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# CGIAR Science Group Evaluations: Asia Brief

Independent Advisory and Evaluation Service CGIAR

**CGIAR** is a global partnership and the world's largest global agricultural innovation network, providing evidence to policy makers, innovation to partners, and new tools to harness the economic, environmental and nutritional power of agriculture. This brief highlights **Asia-related evidence, learning and recommendations** from the three evaluations of CGIAR Science Groups (SGs) aligned to the evaluation Terms of Reference. Results are intended to inform implementation of the CGIAR 2030 Research and Innovation Strategy.

## Asia at a Glance: CGIAR and SG Evaluations

CGIAR delivers its portfolio in collaboration with partners across six regions- three in Asia. Five CGIAR centers have HQs in Asia:

- **World Fish**, Penang, Malaysia
- **Center for International Forestry Research (CIFOR)**, Bogor, Indonesia
- **International Rice Research Institute (IRRI)**, Los Baños, Philippines
- **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)**, Patancheru, India
- **International Water Management Institute (IWMI)**, Colombo, Sri Lanka

Geographic distribution of outputs across Asia: 2,030 results in 2022-23 (3,231 for Sub-Saharan Africa and 955 for Latin America and the Caribbean, the CGIAR Results Dashboard.

**Evidence behind the Asia Brief included:**

- Synthesis of evidence from three SG evaluation reports (to be posted here)
- 170+ key informant interviews in Asia/with Asia-based respondents
- 113 respondents to the SG online surveys.
- Portfolio analysis of performance monitoring data
- Evaluability Assessments of Regional Integrated Initiatives (RIIs) (synthesis report): Transforming Agrifood Systems in South Asia (TAFFSA) & Asian Mega Deltas (AMD)
- Evidence from selected case studies/ deep dives:
  o The One Health Approach and its application in Vietnam (RAFS case study).
  o Food, Feed and Waste-Resource use in Rural and Peri Urban Settings (RAFS deep dive).
  o Diversifying food systems and diets for improved nutrition (ST case study).
  o Strengthening policies and institutions for food, land, and water transformation (ST deep dive).

## Evaluative Findings

### Relevance and Alignment with National Priorities

*Vietnam*

In Vietnam, CGIAR initiatives were well-aligned with partner policies, priorities, and programs, addressing climatic challenges in the rice production sub-sector in the Mekong River Delta.

- AMD initiative greatly shaped the "One Million Hectares Program for high-quality and low-emission rice" by the Ministry of Agriculture and Rural Development (MARD) in Vietnam, leading to significant government commitment.
- Excellence in Agronomy (EiA) initiative (RAFS SG) to the One Million Hectares Program developed mechanized direct seeding technology for rice production.
- The Sustainable Healthy Diets through Food Systems Transformation initiative (ShiFT; ST SG) initiative supported the approval of Vietnam's National Action Plan for Transparent, Responsible, and Sustainable Food Systems Transformation (2022-30).

Also in Vietnam, the One Health Initiative (OHI) exemplifies partnership with stakeholders leading to policy uptake and widespread lesson learning. OHI's effort to innovate food safety in Ethiopia, Kenya, the Philippines, and Vietnam tests a simple innovation through running consumer-facing visual quality scales and testing it in Randomized Controlled Trials, illustrating the potential for widespread uptake and impact. OHI is piloting a food safety rating system addressing pork safety in traditional markets. The approach includes training vendors on good hygiene practices, enrolling them in a food safety rating program, and running consumer awareness campaigns, with the aim to create market incentives for improved hygiene practices, to impact public health on a broader scale.

### Bangladesh and other countries

Successful partnerships included:

- The initiative on Climate Resilience (CLIMBER; ST SG) approach of cultivating transdisciplinary partnerships with NGOs, boundary organizations, and community groups, bridging research outputs and change in people's lives.
- The ShiFT initiative; ST SG helped identify entry points for improving and encouraging healthy food consumption, facilitating cross-country knowledge exchange.
- Transforming Agrifood Systems in South Asia (TAFSSA; RAFS SG) initiative generated value stream maps for essential supply chains **in Bangladesh and India**, pinpointing inefficiencies and improvement opportunities.
- WorldFish implemented an impact assessment strategy to characterize aquaculture systems and benchmark their sustainability performance in **Bangladesh and Myanmar** (RAFS SG).

