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Agriculture and Food Security

Investing in Sustainable Agri-Food Systems Transformation

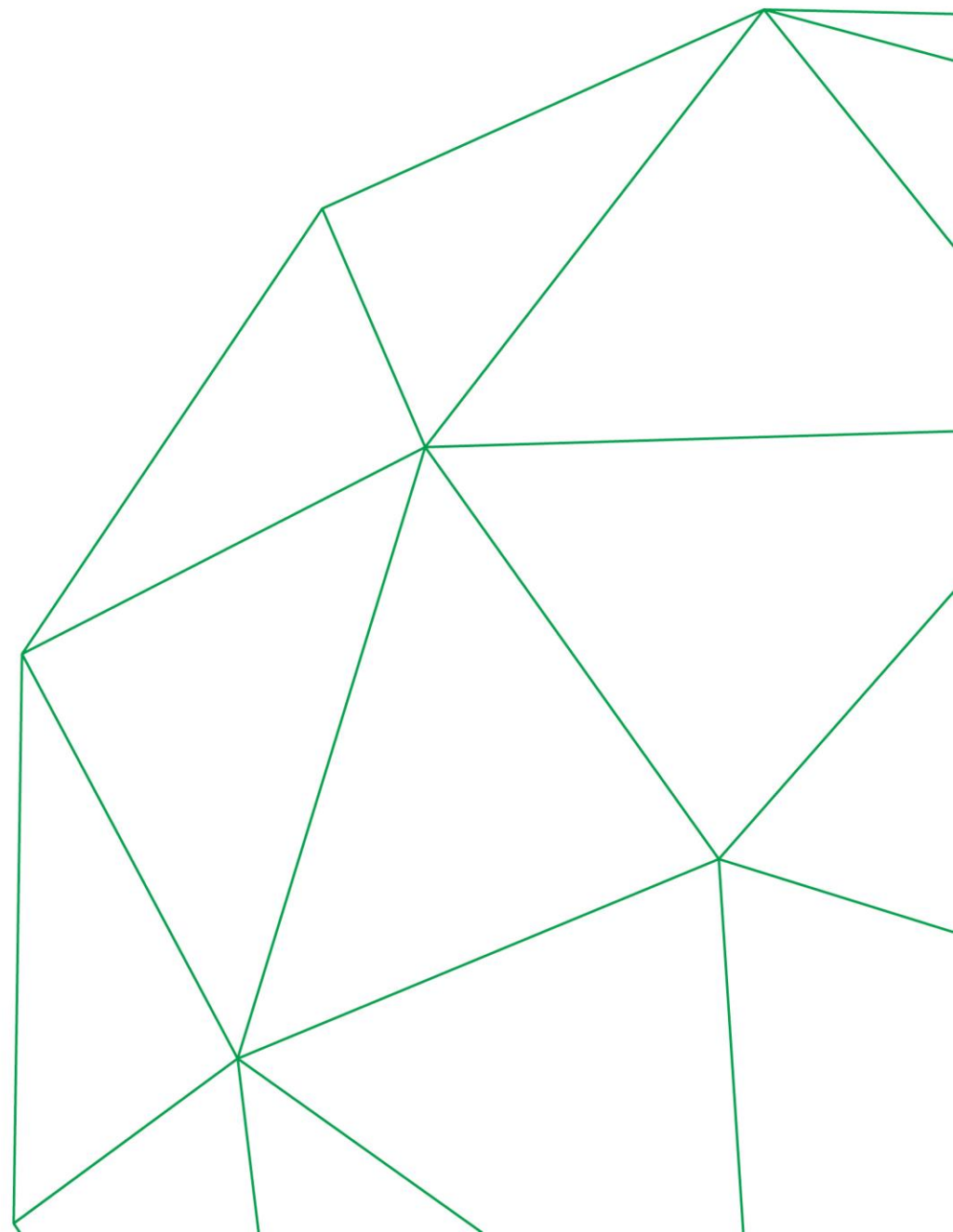
Gabriel Boc

Senior Agriculture and Food Security Specialist

Green Climate Fund

13–15 September 2022
Incheon, Republic of Korea

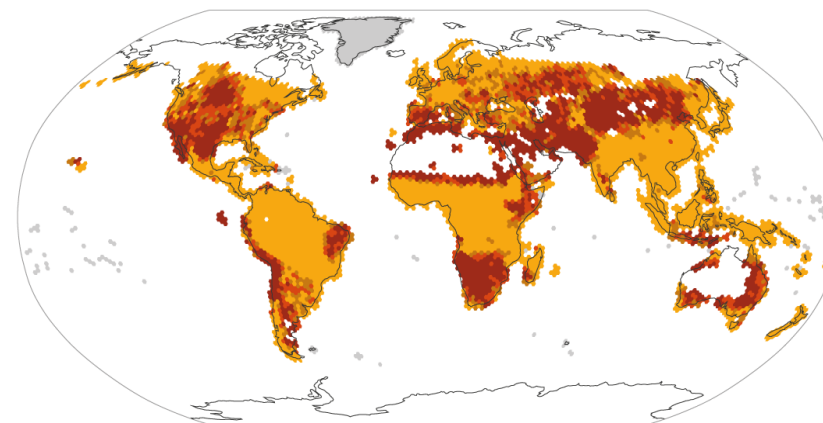
#InspireMoreClimateAction



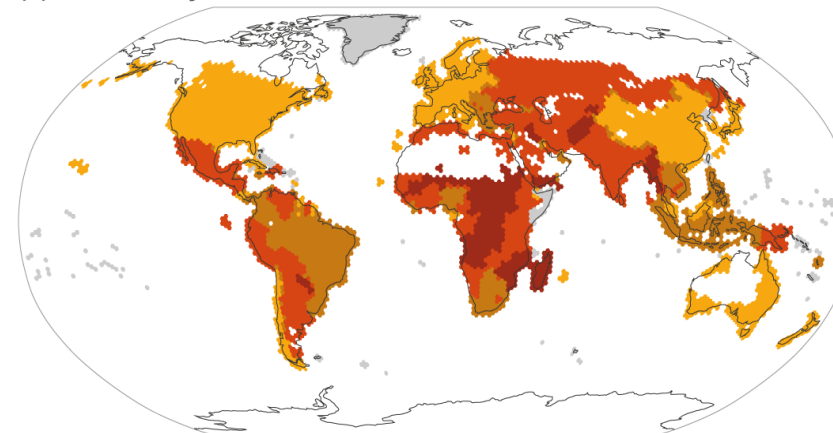
Current challenges in the agriculture sector

- Agriculture: central to food security and rural development, and supports livelihoods for 86% of the world's rural population
- Agriculture and food security sector: facing the challenges of increasing demand for quality food while reducing the sector's environmental footprint
- Growing population – increasing demand for land and food – change of diets – demand for agricultural products will require at least 60% increase by 2050
- IPCC ARWGII (2022): CC is changing the distribution, growing area suitability and timing of biological events (flowering, insect emergence (pollinators)) challenging our food quality and harvest stability)
- Key food producing areas - unsuitable for future food production, food insecurity to increase significantly (SSA and Central America)
- Occurrence of pests, weeds and diseases altered and costlier to control
- 800 million people go to bed hungry every night (WFP 2022)
- **How can we continue to feed a growing population when the sector faces these challenges?**

