



CLIMATE-SMART AGRICULTURE AT THE WORLD BANK



WORLD BANK GROUP
Agriculture & Food



FOODSYSTEMS
2030

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Agriculture & Food Global Practice

The World Bank

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THE WORLD BANK

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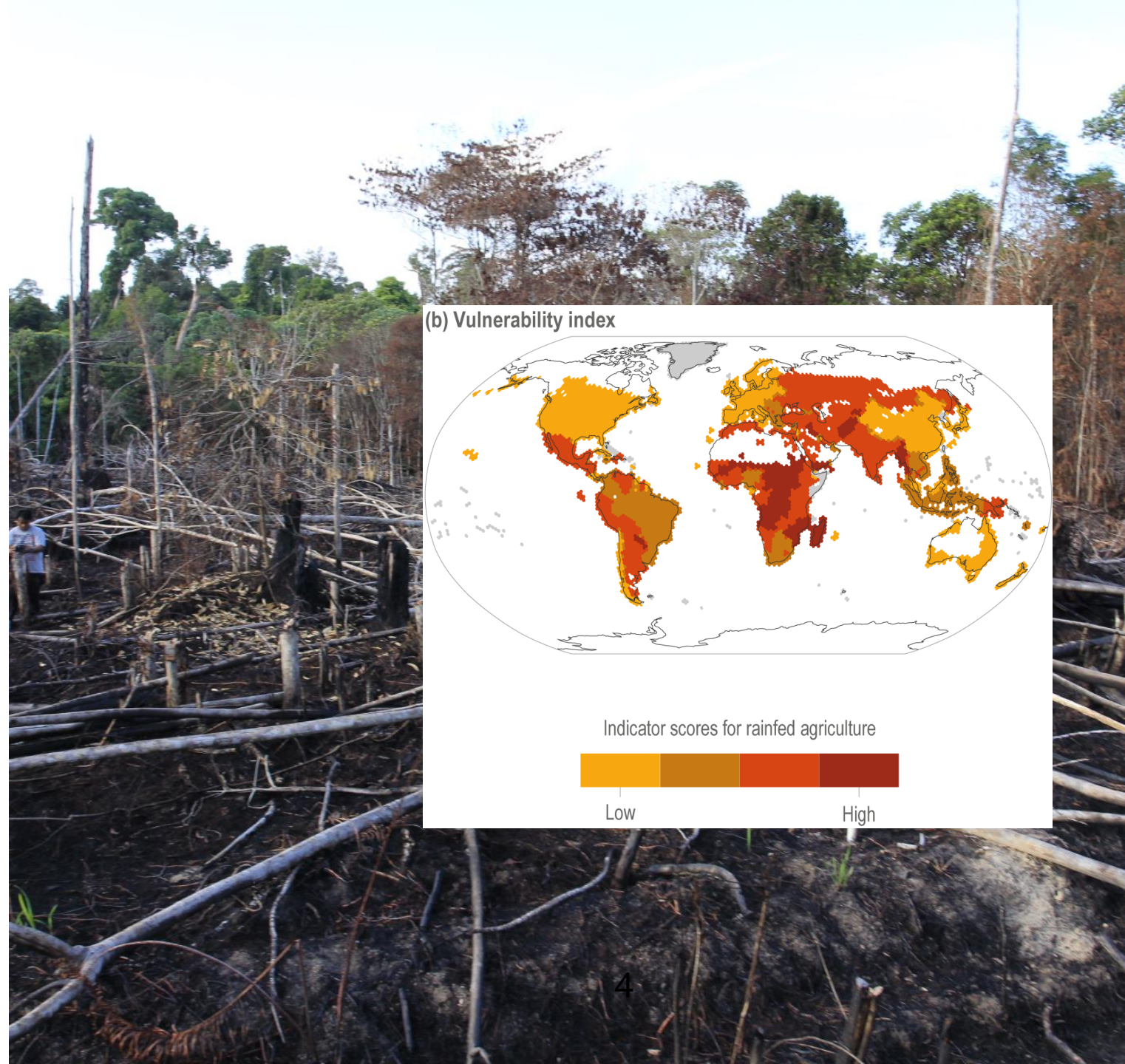
NEW WORLD BANK VISION:



