

28th November 2011

ISPC Commentary on the Revised Proposal for CRP 4: Agriculture for Improved Nutrition & Health

(Revision of October 2011)

In recognition that CRP4 represents a new initiative within the CGIAR, the proponents call for a start-up phase of one year (which will effectively be 2012 rather than 2011) and reprioritization of the program in year 4 (Table 22). **The ISPC recommends that the revised CRP 4 proposal be approved subject to further revisions to be addressed during the implementation phase taking into account the following commentary.** The ISPC stands ready to review the CRP4 proposal at the end of the implementation phase and before new research is entered into. The remainder of the commentary is structured according to the seven ISPC and seventeen FC' 'Must Haves' of the previous commentary.

ISPC 1. Articulation of the strategy in the revised proposal should give evidence that the problems identified are recognized by the authorities in countries with major under-nutrition problems and a clearer specification of objectives related to the target groups affected by agricultural intensification should be provided.

The revised proposal better identifies countries with largest burden of undernourished children, which is clearly a step towards better specification of objectives in relation to targeted groups, but it is not clear if this had led to any changes in the objectives themselves or the strategic work plan. The addition of material in appendix 2 provides useful information. It uses membership of SUN, REACH and FtF, 3 major international nutrition programs, as an indicator of commitment to reducing undernutrition. This is an acceptable indicator, though it must be noted that the commitment signals recognition of the scale of the undernutrition problem, but not necessarily the recognition of the role of agriculture in alleviating undernutrition. That said, agriculture is indeed an important pillar in each of these programs. Multi-sectoral programming, with a particular emphasis on agriculture, is one of the two main approaches being used in SUN's 'framework for action'. FtF also has a predominant agriculture and food focus. Therefore this is an adequate response.

The extra question, bullet point and objective added now clarify that the idea is to look at nutrition as well as AAD consequences of intensification amongst affected groups. The link between AAD and intensification is well-recognised, but the emphasis on nutritional consequences of intensification is less straightforward to understand. Indeed, the ISPC commentary had asked *'Is there a clearly proven link between intensification and greater... nutritional risks for the poor?'* One could also argue that any link between intensification and nutrition may run the other way in terms of causation – greater demand for cheaper calories from an urbanizing population driving patterns of intensification. The ISPC believes that more clarity is needed on this issue.

ISPC 2. Many of the research activities are described at high/generic level and some are already underway or have been completed by partners. The revised proposal should identify the research activities with time-bound milestones and partner roles.

Proponents have clearly given this considerable attention as a number of tables and discussion have been added to address this deficiency. The additional information presented on activities represents good efforts in this regard, especially making clear distinctions between on-going and new activities.

The response notes that text has been added to indicate that methods, tools, knowledge and technologies generated are the main IPGs, and that the international reach of these outputs will be maximized by consulting widely, involving a large network of collaborators and performing capacity strengthening activities.

The ISPC commentary had noted ‘The international public goods nature of the research is obvious in the bio-fortification component (and should be for zoonoses when this is more clearly developed), but less clear in the other components. Working on value chains, food safety and policies and institutions will result in local solutions. The program has addressed the issue of generating international public goods by including the development of methodologies and tools, but this aspect needs to be more explicitly stressed in a revised proposal.’

By noting the IPG nature of the methods and tools and discussing their dissemination, the response has satisfied this aspect in a basic way, though this is well short of a detailed strategy.

In general, choice of activities, research sites and target countries are mainly based on existing activities. This is particularly the case for component 1 (value chain-VCH) and component 2 (bio-fortification-BIO). While continuation of activities under the VCH component are specified and listed for years 1 and 2 (dairy in Senegal and fish in Uganda - OFSP in Mozambique and Uganda completed), Table 5 proposes extending VCH work to 4-5 other commodities. Only preliminary discussions with partners have identified some potential options for year 2 (Table 4) but the selection of commodities and study countries is yet to be finalized during consultation workshops in the first year and hence activities of the VCH component beyond year one remain open for further planning work. A 10-year cycle for completion of case studies has been suggested with the first two years for characterization and identification followed by a three-year phase for development and testing of interventions, then another 5 years for evaluation. Reasons for such a time frame for tasks to be undertaken are not elaborated. While partners on this work have good reputations for completion of on-going activities, it is not clear if new partnerships will be emerging beyond year 1 and as the additional commodities and countries are selected.

