

Comments on CRP3.1 Proposal: WHEAT-Global Alliance for Improving Food Security and the Livelihoods of the Resource-poor in the Developing World

FC Member	Comments
Australia	<p>General Comments:</p> <p>The case for the program is strong and supported by persuasive and verifiable expected output, outcome and impact indicators at scales that indicate potentially large contributions to the new Vision and Strategic Objectives of the CGIAR. CRP 3.1 deserves robust and durable support from the donor community as it is a key food staple of the poor, as well as being an essential component of world food security.</p> <p>Issues that deserve attention by the proponents and the system before FC 5:</p> <ul style="list-style-type: none"> (i) elaboration of how counterfactual and attribution issues will be addressed in the <i>ex post</i> impact assessments at scale; (ii) the strategy for the evolution of existing Challenge and System-wide Programs once the CRPs are approved; (iii) is it proposed that key performance indicators such as described in CRP 3.1 will be included in Performance Contracts? (iv) the high proportion of bilateral funding in this (about 70%) and other CRPs in the foreseeable future highlights the danger of compromising the pursuit of agreed CRP agendas and the need for the CB to formulate a coherent funding strategy to avoid donor confusion with centres, CRPs and the CB all potentially approaching them in an ad hoc fashion; (v) the FC should review institutional overheads and CRP management costs once all CRPs are approved to ensure transparency, consistency and efficiency; (vi) it would be helpful to have a comparison of past budget shares to each SI with the proposed “optimized” allocations in the CRP 3.1 budgets; (vii) clarification is required from the CB as to how the requested funding for SI 9 Seeds of Discovery relates to the separate funding request to the FC for the operation of the centre gene banks outside of the CRPs. <p>Specific comments:</p> <ul style="list-style-type: none"> • WHEAT correctly indicates a strong focus on the Indo-Gangetic Plain for underpinning global food security and enhanced engagement with India. WHEAT also flags The Cereal Systems Initiative for South Asia (CSISA) as crucial. A frank appraisal of the current functionality of CSISA would strengthen the document. • A persuasive strategic case is made for support in terms of contributing to the CGIAR Vision and Strategic Objectives. • There is clarity and logic in the targeting of 12 key wheat mega-environments (ME) using income/poverty and research capacity indicators to assess priorities among them. • Impact pathways are elaborated with convincing narratives that flow from outputs to outcomes and then first and second-order impacts (pp.20-26 and Annex A). While the detail of each pathway will be provided in the operational

