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# From Fragility to Resilience in Central and West Asia and North Africa (F2R-CWANA)

## WP 5: Scaling innovation and digital tools for climate resilient food value chains

Inception Workshop – Morocco May 17, 2022



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# Objectives of the WP5

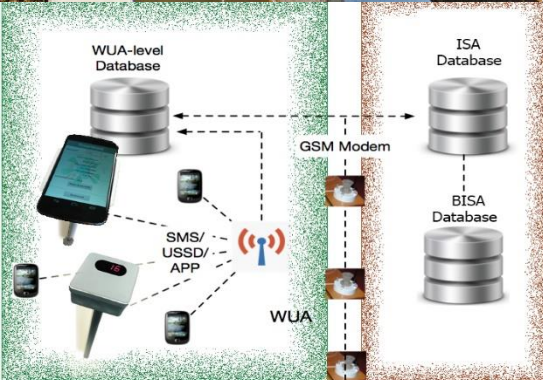


WP 5 seeks to **leverage, assess, accelerate, and scale the use of digitally innovative solutions** to address climate change induced challenges across FVCs.

This work package focuses on **accelerating and scaling digital climate services, financial solutions and other technologies that improves the climate resilience of FVCs.**

Objectives:

- Build the climate resilience of anchor countries' agriculture providing accessible and relevant climate analytics and information through digital advisory tools.
- Integrate accumulated knowledge and available science innovations of CGIAR developed initiative into local platforms and NARS systems to mature into climate services through incubators and startups.
- Ensure better integration of created products and digital services in the national system being co-developed by local stakeholders and involvement of private sectors.





# Scaling digital innovations to build climate resilient agricultural value chains

## Strategic Research Questions:

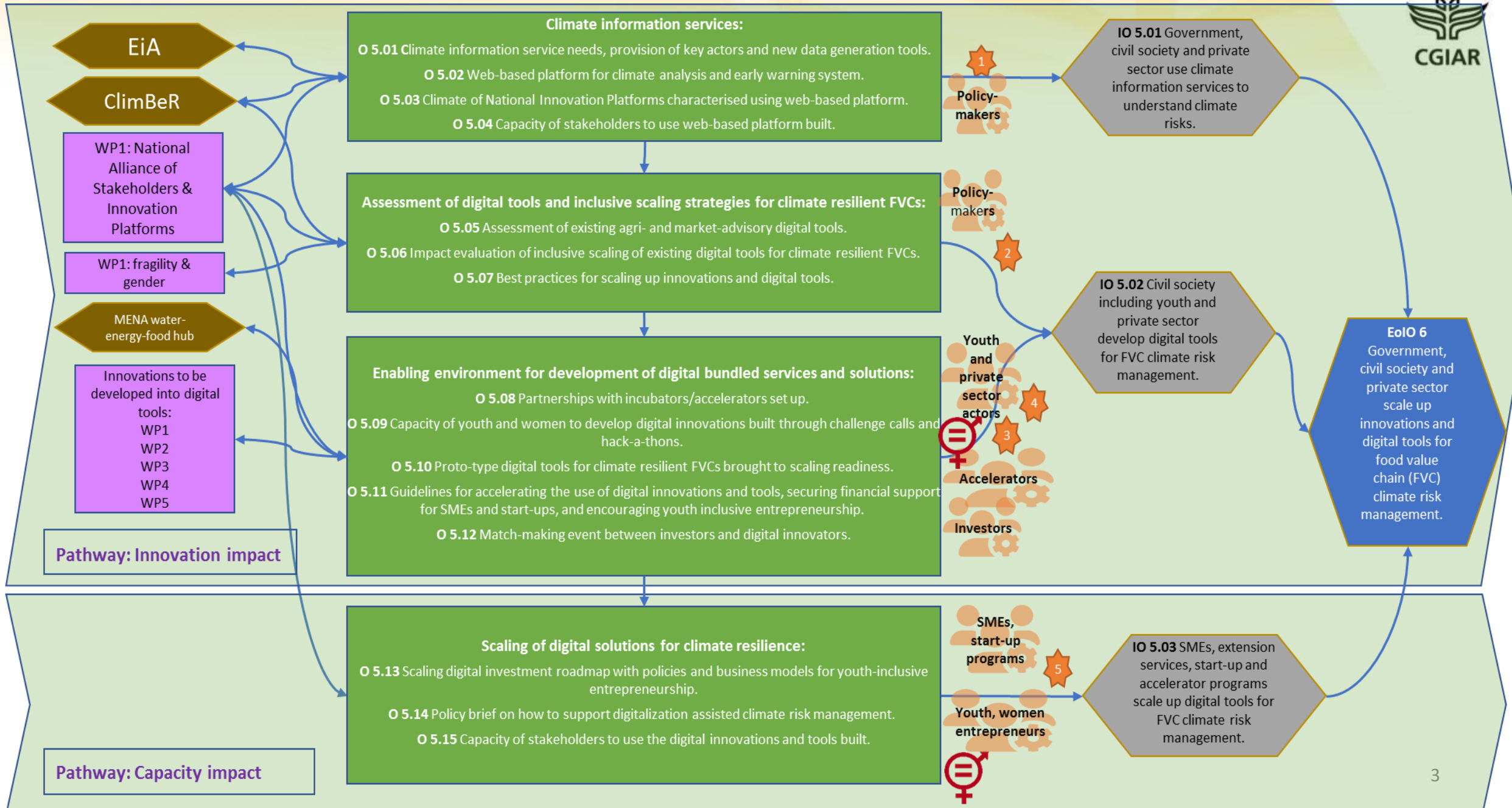
**RQ 5.01** What climate information data and services do agricultural food value chain (FVC) actors need to manage climate risks in the CWANA region?