Activities under component 2 (BIO) are the current and planned HarvestPlus and AgroSalud activities (tables 8-11). One observation is that HarvestPlus activities specifically refer to “continuation” of current activities, the AgroSalud part uses “centre X leads breeding/adoption research”, and so the reader cannot tell whether those will comprise new or already on-going and planned activities. In general, it was not possible to find any new activity added to what is being currently done and planned for components 1 (VCH) and 2 (BIO). Although the proposal suggests up-scaling of HarvestPlus work in non-target countries and sites, no specific activities and discussions have been devoted to that. Again partners currently engaged in HarvestPlus and AgroSalud are known.

Activities, partners and time frames for component 3 (AAD) are less specific except for the continuation of currently funded work on zoonoses and aflatoxin (2012-2014) (Tables 13 & 14). The role of agricultural research and the CGIAR in prevention and control of AAD is not clear yet and it is proposed that during the first six months CRP4 will evaluate how and what agricultural research can contribute and explore and identify strategic partners in this area. Activities for the “other health risks” subcomponent are still indicative with a plan to be developed over time as the program starts rolling.

Preliminary list of activities are given for component 4 (integrated ANH) (Tables 18 & 19) with very broad time frames and a long list of research questions. These in general remain generic and high level concepts. Suggestions on partners for activities in this component basically propose to build on collaboration with implementers currently engaged in on-going activities involving partner CGIAR Centers (EHFP, RAIN, Millennium village, Ecohealth, OFSP, etc.). Surprisingly the key component on “harmonization of policies” is suggested to be small in the first 3 years - but the reader is not sure why, given the importance and critical role of conducive policy and institutional environment for success and failure of nutrition and health programs in poor countries.

ISPC 3. On the basis of more detailed activities and specified outputs the revised proposal should include a strategy for how these will be utilized to maximize the IPG benefits and the impacts on/for the specific communities identified.

The ISPC considers that there was a rather weak response to this request. Additional text in the Impact Pathway section on International Public Goods (4.2.4) was not convincing and the additional commitment ‘to participate in the development of a global network of academic institutions committed to higher-level training and research on the linkages between agriculture, nutrition, and health’ does not meet the request for a strategy to deliver impacts to the targeted communities.

Initial discussion between partners has resulted in an indication of priority value chain case studies for year 1 (new Table 4) and an enhanced discussion has been provided as to how priorities will continue to be set as the program rolls on. Discussion around Table 12 sketches priorities for component 3. Thus there is a partially adequate response although it is not clear that it has been mainstreamed across components where some impacts remain clearly local. As with gender, searching for the IPG value of the program should be a recurring theme in a proposal such as this.

ISPC 4. In some parts (components 1 and 3 in particular) the proposals are aspirational rather than realistic and this should be addressed through further prioritization during the process of strategy development.

There is evidence (e.g. Table 12) that further thinking has gone into prioritization, while recognising there is a long way to go. The mention of 3 years for data collation and refinement of indicators and hypotheses prior to prioritization seems a long time though, for deciding priorities in areas where, as stated in Table 12, the CGIAR has already been working.

ISPC 5. The proposal should make clearer use of nutrition and health-related terminology and articulate the researchable hypotheses underlying the major areas of research to be included as well as providing a mechanism or evidence for the quality of science underpinning each approach.

The inclusion of the glossary (Appendix 1) is useful, particularly in distinguishing between closely related terms such as undernourishment and undernutrition. However, it does not really address the ISPC concern about the ‘nearly interchangeable use of terms like food security, hunger, malnutrition, under-nutrition, ill health, and poverty’ throughout the document. A different way of expressing the concern is that the use of these terms suggests (in some places) that the research will have a major impact on food security, when the main focus (in a particular component) is on reducing under-nutrition. Reducing under-nutrition may indeed contribute to food security, but the point being made was that by using the specific term where the impact can be measured would enhance the clarity of the proposal and hence the focus of research and ease of monitoring impact.

A general hypothesis is provided regarding many of the major research components. But the researchable hypothesis descriptions are basic, amounting to reformulations of broad component objectives. They remain at a high level, are quite generic, and will be difficult to test within a 5- or even 10-year time frame. In contrast, many of the research questions asked could also be formulated as a hypothesis, and testing some of these would clearly be IPGs. For example, the hypothesis that income is the most important driver of nutrition and diets in both rural and urban poor households could be easily tested across the locations at which CRP4 works. As this CRP is implemented, the ISPC urges the proponents to more clearly identify a set of hypotheses that can be tested by good science over the next 3-5 years, and would inform the global dialogue about key constraints and opportunities to improved health and nutrition through agriculture.

