Review of Roots, Tubers and Bananas CRP Proposal

1. Strategic coherence and clarity of Program objectives

**Justification for a CRP on RTBs:** The overall research area is very well justified and certainly sets a worthy grand challenge. There is a compelling argument for working on RTBs particularly due to their role in pro poor agricultural systems. Although production statistics and estimates of the likely number of beneficiaries are not always used in a convincing way. The proposal reflects an impressive range of on-going initiatives and many excellent ideas for new activities. Although there are some uncertainties associated with the underlying assumptions for predicted levels of impact that tend to dilute the message.

The proposal includes some bold ideas that reflect the aspirations of the new CGIAR consortium as well as the hopes of its partners and donors across the world. However, the CRP agenda needs to be focused down to a more manageable core set of activities, and thereby free-up opportunity to mainstream the type of innovative joined-up thinking that is seeded throughout the proposal. Otherwise much of this bold new thinking will never achieve the type of impact it deserves.

A key strength of the proposal is the pro-poor focus of the RTBs and the large gap between potential yields versus average national yields in many target countries. The statement that the CRP “targets the poorest and most vulnerable populations where RTB crops already are commonly used or have high potential for greatest impact” is a strong framework assuming the CRP wishes its primary driver to be a focus on the poorest of the poor. Although some proposed activities through the proposal do not reinforce this message. Nevertheless, there is no doubt that this is an incredible important R4D area.

The authors have generated a very substantial and very well written document despite what must have been severe time pressure. It is understood that in order to generate such a large document in such a short time, the task must be disaggregated and this has inevitably led to a mix of styles and perspectives through the proposal and an imbalance between the type and depth of information presented for the different crops and themes which leads to some ambiguities and contradictions that undermine the overall message.

The proposal struggles to convey a consistently convincing image that it is ready ‘to start as it means to go on’ in living up to the promise of the new CGIAR consortium of a greater commitment to accountability and impact. In particular, there is very little reflection on past successes and failures to conclude on a framework of strengths and weaknesses, and no sense of any lessons learnt from Challenge Programs or BMGF projects that could inform the establishment of this CRP.

**Justifications for specific elements of the strategic framework:** There is no clear information on how the priorities were set between regions, between crops, between targets and between approaches. There is a general sense that a strong priority setting process has not been followed resulting in a wide array of activities within each crop and theme. The proposal highlights the historical ‘neglected funding situation’ of RTBs but fails to tailor its agenda to the likely level of available funding. Given the “decades of limited investment” in these crops, the authors cannot expect an immediate and radical change in the level of funding simply based on the contents of this proposal.
A set of ROI and NPV estimates is provided but the logic behind resultant resource allocation decisions is not clear and does not seem to align with the claim that the CRP “uses a results-orientated strategy”. In addition, there are no comparisons of quantified targets for gains for the future compared with those that have been achieved in the past.

The proposal claims that the project will be user-driven but there is insufficient compelling information on how this will be achieved or what process was used for assimilating feedback from the stakeholder consultation. For example, the proposal indicates that this process “must provide clear strategic focus” but there is no information on what the centers will drop or enhance based on the stakeholder feedback. Although mentioned in the proposal, it is not clear how trends in shifting use (food to feed and energy) and the likely impacts of climate change have been used in the design of the overall framework of this CRP.

The global production statistics of sweetpotato and yam indicate that these two crops cannot justify the same type and level of operational structure in this CRP as the other RTB crops. The establishment of CIP’s regional center in China offers exciting new opportunities and efficiencies but these are not discussed. Despite the declining production and utilization of sweetpotato in much of the world the crop clearly offers important nutritional niche opportunities but there is no discussion of why this should not just be covered by CRP4.

There is no compelling justification for the proposed addition of a major focus on underutilized species. Statements regarding the potential of this material are too anecdotal. Moreover, the reasons why these crops have remained neglected and the resolution of these problems is not discussed.

