SC7 Meeting
Agenda item 4
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ISPC Assessment of the Revised Common Bean Flagship Proposal

Purpose

This document presents an assessment by CGIAR'S Independent Science and Partnership Council ('ISPC') of the revised proposal for the inclusion of a common bean Flagship "Strategic and applied research to meet the demand of beans in Africa and Latin America".

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Prepared by: Independent Science and Partnership Council

Independent Science and Partnership Council

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ISPC Assessment of the Revised Common Bean Flagship Proposal "Strategic and applied research to meet the demand of beans in Africa and Latin America", Submitted by CIAT (August 2018)

1. Summary

Common bean has been part of the research agenda of the CGIAR for the past five decades (the CIAT Bean Program was established in 1973). With the restructuring of the CGIAR during 2010-2012 as Phase I CRPs, common bean research was part of the Grain Legumes CRP. In Phase II, the decision to merge the Grain Legumes CRP with the Dryland Cereals CRP and the Dryland Systems CRP to eventually form the agri-food systems CRP Grain Legumes-Dryland Cereals (GLDC) narrowed the focus to the drylands, which marginalized common bean, normally grown in sub-humid regions. During the long process of revising the GLDC, an Expert Panel recommended that the final version of GLDC should focus only on dryland systems in sub-Saharan Africa and South Asia and common bean were omitted from the CRP. At the same time, concerns were raised on the need to find a home for on-going research on common bean within the CRP Phase II portfolio. In December 2017, the SMB approved the development of a proposal for a common bean flagship. It was later decided that GLDC would host the common bean flagship "*building on residual synergies with other legumes in a relationship of alignment and complementarity to existing flagships, while respecting the dryland systems focus of the CRP*". Although the common bean FP proposal makes some effort to justify its location in the GLDC CRP, in reality, the "residual synergy" is based mainly on "alignment and complementarity" through legume trait discovery and crop improvement methodologies.

In an assessment of a proposal on Beans in April 2018 (requested by the SMB), the ISPC rated the initial submission of the Common Bean Flagship as Weak[1]. This rating was based on a detailed analysis of the proposal's strengths and weaknesses against the following criteria (the same as those used for the 2016 assessments): Strategic relevance; Theory of change & Impact pathway; Science quality; Comparative advantage and partnership; Cross-cutting issues; and Budget.

SMB decided not to submit the proposal to the SC but requested a revised proposal, to meet the ISPC concerns. The proposal was revised and approved for submission to the SC by the SMB in September 2018. The current review (requested on behalf of the SC) concentrates on the CIAT response (August 2018) to the main issues raised by the ISPC in its April 2018 review of the Common Bean Flagship.

Overall, the revised proposal is improved and additional information has been provided to answer some of the concerns raised by the ISPC previously. As detailed in the assessment below, the Flagship remains principally a bean improvement project with a precarious funding outlook beyond 2018. While the ISPC is convinced of the need to keep a research focus on common bean within the CGIAR related to its importance in Eastern/Southern Africa, **the ISPC's rating of the resubmitted FP is still Weak.**

[1] Three categories were used in the ISPC assessment of Flagships (Strong; Moderate; and Weak), based on the criteria for reviewing CRP-II proposals at CRP and FP levels (ANNEX A) https://ispc.cgiar.org/sites/default/files/pdf/ispc_portfolio_commentary_june_2016.pdf

2. Assessment of the revised FP proposal and CIAT's response to ISPC comments

Weaknesses reported in initial ISPC comments[2]	Proponents response/changes made	ISPC assessment of the revised proposal
Strategic relevance: Lack of evidence-based analysis to document the impacts of common beans on diets and nutrition in Africa and Latin America	Proponents recognize that impacts to date have been measured mostly in terms of crop yield; they have added references to published results in the description of the outcomes, and reference to recent impact analyses, including impact on diets documented in terms of reduced days of food insecurity and dietary protein contribution and nutrition.	FP still suffers from a lack of evidence to document the impacts on food security, diets and nutrition across Africa and Latin America. According to the CGIAR-led Tropical Legumes II Project report, grain yield increases have contributed minimally to the increase in bean output between 1985–1987 and 2005–2007, except for Ethiopia. Furthermore, across SSA average crop yields declined by 0.9% annually over the same period though 1/3 of area in most important producing SSA countries are grown with bred cultivars[3].
Theory of Change & Impact Pathway: • ToC is not well articulated; FP lacks an agri-food system approach. Most Clusters of Activity (CoA) focus on genetic resources enhancement • Impact pathway appears to be aspirational; expected impacts for 2022 are very ambitious and need to be placed in the context of what has been achieved during Phase I CRPs. Clear pathways to market have not been identified or demonstrated.	Proponents acknowledge the weakness of the ToC and have attempted to show how the different activities will be integrated (Fig. 1). Proponents reiterate the success of PABRA's dissemination strategies, and highlight importance of a production-to-consumption corridor for Africa (not for Latin America), and emphasize various examples of relationships with business platforms as the keys to change.	An attempt is made to better articulate the ToC and to show that the main thrust of the FP on crop improvement is integrated with other activities such as production technology, seed systems, agronomic management, marketing and policy. This does improve the contextual aspect of the FP as aspiring to have an agri-food systems approach but does not fully address the fact that the FP is essentially a crop improvement program mainly servicing the needs of PABRA. Nothing has changed in terms of CoAs focus and the overall ToC coherence (e.g. an output on "*molecular DNA markers for root penetration*" under the scaling CoA 4 (Fig. 1)? More information is given on expected impacts for 2022 building on achievements especially by PABRA in seed production and dissemination.. The examples supplied for Ethiopia, Rwanda, Uganda and Tanzania sound impressive in terms of dissemination of seeds, but without evidence of the impacts on diets and nutrition are these aspirations for marketing beans relevant? The ISPC therefore still considers that the impact pathway is aspirational
Science quality: • A major assumption in the FP rests on "*improved productivity of bean, linked to better functioning markets*"; but too little understanding is demonstrated of the policy dimensions of market development • The project lacks novelty; Agronomy, crop management and farming systems	The response relies mainly on emphasizing the experiences of PABRA and its achievements in seed policy.	More information is provided on the PABRA activities in seed production (quality declared seed); seed policies; regional policy initiatives; extension policies; and post-harvest quality and nutrition. No doubt, this will contribute to an enabling environment for better functioning markets but the link is still vague. From the information provided, there is limited improved understanding of the policy dimensions of market development. The evidence presented for science quality is still not very convincing. The small research component on agronomy, crop management and farming