The discussion of the Quality of science is somewhat uneven. It seems not explicitly discussed for subcomponent 3 under the ‘researchable hypothesis’ paragraph as suggested in the response. Novelty of science particularly needed spelling out. AAD (disease) work has been going on for longer than biofortification, for example, and so it would be helpful to know what is going to be cutting-edge. There are elements of this hinted elsewhere – behavioral aspects, for example, and the integration of epidemiology, risk analysis and behavioral aspects, but these could have been explicitly spelled out.

ISPC 6. Further detail on linkages to other CRPs should be described, in particular making clear which work will be funded from which CRP.

The detail in Appendix 12 is welcomed and does show evidence of more thinking on the linkages. Clearer thinking about contributions to the value chain work from different CRPs has enhanced the description of component 1 in the revised proposal. The recognition of the need for further extensive consultation needs to be acted on. The response on the funding of Biofortification is also relevant here. The means by which the CRP will add value through incremental contributions to the large number of different international projects needs also to be continuously developed.

ISPC 7. The ISPC encourages a strategic approach to program evolution and the avoidance of opportunistic inclusion of some activities simply because they may draw initial funding.

The proponents promise a substantial development of data and metrics and cross-sectoral assessments which will lead to more rigorous priority setting in year 3 after initiation. This is not an immediately satisfying response although a pragmatic one. It links to the ISPC's observations on Must Haves 3 and 5. In consequence, the ISPC encourages the prioritization process considering that a focus needs to be targeted at the key deliverables relative to the stated objectives. Noting the still large array of potential areas that could be addressed, the new program should engage in, and focus on, a small number of discrete research areas to maintain its inputs into this new cross-sectoral community. Managing partnerships for capacity building and creating the right enabling environment for policy advances will take up substantial time and effort in their own right.

ISPC 8. Address the question why the four components proposed are the top research for development priorities and how these four pieces fit together (or are linked with each other) to improve nutrition and health.

The logic and the revised description seems reasonable – nutrition and ill-health are major development problems; agriculture is recognized as a key entry point for better nutrition and health, and the CGIAR has some comparative advantage in this and it is current comparative advantage (or at least current activities) that drives the choice of the four components. Components 1 and 2 are mostly about nutrition, and a lot of what is new in 4 (integrated agriculture-nutrition-health programming) is also likely to be about nutrition. Component 3 thus still seems somewhat separate. However, all four components are driving towards the overall objective of improved health, and not every component needs to be deeply intertwined with the others at the specific objective level. Whilst nutrition and health are inherently intertwined, nutrition and disease-related research can be considered as mutually reinforcing.

Section 2.3 starts off well by stating: The key development challenges that the program is addressing are the stubborn problems of under-nutrition and ill health that affect millions of poor people globally. Addressing these through agriculture does lead logically to the 4 proposed components, but use of the term 'food insecurity' as a cause of poor nutrition and health, confuses the hierarchy. Food (in)security is a complex of issues as described in the glossary and considering the 3 pillars separately might have given more clarity.

FC 9. Consider the following issues which were underlined in the Addis Ababa workshop of CRP4: sustainable diets, and sustainable agriculture (including sustainable agriculture intensification), and the role of food and nutrition as ecosystems services; and the necessity to analyze the nutrient content of the existing biodiversity of species before engaging biofortification work.

This was adequately addressed in terms of better recognizing these issues and better explaining how they are addressed in the proposed research components.

FC 10. More attention should be given to priority assessment in component 1 in the proposal.

As noted in discussion ISPC 3 above, the table (Table 4 in the revised version) is new, and has a listing of initial cases studies intended for year 1, which area already established based on initial discussion between partners (and following the first round of review). These are to be 'confirmed' and then a further selection (for years 2 and beyond) made at the workshop. This seems an adequate start given that a major re-prioritization of the whole program is promised based on data accumulation and further assessments.

FC 11. The issue of assessing trade-offs among breeding objectives like nutrient content, yield, yield stability etc. should be included as a priority research question in the biofortification component, where the CGIAR has a comparative advantage and there are obvious IPG attributes associated with the findings.