(a) Hazard & exposure indicator score



(b) Vulnerability index

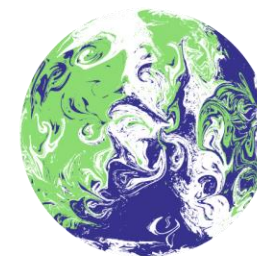


Emerging priority topics and approaches

- Follow-up to the 2021 UN Food Systems Summit (UNFSS)
 - *Action Track 1: Ensure access to safe and nutritious food for all*
 - *Action Track 2: Shift to sustainable consumption patterns*
 - *Action Track 3: Boost nature-positive production*
 - *Action Track 4: Advance equitable livelihoods*
 - *Action Track 5: Build resilience to vulnerabilities, shocks and stress*
- FS Hub being set-up by FAO, WFP and IFAD to provide technical and investment support to priority topics; other food systems coalitions starting post-summit planning and programming
- COP26 Pledges
 - Global Methane Pledge
 - over 100 countries committed to at least 30% reduction by 2030
 - For agriculture, linkages with livestock and irrigated rice production
 - Ending deforestation by 2030
 - Over 141 countries pledging to halt and reverse forest loss and land degradation by 2030
 - Increasing market regulations and demand for deforestation-free agricultural commodities
- IPCC 6th Assessment Report: Impacts, Adaptation and Vulnerability
- Agriculture expected to rank high on the agenda for COP27



Food Systems Summit 2021



UN CLIMATE
CHANGE
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UK 2021

IN PARTNERSHIP WITH ITALY

AGRICULTURE AND FOOD SECURITY: DRIVERS OF CHANGE ACROSS PARADIGM SHIFTING PATHWAYS



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Four drivers of paradigm-shift			
Transformational Planning & Programming	Catalyzing Climate Innovation	Mobilization of Finance at Scale	Coalitions & Knowledge to scale up success
<ul style="list-style-type: none"> Integrated agricultural development planning that mitigates the risks of maladaptation & maximizes joint adaptation-mitigation synergies & co-benefits Enabling community-responsive policies, frameworks & practices Investment pipeline development 	<ul style="list-style-type: none"> Promoting new business & financing models for reaching scale that incentivize low-emissions resilient inputs, practices & technologies Integration of novel climate-responsive technologies, services & programs Promote landscape level NRM for hazard prevention 	<ul style="list-style-type: none"> Guarantees & concessional finance for input suppliers, SMEs & cooperatives Financial services for SMEs Incentivizing via PES Bundling services & interventions together 	<ul style="list-style-type: none"> Knowledge platforms for sharing what technologies, management practices & business models are most suited for different agro-ecological & socio-economic contexts Promoting successful business models for scaling resilient agriculture
<ul style="list-style-type: none"> Understanding needs & identifying gaps for information, advisory, & extension systems Co-designing delivery systems to meet users' needs 	<ul style="list-style-type: none"> Developing & testing new business models & financing instruments for agricultural insurance & social safety net program Leveraging emerging digital technologies supports reaching scale Supporting incubation & acceleration of startups & SMEs 	<ul style="list-style-type: none"> Engaging private sector ICT service providers, maximizing synergies with PPPs, supporting start-up service providers Blended finance mechanisms with proven risk management business models 	<ul style="list-style-type: none"> Blended finance to engage private finance Technical investment assistance ESG impact measurement Mobilization of national & global funds through capital markets
<ul style="list-style-type: none"> Identifying key leverage points for catalyzing high-impact adaptation & mitigation in sustainably productive food systems Behavior economics evaluation of demand for nutritious low-emissions food Strengthening policy coherence & cross-institutional coordination 	<ul style="list-style-type: none"> Enabling NRM, market, trade, & transport infrastructure Quality & sustainability certification & regulation Providing challenge grants for SMEs 	<ul style="list-style-type: none"> Supporting PPPs to stimulate resilient supply chains Capitalization of climate & food security funds Providing low-emissions resilient companies with guarantees, concessional debt & equity investments 	<ul style="list-style-type: none"> Engaging regional/global platforms to promote learning Replicating successful information & advisory system business models Supporting private sector actors mainstreaming climate risk in business model, internal policies & investments Engaging Food system platforms & industry alliances/groups

Full details in
the GCF
Sectoral
Guide for
Agriculture
and Food
Security

available
[here](#)

13-15 September 2022

Pathway 1: Promoting resilient agroecology



- Resilient agroecology supports adaptation and mitigation efforts while seeking to promote the agroecological conditions that reduce climate shocks on agricultural productivity
- **Improved seeds, crop varieties, and breeds** (e.g. drought-tolerant maize, etc.)
- **Diversifying crops, aquaculture and livestock** (e.g. crop rotation, intercropping, etc.)
- **Sustainable practices and technologies** (e.g. landscape approaches, water and soil management, IPM, agroforestry, solar irrigation, micro-pumps, minimum tillage, residue management, etc.)

