

## ISPC Assessment of the Wheat Agri-Food System (WHEAT) CRP-II revised proposal (2017-2022)

### ISPC CRP RATING<sup>1</sup>: A-

#### 1. Summary

- The CRP aims to increase the annual rate of yield increase in wheat to at least 1.4%, help at least 5.7 million wheat consumers and producers to exit poverty, assist at least 10 million people meeting their minimum dietary energy requirements and help reduce GHG emissions related to wheat-based production systems by 5% compared with a business as usual scenario. According to the proposal, the global demand for wheat is expected to increase by 1.4% per year to 2030 and to avoid price increases, yield growth rates must increase by 40%. The proposal highlights the central role wheat plays in food and income security in many low and middle income countries, and provides a clear, persuasive and evidence-based argument that the WHEAT CRP will help smallholders make the best use of their available resources under increasingly challenging conditions and contribute significantly to delivery of the CGIAR outcomes at the system level<sup>2</sup>.
- Overall the leadership team has good track record. The CRP Director brings extensive experience in wheat improvement and management. The background, skills base and caliber of the people listed in the management structure are somewhat variable.
- WHEAT presents a convincing argument for continued investment in the CRP based on historical performance, as well as demonstrated comparative advantage in crop improvement research. The proposal articulates how WHEAT will contribute to delivery of the CGIAR objectives.
- The role of WHEAT in shaping the international wheat research agenda is a critical aspect of the strategic relevance of the CRP, since it helps harness international activities, particularly from advanced research institutions to the WHEAT research agenda. The proposal is showing progress in capturing this potential for developing a coherent R4D strategy.
- The WHEAT impact pathways and theories of change were developed through a participatory approach, to ensure a shared understanding of the processes and frameworks for developing TOC and IP. However, the overall TOC/impact pathway still lacks detail on key aspects to achieving success such as boundary partners/next users, links to other CGIAR partners, and how WHEAT will provide implementation support for reaching the target R&D outcomes.
- Overall the WHEAT CRP has great strategic relevance and potential for delivery, with a need for further adjustment and strengthening of the program ToC and IP towards a well-integrated AFS framework.

<sup>1</sup> 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.

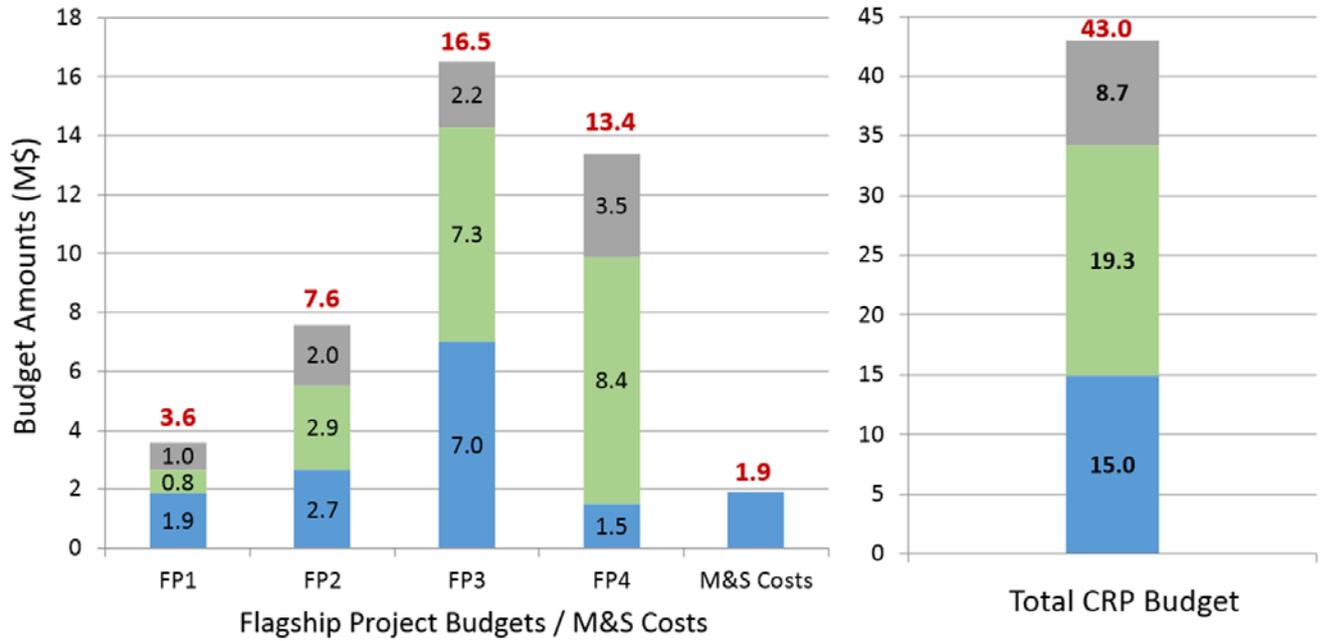
C: Unsatisfactory – Does not make an effective case for the significance or quality of the proposed research.

