



INITIATIVE ON
Asian Mega-Deltas

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

Bjoern Ole Sander
Initiative Lead, AMD

Alliance



Deltaic challenges



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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



~400 million people



WALKING PEOPLE
OUT OF POVERTY

poverty? and economic growth
↑ GDP!



urbanization out-migration

Climatic risks



Extreme Precipitation



Drought



Salinity



Tropical storm



Sea-level rise



Extreme heat



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**

Research Areas and Key Outputs



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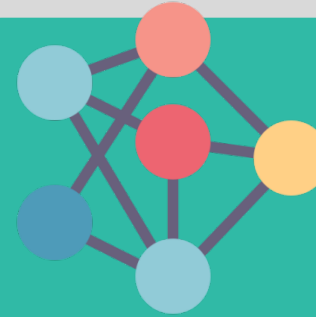
- *co-designed* with >400 participants
- builds on partnerships and learnings from the former CGIAR Research Programs and various bilateral projects in the focus regions
- national goals: resilient, inclusive, and productive deltas
- agility: private sector engagement, digitization

AMD by the numbers



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



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(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



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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



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- 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*





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Global and regional policy engagement



CGIAR at COP27

Accelerating Digital Climate Services for resilient food systems in the Global South

Thursday 17 November 2022
14:30-15:30 GMT+2
The Food and Agriculture Pavilion

Speakers

- T.S. Amjath Babu**
Agricultural economist and digital climate service specialist, CIMMYT
- John Furlow**
Director, International Research Institute for Climate and Society
- Evan Girvetz**
Africa Lead for Climate Action, CIAT
- Peerzadi Rumana Hossain**
Climate Change Research Scientist, WorldFish

Moderators
Martijn Pakker (IRRI)
Jon Hellin (IRRI)

Organizers:

GOBESHONA Global Conference 3
Monitoring Locally - Led Adaptation & Resilience

Securing the Food Systems of Asian Mega-Deltas for Climate and Livelihood Resilience

10 March 2023

IRRI **WorldFish** **WAGENINGEN UNIVERSITY & RESEARCH**

CGIAR INITIATIVE ON Asian Mega-Deltas

CGIAR at COP27

Agricultural Transition in Asian Deltas
- an interactive dialogue

COP27 Benelux/EIB Pavilion
12 November 2022
17:30 - 19:00 pm

WUR: COP27; UN Water Conference 2023, Gobeshona Global Conference

Cross-initiative collaboration



**Learning Alliance for Living Labs
workshop with Mitigate+**

**AGRITECHNICA
ASIA Live 2022
with EIA**



Gender and migration



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'Science Connections for Better Governance and Sustainable Development in the Mekong Delta' policy dialogue



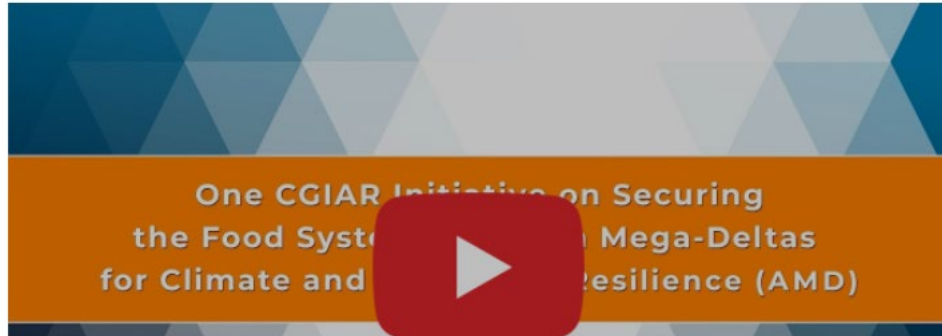
Asian Mega-Deltas newsletter



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Short video introducing AMD



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



Thank you!

For more information, please contact:

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