The ISPC considers that this point has been met. The original and the revised proposal have addressed adequately the point that “fortified” varieties will not be developed at the expense of yield and other important traits, in recognition of the fact that farmers will not adopt more nutritious varieties in the case they compromise income (item 6.2.3 of the revised proposal).

FC 12. Clarify the comparative advantage of the CGIAR in Component 4.

The ISPC considers that only a weak response was made to this request. Comparative advantage is mentioned only twice and what this might be i.e. bringing in elements related to biofortification and biotechnology and to capacity strengthening at the national level. However, nowhere have the proponents provided a thoughtful analysis of the CGIAR's comparative advantage in this area, and indeed where the system may not have an advantage. In developing entry points into a new field this analysis must be central and realistic (and see following).

FC 13. In a balanced treatment of nutrition, appropriate attention needs to be given to dietary diversity and therefore the development of vegetable and fruit crops, e.g. the role of home gardens for smallholder food security and balanced nutrition, could be given more attention in the CRP.

The proposal pays attention to dietary diversity and notes (second paragraph of the new item 2.3) “Improving health and nutrition requires actions in several sectors, but CRP4 will focus on the CGIAR's comparative advantage, which starts with agriculture”. There are clear partners listed to undertake this sort of research. However, the proposal needs to make clear if “biodiverse systems” are farms, regions or food markets to help clarify its hypotheses in this area.

FC 14. Other components clearly require further development, particularly in terms of identifying target groups and establishing indicators of success. The section on value chain needs to recognize the relative benefits of commercialization and home consumption. "Boundary" issues between CRP4 and other CRPs, for instance on zoonoses on IPM / pesticide residues, also require further attention.

The previous ISPC commentary had highlighted some confusion about the target groups. The proposal clearly identifies two target groups, the second described as “...populations that are exposed to changing and intensifying agri-food systems in various regions of the developing world. Research must answer critical questions to assess the rapid changes in dietary patterns and lifestyles of these populations and the associated changes in health risks. Understanding these shifts is critical for designing appropriate policies, technologies, and institutional arrangements that will enhance nutrition and health benefits and mitigate risks for the poor. CRP4 will take a forward-looking perspective, given the rapid changes in many countries in its geographic focal regions.”

However, it is difficult to determine where the needs of the second target group are addressed, for the reasons mentioned, elsewhere in the proposal. Given the large catalytic role that the proposal wants to play with governments and “enablers”, towards whom many outputs are aimed, the proposal still may not have segmented its target beneficiaries adequately.

The text expresses good intentions on links across value chain work with other CRPs. The real question is what incentives there will be to ensure that it does happen. The proponents note that pesticides have not been identified as a priority for this proposal which would lead to reducing the need to interact with crop CRPs on that score. However, pesticides are surely a huge health risk and one where the CGIAR clearly has a comparative advantage and track record.

FC 15. Recognize the role and potential of fish and fisheries in the CRP.

The ISPC believes that the role of fish through research on its contribution to nutrition; inclusion of linkages to value chains for aquaculture; and links to the CRPs 1.3 and 3.7; reflect a good response to the concern. The inclusion of Appendix 5 is welcomed. It provides specific examples of where CRP4 will add value to one of the value chains to be addressed in CRP 3.7: More Milk, meat and fish. Such a

table can provide clarity to research partners in seeing how the research from different CRPs fits together and it is expected to be replicated, in time, for other collaborations.

FC 16. The policy component of the CRP needs to consider the role and impact of economic growth on nutrition and health.

Apart from one broad research question having been added to this section among a long list of other questions, there is no obvious additional thinking about such an important driver of health and nutrition in poor countries. The ISPC believes that this needs much more conceptualization and attention than being simply listed as one question among a huge list of research issues to be addressed.

FC 17. Clarity on the issue of whether or not the products of the Harvest Plus component involve transgenic technology should be made in the proposal.

The explanation provided in response is clear. No transgenic varieties will be released by CRP4; all Harvest Plus products are to be developed by conventional breeding methods. For consistency, the statement on Screening and applied biotechnology, found at page 54 of the new version might also be substituted by the proponents with the one provided in response to ‘Must Have 17’.

FC 18. Address overlaps in the work done in biofortification between CRP 4 and CRP 3.4 which need clarification.

This has been adequately clarified.

FC 19. Strengthen the discussion of partnerships throughout the proposal.

The added text in section 5.3 is welcome and shows evidence of further thinking. There are also additional examples in other sections where further detail on partnership has been given. Section 8.2 was, however, disappointing and it was not entirely clear how partnerships were to be managed.