<sup>2</sup> The CRP targets have not been independently verified.

## WHEAT 2017 FP and CRP Budgets:

### W1/W2 Amounts, W3/Bilateral Amounts & Shortfalls (US\$M)

- Projected 2017 W1/W2 Amounts
- Secured 2017 W3/Bilateral Amounts
- 2017 Budget Amounts not yet Secured
- Figures in red are Total 2017 Budgets Needed*



Data Source: CGIAR System Management Office

## 2. Characterization of Flagships

FP	Main strengths	Weaknesses/Risks	Rating
<p><b><i>FP1: Enhancing WHEAT's R4D strategy for impact</i></b>            FP1 aims at integrating socio_economic research with germplasm improvement, agronomy and value addition to prioritize, target, understand, measure, and enhance WHEAT interventions for greatest impact in a complex agri-food system.</p>	<ul style="list-style-type: none"> <li>• FP designed to provide strategic guidance to WHEAT and support the internal coherence among all FPs.</li> <li>• Clear comparative advantage and strong partnership in place.</li> <li>• Strong focus on the gender, youth and capacity development strategies of the CRP.</li> </ul>	<ul style="list-style-type: none"> <li>• Need for stronger integration into the other FP research agendas.</li> <li>• Future plans for strengthening impact orientation /pathways of other FPs need to be monitored.</li> <li>• Lack of clarity of the alignment of the research questions and the expected outputs with national SDGs and regional priorities and initiatives.</li> </ul>	Moderate
<p><b><i>FP2: Novel diversity and tools for improving genetic gains and breeding efficiency</i></b>            FP2 is the home for most the upstream research undertaken by the CRP. The overarching objective of the research and activities undertaken is to 'validate and make available germplasm, tools and methods to enhance the efficiency and rate of genetic gains in breeding programs (globally)'.</p>	<ul style="list-style-type: none"> <li>• Clear and convincing TOC with a good balance between developing new germplasm resources, pre-breeding capabilities and developing partnerships to access new capabilities.</li> <li>• Diverse range of technologies which mitigates the risks associated with any single technology.</li> <li>• Strong leadership team with above average track record.</li> </ul>	<ul style="list-style-type: none"> <li>• A possible weakness about monitoring and evaluation of progress along the impact pathway relates to the capacity building interventions and outputs, as there is no corresponding R&amp;D outcome to provide a measure of success.</li> </ul>	Strong
<p><b><i>FP3: Better varieties reach farmers faster</i></b>            The primary focus of FP3 is to build on the research outputs produced in FP2 and develop high yielding, stress tolerant and nutritious wheat germplasm that can be delivered to farmers in the shortest time possible.</p>	<ul style="list-style-type: none"> <li>• Clear comparative advantage in germplasm, breeding and phenotyping capabilities.</li> <li>• Strong FP leadership with good track records in managing complex science programs and expertise in interacting with end users and partners.</li> <li>• FP3 builds strongly on Phase 1, with expansion of the work on nutrition,</li> </ul>	<ul style="list-style-type: none"> <li>• Given the critical importance of seed production systems to the impact pathway of the CRP, the section describing the work is relatively weak.</li> <li>• A rigorous process in determining priorities is essential and a clear definition of the capacity for CRP to screen and analyse candidate genes is</li> </ul>	Strong