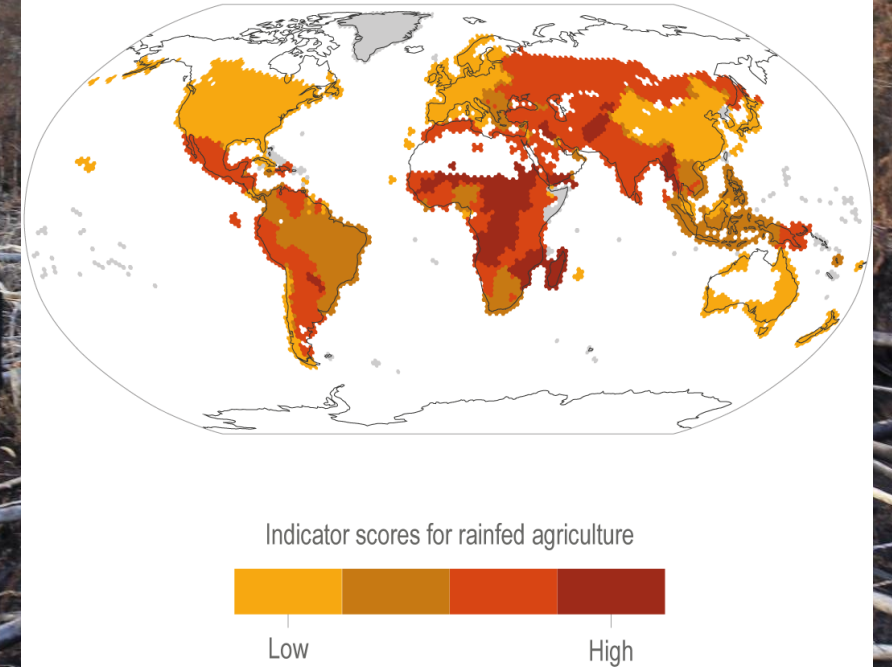
The challenges: Vulnerability

- We need to feed ~10 billion people by 2050
- The agri-food system is particularly vulnerable to climate change
- IPCC AR6 WGII, Ch. 5, 2022:

“Climate-related extremes have affected the productivity of all agricultural and fishery sectors, with negative consequences for food security and livelihoods (high confidence).”