## Quality of Science and Research: Outputs and Influence (more in Quality of Science brief)

Many Asia-based research outputs displayed originality, novelty, credibility, and potential to generate International Public Goods (IPGs).

**CGIAR and its partners are developing various technologies and innovations with potential for widespread application** in regions facing similar challenges. New varieties, production methods, technologies and policy-informing are CGIAR core outputs. For example, **IRRI in Vietnam developed climate-smart maps and vulnerability assessments**, which could be applied in other regions facing comparable climate challenges. **Remote sensing for Monitoring, Reporting, and Verification (MRV)** of greenhouse gas emissions could be an important IPG for globate climate change mitigation efforts. The **development of salinity-tolerant crop varieties**, which is a focus area for national partners in Bangladesh, are valuable IPGs for coastal and delta regions worldwide-if successful in their development.

The survey reveals **encouraging trends in CGIAR's global impact and collaboration**. When asked about the influence of CGIAR's research outputs, most external partners believed in their influence. Furthermore, most surveyed external partners reported positive developments since 2022 in CGIAR's engagement with the Global South in shaping its policy research agenda (Figure 1). These results highlight the organization's growing impact and its commitment to collaborating with stakeholders in the Global South. Results also demonstrate CGIAR's successful efforts to become more inclusive and responsive to the needs and perspectives of developing countries, which are often at the forefront of challenges in agriculture, food security, and climate change adaptation.

**In South Asia** (Bangladesh, India, Nepal, and Pakistan), TAFSSA initiative reviewed social protection programs and provided suggestions for enhancing nutrition sensitivity. TAFSSA generated value stream maps for essential cereal, fish, and vegetable supply chains in Bangladesh and India, highlighting inefficiencies and improvement opportunities.

AMD initiative developed agro-climatic bulletins that gained recognition from the Vietnamese government and are being adopted in various provinces. Moreover, the development of Mechanized Direct-Seeded Rice (mDSR) technology in Vietnam combines mechanization with improved agronomic practices, and offers advantages like reduced seed rates, higher quality seeds, and improved pest management.

*Figure 1: 2024 Survey report on CGIAR changes in engaging partners in policy research agenda*
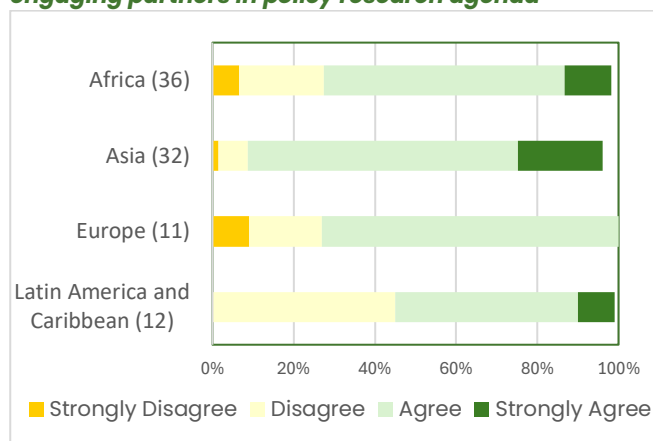


Additionally, the continued use of the PathoTracer Platform, a CGIAR-led effort created for informed decision making to reduce the risk of rice diseases, highlights the ongoing innovation effort across rice growing countries.

The 2024 online survey reported that CGIAR's research outputs were considered high-level at both country and regional level and relevant to next stage users. 89% of respondents in Asia agreed that CGIAR research outputs were of high quality, although many stakeholders also indicated that it is still too early to observe the changes from the use of knowledge products.

*Box 1: Examples of outputs from science groups*

### Genetic Innovation SG

- Integration of Global Market Intelligence Platform (GloMIP) with the Breeding Platform strengthened decision-making and enhanced accessibility of product profiles (TPPs). GLOMIP includes over 200 indicators for crop prioritization and market segmentation, supporting data-driven decisions in breeding programs.
- The Genetic Innovation Toolbox enabled standardized procedures across initiatives and programs through user-validated tools, services, best practices, and learning materials to improve breeding programs, seed systems, and the safeguarding of genetic resources. This enabled other initiatives and programs to apply consistent methodologies.
- The increasing use of Triadic Comparison of Technologies (TRICOT) strengthened farmers' views on selection.