FP	Main strengths	Weaknesses/Risks	Rating
	<p>processing quality and health activities and some of the molecular breeding technologies.</p>	<p>needed. Some research activities in FP3 could potentially be hosted in FP2.</p> <ul style="list-style-type: none"> <li>• Variability in quality and strength of delivery partners across the target regions.</li> </ul>	
<p><b><i>FP4: Sustainable intensification of wheat-based farming systems</i></b>  The overarching aim of FP4 is to develop and scale-out technologies, management practices, and agricultural innovation systems that will enable farmers to sustainably improve their livelihoods from wheat-based farming systems.</p>	<ul style="list-style-type: none"> <li>• Recognition of the importance of value chain opportunities and constraints.</li> <li>• Strong comparative advantage associated with access/ability to undertake research in a wide range of agro-ecologies.</li> <li>• Experienced leaders with good track records.</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of clarity on the lessons and elements from the Dryland Systems CRP to be considered by WHEAT.</li> <li>• Lack of strategies for addressing the challenge of enhancing adoption rates of improved crop management.</li> <li>• No explicit recognition of the need to account for potential unintended consequences on SLOs that are not the primary focus of the research.</li> </ul>	<p>Moderate</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. Articulate a coherent concept of the wheat “agri-food system” and how the concept affects the WHEAT R4D strategy.</p>	<p>The CRP provided clarification bullet points that include the importance of wheat in countries with the largest smallholders, how important wheat will be in the next 30 years in drier, rainfed and irrigated areas; and FAO definition of AFS.</p>	<p><b>Partially addressed.</b> The responses provided by WHEAT still do not articulate properly how the AFS concept will be understood and implemented by the CRP. The ISPC also recognizes that this may be the case for most AFS CRPs in varying degrees; CRP proponents should work collectively over the course of Phase II, to develop the AFS concept in the context of CGIAR R4D.</p>
<p>2. Provide greater detail on the overall Theory of Change and Impact Pathway on boundary partners, next users, links to other CGIAR partners, and how the CRP will provide implementation support and scale up. The connection between FPs should be strengthened, to illustrate how FPs feed into each other within the TOC.</p>	<p>WHEAT is unsure what level of detail the ISPC is expecting: A list of boundary partners per country, their expectations and how to engage them? Note that the FP’s impact pathways and theories of change mention generic boundary partners (e.g. FP3, on Doc p.104: Food processors and producers, extension partners, seed producers, farmer organizations). WHEAT also notes that the commentary on MAIZE did not come to same conclusions, though the level of detail provided is identical to WHEAT.</p>	<p><b>Partially addressed.</b> The overall TOC/impact pathway still lacks detail on key aspects to achieving success, and how WHEAT is planning to integrate all its FPs and using its strategic partnerships towards reaching the target R4D outcomes of the CRP.</p>
<p>3. Provide a clear response to the ISPC request for “more clarity and details on the components of the Drylands Systems CRP that will be integrated into WHEAT and how this will be implemented”.</p>	<p>WHEAT will integrate Dryland Systems ‘action sites’ located in North Africa, West and Central Asia. Proponents describe integrated systems approaches on pp.19, 130-131 (FP4 key research questions, lessons Learnt from Dryland Systems research), 132-136 (FP4 clusters with their landscape- and farm-level interventions; “<i>DS will bring to WHEAT FP4 a web-based GIS options by context decision support tool on sustainable intensification and management</i>”).</p>	<p><b>Partially addressed.</b> WHEAT could have done a more concrete write up on specific DS components and strategies for their implementation, to be confident that WHEAT will not simply repeat the same programmatic mistakes and “relearn” in Phase II what already have been lessons on systems research in Phase I.</p>

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<p>4. Clarify and provide some classification of how WHEAT plans to manage a potential overlap of its pre-breeding activities (FP2) with the Genetics Gain platform, and justify the large operating budget for FP1 (enhancing WHEAT's strategy for impact).</p>	<p>The 'Genetic Gains Platform' is intended to support the AFS-(crop-based systems) CRPs' research activities. WHEAT describes its future collaboration with the GG Platform on pp.6, 29 (Table 7 on inter-CRP/ Platforms collaboration focus) &amp; 30 (Table 8), 88 (FP2: 'many tools developed jointly'), 102 (FP3 linkage), Annex p.39 (Table 37-1b) and p.112 (uplift budget scenario, greater collaboration with GG Platform).</p>	<p><b>Partially addressed.</b> It is still unclear how the WHEAT pre-breeding activities will be interacting with the now renamed Excellence in Breeding Platform, to avoid potential overlap. The CRP should aim at strengthening synergy and complementarity with the platform.</p>
<p>5. Provide more detail in response to the comments on management structure.</p>	<p>WHEAT has provided several clarifications; the CRP has reduced the number of FPs and CoAs. Overall this CRP will have a smaller management team. FP Leads are in most cases also Program Directors and members of WHEAT-MC. As part of Phase II resource planning, WHEAT will further detail ToRs for FP and CoA Leads, including resources to support their non-hierarchical facilitation of coordination and collaboration among project Leads and senior scientists.</p>	<p><b>Satisfactorily addressed.</b></p>