Pathway 2: Facilitating Climate Informed Advisory and Risk Management Services

- **Climate information and early warning systems**
- **Digital agricultural advisory and extension**
 - Overcoming existing gaps
 - **Effective delivery mechanisms** that facilitate personal relationships and multi-way communication at low or no cost
- **Financial literacy training, access to finance** (e.g. mobile money) helps ensure financial services reach women, youth, impoverished
- **Index Insurance** increase resilience by linking insurance payouts to predetermined index e.g., rainfall, temperature, yield





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Pathway 3: Reconfiguring Food Systems

Changing how food is produced, stored, transported, sold and consumed

- reshaping supply chains, food processing, storage, marketing, and procurement;
- reducing food loss and waste;
- shifting consumers to demand safer, healthier and more environmentally sustainable diets;

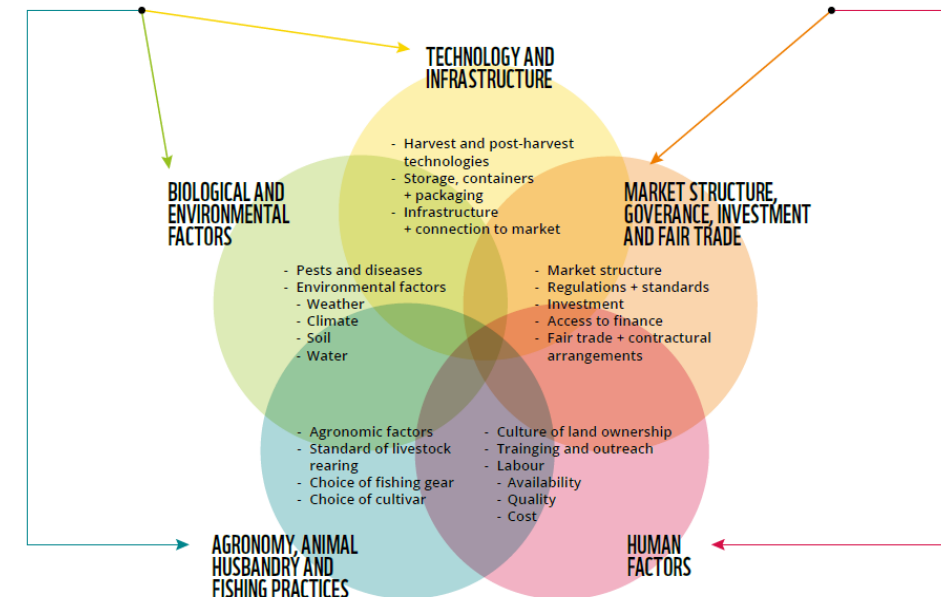
Must be environmentally sustainable, deforestation-free, inclusive, and enhancing rural employment opportunities

Low-emissions goals for food systems include reducing food loss and waste, improving energy efficiency, finding alternative energy sources