**Innovative elements and unique features of the proposal** The proposal highlights a wide range of innovative initiatives, some are currently operating in just one crop and the proposal highlights that the CRP could investigate applying these in other RTB crops. There are also a number of new activities that offer great potential impacts some of which have already shown promise in other crop groups. In addition, there are several fundamentally important new ways of working such as:

(i) Integrated CGIAR and NARS breeding programs
(ii) Market-led innovations and coordinated interventions along the whole value chain
(iii) Catalytic role in mobilizing resources directly to partners

The proposal makes a generic claim regarding “the CRP-RTB’s collaborative nature and innovative features”. But this is all too often based on proposed activities to facilitate information flow between scientists working on different RTB crops across the four Centers. However, it is unclear whether these will be sufficiently proactive and strategically managed to result in substantial tangible benefits.

**The clarity and relevance of the expected outcomes:** The target ‘Research Outcomes’ and underlying activity-based ‘Milestones’ have generally been described in detail, are often well quantified and tend to represent a natural flow from activity to outcome - although sometimes there is an unjustified disconnect between the ‘Product Line Description Tables’ and the proposal narrative. The associated ‘Development Outcomes’ are also generally highly relevant and for the most part represent a logical aspiration in the respective area of the activity. However, the ‘Development Outcomes’ too often require a leap of faith from the ‘Research Outcomes’, and the uncertainty is often compounded by a lack of quantified development outcome targets. There are many exemplary individual exceptions in the Product Line Description Tables but the generic descriptions of impact pathways in the proposal narrative fall far short of convincing the reader that the CRP has a
systematic strategy for bridging these gaps. There are many passive supply-driven activities that will not have the desired impact without substantial unlisted additional actions. The concern is that since they are not listed, they may not be funded and thus impact will often be constrained. This is also a significant problem in the context of developing a transparent and accountable M&E system in support of the new CGIAR’s enhanced commitment to impact.

2. Delivery focus and plausibility of impact

It is very difficult to evaluate the probability of success of specific activities in the absence of a budget (or staff requirement) column in the Product Line Description Tables. Conceptually many of the proposed activities have a high potential probability of success but as access to funding and critical mass of expertise are reduced from the optimum level, the success rate would quickly fall. There is currently no way of determining where any of the proposed activities fall within this continuum. Although the general sense is that there are too many activities in comparison to the available level of funding and as such many will be underfunded.

Prioritization and focus: Assuming a natural progression from past funding levels, the agenda is overflowing and the danger of being spread too thin detracts from what should otherwise be a highly compelling story. The program needs to intensify its efforts in high priority value chains to maximize the probability that impact on next-users really flows through to end-users.

There is no clear indication of what has driven the prioritization process during the development of this proposal. The stakeholder report provides an extensive list of proposed priorities which are largely reiterated in the proposal without any information on how differences in fund allocation across crops or themes have been decided. From an end-users perspective, the stakeholder consultation seems to have been dominated by supply-driven perspectives which have inevitably contributed to the profusion of proposed activities. There is undoubtedly a need for much greater end-user orientated priority setting.

Thus, this proposal needs substantial further priority setting and focusing down to a manageable portfolio of activities. Indeed, the proposal acknowledges the pending requirement for “a rigorous priority-setting exercise” but action is all too often planned through activities scheduled to deliver during the first three years of the project. Whereas the results of such a process should be embodied in this proposal. There is no time to further refine the data before implementing the process, since as the proposal highlights itself, there is a risk that the “current funding base may be insufficient and too fragmented to successfully achieve the goals”.

The SRF has already established the broad framework for long-term activities, now the CRP must drill down to a specific focused agenda that can be achieved within the time and budget limitations of this proposal. The architects of the CRP proposal must enforce a set of strategic decision-making criteria to decide which clusters of activities provide the best opportunity for maximizing impact. And then sequester large sections of this proposal pending acquisition of additional funding.

Coherence and coordination of partnerships between Centers: There are many good justifications for specific activities in individual crops but the proposal often struggles to develop a compelling argument for the added value it will harness from bringing the RTB communities together. The ‘more than the sum of the parts’ elements of the proposal rarely come through very strongly due to a lack of compelling detail on how substantial tangible synergies will be harnessed.
There is much generic mention of cross cutting activities across the Centers and crops but very few explicit examples beyond passive communication and potential discussion. There is a need to go beyond a simple spill-over model in order to achieve a strong collective justification of this CRP. For example, listing common research needs across crops means very little in itself, there needs to be a demonstration of what economies of scale, novel efficiencies and scientific synergies can be achieved by focusing on that commonality.