	<p>plans for each SI, the conceptual framework provides a coherent strategy as to how each will contribute to the generation of ultimate impacts. These expected outcomes and impacts are provided for each of the 10 SI in Table 3 (p.25) and Part 2 of the proposal, which suggests much prior analysis has been undertaken. These are mostly in verifiable, empirical terms such as increased wheat production and incomes, number of smallholders benefitting, increased numbers of consumers receiving 30% of calories from wheat and relate specifically to CRP 3.1, over and above pipeline impacts from previous research. However there is little discussion of how issues like attribution and counterfactuals will be addressed in an M & E context in order to verify these expectations. Box 4 (p. 51) indicates the proponents appreciate these challenges in impact assessment, and are aware of frontier methods but how they are to be employed at scale remains an issue.</p> <ul style="list-style-type: none"> • There needs to be further clarification as to how SI 2 on sustainable wheat systems will relate to other systems-oriented CRPs such as 1 and 5. The proposal does define the boundaries and relationships among 3.7 and others like 1.1, 1.2, 2-4, 5 and 7, with details to await operational plans. The CB in its covering letter is sensitive to this issue and will keep an eye on this aspect, which is desirable. • The gender program seems appropriate and aimed at understanding the role of gender in wheat systems and the scope to ensure that wheat R & D outcomes and impacts are gender sensitive. • There is a strong consortium approach to the CRP, with participatory priority setting on a continuous basis involving partners in each SI. This will be informed by <i>ex ante</i> impact assessment, expert opinions and lessons drawn from experience. It is disappointing that more evidence of <i>ex ante</i> impact assessment was not already included in the proposal, as CIMMYT has been a leader in this area and the expected impacts described are an output of such analyses. In a number of narratives in Part 2 there are tables showing the priorities among biotic and abiotic constraints among the various wheat growing regions that would provide the building blocks for systematic <i>ex ante</i> impact assessment as an input into more informed priority assessment. • The governance and management arrangements seem appropriate, with oversight and managements committees to be established and science advice on an ad hoc basis decided by each SI. • Components of the Generation Challenge Program (GCP) on wheat will be integrated into three of the SI in CRP 3.1. However it is not clear why the GCP will first transition into the Genomics and Integrated Breeding Service (GIBS). Indeed this raises the question of how all CPs and system wide programs will evolve once all CRPs have been approved and funded. It would not seem desirable to have these outside the CRP portfolio in the longer term and the CB should formulate a strategy for this evolution. • It is good to see in the M & E plan reference to key performance indicators. These were used previously in the CGIAR Performance Measurement System prior to the reforms. It would be helpful to know if such indicators will be used in the performance contracts, as a results-orientation would seem to imply. • There is a discussion of intellectual property management (pp.53-55) but it would be useful to know how it compares with the emerging IPR policy of the
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	<p>new CGIAR.</p> <ul style="list-style-type: none"> • The CRP envisages an active bilateral funding campaign with some 70% of the total resources for the CRP derived from such sources. The CB should propose a fund raising strategy soon to guide centres, CRPs and their partners, so as to avoid confusing donors. At the moment it seems all CRPs are envisaging a large share of bilateral funding for the foreseeable future. As CRP 3.1 points out, this will undoubtedly compromise the strategic research agenda. It also is not consistent with one of the primary aims of the reforms. • The CRP is providing for 6% system (2%) and CRP management (4%) costs. As with the MAIZE CRP, this could represent a significant share of funding from Windows 1-3, as it is not expected they can be recovered from bilateral projects. Based on the budgets presented (Tables 8A and 8B), system and management costs could represent about 15% of contributions from the CGIAR Fund to CRP 3.1. The proponents reserve the right to review the management charge should the CGIAR implement a CG wide rate (p.65). In addition institutional overheads are estimated at about 17% of the total budget. The FC should review these costs in all CRPs in due course to ensure transparency, consistency and efficiency. • The resource allocations among the 10 SI were “optimized” based upon qualitative stakeholder feedback (p. 62, Tables 8A and 8B). No details were provided as to how this process was undertaken. To help in understanding whether the research portfolio has changed significantly in terms of relative emphasis, it would be valuable to have a comparison of how the new budget shares to each SI match historical ones. • The 10 detailed SI narratives in Part 2 of the proposal are well crafted and informative. They provide ample justifications and background for the planned research. They also contain the rationale for international agricultural research, list the challenges, opportunities and researchable issues, lessons learned from the past, outputs, R & D partners, outcomes, milestones, target systems, impact estimates, key performance indicators and an indication of what is new. It is clear that the CRP has been shaped after extensive consultation and consideration, building effectively on past accomplishments. It is especially pleasing to see mostly verifiable outcome and impact indicators at scale provided for each of the SI in both the near term and to 2030. • The gender program will rely on the FAO/IFAD/World Bank <i>Gender in Agriculture Sourcebook</i> to ensure diverse gender perspectives are factored into each SI using participatory methodologies to help ensure women are especially benefitted from the technologies and policies that emerge. This seems a preferred approach to the transformational activist gender program proposed for CRP 1.3 on Aquatic Agricultural Systems. • The proposal makes a powerful case for the necessary role of international agricultural research in the creation of international public goods in wheat research. This is highlighted by the SI 5 narrative on durable resistance to pests and diseases. The need for long-run research commitments, integration of capacity building, multi-year core funding to facilitate travel to international trials and face to face interactions and training with NARS partners provides the rationale (p.114).
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	<ul style="list-style-type: none"> • It is pleasing to see SI9 is to focus on alleviating the constraints to seed production in partner countries, so critical to the generation of impacts at scale. This will not involve an active role for the program in seed production per se, but cross-system comparative studies to elicit best practices so that poor countries could improve their seed policies, technologies and regulations. • SI 9 Seeds of Discovery covers the gene banks and research on targeted mobilization of novel diversity into breeding programs via well-characterized accessions and parental germplasm. Clarification is required from the CB as to how the requested funding for this SI relates to the separate funding request for the operation of the centre gene banks outside of the CRPs. <p>Without more clarity and planning of partnerships there is a risk that crop information management will be problematic rather than a cutting-edge advance for WHEAT. The current environment in which Strategic Initiative 9 must deliver is complex, as indicated by the following:</p> <ul style="list-style-type: none"> • Separate software systems are mooted in the CGIAR for germplasm banks on one hand and for breeding operations on the other. There is no concrete strategy or will to implement seamless integration of banks with breeding operations. • There appear to be very different approaches in WHEAT and MAIZE for genealogy management and thus compliance to the Treaty on Plant Genetic Resources for Food and Agriculture. • There appears to be uncertainty within CIMMYT of how the Wheat Knowledge Base interacts with databases server breeders and banks.
<p>FAO</p>	<p>FAO commends that the proposal follows the FAO Policies for Sustainable Crop Production Intensification and particularly on conservation agriculture in wheat based systems.</p> <p>Specific comments to the <u>Strategic Initiative 8 More and Better Seed</u></p> <ul style="list-style-type: none"> • FAO clearly recognizes that research and development of new varieties is the domain of the CG system, but finds that some of the outputs listed below go well beyond their comparative advantage regarding regulatory frameworks, PVP, seed policies, phytosanitary matters etc. Therefore it is suggested if the CG wants to assist countries of the developing world in this area, the CRP team need to partner with the organization that are recognized in these areas, not only FAO including International Plant Protection Convention, but also UPOV, OECD, ISTA, ISF and the regional seed associations. As an example, FAO is working with ICARDA in Central Asia with a clear recognition of the comparative advantage of each organisation. • Outputs that need partnering based on comparative advantage of partner organizations: <ol style="list-style-type: none"> 1. Comparative assessments of the status of the wheat seed sector. 2. More flexible national systems for more rapid variety release. 3. More functional seed units for variety maintenance and early generation seed multiplication.