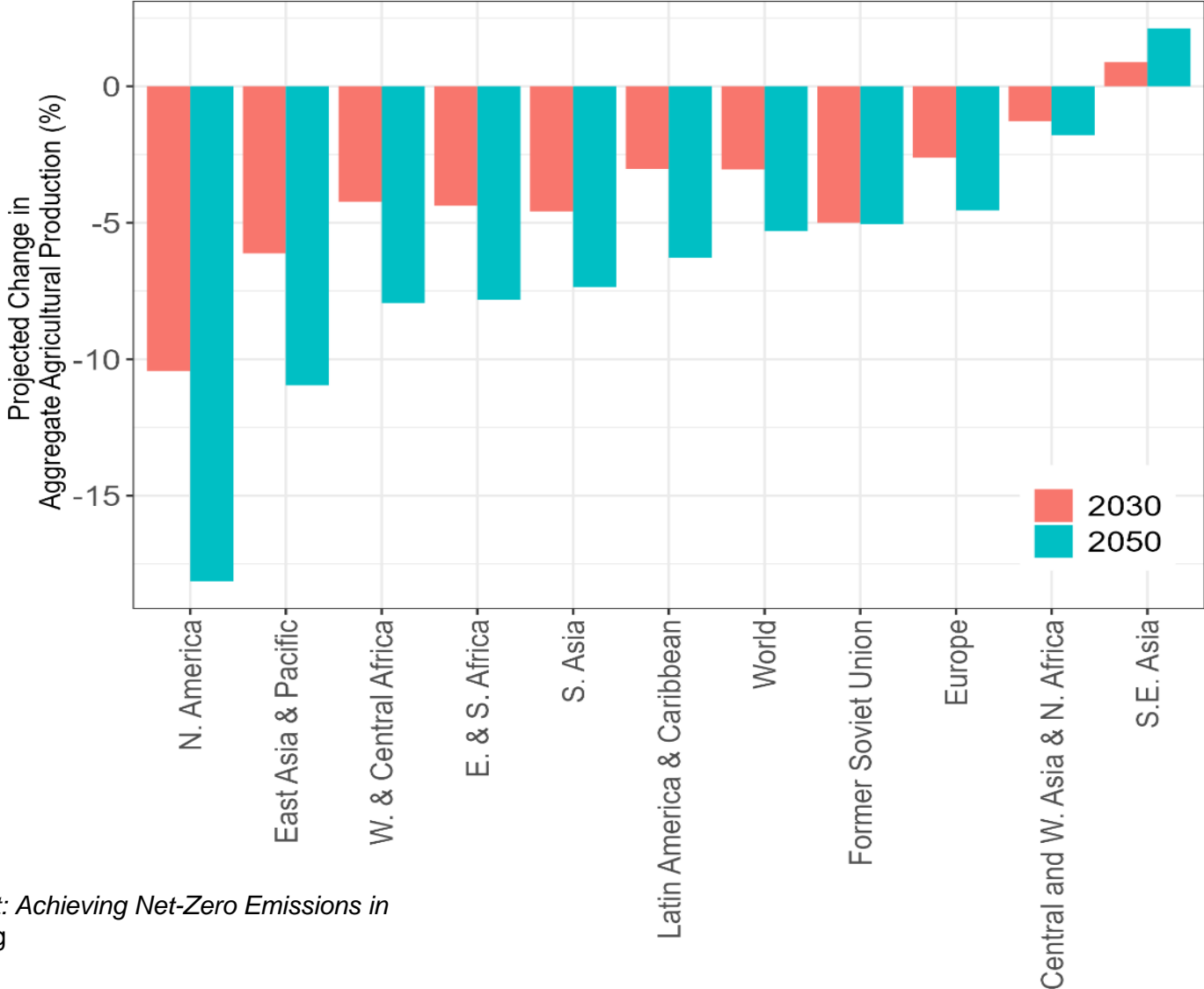


(b) Vulnerability index



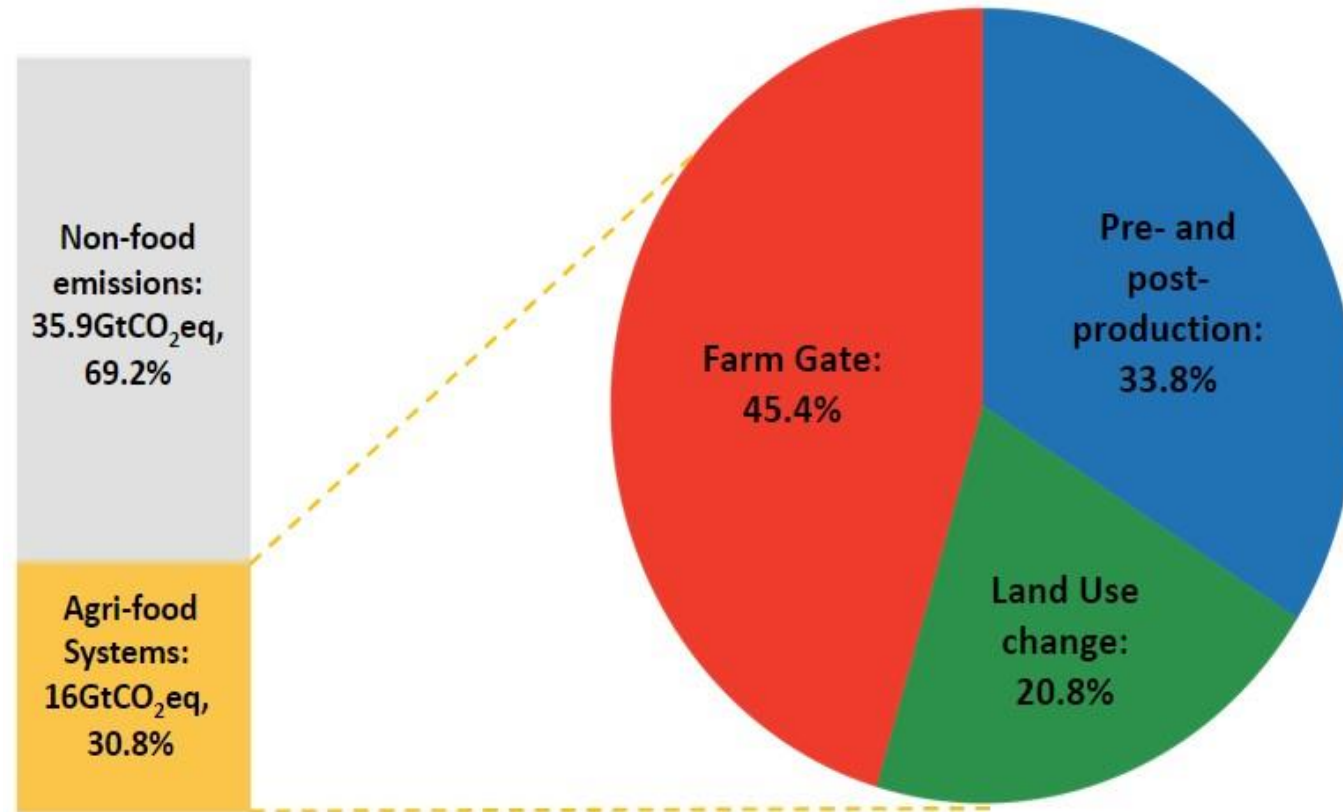
THE CHALLENGE: CLIMATE CHANGE IS INCREASINGLY UNDERCUTTING AGRICULTURAL PRODUCTION

Projected changes in agricultural production under climate change by geographic region for 2030 and 2050 compared to 2010 (%)



From *Recipe for a Livable Planet: Achieving Net-Zero Emissions in the Agrifood System*, forthcoming

