



CRP Review 2020: RICE



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The CGIAR Advisory Services (CAS) Secretariat is conducting independent reviews of the 12 CGIAR Research Programs (CRPs), including RICE.

CRP Background

The RICE CRP aims to facilitate the transition of smallholder rice farmers to modern business entrepreneurship by exploiting opportunities offered by market diversification and the emergence of stronger consumer demand for high-quality and nutritious rice products. At the same time, it assists poor farmers to cope with extreme stresses and the effects of climate change.

RICE is led by the International Rice Research Institute (IRRI), and implemented with the Africa Rice Centre (AfricaRICE), the International Centre for Tropical Agriculture (CIAT), the Agricultural Research for Development (CIRAD), the Institut de Recherche pour le Développement (IRD), and the Japan International Research Centre for Agricultural Sciences (JIRCAS).

RICE has five flagship programs (FPs): Accelerating Impact and Equity (FP1); Upgrading Rice Value Chains (FP2); Sustainable Farming Systems (FP3); Global Rice Array (FP4), and New Rice Varieties (FP5).

RICE CRP Review

The [1st phase evaluation](#) of the 2011–15 program—Global Rice Science Partnership (GRiSP)—was completed in 2016.

The 2020 review assessed the extent to which the 2nd phase of the RICE CRP delivered quality of science (QoS) and demonstrated effectiveness in

relation to the CRP's theory of change during 2017–19.

The review used mixed methods of data collection: Review of program documents, annual reporting data (2017–19) from the online information management system Managing Agricultural Research for Learning and Outcomes (MARLO) and the CGIAR Results Dashboard, bibliometric analysis of 882 peer-reviewed journal articles and other communications outputs, key informant interviews (42 KIIs), and a deep-dive analysis of 2 Outcome Impact Case Reports (OICRs).

Q1: To What Extent Does RICE Deliver Quality of Science (2017–2019 Work)?

RICE produces a wide variety of research outputs ranging from peer-reviewed journal articles to book chapters, proceedings papers, editorial material, news items, and reviews.

Out of 882 published articles, 811 were published in International Scientific Index (ISI) journals, and 733 were found in Web of Science. These articles were contributed by 4,672 authors, and 99% of those authors contributed to multi-author documents. An average of six authors contributed to each article. Some articles had exceptionally high citations; 7 articles had more than 100 citations, and another 16 had more than 40.

Out of 733 research articles, half (368) were produced by the 25 most productive authors. Topics widely ranged from genetics, agronomy, and plant sciences to multidisciplinary science fields; their impact factors (IFs) ranged from 2 to 8. An analysis of the academic quality (rigor, originality, repeatability, significance to the field,

Photo: Laguna harvest. IRRI.

interest to rice audience, international public good) of research outputs showed that the majority were world-leading high-quality work containing novelty and originality; and of high relevance to the RICE community.

Q2: What Outputs and Outcomes Have Been Achieved, and What is the Importance of Those Identified Results?

Between 2017–19, RICE completed 65 (79%) of its 82 planned milestones and documented 42 OICRs. The review estimates that more than 2 million farmers were impacted by RICE during 2017–19 compared to the 10.4 million who were impacted during the Global Rice Science Partnership [GRiSP] period.

The CRP has demonstrated stellar performance in discovery and delivery of science in rice agri-food systems. Almost half (48%) of 224 developed innovations achieved advanced levels (3 or 4) uptake: They related to production system and management practices and about 22% to germplasm.

RICE invested in policy analysis and achieved strong policy engagements: through such regional frameworks/platforms as Coalition for African Rice Development (CARD) and AfricaRice, and specific country level policy engagement in Asia. Overall, RICE has influenced 25 policies.

Cross-Cutting Themes

Capacity development: Short-term trainings for next users (in innovation platforms and policy workshops) and end users (in farm trials and farmer field days) were carried out for 183,163 participants (40% of which were females). Long-term trainings of 1,566 scholars (51% female) covered bachelor, master's and PhD courses. RICE's research on **climate change** focused on scaling-up of new climate-smart technologies, and stress tolerant varieties for achieving climate adaptation and resilience and contribute to climate change mitigation as well. Evidence of results across multiple data sources shows commendable achievements on **gender** mainstreaming in RICE. In close to 60% of RICE research gender was considered as a principal or a significant component of the delivered output.-RICE allocated resources to **youth** programming only in the last year and a youth strategy was developed in 2019. Nevertheless, in almost half of research outputs, youth is either a principal or a significant component.

Q3: Future Orientation

RICE, with IRRI, AfricaRice, and other Centers, is well situated to progress strongly into the future: its future funding pipeline and its reputation for credibility with key national and international partners, including donors. In such countries as the Philippines, India, Vietnam, and Myanmar, RICE has made inroads into policy circles, and relationships have been well developed with the relevant government ministries and departments. There, the governments have started funding IRRI to provide support for upscaling. Given bilateral donor support as well, the future pipeline of work in these countries is expected to be strong.

Key Lessons

- RICE has been an increasingly effective mechanism for science partnerships and uptake of innovations and policies, because it has strengthened collaboration with partners.
- Given the short timeframe (average of 3.2 years) of bilateral projects, it is difficult for Centers and the CRP to manage expectations around upscaling within this period, although bilateral sources of funding are important. The CRP and Centers should continue to work with funding partners who have taken a long-term visionary approach to addressing the grand challenges.
- Resource sharing on path-breaking initiatives (satellite-based crop monitoring systems and other technological innovations) across CRPs or CGIAR Centers shows potential scope for improved collaboration.

Recommendations for CGIAR

- Greater CRP effectiveness can be achieved with a common framework of operation across CRPs and Centers as well as better integration.
- The System Organization (SO) should clearly lay out the functions of the independent steering committees (ISCs), which are aligned with Center-level structures.
- The CGIAR System Office would need to review MARLO for its complexity and usefulness among the Centers and programs that have adopted it.
- Strengthen support of SPIA to better structure impact evaluation systems led by external experts at the level of CRP or new research modalities.

Read the full report:

<https://cas.cgiar.org/evaluation/crp-2020-rice>



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