	<ol style="list-style-type: none"> 4. Improved infrastructure and equipment for national seed systems. 5. Better access to high-quality, certified seed of improved wheat varieties. 6. Analyses of the technical efficiency of public- and private-sector seed producers. 7. Alternative seed delivery systems, i.e., farmer-based seed production and marketing units. 8. Capacity of public and private seed sector institutions enhanced and personnel trained. 9. Enabling seed policies, based on thorough analysis of current arrangements. 10. Recommendations for rationalizing and harmonizing national seed regulatory frameworks 11. pertaining to variety release, plant variety protection, seed certification and phytosanitary measures. 12. Framework for national seed security in vulnerable <p>In addition the Joint FAO/IAEA Division identified a list of areas for research collaboration within this CRP. The Division can work together with CGIAR in the following areas for the proposed WHEAT CRP:</p> <ol style="list-style-type: none"> 1. Nutrient- and water-use efficiency 2. Selection of crop genotypes with efficient water use 3. The use of carbon isotope discrimination can be used to identify potential drought and salt tolerance varieties. <p>Mutation-based strategies – propose collaboration using technology packages based on mutation induction and efficiency enhancing molecular and bio-technologies, complemented by best fit soil and water management practices.</p>
<p>World Bank-ARD</p>	<p>Overall Assessment</p> <p>Overall, we agree with the assessment and comments made by ISPC on the WHEAT CRP proposal.</p> <p>The rationale for supporting this CRP is well articulated and justified. It supports the revised strategy for CGIAR centers engaged in wheat research to "boost farm-level wheat productivity, while renewing and fortifying the crop's resistance to globally important diseases and pests, enhancing its adaptation to warmer climates, and reducing its water, fertilizer, labor and fuel requirements". It aims to enable, support, and strengthen the efforts of national Governments, the private sector, international, regional and local organizations, and farming communities to achieve sustainable wheat production systems.</p> <p>The proposal promises to build on the input and collaboration of over 200 partners from the public and private sector to achieve its overall goal through 10 specific Strategic Initiatives (SIs). Although Both CIMMYT and ICARDA have considerable experience and successes working with multiple institutions and Governments in wheat research, CRP 3.1 will bring additional challenges to harness and coordinate the work and resources of independent institutions to achieve the stated objectives .</p> <p>Quality Enhancement</p> <p>CIMMYT, ICARDA and many of the partners have years of good quality and productive</p>

wheat research experience and will use a variety of traditional and new approaches ranging from the latest molecular and bioinformatics to well established plant breeding and agronomic methods. The overall challenge facing WHEAT will be addressed through a set of ten interrelated strategic Initiatives .They include SI 1 Technology Targeting for Greatest Impact ; SI 2 Sustainable Wheat- Based Systems; SI 3 Nutrient and Water use efficiency ; SI 4 Productive wheat varieties; SI 5 Durable Resistance and Management of Diseases and Insect Pests; SI 6 Enhanced Heat and Drought Tolerance; SI 7 Breaking the Yield Barrier ; SI 8 More and Better seed; SI 9 Seeds of Discovery and SI 10 Strengthening capacities .

The WHEAT proposal would benefit from providing more specifics on the approaches and methodologies to be employed in the SIs. Presently the proposal provides the researchable issues but lacks on methodological specifics which would allow development of tangible indicators for results monitoring.

As noted above, the research program builds on ten Strategic Initiatives each having their budget and program activities. The structure is rather complex and some SIs are overlapping. The proposers may consider reducing management time and cost by linking and merging some of the SIs, e. g. SI 2 and SI 3, and possibly merging of SI 6 with SI7 or SI9.

What actually is the role and comparative advantage of the CGIAR in SI18 on developing seed production systems? In case the funding level is below the amount requested in the proposal, what activities or SIs will be given lower priority or dropped?

Summary of impacts of CRP 3.1 provided in table 3 needs to be substantiated to build confidence in their achievement.

While the impact pathways for genetic improvement of crop varieties are clear, the impact pathways for several of the other SIs are not.

The proposal identifies weak implementation as a possible risk, therefore, as indicated in the ISPC commentary this needs better attention. We endorse ISPC's comment that "overall management at the CRP level as well as roles for the Management Committee and SI leadership should be strengthened and clarified."

Recommendation: Approval of the proposal subject to the following conditions:

1. Prioritize different SIs where CRP 3.1 has a clear comparative advantage, and where there is high probability of achieving the stated outcomes and longer term impacts.
2. Develop realistic and monitorable outcome indicators with a timeframe at the SI level and longer term impact projections at the overall CRP level.
3. Improve management structure to ensure overall efficiency and effectiveness of the CRP implementation and coordination among SIs and with multiple partners.
4. Indicate activities and/or SIs that may be scaled down or dropped if resources are reduced.