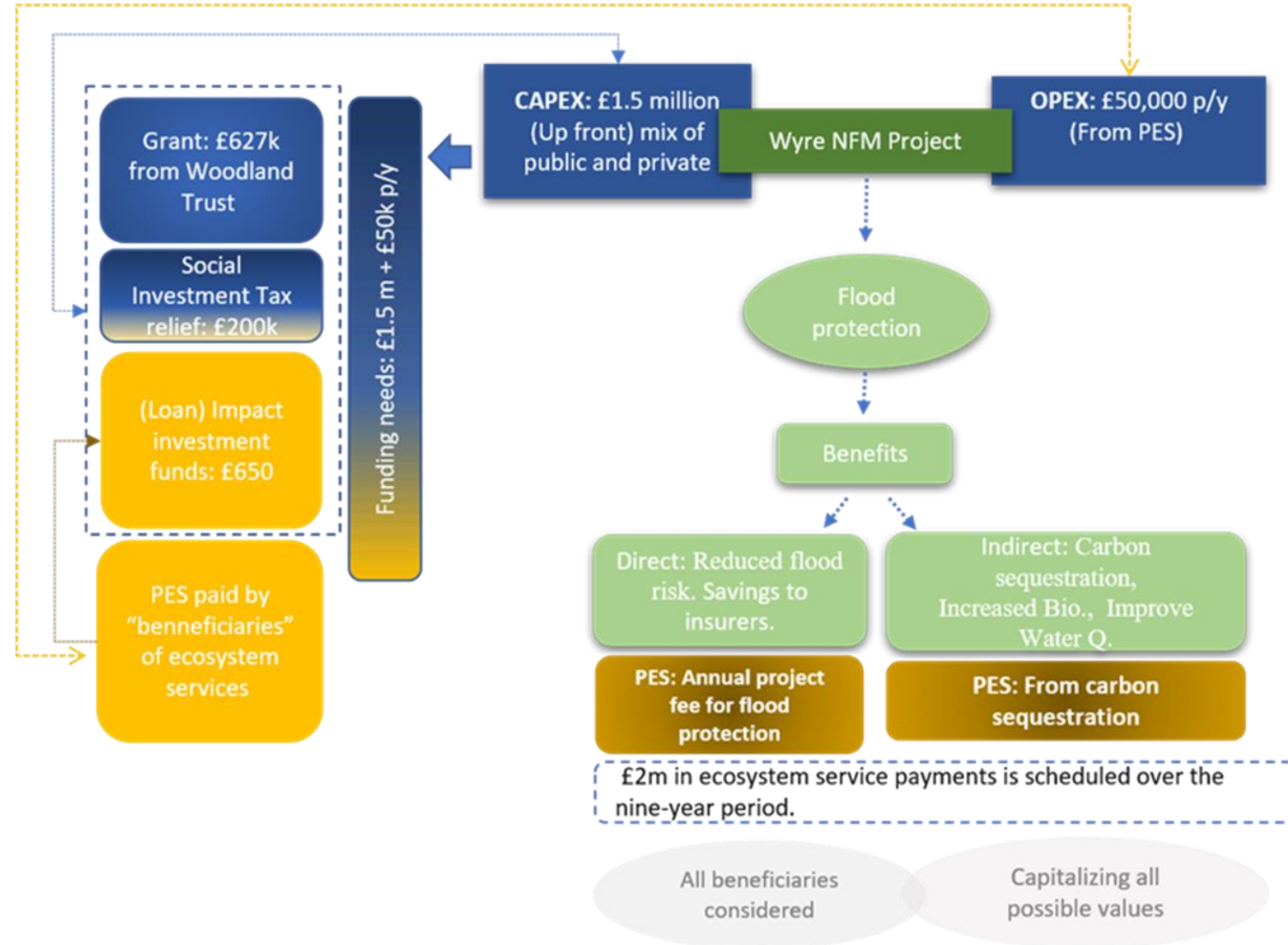
- * 1,5 million pounds upfront investments
- * 50 thousand pounds annually (recurring)

