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ISPC Commentary on the Extension Proposal for CRP 3.2 MAIZE for 2015-2016

Submitted by:
Independent Science and Partnership Council
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Summary:

The major challenge of CRP MAIZE is to create a strategic, international approach of public-private partnership for maize research to sustainably strengthen resource-poor women and men maize farmers and poor maize consumers. In this it has shown good progress in its first phase. The extension proposal builds on the CRP frame and aims at strengthening activities, particularly in direct involvement and capacity building for outcomes. The program strategy has been refined, as the original nine Strategic Initiatives were rearranged into five Flagship Projects, each with Clusters of Activities for planning, priority setting, resourcing and implementation with partners. The CRP has developed a Theory of Change with aligned flagship projects, and impact pathways with contribution to common IDOs and SLOs.

The ISPC identified the following points as areas where improvements could be made.

1. More attention should be given to the development of a coherent program-level product delivery strategy better aligned to the SLOs. Potential barriers to impact have not been identified although described under achievements in the Annual Report 2013, MAIZE highlights inadequate opportunities to strategically analyze successes and challenges to the adoption of new technologies/innovations within the maize based systems work and identify barriers to progress.
2. There is a need to complete the definition of impacts. ISPC encourages the research team to pursue their efforts on identification of IDO targets and indicators, and explain how it is incorporating the assumptions about the impact pathway into the CRP work plan, partnership strategy and training programs.
3. MAIZE should clarify its CRPs linkages and the activities involved through a table or a matrix, and document “shared impact”. These linkages should also be defined in impact pathway schematics.
4. The quality and strength of involvement with regional partners should be further improved for building more effective partnerships with key regional players like AGRA and national programs and universities.
Overall assessment of CRP evolution

The ISPC recommended approval of the MAIZE CRP proposal (April 2011), without “must haves”, but advised proponents to address the following issues when defining the operational plan and strategy:

i. Need for more strategic consideration to (a) poor consumers as beneficiaries of maize research as a distinct targeted group; and (b) the dynamics in demand and use of maize (food, feed, fuel) and the dynamics in research supply (private sector) expected in selected target areas.

ii. Develop a coherent program-level product delivery strategy that better aligns the SIs with program-level outcomes, considering also capacity and support for delivery and stakeholder feedback.

iii. Attention should be paid to success factors, lessons learned and adjustment, and partnerships particularly in the following areas: innovation systems, transferring success of conservation agriculture from Asia to Africa, and the high-potential but less predictable areas of research.

iv. CRP management arrangements should strongly support fruitful collaboration and sharing among the principal partners, and the Program needs to develop independent oversight and evaluation mechanisms.

v. Collaboration needs to be enhanced with PIM and IFPRI to ensure that the impact of changes in maize prices and markets at a global level are adequately understood and reflected in the research agenda of MAIZE.

The Extension Proposal shows indication that attention has been given to addressing some of the issues highlighted above. However, several comments and recommendations made by the ISPC on the original proposal are still relevant to the extension phase. The CRP has responded efficiently to the emergency of Maize Lethal Necrosis disease, but apart from that there seems to be no major evolution in the R4D strategy and priority setting. The extension proposal skims through the major production constraints such as Striga, Aflatoxin, and post-harvest issues, and it is difficult to see what new and long-term strategies and targets the CRP is putting together for tackling these issues. There is some evidence of use of ISPC-commissioned Strategy and Trends studies but there is no evidence that MAIZE considers trends such as urbanization and rise of the middle class and associated consumer preferences (e.g. rice vs maize), in setting its global and regional targets and priorities.

The MAIZE target areas include six maize-based farming systems in Central America, sub Saharan-Africa and Asia and 20 million smallholders and plans to deliver high-yielding, stress-resilient and nutrient-enhanced maize varieties to target areas hosting over
600 million maize-dependent people who live on USD 2 per day or less, including about 120 million malnourished children, with at least 36 million smallholder farmers benefiting from the CRP outputs. MAIZE also plans to further increase its focus and impact during the extension phase, by reaching more beneficiaries, and responding to the needs of resource-poor farmers in the parts of the developing world under-served by global seed corporations.

As discussed below in detail, there is overall good alignment of the new CRP Flagship Projects (FPs) with the initial “Strategic Initiatives” of the Maize CRP and consolidation of program deliverables into IDOs, which are now at a much higher level, compared to the original research outcomes.