DIRECT DRIVERS

INDIRECT DRIVERS



er 2022



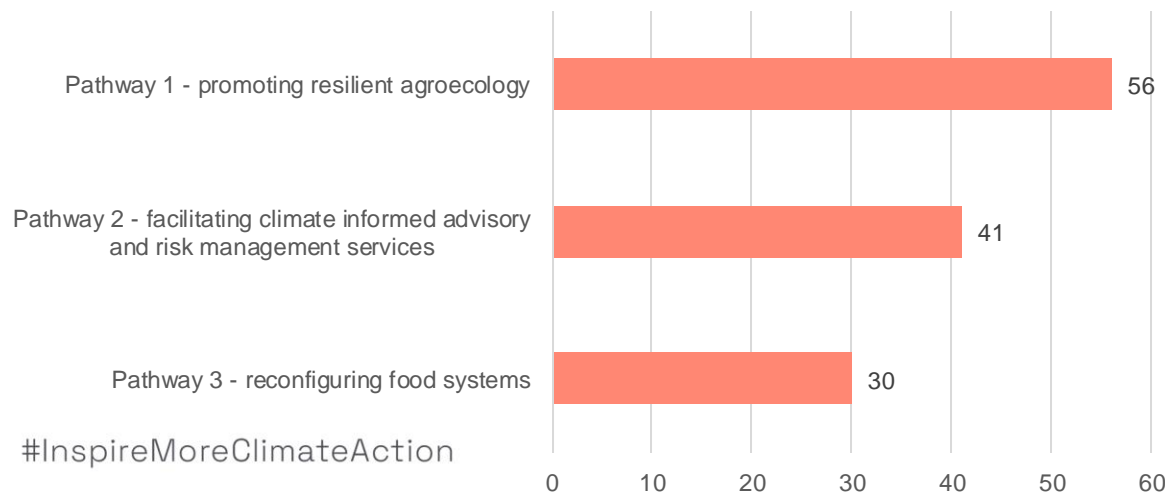
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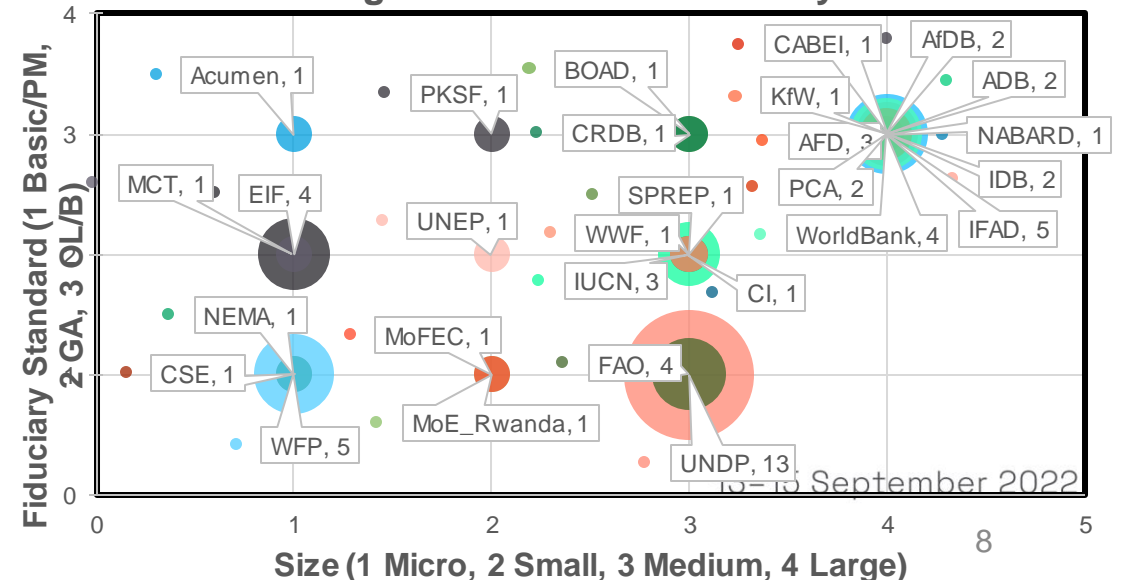
Overview of the sector portfolio

- 68 GCF approved projects (71% cross-cutting, 29% adaptation) on agriculture and food security (AG-FS) to date
- Geographical coverage: 24 LDCs, 12 SIDS, 1 LDCs/SIDS and 33 African countries
- AG-FS: \$1.1 b/10% of the total GCF financing of \$10b
- Gaps in terms of sub-sectors and themes
- Insufficient private sector involvement
- Need for more programmatic approaches (thematic or geographical) and prioritizing cross-cutting initiatives

Paradigm Shifting Pathways



Agriculture & Food Security





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Thank you

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