The CGIAR Initiative on
Securing the Food Systems of Asian Mega-Deltas for Climate and Livelihood Resilience

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Deltaic challenges

Ganges-Brahmaputra Delta
Bangladesh, India
- Bangladesh: ~ 53% of the coastal area affected by salinity jeopardizing 7% of the national rice production (Schneider & Asch, 2020)
- An estimated significant decrease (11%-30%) in the area suitable for agriculture
- Climate change pushing farmers into desperate livelihoods

Irrawaddy Delta
Myanmar
- Millions of people may be displaced by climate impacts
- Governance, financial flows and crop yield reductions:

Mekong Delta
Vietnam, Cambodia
- A 0.5 meter rise in relative sea level would inundate 37% of the MRD to a depth over 1m (Thao et al. 2014)
- Increased vulnerability of rural poor and increased labor burden of women as urbanization increases (Ylipaa et al. 2019)
- Governance

Importance of Asian Mega-Deltas

Food baskets
Irrawaddy: ~70% of rice and Aquaculture
Mekong: 54% rice, 60% fruits and 70% seafood
India, Bangladesh, Vietnam, Myanmar: global rice baskets

Climatic risks

Extreme Precipitation
Drought
Salinity
Tropical storm
Sea-level rise
Extreme heat

Urbanization out-migration
Poverty? and economic growth
Millions of people out of poverty
GDP!
• co-designed with >400 participants
• builds on partnerships and learnings from the former CGIAR Research Programs and various bilateral projects in the focus regions
• national goals: resilient, inclusive, and productive deltas
• agility: private sector engagement, digitization

FOCUS AREA 1: Adapting deltaic production systems

FOCUS AREA 2: Nutrition-sensitive agri-food systems

FOCUS AREA 3: Derisking delta-oriented value chains

FOCUS AREA 4: Inclusive deltaic food-systems governance

FOCUS AREA 5: Evidence-based delta development planning

Improving climate and livelihood resilience in Asian Mega-Deltas

Research Areas and Key Outputs
Almost 100 new knowledge products

9 policy change in the AMD focus countries

9 CGIAR initiatives connected

160,000 innovation users

7,000 people trained in 30 capacity development activities

8 innovations under development

More than 80 researchers from 6 CGIAR centers

Contributions to SDGs
Gender & social inclusion in AMD WPs

(AMD focuses on Gender + ethnic minorities, geographical climate risks, HH headship, age groups)

**WP1: Agri-business models for women**

**WP2: Nutrition-sensitive FS for the most disadvantaged**

**WP3: Equitable access to climate information**

**WP4: Youth and women’s voices in policy making**

**WP5: Gender-responsive adaptation planning**

**2022**

- Gender training for partners were organized.
- Gender-responsive sampling and research design were developed in all WPs.
- Close collaboration with CGIAR GENDER Impact Platform

**2023**

- Gender-responsive intervention design for equitable scaling will be developed and implemented
- Cross-country gender research will be conducted
2022 Outcomes: Vietnam’s government is scaling AMD innovations to support Mekong River Delta (MRD) development

Mr. Le Thanh Tung, Deputy Director, Department of Crop Production (DCP): “AMD provides a platform for integration of CGIAR innovations in Vietnam. For example, CS-MAP and ACB are linked to provide effective risk management from the provincial to commune levels. These interventions, including the rice straw composting, are contributing to the achievements of our goals in the Mekong Delta Plan 2030”.

WP1: Mechanized **rice straw composting** and **mushroom farming** have been pilot-tested by the New Green Farm Cooperative in 2022 and are now replicated across Can Tho district

WP5: **Climate-Smart Mapping and Adaptation Planning (CS-MAP)**, co-developed by IRRI and DCP, integrated in the Action Plan to implement the National Strategy on Green Growth 2021-2030 (Decision No. 3444)

WP3: Multi-media **Agro-Climatic Bulletin (ACB)** co-developed by ABC and DCP scaled to 8 provinces

WP5: **Alternate Wetting and Drying (AWD)** has been included in Vietnam’s updated NDC
FOCUS AREA 1

Adapting Deltaic Production Systems

- Diversity of scaling partners/ Learning Alliances: community water user associations (Bangladesh), value chain partners (Cambodia), farmer cooperatives and private sector (Vietnam) – with Mitigate+

- Technology transfer and cross-country exchanges between Vietnam and Cambodia on mechanized DSR for climate adaptation and mitigation – with Excellence in Agronomy

- Adaptive research: crop diversification options for smallholder farmers in Vietnam and Cambodia – with Plant Health Initiative

- Easy Harvest piloting [smart mechanization and postharvest management]: a tool for postharvest loss assessment linked to carbon footprint in Vietnam – with Excellence in Agronomy

- Comparative Assessments: small farmer large field - cooperative business models – with Excellence in Agronomy
Global and regional policy engagement

**WUR:** COP27; UN Water Conference 2023, Gobeshona Global Conference
Cross-initiative collaboration

Learning Alliance for Living Labs workshop with Mitigate+

Regional Workshop on High-Quality and Climate-Resilient Rice with EIA and Mitigate+

AGRITECHNICA ASIA Live 2022 with EIA
Gender and migration

“Science Connections for Better Governance and Sustainable Development in the Mekong Delta’ policy dialogue
Dear all,

Asian Mega-Deltas are home to tens of millions of people. They provide food and economic security beyond this population and are biodiversity hotspots. However, they face severe challenges such as shrinking and sinking due to climate change and unsustainable development.

To address these urgent concerns, CGIAR, together with its centers and development partners, is implementing the Securing the Food Systems of Asian Mega-Deltas for Climate and Livelihood Resilience (AMD). This Initiative will transform food systems toward greater climate resilience by removing climate vulnerabilities and building climate resilience in the context of sustainable development.
Thank you!

For more information, please contact:

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