### Resilient Agri-food Systems SG

- Strengthening capacity, incentives and institutions for food safety innovation.
- Learning from Excellence in Breeding (EiB) platform developed a unified breeding IT database system and global map dashboard to improve resource visibility and collaboration across CGIAR centers.

### Systems Transformation SG

- New vegetable varieties were developed in collaboration with private sector partners and improved horticultural practices.
- Early warning systems for drought, using monitoring and forecasting systems and drought indices to effectively track climate change impacts, directly addressed the challenges identified by the IPCC.
- The Low-Emission Food Systems (Mitigate+) initiative integrated GHG emissions calculations into carbon credit applications, demonstrating the practical application and credibility of its research.

## Coherence

RIIs are well-advanced in scaling readiness and use. However, there is limited capacity to engage with some scaling partners. Strategies for including the most vulnerable and resource-poor in scaling were not always considered. Most importantly, the partnership model envisioned between Global Thematic Initiatives (GTI) and RIIs did not reach its potential for offering scaling opportunities and for improving integration between national and regional levels. Lack of coherence in organizational strategies and initiatives posed several risks to impactful climate resilience research. These included strategic fragmentation; disjointed efforts affecting synergies; compromised practicability due to over-emphasis on publishing in high impact journals; misalignment of research outputs with policy timelines; and ineffective multi-sector integration resulting in missed opportunities for collaborative impacts.

***Structural challenges such as siloed operations require more unified approaches, more structured collaboration, strategic design, early co-design, and regional coordination.***

# Lessons Learned

Key lessons from the SG evaluations include:

- **Lack of guidelines on Intellectual Property Rights** relating to data management, ownership, and co-production of technology and innovations during evaluation. Partnership agreements between NARES and CGIAR centers lack clarity on information and knowledge ownership, access, and use. Research ethics guidelines vary by center and/or are applied inconsistently.
- **In Bangladesh, external stakeholders called for closer collaboration between CGIAR and NARES on joint initiatives**. They criticized the lack of transparency in CGIAR's initiatives, poor coordination within CGIAR, and misalignment with national priorities.
- Main factors affecting the quality of CGIAR scientific outputs include funding uncertainty, pressure to deliver, administrative burden, reform fatigue, and lack of integration across the portfolio.
- **As successful scaling is crucial for achieving impact with CGIAR outputs, more efforts are needed to address bottlenecks**. The RIIs model did not reach its full potential for offering scaling opportunities and for improving integration between national and regional levels.

# Recommendations and Recommended Activities

Key selected recommendations from the Asia-focused analysis are intended to foster operational and organizational learning to advance IPGs through delivering legitimate science in partnerships, to inform and enhance regional and country level engagements and contribute to the design of the next CGIAR portfolio (2025-30). Recommendations are subject to management responses by each SG and would be available on the SG evaluation portal.

## Improving CGIAR's Legitimate Science Delivery (partnerships)

The following are synthesized selected recommendations from the SG Evaluation reports:

- Enhance systematic inclusion of partners (Rec. 04, ST SG)
- Better anchor CGIAR work to national research and development agendas. (Rec. 2, RAFS SG)
- Improve strategic and operational guidance towards cross-center collaboration, interactions between science programs (Rec. 8, RAFS SG)
- Revise PRMF, strengthen MELIA processes and capacities (Rec. 05, ST SG)

## Enhancing Research Impact and Knowledge Management

The following, while not directly derived from the formal SG evaluation recommendations, are proposed activities based on the regional analysis presented in this brief:

- **Improve data management and research quality** through further developing unified systems like GLOMIP and breeding IT database, enhancing transparency and accessibility of research data, and addressing issues of research ethics and intellectual property rights.
- **Expand research on nutrition, food environments, and value chains** by building on the work of initiatives like ShiFT and FRESH to create narratives around improving healthy food intake, and increasing focus on consumer demand, food safety, loss and waste, connecting supply to demand across value chains.
- **Develop a CGIAR position paper** on the interface between fundamental knowledge creation and uptake and scaling in a consistent and coordinated approach across science programs including learning from RIIs. Potentially, interest shown in knowledge products as evidenced from Altimetric Attention Scores and captures can contribute to a better understanding of influence of research outputs.

To learn more, read the other briefs in this series on:
- **Quality of Science**
- **Africa** and **Kenya**
- Blogs: **Insights from Bangladesh**, and Ghana

Visit the **Science Group evaluations online portal** and the **Quality of Science resource hub**

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