

ISPC Assessment of the Rice Agri-Food System (RICE) CRP-II revised proposal (2017-2022)

ISPC CRP RATING¹: A

1. Summary

- RICE builds on the GRiSP CRP to address the issue of improving rice agri-food systems across the developing world. It maintains a large emphasis on genetic improvement while making the case, through its foresight studies, of a broadening of the CRP to an “agri-food system”. The research activities of RICE range from upstream/basic research to plant level research (variety selection), through to the delivery of new varieties and management practices to the end users, including farmers and processors of rice.
- The CRP aims to increase the annual rate of yield increase in rice to at least 1.3%, help at least 13 million rice consumers and producers to exit poverty, assist at least 17 million people out of hunger, assist at least 8 million people to meet their daily Zn requirements, increase water- and nutrient-use efficiency in rice-based farming systems by at least 5% and help reduce agriculture-related GHG emissions in rice-based farming systems by at least 28.4 Mt CO₂eq/yr².
- RICE with its institutional base in the six co-ordinating centers - IRRI, AfricaRice, and CIAT as well as CIRAD, IRD, and JIRCAS (all with a strong history in international rice research) - together with its strategic partner base, has a clear comparative advantage as a global leader in areas of rice research. The CRP's effective partnership strategy provides enhanced possibilities to bring together international efforts to complement existing CGIAR strengths.
- RICE has an experienced and highly competent leadership team. The CRP has recognized some deficiencies in social science research highlighted by the IEA evaluation as well as ISPC commentaries and has begun addressing interdisciplinary concerns. It will require special fostering by the leadership of RICE to ensure this interdisciplinary activity takes place across the FPs.
- The proposal presents a coherent set of integrated flagships. The rationale and activities of each FP fill a relevant gap in the research agenda. Overall RICE offers a scientifically rigorous case to deliver measurable impacts on the SLOs.
- RICE has embraced innovative and forward looking thinking in developing the CRP, and therefore it is at the forefront of CGIAR science.

¹ A+: Outstanding - of the highest quality, at the forefront of research in the field (fully evolved, exceeds expectations; recommended unconditionally).

A: Excellent – high quality research and a strongly compelling proposal that is at an advanced stage of evolution as a CRP, with strong leadership which can be relied on to continue making improvements.

A-: Very good – a sound and compelling proposal displaying high quality research and drawing on established areas of strength, which could benefit from a more forward-looking vision.

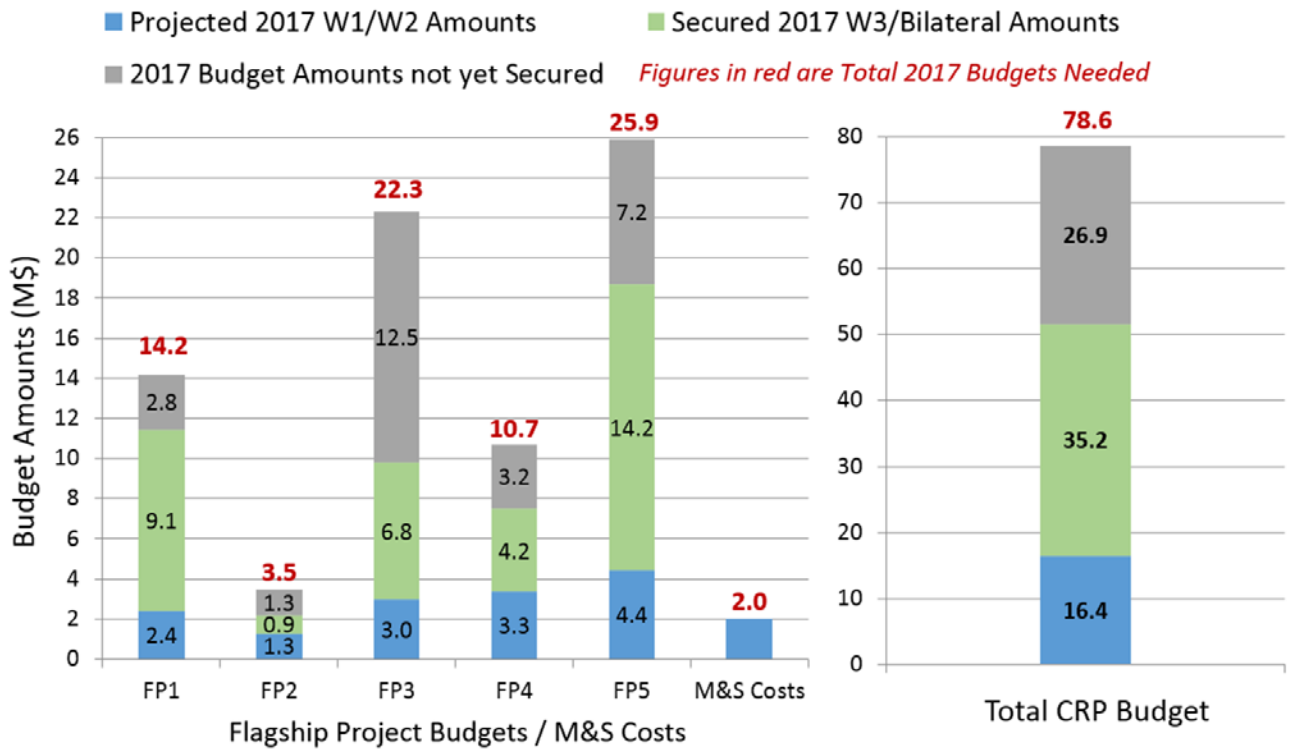
B+: Good – a sound research proposal but one which is largely framed by ‘business as usual’ and is deficient in some key aspects of a CRP that can contribute to System-wide SLOs.