Funding sources:

- * Grants and social investment tax
- * Loan from impact investment funds

Revenue streams that generate financing

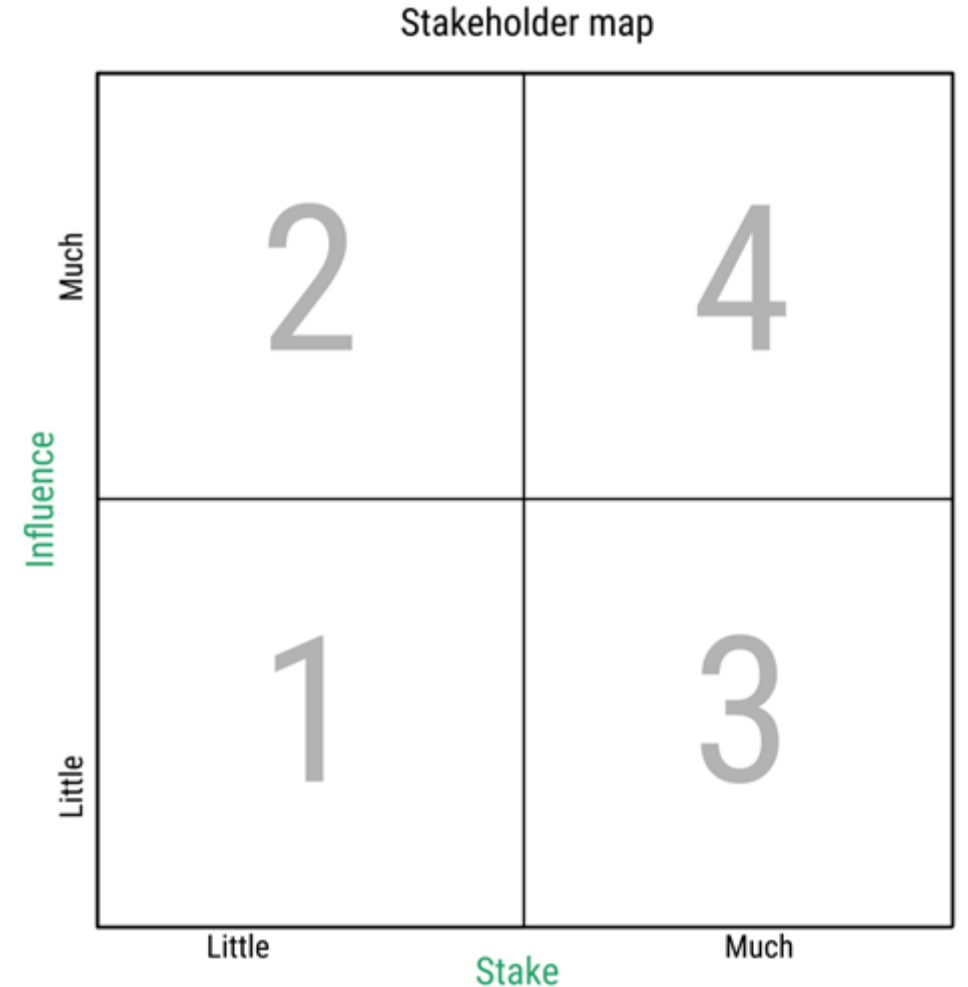
- * PES from carbon sequestration
- * PES from fee for flood protection



COUNTRY OWNERSHIP

The **country ownership** criteria emphasizes the country's authority over the project and capacity to implement a funded project/programme.