MAIZE partnership strategy has evolved to focus on the Flagship Projects and innovation platforms, but it seems to be still a number game for this CRP, with more than 300 partners involved with little evidence that quality and “factors of success” were considered. Linkages with other CRPs are described throughout the Extension Proposal and the Annual Report 2013, reports on linkages with several CRPs including PIM, but few details are given on the nature and objectives of these links. MAIZE should further clarify its CRPs linkages and the activities involved.

1. Intermediate Development Outcomes, Theories of Change and Impact Pathways

1.1. Plausibility of Theory of Change: MAIZE works on 3 research strategies (RS), i.e., sustainable intensification, provision of new varieties for the poor, and post-harvest management and thus provides reasonable coverage of maize value chains. There is clear evidence of progress since the funding proposal. The program strategy has been refined and there is now a TOC with well-defined impact pathways.

MAIZE has published a summary of its ToC on its website and the extension proposal links to it. The published ToC provides an impact pathway (IP) for each of the program’s three RSs. Each of the IPs includes a summary of the flow from research to impact, shows with whom and at what stage the program will need to engage and includes assumptions at each stage. Elsewhere in the extension proposal the three RSs are mapped to five FPs and to common IDOs, making a coherent flow between the ToC and the program strategy.

The proposal indicates that the MAIZE strategy and vision of success is defined to ensure stabilization of food prices and doubling of maize production to meet the demand by 2050. However, the targets for stabilizing prices and doubling production do not seem to be based on any systematic and objective analysis of the alternative futures for maize and the pathways for doubling production. Ex-ante analysis could help better understand the alternative pathways for increasing production, defining the target production domains and the requisite investments needed to reach this objective and to what extent the increased production would help reduce price volatility and help stabilize food prices, especially under climate change scenarios.

The published ToC provides a list of assumptions for each of the three IPs. For the future, ISPC recommends that the research team examines the risk that assumptions may not hold,
and reports on how it is adjusting work methods to ensure that assumptions are met.

MAIZE is working towards 10 of the 11 common IDOs. In the extension proposal it has mapped FPs to IDOs and described, but not yet quantified, IDO indicators. The indicators are wide ranging – some will be straightforward to measure and some more difficult. The program expects to reach farmers in two different production areas – those in stress-prone environments and those in more favourable production areas – but has not yet gone as far as quantifying targets for each area. The team notes that “the achievement of IDOs is not independent of each other” but does not otherwise address the question of attribution. There is still work to be done in refining the definition of impacts.

Additional suggestions for strengthening the MAIZE ToC:

- The research team should provide more information in the next annual report on what the Innovation Platforms are doing and how they fit into the impact pathway.

- Need to clarify what “empowerment” really means for a selection of key stakeholders and whether there may be trade-offs or unintended consequences resulting from shifts in power dynamics that the program should anticipate and deal with.

- The MAIZE team should coordinate with other CRPs on measurement of indicators common to more than one program; the recent ISPC strategic study on Metrics may also be useful for this exercise.

1.2. Contribution to common IDOs and SLOs including linkages among CRPs: The Extension Proposal shows the alignment of RSs and FPs with IDOs and Performance Indicators (Table 1). All three RSs contribute to the IDOs on food security, income and gender; RS 1 and RS 2 also contribute to productivity, environment and climate change; while RS 1 also contributes to capacity to innovate and adapt and RS2 also contributes to nutrition. These IDO contributions are aligned with the SLOs of productivity, food security, nutrition and health, income and environment. It was noted that key performance indicators relevant for MAIZE (Table 1) will need to be aligned with performance indicators agreed at the system level.

MAIZE current linkages with other CRPs are given throughout the Extension Proposal. The MAIZE Annual Report 2013 reported on linkages with A4NH, AAS, CCAFS, GRiSP, Grain Legumes, Livestock and Fish and WHEAT but only detailed the activities on one of these links – development of dual-purpose maize with Livestock and Fish. Linkages with Humidtropics, PIM and RTB are being explored and strengthened. In particular, in the RS3, partners from PIM, ARIs, the private sector and NARES, work together with MAIZE to develop information and knowledge, gender mainstreaming options and tools, improved options for storage, food safety, processing and novel products for market access. Linkages with Humidtropics are described under Regional Partnerships and include work on the parasitic weed Striga in the eastern Africa and optimizing productivity and profitability of maize, cassava, and legume systems also with A4NH. In Asia, MAIZE has strong collaboration with GRiSP, WHEAT, PIM, AAS, and Livestock and Fish through its work on
sustainable intensification of cereal systems in South Asia.