**RQ 5.02** How can agri- and market-advisory scaling up strategies for climate-resilient FVCs be socially inclusive, effective and sustainable?

**RQ 5.03** How can the enabling environment for the efficient and inclusive adoption of the best digital agri-climatic digital bundled services and solutions be improved to accelerated scaling?

**RQ 5.04** How can digital innovations that support the creation of climate resilient FVCs be scaled out for maximum durable impact?





Assess



## T5.1

Value chain risk identification, social impact for resilient farming

1. Climate risk profiles, resource gaps for de-risking agricultural value chains
2. Sub-national drought monitoring and early warning for early action
3. Exposure and vulnerability of agricultural value chains
4. Assess climate (water and drought stressed) shock-responsive mechanisms (digital tools, financial instruments, social inclusion) for resilience prioritization

Accelerate



## T5.2

Innovative digital solutions for enhancing value chain resilience

1. Drought proofing for enhancing water use efficiency and productivity
2. Agro-meteorological advisories through digital tools and promote agricultural insurance e.g. WII for risk mitigation for financial resilience
3. Contingency plan for climate shock-response mechanism (drought and heat stress)
4. Co-design and Co-demonstrate de-risking of AVCs through scaling partners and youth entrepreneurship of SMEs and startup

Scale



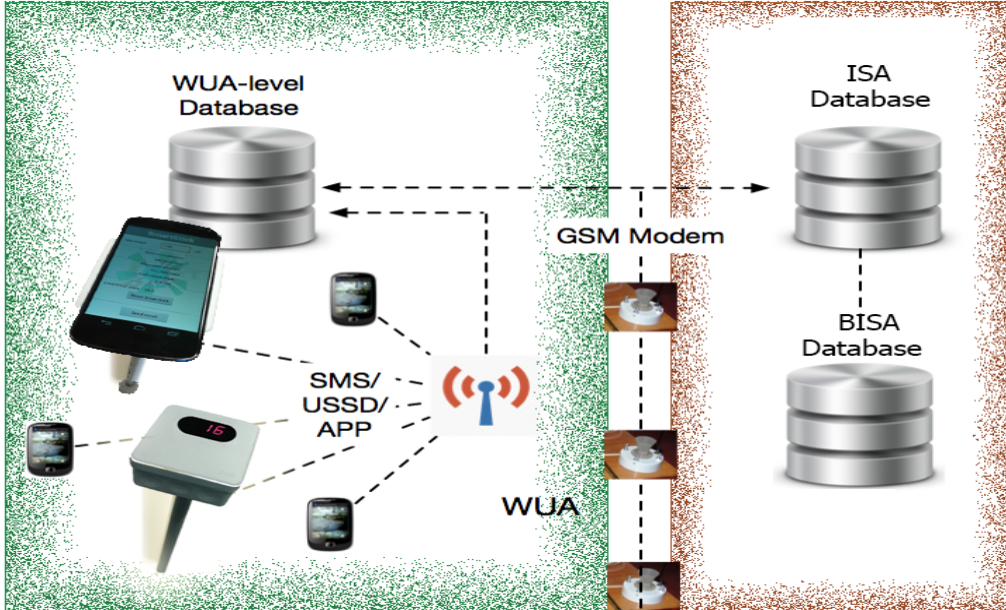
## T5.3

Accelerating adaptive strategies and promoting entrepreneurship for resilient value chains

1. Develop investment framework for climate resilience value chain
2. Empowering youth entrepreneurship accelerator grants for SMEs, incubators;
3. Increase the resilience of agricultural production and marketing system to empower rural livelihoods of women, youth and disadvantaged groups
4. Capacity building of climate smart digital technology for agricultural value chain for food security


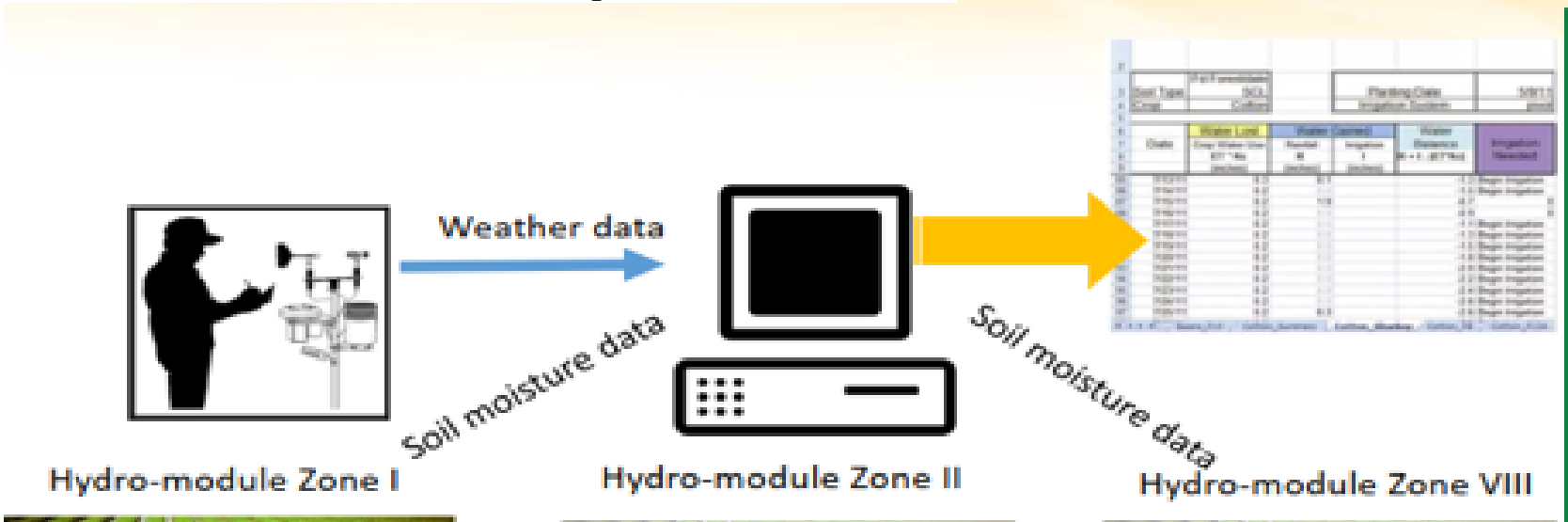
# WP5-Innovations:

- Farm to basin smart tools for water efficiency and management
- Weather station based irrigation scheduling



### Central Asia

Projected impacts on crop yields point to the need for crop diversification, water-saving technologies, and increased use of digital technologies for resource management



### Middle East & North Africa

The combination of climate change and water scarcity requires new approaches to water management, including new technologies and climate-smart trade

## Activities

**Incubation program:** WP5 will set up with partners an incubator platform to nurture high potential innovative digital solutions, providing end-to-end support to regional innovators:

- Identification of needs and potential solutions, challenge calls & hackathons
- Support to develop and implement business plans
- Access to CG science, analytical capacity (e.g. climate modelling) and matching with CG scientists
- Matchmaking with investors at different stages of innovation (grants/donors, venture capital, impact investors)

**Policy platform:** In cooperation with other WPs, we will engage at policy level to strengthen the policy/regulatory/enabling environment for digital innovation (e.g. preparing digital agriculture profiles and contributing regional/national policy forums)

**Capacity building:** Capacity building on digital tools/innovation will be provided to traditional partners (e.g. NARS)

# Plan of Results - Morocco



Key outputs to be achieved	Synergies with WPs	Scale/location (national, basin level, etc.)	Synergies CG Initiatives	Timeline			
				2022 (Q3)	2023	2024	2025 (Q2)
O 5.01 Climate information service needs, provision of key actors and new data generation tools.	All WPs	National level	ClimBeR, NEXUS Gains	x	x		
O 5.02 Web-based platform for climate analysis and early warning system.	WP1, WP3, WP4, WP5	National level	ClimBeR, NEXUS Gains		x		
O 5.03 Climate of National Innovation Platforms characterised using web-based platform.	WP1, WP3, WP5	National and basin level	ClimBeR, NEXUS Gains	x	x	x	
O 5.04 Capacity of stakeholders to use web-based platform built	WP1, WP3, WP4	National and basin level	ClimBeR, NEXUS Gains		x		
O 5.05 Assessment of existing agri- and market-advisory digital tools. O 5.06 Impact evaluation of inclusive scaling of existing digital tools for climate resilient FVCs.	WP1, WP2, WP3, WP4,	Basin or sub-basin scale (ex:Souss-Massa basin or Bouregreg basin)	ClimBeR, NEXUS Gains	x	x		
O 5.07 Best practices for scaling up innovations and digital tools.	WP1, WP3, WP4, WP2	National	ClimBeR, NEXUS Gains		x	x	
O 5.08 Partnerships with incubators/accelerators set up. O 5.10 Proto-type digital tools for climate resilient FVCs brought to scaling readiness. Scaling digital investment roadmap with policies and business models for youth-inclusive entrepreneurship.	WP1, WP3, WP4, WP2	National level	ClimBeR, NEXUS Gains		x	x	x



# Potential Partners in Morocco



- Ministry of Agriculture, Sea Fishery, Rural Development, Water Bodies and Forest
- Ministry of Higher Education, Scientific Research and Innovation
- Ministry of Economic Inclusion, Small Business, Employment and Skills
- National Institute for Agricultural Research (INRA)
- National Center for Scientific and Technical Research
- The National Company of Seeds Commercialization (SONACOS)
- The National Institute of Agricultural Advice (ONCA)
- The National Institute of Sanitary Security of Food Products (ONSSA)
- Universities: (Mohamed VI polytechnics, Mohamed
  - River Basin Agencies
  - Scientific Institute at Mohammed V University
  - Institute for Research on Solar and new Energies
  - Moroccan Association for Research and Development
  - Water Users Associations
  - Extension Units and Agricultural Advisory Council Extension Programs
  - Farmer Based Organizations and Cooperatives
  - Maghrebian and North African Farmers Union
  - Private companies, Start-ups, Incubators

# Capacity Development Needs

**LONG-TERM TRAININGS**

**SHORT-TERM TRAININGS**

**CHALLENGE CALLS AND HACK-A-THONS**

**Following are achieved during the next 3 years:**

- ✓ Capacity of stakeholders to use web-based platform built.
- ✓ Civil society including youth and private sector develop digital tools for FVC climate risk management
- ✓ Capacity of youth/women to develop digital innovations built through challenge calls and hack-a-thons.
- ✓ Guidelines for accelerating the use of digital innovations and tools, securing financial support for SMEs and start-ups, and encouraging youth inclusive entrepreneurship.
- ✓ SMEs, extension services, start-up and accelerator programs scale up digital tools for FVC climate risk management.
- ✓ Capacity of stakeholders to use the digital innovations and tools built.
- ✓ For stakeholders such as farmers, extension agents, national researchers and others, conduct short-term training courses to prepare them for methodologies and analyses required for implementation of WP plan of results. These will include training of trainers who will then spread



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**THANK YOU!**