- **Show a strong link with NAP and NDCs from your governance analysis**
 - Alignment with other strategic developments in the country is valuable.
- **Describe stakeholder involvement.**
 - Who are the beneficiaries of the project and implementing partners?
 - Show stakeholder mapping from your governance analysis
- **Information from your governance analysis:**
 - Who are the most relevant stakeholders impacted by the project?
 - Who are the stakeholders that can have a direct or indirect impact on project planning and implementation?
 - What's the participatory approach setting?



COUNTRY OWNERSHIP EXAMPLE

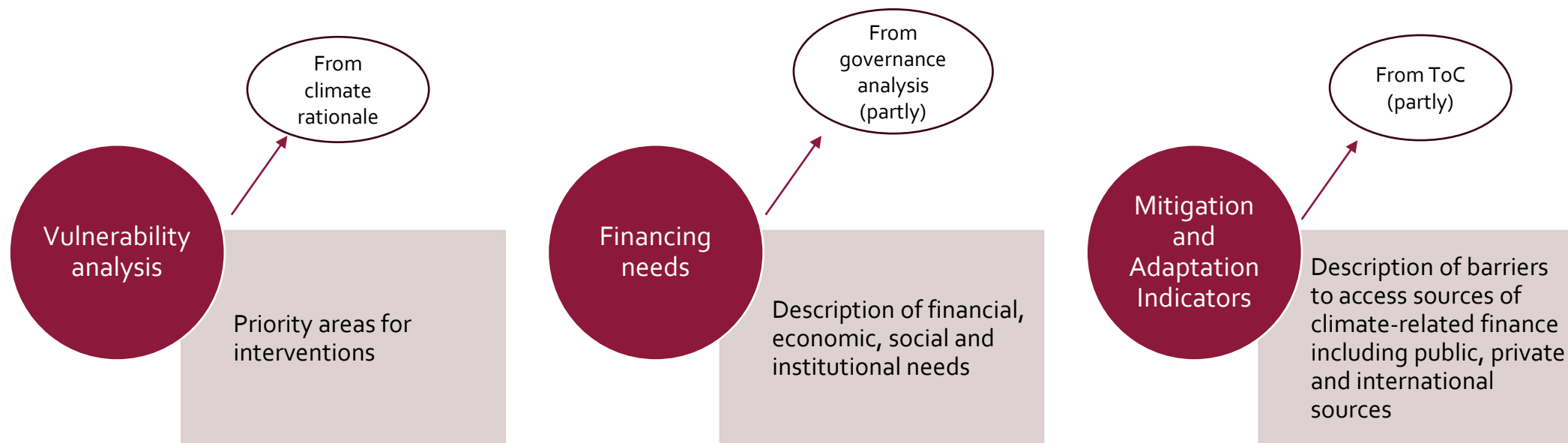
EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF

- Niger Basin partner states NCs are also motivated through the lens of poverty alleviation and drought control, considering that many countries suffer from recurring drought. The proposed program is consistent with the NAPAs for 6 of the Niger Basin countries
- Measures in the country national climate change commitments which are consistent with the PIDACC include: sustainable management of forests; forecasting and EWS; restoration of degraded land; fixation of dunes; promoting improved farming techniques and others.
- Implementation partner with track record
- Engagement and consultations with CSOs and NGOs active in the basin

[Source: Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin \(PIDACC/NB\) | GCF](#)

RECIPIENT NEEDS

Recipient needs focus on assessing vulnerability and financing needs of the country and population.



RECIPIENT NEEDS EXAMPLE

EXAMPLE: PROGRAM FOR INTEGRATED DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE IN THE NIGER BASIN (PIDACC) AFDB/GCF

- Demographic growth linked to pressure on natural resources (~3% annual growth)
- By 2030 the number of people living in the drylands of West Africa is expected to increase by 80% (based on current population growth estimates).
- Over the same period, climate change could result in an expansion of the area classified as drylands by as much as 20% under some scenarios
- Prevalence of poverty linked to climate change
- 8% of landowners are women.
- Women landowners access 10% of the credit available

[Source: Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin \(PIDACC/NB\) | GCF](#)