At a minimum, MAIZE should clarify its CRP linkages and the activities involved through a table or a matrix. Attribution and transparency are critical where different CRPs contribute to different activities in the same value chain. In order to document “shared impact”, linkages should be clearly defined in impact pathway schematics.

1.3. Feasibility of Impact Pathways: MAIZE aims to increase production, income and reduce shortfalls for 36 million smallholder farmers (RS2). This seems to be on top of the 20 million smallholders targeted under RS1. Although claims have been made that the “impact pathway is working” it is not clear how the CRP aims to reach over 50 million smallholders – where, when, and how?

MAIZE does not present a schematic IP in either its Extension Proposal or its Annual Report 2013. Detailed information is given in the Annual Report on progress towards outputs; progress towards the achievement of outcomes and IDOs; and progress towards impact. However as this progress is not placed in a timeframe for achievements in the projected lifetime of MAIZE, it is not possible to comment on “a clear pathway to the SLOs”. This pathway has not been provided. Based on this, the request by the ISPC to give more attention to the development of a coherent program-level product delivery strategy better aligned to the SLO’s has not been addressed. Potential barriers to impact have also not been identified although under achievements in the Annual Report 2013, MAIZE highlights inadequate opportunities to strategically analyze successes and challenges to the adoption of new technologies/innovations within the maize based systems work, as barriers to progress.

2. Flagship projects

The three MAIZE Research Strategies are broken down into 5 Flagship Projects, encompassing the nine Strategic Initiatives of the original MAIZE proposal. Currently, RS 1 and 3 contain one FP each; RS 2 contains three FPs (discovery, validation and delivery). In turn, each FP is comprised of between three and five Cluster of Activities (CoA); these are the aggregations of projects and work packages within a research thrust. These FPs/CoAs are aligned with the main objective of MAIZE to stabilize maize prices and enhance the productivity of maize-based farming systems, making them more resilient and sustainable and significantly increasing farmers’ income and livelihood opportunities, without using more land, fertilizer, and water. They are also likely to contribute to the IDOs on productivity, food security, nutrition, income, environment, capacity to innovate and adapt and gender in Africa, Asia and Latin America. However, as discussed above for the plausibility of ToC, the targets for stabilizing prices and doubling production need to be substantiated based on systematic and objective analysis of alternative maize futures production.

3. Gender

MAIZE has made a good start in integrating gender and is planning to speed up gender mainstreaming in the research work plan. However, gender research is not yet well integrated in the R4D strategies and gender mainstreaming is still about numbers and involvement of
women in training, workshops, etc. The CRP still does not deal with constraints that matter to women. The gender work also lacks critical vision and strategy as the main purpose seems to be concentrated on “mainstreaming gender” into research programs which needs to be adopted as a strategy but not as the main research question. Gender research needs to identify fundamental and perennial issues as to why men and women have differential access to and adoption of maize technologies (leading to gender gaps in productivity) and whether men and women indeed require different types of products. Many studies have shown that female farmers could close the productivity gaps if access to extension and services is improved – indicating that the problem goes far beyond research and developing different products for men and women may not be the real question. **If men and women value various technology traits, how can this be integrated into breeding and agronomic research and how can it be supplied?** Gender research needs to critically look into such questions and work closely with the system-wide gender research efforts.

MAIZE plans to meet CGIAR performance requirements for gender mainstreaming in 2016 by increasing its gender research and capacity for gender analysis and mainstreaming gender research in the regions. MAIZE is committed to integrating gender into research and 15% of the budget is allocated to gender activities. During 2015-16, the focus will be on mainstreaming gender into the Research Management Framework with key partners adopting the protocol for gender and social inclusion in participatory research as well as a screening procedure for gender mainstreaming in project development; gender disaggregated data collection with CIMMYT, IITA and key partners adopting and applying a protocol; and diagnosing gender-related constraints through inter-CRP collaborative research to better understand how gender disparities affect R4D outcomes, the interactions between gender norms, women's agency, and the development and dissemination of key MAIZE technologies in selected regions and implementing guidelines for gender-responsive development of maize-based systems for one key target area.

4. Partnerships

MAIZE draws on a large partnership network that includes diverse contributions of partners in innovation, technology development and scale-out and in defining R4D priorities. Many of these are long-term, well-established partnerships. The Extension Proposal lists key partners for each FP and each topic. Clearly the types of partners e.g. ARIs, NARES, NGOs, private sector, farmer groups etc. vary across FPs depending on the activities and deliverables. The list of partners given is impressive and extensive and many are of high quality. But as discussed above, partnership seems to be still a number game for MAIZE, with more than 300 partners involved, more consideration should be given to quality and “factors of success” in strengthening the role of partnership in the ToC.