THE CHALLENGE: THE AGRIFOOD SYSTEM CONTRIBUTES NEARLY 1/3 OF GLOBAL GHG EMISSIONS



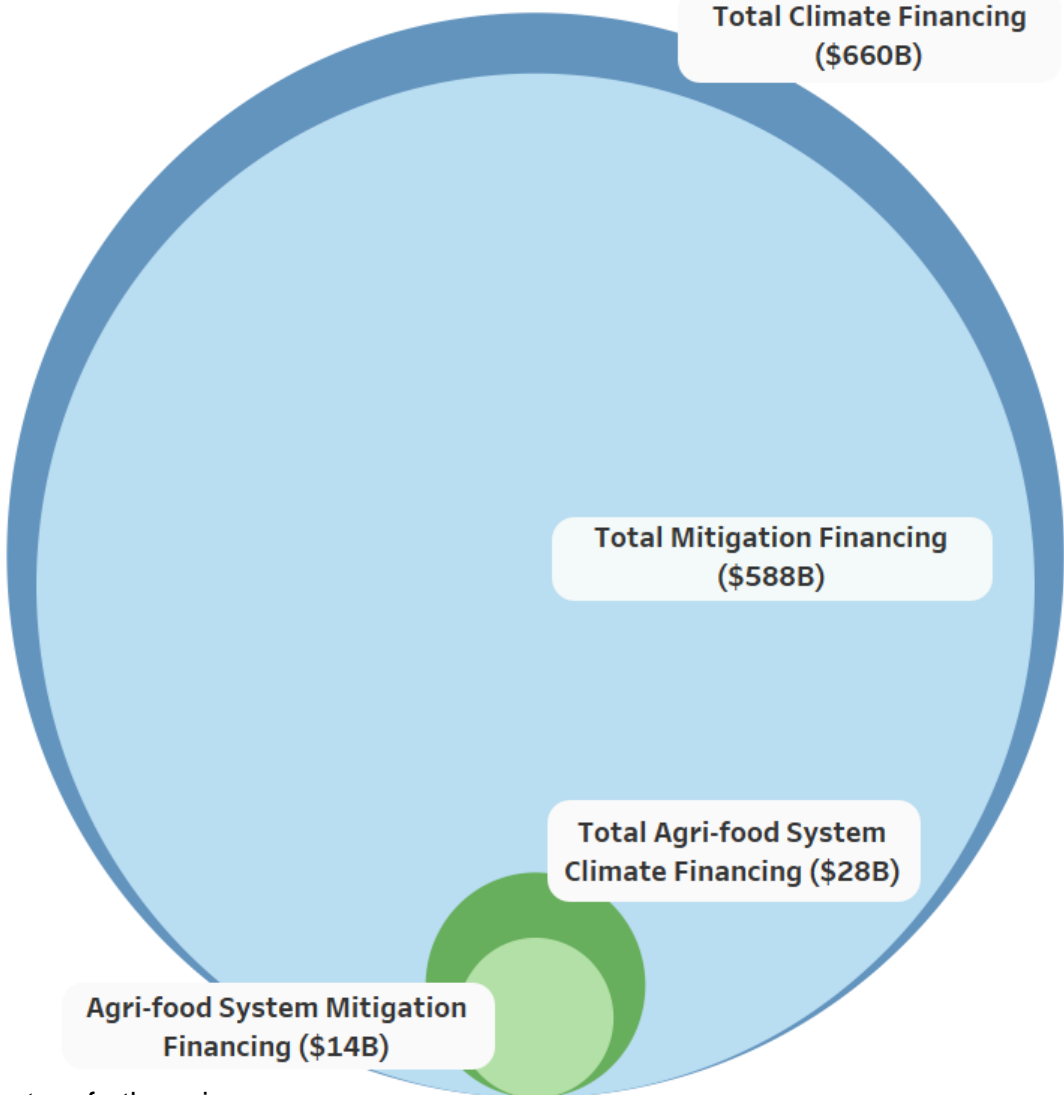
The agrifood system is also the biggest source of:

- Methane emissions
- Biodiversity loss
- Freshwater use

THE CHALLENGE: A MASSIVE FINANCING GAP

Globally, the agrifood system receives:

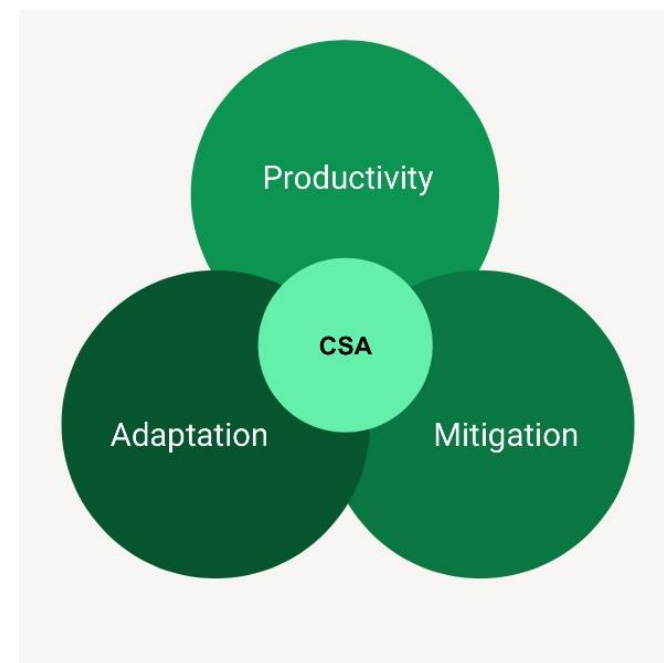
- 4.3% of total climate financing
- 2.4% of mitigation financing



From *Recipe for a Livable Planet: Achieving Net-Zero Emissions in the Agrifood System*, forthcoming
World Bank rendering using CPI 2022 and 2023, and data from original analysis carried out by CPI for this report

WHAT IS CLIMATE-SMART AGRICULTURE?

- “CSA” coined over a decade ago. It’s simplicity has made it appealing and widely adopted.
- Emphasizes multi-win solutions focused around three elements:
 - **Adaptation:** Builds the resilience of the agrifood system in response to, or in anticipation of, climatic changes, to reduce their harm, and even benefit from them where possible;
 - **Productivity:** Enhances the yield (or output) per unit of input; in other words, “produces more with less” to increase food security and farmer incomes; and
 - **Mitigation:** Reduces emissions and emissions intensity of food production, minimize food loss and waste, and supports sequestration.



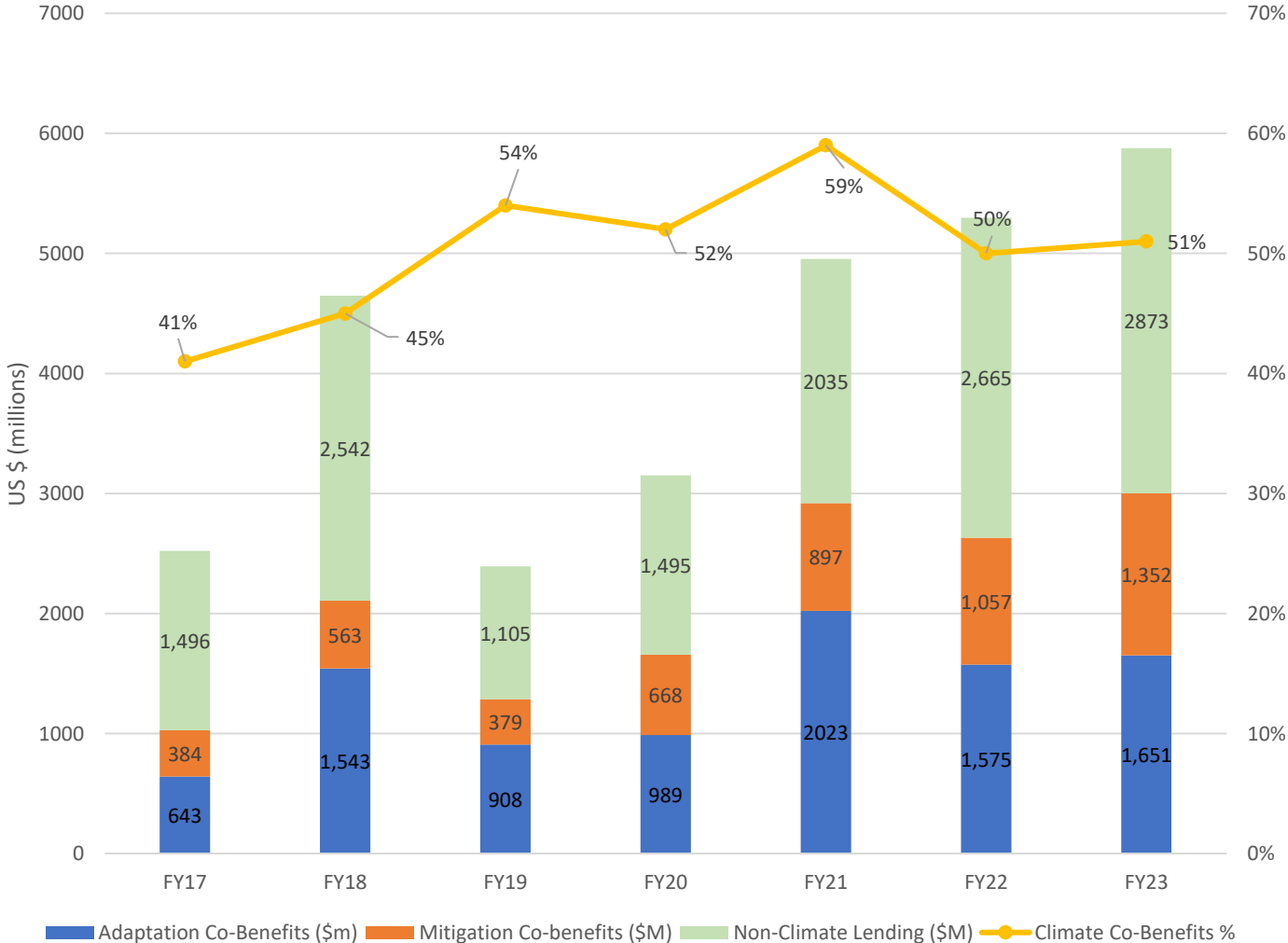
[Henry Gordon-Smith](#)

