Building innovative agricultural systems for food, nutrition, and livelihood security under changing climates

The Challenge
The impacts of intensifying climate change in Central, West Asia, and North Africa (CWANA) Region amplify challenges in one of the world's most water-stressed and socially fragile regions. Water scarcity, extreme temperatures, increasing agricultural diseases and pests, loss of agrobiodiversity, and population growth fuel a perpetual cycle of vulnerability and fragility. Youth unemployment creates labor migration, while scattered conflict and unrest result in the region hosting over 40% of global Internally Displaced People and 33% of international refugees.

Dependence on imports of staple cereals, exports of cash crops, and concerns about water security generate trade uncertainties while producers, small and medium enterprises, and value chain actors struggle to access the resources to manage risks, and policies and institutions do not adequately support them.

There is an urgent need to ensure food and nutrition security and improve market access and value addition in the agricultural sector. CGIAR, the world's largest agricultural research innovation network, aims to address these interconnected challenges, and support evidence-based, inclusive decision-making at all levels from farmers to governments, to accelerate the transformation to resilient agri-food systems and livelihoods in the region.

Proposed Action
F2R-CWANA intervenes at strategic entry points from farm-to-fork, at river basin, national and regional levels, in partnership with producers, agribusinesses, support services, investors, national agricultural research systems, and decision-makers. The F2R-CWANA Initiative works through five interconnected work packages (WP):

• Steering agri-food systems’ transformation through MELIA and fast-tracking technology adoption: facilitates faster adoption of innovative agricultural technologies and practices through better policies that enhance stakeholder commitment and engagement using innovation and scaling platforms.
• Biodiversity preservation, genetic innovations, and seed systems’ diversification for food and nutrition security: works across a spectrum of biodiversity preservation, testing and validating genetic innovations, inclusive, sustainable delivery mechanisms, and devising an enabling environment to maximize uptake and adoption within CWANA socio-economic contexts.
• Sustainable and equitable intensification of CWANA farming systems to increase local/regional value chain profitability and resilience: to develop farming system packages that include water management innovation, mechanization for smallholder farmers and entrepreneurs, and business models that contribute to new jobs, all supported by policy support.
• Sustainable water and landscape (including saline landscapes) management and energy systems: to assess resources and capacity required to improve the long-term potential for sustainable livelihoods. Scale-up water management, recycling, and re-use, including policies to develop integrated approaches for storing more water in natural and built systems, increasing productivity and value of that water.
• Digitalization-assisted climate resilience and drought and heat risk management: to map climate risks, hazards (including drought and heat) and vulnerabilities and associated conflicts. Elaborate on predictions, planning, and early warning to better prepare for climate hazards and risks and develop practical actions and measures to mitigate climate-related risks and compensate for the impact of such insurance schemes via sustainable finance.
Initiative Anchor Countries

CGIAR, with over four decades of agricultural research in the countries, is uniquely positioned to build on local development priorities and existing solid partnerships that will bear fruit and demonstrate impact pathways for the region. The development challenges of CWANA span from stable to fragile situations, each with varying levels of vulnerability. The Initiative has five planned regional anchor countries – Egypt, Lebanon, Morocco, Uzbekistan – representing different regional needs and a range of social contexts. For Sudan, a country in transition, we will apply the Integrated Agri-food System Initiative (IASI) methodology developed elsewhere. Turkey and Syria, both member countries of the CGIAR, will participate in this Initiative with their own funding.

A Platform for Linkages

The CWANA Regional Office will provide a hub for engagement and knowledge-sharing between One CGIAR Initiatives in the region with F2R-CWANA at its nexus. This office will help foster essential linkages with partners in the region and between the CGIAR Initiatives that seek to secure nature-positive solutions, more agronomically secure practices, big data, tools, and genetic gains.

More information about CGIAR new Investment Prospectus with the proposed Initiatives in CWANA countries and other regions is at https://www.cgiar.org/cgiar-portfolio While ensuring inter-initiative coherence, this important platform ensures CGIAR is attuned to and responsive to demands from the region.

Next Steps

A recently held Regional CGIAR CWANA Consultation meeting provided an opportunity to engage with government and National Agriculture Research and Extension Services (NARES) partners and discuss the One CGIAR reformulation and the proposed components of F2R-CWANA. Further consultations with various partners, including funders and other CGIAR initiatives, will continue to inform the design and implementation of F2R-CWANA to ensure it is fit for purpose for CWANA now and in the future.

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