FC 20. Strengthen the section on M & E; it is lacking in originality or specifics.

The revised proposal provides additional information on some of the key considerations for designing the CRP4 M&E system relative to the three impact pathways (value chains, programs, and policies). These relate to how CRP4 will work with others in developing M&E, some of the theory of change for achieving nutrition and health outcomes and impacts—with specific impacts on women, children, and the poor, and how these will be included in detailed M&E planning.

The ISPC notes that carried over from the previous submission, there is emphasis on the CRP developing tools and indicators through research (in component 4, *Integrated agriculture, nutrition and health programs and policies*) to be used for monitoring, including of the quality of program implementation, outcomes, impact and cost-effectiveness of the CRP, and for using the monitoring information for advocacy. Under section 14 on *Monitoring and evaluation system proposed*, the proponents have added discussion on the implication of the specific nature of the CRP to monitoring: Such aspects include: the value chain approach, gender outcomes and impacts, nutrition and health theories of change, institutional capacity, partnership success and policy impact pathways. The process proposed includes normal management practices, such as monitoring milestones, regular evaluations of program content and scope, monitoring the quality of research implementation and partnership performance. The detail given about M&E is rather similar to other CRPs.

A 9-page table has been added that gives indicators and metrics for all research outputs and outcomes at component level. The table has been rather mechanistically done and is not helpful. The indicators and metrics are nearly all quantitative and mostly at generic level (e.g. number of modules, methods and tools, countries where work has started; partners involved in development of metrics; instances of change in resource allocation by donors) and not linked to qualitative objectives, targets, or benchmarks. Some indicators of output relate to outcome instead (estimated increase in intakes of iron, zinc, etc.; number of countries with mycotoxin bio-control programs in place). The purely quantitative metrics are not appropriate for performance monitoring. Furthermore, an annual cycle may be too short to assess performance at the output level.

FC 21. The risk assessment section needs also to be improved; it should provide assessment of risks due to proposed governance model. Sophisticated assessment of what might derail this CRP should be provided.

Table 23 is a valuable addition, but (noting the comment in response to “Must have 19”), risks in relation to management of partnerships e.g. in relation to the time and transaction costs, did not appear to be considered. Further, the ISPC has noted in earlier work that IFPRI has good ethical policies in place (and for instance an IRB) governing its work on human subjects (see *Ethical Challenges for the CGIAR, Report of three studies*, CGIAR Science Council, 2008). The CRP4 program will need to ensure that all its CGIAR and relevant partners have similar policies and standards in place, including for appropriate data management.

FC 22. Define a clear strategy on forming the partnerships. The CRP needs to clearly identify a group (or groups) of partners, including the private sector, who are committed to work with the listed CGIAR centers on this CRP.

A categorization is made but more work needs to be done in defining a strategy on partnerships. This is recognized as a key activity for year 1, but having the principles outlined in the proposal would have given a good foundation.

FC 23. Identify quantifiable and critical outcome and impact indicators and targets, and establish a set of agriculture-nutrition indicators that link to nutrition-health indicators.

This has been addressed in part in the response to “Must Have 20”. For the more difficult problem of consistent agriculture-nutrition-health indicators to be used in impact assessment in the research, the response is that this is a thorny problem on which progress will have to be made in year 1 based on discussions, workshops, etc. It is true that the research community is only now starting to think more deeply about metrics bridging agriculture-nutrition-health, and that further work is needed. The May 2011 workshop in London was devoted to this issue, and perhaps the proponents might want to add a link to the workshop summary document to indicate the state of play on this.

FC 24. Clarify how the pre-existing funding streams for Harvest Plus are accounted for in the final budget, and what funds are available for the other research activities over the full term of the proposal.

This has been done, noting that original year 1 was projected as 2011 and may become 2012 with some small adjustment. There is a substantial planning phase to properly determine the balance of activities over time.

FC 25. From a research continuum and innovation perspective, a more balance investment is desired to advance the agriculture nutrition and health research for development.

This imbalance is acknowledged in the proponents’ response and the CRP proposes to accomplish a balance in an evolutionary way over time. The means by which this might be done is not clear and which elements require such attention are not stated. The ISPC notes that while component 4 (ANH) is proposed to be small in first three years, the budget requested for that for 2011-2013 is quite high (USD8 m) compared to other components, excluding biofortification.