CLIMATE CHANGE – FRONT AND CENTER



- Increased annual financing for CSA by 8 times since Paris – to nearly \$3 billion
- Around 70% for adaptation, 30% for mitigation

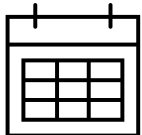
AGF GP Co-Benefits Trend



DECARBONIZATION OF THE AIR AND RECARBONIZATION OF THE LAND THROUGH AGRI-FOOD SYSTEM TRANSFORMATION (DARL)

- A multi-year World Bank Global Flagship Advisory Services and Analytics program.
- Objective: To increase World Bank and client understanding of the pathways for achieving net-zero in the global agri-food system, and to develop tools needed to spur action at the country level.

- Paris alignment
- Climate and disaster risks screening
- Country climate and development reports
- CSA profile
- CSA investment plans
- Research support
- Global flagship Report:



Recipe for a Livable Planet: Achieving Net-Zero Emissions in the Agrifood System

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ON-THE-GROUND WORK

EXAMPLES OF WORLD BANK PROJECTS
FROM THE MENA REGION



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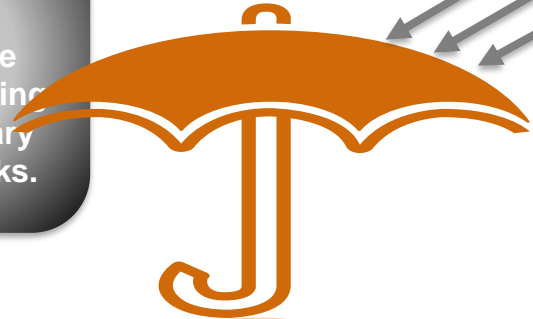
Transforming Agri-food Systems in Morocco



Agrifood system transformation for enhanced resilience in the face of increasing climatic, sanitary and market risks.



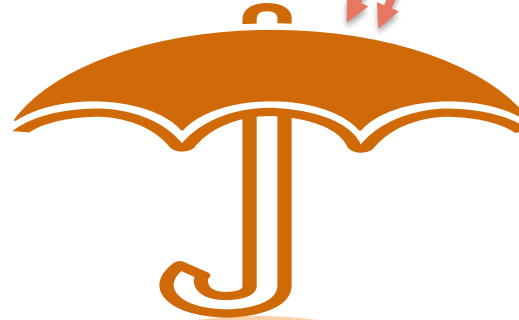
Climatic Risks



1

Improvement of climate resilience and risk management in rainfed agriculture

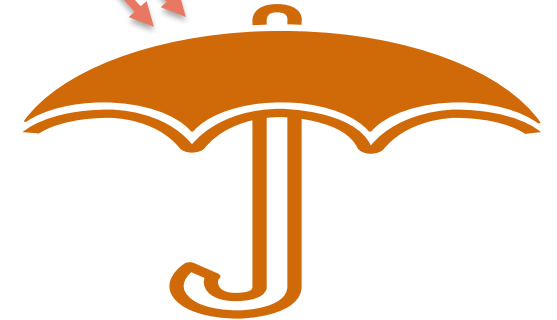
Sanitary Risks



2

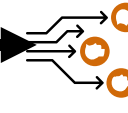
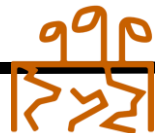
Reduction of sanitary risks in agri-food systems

Market Risks



3

Enhancement of efficiency and sustainability for targeted value chains.