[2] Submitted 23 April 2018

[3] Abate, T., A.D. Alene, D. Bergvinson, B. Shiferaw, S. Silim,, A. Orr & S. Asfaw. 2012. Tropical Grain Legumes in Africa and South Asia. Knowledge and Opportunities. Pp. 4, item 17. https://core.ac.uk/download/pdf/12107473.pdf

research seem to be reduced to a small component of CoA 5, mainly concerned with upscaling of existing technologies; • Track record of the FP leadership team is not presented, except the name of the FP leader	CIAT admits that the proposal is not based on new concepts, but claims it is using older methods in new ways. More information has been provided regarding FP leadership.	systems is not denied. Placed in the context of the substantial research done previously by the CIAT Bean Program on soil fertility and intercropping with maize, there is justification for upscaling existing, proven technologies as highlighted. Furthermore, such research would be much better done in a systems context, e.g. within the MAIZE CRP, as beans are commonly intercropped with maize. The problem will come with emerging developments such as effects of climate change e.g. increased drought and heat – currently the Common Bean FP does not have the research capacity to address emerging problems adequately. A major improvement is the provision of the track record of the FP leader and the PABRA coordinator, with a list of staff and their disciplinary expertise (in Annex); but still lacking details of the extent of their involvement in the FP.
Comparative advantage & partnership: • FP relies heavily on strategic partnerships with ARIs and NARS partners; bean researchers seem to play a minor role in the research process and platforms as facilitators and "bridge-builders" • Proposal is silent with regard to bean partners in South America, e.g. Colombia, Brazil	Proponents argue that ISPC comment on partnerships and CIATs role is based on a misconception; "*the value that CIAT places on partnership should not be construed as being a passive bystander*". The presence of CIAT staff in the different activities has been clarified in several places in the revised proposal. CIAT admits that the silence regarding South America "was an oversight" ; they present a list of NARS partners in LAM and argue that "*current funding realities do not permit wide collaboration with more developed countries in Latin America"*	The links with PABRA in Africa are indeed important. The oversight of not providing information on the equivalents in South America has been addressed to some extent, but it is thin on detail and experience. Likewise, the proponents do not tell what and how this FP may fill relevant research gaps related to common bean breeding and seed delivery. If this FP is predominantly located in Africa, this should be clearly acknowledged. It should be also noted that, as per recent study on measuring impact of plant breeding in SS Africa[4], there is not much data available documenting yield increases and genetic gains from bean breeding or on the improvement in food security due to bean breeding.
Cross-cutting issues: • The strategy for youth is very thin; no explicit mention of any research questions focusing on youth issues	The youth program for Africa is elaborated; examples are given on PABRA's role in supporting the establishment of youth employment in the platforms and relationship with agribusiness.	The proposal is still silent on youth engagement strategies in Latin America. Various activities are listed but there is no overall strategy and no information on research questions.
Budget: • The sharp decline in the secured budget after 2018 can be a concern; no funding has yet been secured for 2022. The overall funding gap for the 2018 to 2022 period is US$ 47.65 million (79% of the required funding)…	CIAT recognizes the budget concern for the flagship; and engaging in discussions with donors and fund raising efforts; e.g. donor initiative to strengthen support to crop breeding on priority crops of the CGIAR; Novel fund raising strategies pursued by HarvestPlus that would bring more stability in the long term.	Budget projections presented are still more or less the same as in the previous proposal.

[4] Eriksson et *al.* 2018. Measuring the impact of plant breeding on sub-Saharan African staple crops. Outlook in Agriculture 47, https://doi.org/10.1177/0030727018800723