B: Fair – Elements of a sound proposal but has one or more serious flaws rendering it uncompetitive; not recommended without significant change.

C: Unsatisfactory – Does not make an effective case for the significance or quality of the proposed research.

² The CRP targets have not been independently verified.

**RICE 2017 FP and CRP Budgets:
W1/W2 Amounts, W3/Bilateral Amounts & Shortfalls (US\$M)**



Data Source: CGIAR System Management Office

2. Characterization of Flagships

FP	Main strengths	Weaknesses/Risks	Rating
<p><i>FP1: Accelerating impact and equity</i> FP1 provides an over-arching framework for guiding the other 4 FPs with a major focus on enhancing capacity development and inclusion of gender and youth.</p>	<ul style="list-style-type: none"> • Sound priority-setting framework in place; impact pathways both for the FP and the scaling out (CoA 1.3) well thought out. • Strong comparative advantage (no other organization concerned with the scope of global rice science). • Integration (at the farming system level) of gender issues with biophysical processes, is unique and novel. 	<ul style="list-style-type: none"> • Given the focus on gender/youth issues as related to poverty alleviation, specifics on how progress on youth and gender will be quantified are needed. • Overall delivery will depend on partnership beyond the RICE CRP. 	Strong
<p><i>FP2: Upgrading rice value chains</i> The main objective of FP2 is research aimed at improving and upgrading rice value chains.</p>	<ul style="list-style-type: none"> • Logical ToC/impact pathway that is well aligned with the SRF and clearly identifies the changes needed to improve the value chain. • Attention to demand-side issues; emphasis on post-harvest processes to reduce poverty has a degree of novelty. • Significant comparative advantage; range of internal and external partners with relevant knowledge and expertise. 	<ul style="list-style-type: none"> • Modest collaboration with private rice companies in developed countries that are already exploring the feasibility and demand of rice byproducts. • Risk that favorable policies, including access to financial services, may have to be in place before new uses of rice by-products can be commercialized. 	Moderate
<p><i>FP3: Sustainable farming systems</i> The FP3 research program considers rice within the broader context of farming systems with a strong focus on diversification strategies.</p>	<ul style="list-style-type: none"> • Strong social science component. • Emphasis on whole farming systems (with increase in farm diversification) and climate change mitigation. • Strong partnership program in place among CGIAR Centers, NARES, ARIs, etc. 	<ul style="list-style-type: none"> • Assumption that diversification consistently leads to increases in income is questionable. • Difficult to identify global public goods (factors that drive success in diversification are local in nature). 	Moderate

FP	Main strengths	Weaknesses/Risks	Rating
<p><i>FP4: Global Rice Array</i> FP4 focusses on setting up a worldwide field laboratory to facilitate rice breeding programs, and provides inputs to FP3 and FP5.</p>	<ul style="list-style-type: none"> • Potential to speed up the release of new rice cultivars that are better adapted to the environment, including changes induced by climate change; ample opportunities to contribute global public goods in phenomics, genomics and bioinformatics. • Extensive and global partnerships. • Well-qualified team of scientists with expertise in relevant areas and recognized track records. 	<ul style="list-style-type: none"> • TOC/impact pathway does not clearly articulate the interaction between FP4 and FPs 3 and 5. • Success of this project hinges upon generating high quality phenomic information (risk). 	<p>Strong</p>
<p><i>FP5: New rice varieties</i> FP5 focusses on breeding improved rice varieties, drawing on results and inputs from all other FPs.</p>	<ul style="list-style-type: none"> • Uses an array of advanced modern tools; builds on successful GRiSP participatory approaches for varietal selection and innovative seed systems (e.g. sub 1). • Strong established partnerships which enable the complexity of traits to be prioritized on a regional basis. • Very strong team of researchers with successful track records. 	<ul style="list-style-type: none"> • Feasibility of delivery of C4 rice during the lifetime of the CRP (a blue-sky research project; high risk, high return)? • FP outcomes are dependent on resources from outside partners and thus it will not be possible to attribute impacts to CGIAR. 	<p>Strong</p>