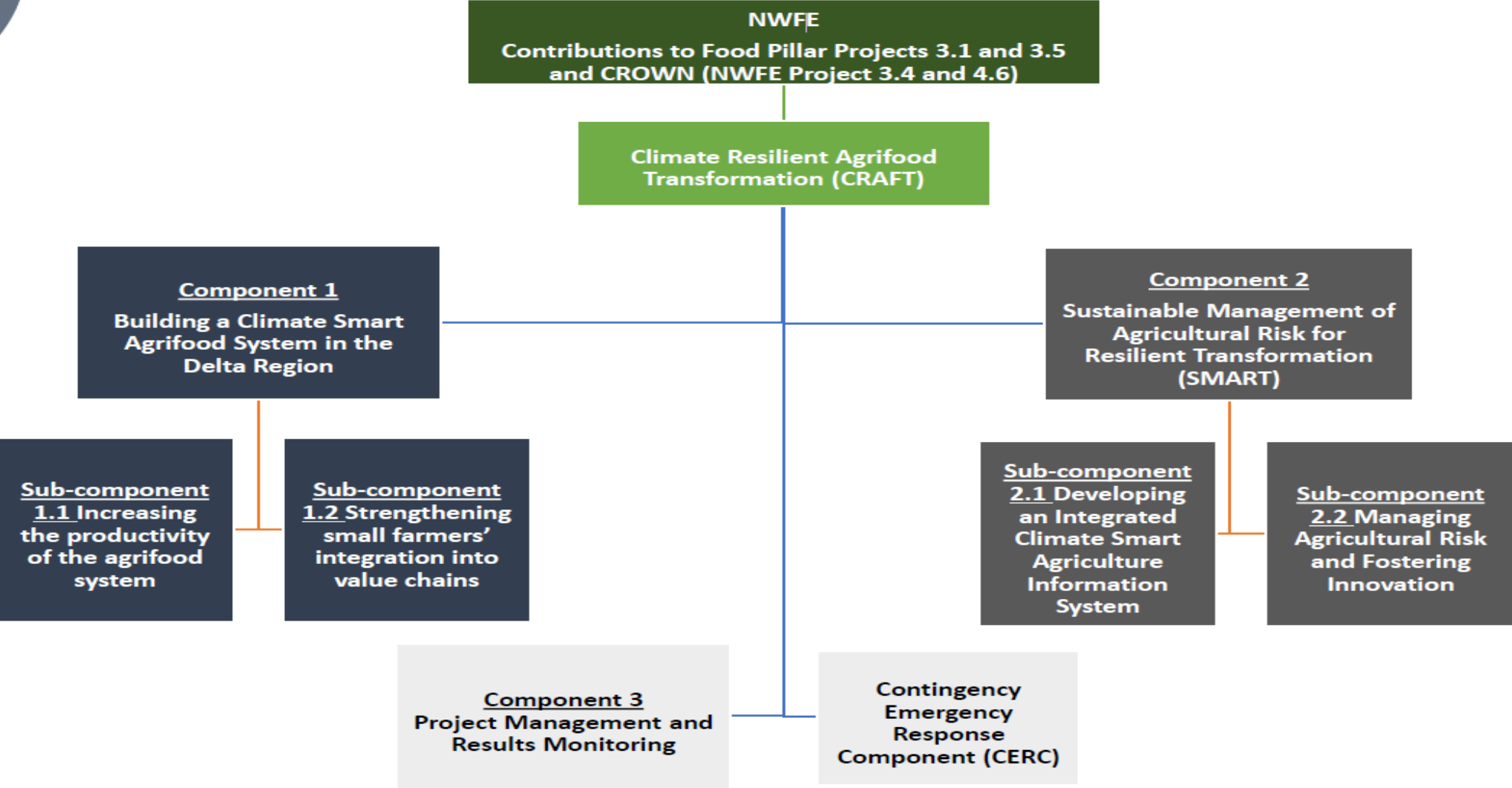
Support to the National No-tillage Program

Reform of agricultural insurance



- One million hectares converted to CA
- Increase of area insured against climatic risks from 1 to 2.5 million hectares
- Up to twice the level of agriculture GDP and agricultural exports; and
- Up to twice the level of water efficiency.