Partnership with other CRPs is addressed partly above (1.2.); no new developments in partnerships appear to be planned although enhanced links with other CRPs are mentioned, e.g. to further strengthen linkages with PIM for foresight and targeting; with A4NH for nutritionally enhanced maize and AflaSafe; and with Humid Tropics (to be identified). The collaboration with the systems CRPs needs to be particularly highlighted. **Are there tangible benefits and feedback from the integrated system analysis over and above the maize**
based systems context that dominate this CRP? If so, how much of the CRP activities can be devolved to the appropriate Systems based CRP?

MAIZE is guided by a Stakeholder Advisory Committee composed of reputable experts from all target regions representing a balanced set of disciplines and stakeholders (NARS, private sector, donor, ARI, farmer organizations). In the Management Committee, program leaders from CGIAR centres are joined by three non-CGIAR partners. In both committees, decisions are made by consensus or two-third majority vote so no institution alone can dominate a decision. A distinct amount of research funding is assigned to non-CGIAR partners and dispatched through competitive mechanisms following gap analyses done on an annual basis by the Management Committee. No changes in the governance structure appear to be planned during 2015 – 2016.

5. Regional collaborations

MAIZE has important regional collaborations in Africa, Asia and Latin America. They are led by project leaders affiliated within different RSs or FPs. Currently, MAIZE partners with more than 20 NARS and a network of over 100 small seed companies in Africa. During the Extension Phase, MAIZE will seek increasing alignment with CAADP and its supporting institutions. The evolving alignment/integration can already be seen with ASARECA in Eastern Africa e.g. ASARECA, CIMMYT and IITA have developed a productive and synergistic relationship in their common response to the Maize Lethal Necrosis disease. In Asia, MAIZE works with NARS, ARIs and the private sector in Bangladesh, Bhutan, China, India, Indonesia, Nepal, Pakistan, Philippines and Thailand. Given the challenges posed by increasing demands and climate change, there is the strong desire by several Asian governments and the private sector to further strengthen MAIZE collaboration. In Latin America and the Caribbean, the MAIZE research agenda is most strongly focused on Mexico given available, geographically bound resources. But there are significant potential spill-overs from this work to the rest of Latin America.

The quality and strength of the involvement with regional partners should be further improved in the next phase, for building better and more effective partnerships with key players like AGRA, and national programs and universities. What exactly is the role of key partners, e.g. in the development and monitoring of CRP R4D strategies?

6. Phased workplan covering the 2 year extension period until 2016

As the MAIZE Workplan for 2015-2016 is listed as deliverables and structured under RSs, FPs and CoAs, it is aligned with the original CRP proposal. It is not clear how much entirely new research will be included. New areas of research were undertaken in response to Maize Lethal Necrotic Virus in Africa. Few of the additional activities arise from discovery outputs; but the majority strengthens the delivery activities. The Extension Proposal lists some key areas of existing activities which will be enhanced through greater investments in sub-activities during 2015-2016, although these are not new components – rather additional sub-activities of CoAs (see Budget Table). Justification is given that greater investments will accelerate productivity increases in farmers’ fields, improve smallholder access to existing, emerging and future speciality maize markets; and enhance income generation and nutrition
of small holder farmers and their communities. In this context, the planned expanded components will improve the overall expected outcomes of MAIZE. However, the Extension Proposal does not clarify what R4D projects or components have been brought to completion, what aspects will continue and in what way and what will be the new research that will be added during this period (2015-2016).

7. Budget 2015-2016

MAIZE seeks an increase of USD 3.247 M over the USD 16.97 M allocated for 2015. The CRP already receives USD 50.27 M in bilateral support. Bilateral funding therefore funds a large proportion of the CRP strategic work plan, with FP for stress resilient and nutritious maize receiving USD 15.07 M. The relatively large increase in budget is to support new activities, mainly for delivery.

Current investments are well aligned with the original MAIZE proposal hence the Extension Proposal budget has coherence with the original budget. Additional funding is sought for sub-activities of existing CoAs. Justification for these additional funds is given in the Extension Proposal. The budget and increased funding seems reasonable providing the planned activities will produce the deliverables.

The budget seems to be distributed fairly amongst the five FPs. As for other commodity projects, the FPs producing improved varieties (FP2 and 3) account for more than half the budget. This is an inevitable consequence of this being the core strength/advantage of a commodity CRP. It is noted that 15% of the budget is for gender activities and 19% is for partnerships.