3. Assessment of CRP response to the ISPC major comments

Initial ISPC comment (16 June 2016)	CRP response/changes proposed (31 July)	ISPC assessment (14 September)
<p>1. Indicate how a priority-setting process will be incorporated into the CRP rationale and can contribute to maintaining a focused research program even as boundaries expand.</p> <p>Under such large financial changes, greater clarity on how the results of the priority setting analysis were used to determine which research activities were excluded should be included in the addendum.</p>	<p>The CRP has acknowledged that priority setting is a continuous process that takes into account scientific breakthroughs and evidence, impact results, foresight, engagement with stakeholders, etc. The proponents have presented a 3-step framework illustrating the priority setting process.</p> <p>Table 1 gives examples of how the priority setting framework is used to exclude activities including hybrid rice and the reasons derived from the framework for their exclusion.</p>	<p>Satisfactorily addressed.</p> <p>The commitment to revisit priorities when funding scenarios change is welcome and the examples given in Table 1 are a useful illustration.</p> <p>The proponents recognize the importance of prioritization not just for setting research priorities and budgetary allocations but also to exclude research activities for enhancing CRP coherence, efficiency and effectiveness.</p>
<p>2. Revisit the feasibility of meeting planned targets for the FPs given budget constraints, using the priority setting exercise to reduce the number of activities/outputs where needed.</p> <p>The question arises as to whether this budget is realistic for what is being proposed.</p> <p>It remains to be seen if all the activities, outcomes and deliveries can be carried out with the proposed budget. As with FP1, revisiting the feasibility of delivering planned outputs with the budget allocated is recommended.</p> <p>After six years, can RICE realistically expect to make a significant contribution in all the planned areas?</p>	<p>RICE is confident that the proposed outputs are realistically achievable within the budget. The proponents have described the processes to develop their targets, under three possible budget scenarios, with the proposal presenting details for the medium funding level. Additional clarifications are provided to further strengthen their case that the proposed outputs and outcomes are feasible.</p> <p>RICE also includes the following in support “<i>the three non-CGIAR centers (Cirad, IRD, and JIRCAS) contribute their own rice programs and activities to RICE, though this is not specified in monetary terms. For example, Cirad employs around 60 scientists involved in rice research, IRD around 25–30, and JIRCAS over 20.</i>”</p>	<p>Satisfactorily addressed.</p> <p>The challenge the proponents will have here is one of attribution and contribution.</p> <p>The leveraging of resources is creditable, but the CGIAR (and donor funding) cannot take credit for all the promised impact.</p>
<p>3. Provide a strategic analysis of focus areas for FP5 based on opportunities to generate public goods. Since the pre-</p>	<p>RICE has clarified that while some traits such as high yield and specific major biotic stresses are common to all continents, other target traits are specific to regions.</p>	<p>Satisfactorily addressed.</p>

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<p>proposal, the mention of hybrid rice activities in FP5 has been dropped. Is this intentional or an inadvertent omission?</p> <p>The question needs to be posed, even with such a large team of researchers, how feasible is it to address in depth such a large range of variables in a breeding program? Does an effective plant selection program need to be more focused and can RICE select for it all?</p> <p>Surprisingly, compared to the pre-proposal, the RICE full proposal does not mention any activity related to hybrid rice.</p>	<p>An example of a product profile with priority traits for the rainfed lowlands of Vietnam is presented as an example (Table 3).</p> <p>RICE maintains that its comparative advantage is the production of breeding tools and genetic diversity that have global reach; and, provision of leadership.</p> <p>Hybrid rice is dropped from RICE intentionally because hybrid rice activities are now fully funded by the rice industry through two hybrid rice consortia. RICE, however, will continue to interact with these entities.</p>	<p>The proponents provide a well-articulated statement of RICE’s comparative advantage and of the advanced nature of this CRP.</p> <p>The exclusion of certain research activities (for example hybrid rice) further indicates that the CRP is exemplary in understanding its comparative advantage and focusing on research activities with greater likelihood for success.</p>
<p>4. Clarify and provide some classification of how RICE plans to manage the approximately 900 partners at different activity and thematic levels/geographic locations.</p> <p>A clearer elaboration of how the 900 partnerships are managed and what the decision making structures are at the different activity and thematic levels/geographic locations would be very useful.</p>	<p>A link to the GRiSP Partnership Strategy is provided.</p> <p>Three regional mechanisms for partner coordination (CORRA, FLAR and CARD) are highlighted.</p>	<p>Satisfactorily addressed.</p> <p>The ISPC recognizes that RICE has a very comprehensive Partnership Strategy. Annex 2 and the GRiSP Strategy provide details on the partnership (the ‘P’ in GRiSP) in ~ 30 pages.</p>