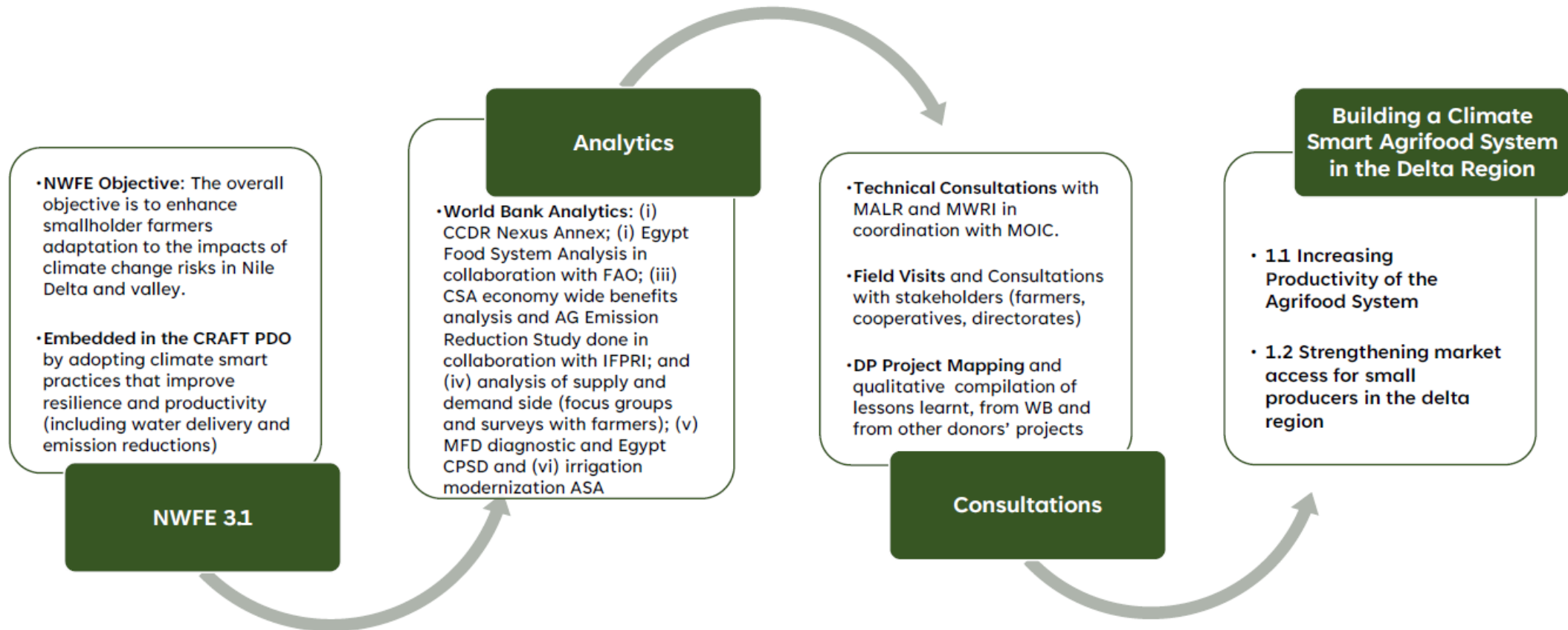
Climate resilient agrifood transformation (CRAFT) – Egypt



Climate resilient agrifood transformation (CRAFT) - Egypt



Component 1





Objective: To strengthen the climate resilience and enabling environment for agriculture development in selected value chains in Jordan.

Overview:

Challenges	GoJ Program	Program	Impact
<p>1 Climate change impacts and worsening water scarcity</p>	<p>National Agriculture Plan 2022-2025</p>	<p>Results Area 1: Climate Resilience & Sustainability</p>	<p><i>Viability of rainfed systems under Climate Change maintained</i></p>
<p>2 Declining competitiveness (costs, access to export markets)</p>		<p>Results Area 2: Competitiveness & Exports</p>	<p><i>Increase in water use efficiency of >20% at targeted farms</i></p>
<p>Agriculture Sector Delivery Unit (incl Capacity Building)</p>			<p><i>~10'000 additional permanent jobs / employment opportunities</i></p>
			<p><i>Add ~US\$360 M to GDP & leverage private investment</i></p>



**Results Area 1 (RA):
Climate Resilience & Sustainability**

**RA 1.1. Scaling Up Sustainable
Rainwater Harvesting in Agriculture**

- Planning framework for agricultural rainwater harvesting
- Farm-level
- Community level

**RA 1.2: Building Institutional Adaptive
Capacity for Innovation**

- Scale-up of farmer registry
- Development of extension plan and training of farmers on CSA
- Expand animal health service provision capacity
- Scale-up of digital innovation (digital roadmap, early warning, smart applications)

**Results Area 2 (RA):
Competitiveness & Exports**

**RA 2.1: Enabling Services for Value Chain
Development and Export Promotion**

- Scale-up water use efficiency technologies through ACC grants
- Market intelligence mechanism and market opportunity diagnostic
- Implementation of traceability systems
- Improved service delivery for food safety (accreditation of labs)

**RA 2.2: Matching skills supply with
demand in agri-food sector**

- Training needs assessment
- Skills upgrading and job matching for trainees, including youth, girls and refugees

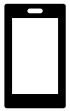
Paths forward: A Call for Action



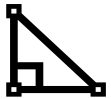
Scale up climate financing



Repurpose public agriculture support



Adopt innovative technologies



Measurement, reporting and verification

Thank you

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