**Coherence and coordination of partnerships to reach end-users:** The vision of the new CGIAR consortium calls for bold new partnerships, particularly with those organizations that can link CGIAR research outputs to impact on end-users. However, the proposal as a whole is written very much from an internal CGIAR perspective. Although there are notable exceptions, there is insufficient effort to systemically integrated partners into the CRP (as opposed to listing linkages to them). The CRP also needs to mainstream more innovative thinking about building partnerships with NGOs and the private sector in all themes and across all crops.

It was requested that the proposal should provide details of the ‘partners at the international, national and regional level, with a clear description of their respective responsibilities’ but this has rarely been done especially for those partners expected to reach the end-users. Too many fundamental issues related to achieving impact are left as open questions, lists of constraints or simply not discussed.

In general the problems and necessary solutions associated with achieving the proposed new level of working together with all partners seems to be greatly underestimated. There is a real danger that in an over-crowded agenda these linkages will not receive sufficient attention to ensure the desired impact. There are many lessons learnt from the CPs and BMGF-funded projects that do not appear to have been integrated into this proposal. These issues represent a critical flaw in this proposal that must be addressed if the CRP is to build sufficient trust between partners to get the job done.

**Quality of impact pathways:** The ultimate impact targets are very well defined and highly appropriate and represent a logical flow from the proposed research activities. However, it was requested that the proposal should provide ‘Measurable results that will be produced by the program over time’ and a ‘Quantified impact pathway’. The narrative on impact pathway flows uses very provisional and uncertain language. This leaves the reader with great uncertainty regarding the probability that investments in the CRP will achieve the targeted impact. The CRP needs to commit to leverage its position to help its next users reach the end-users. This will require some truly innovative ways of working as well as building much closer alliances with NGOs and the private sector. However, where this is not possible the CRP must question whether it is worthwhile to invest in earlier components of the value chain. Only in this way can the CRP truly live up to the vision of the new CGIAR consortium.

**Appropriateness of timeline:** The stated delivery dates for activity-based milestones are generally feasible although sometimes ambitious but rarely inappropriate assuming full funding. Some of the timelines seem to lack a sense of urgency or appear excessively conservative which may reflect an assumption of being under funded. Research Outcomes and Development Outcomes generally have not been dated.

**Quality of gender approach:** It is clear that a great deal of thinking has been dedicated to the gender issue during the development of this proposal. This has generated many good ideas but little priority setting seems to have been carried out and often the narrative reads as an open list of options. Moreover, it is not always clear that it is in the comparative advantage area of the Center staff of this
CRP to design and implement initiatives in this area. This suggests that the CRP needs to forge a new set of partnerships to properly serve this area.

### 3. Quality of science

There are many gaps in acknowledging the pre-existing work on which this CRP is built. This makes it difficult to disassociate products in the pipeline from new activities and overlaps with other programs. This leaves one with the impression that some proposed activities have been ongoing for a considerable time, yet the proposal misses the opportunity to document important lessons learnt from the past (especially regarding uptake and impact) or document important products in the pipeline (for top priority immediate attention by the delivery aspects of the CRP).

It appears that most of the proposed activities represent a natural progression from past work either in the RTB itself or other crops species. However, some proposed activities do not fall in the core comparative advantage areas of the Centers and would be better carried out by partners. Several of the technology-based activities are over optimistic about the scale and/or pace of impact.

**Quality of conceptual framework and scientific methods:** Although the scientific basis of most proposed activities is sound, the lack of sufficient priority setting based on probability and pace of success must be considered a flaw in the conceptual framework. In general there are far too many trait-based targets. In addition, in some areas multiple approaches are proposed for the same problem without any clear justification. In a few areas, there is no compelling justification for a specific approach and these should be considered low priority for Center investments although they may fall into the comparative advantage areas of partners. There are several proposed technology-based approaches that although validated in model species would be prohibitively expensive to properly implement across this CRP. Underfunded implementation may completely jeopardize success. Thus, a priority framework must be established. Often the potential synergies from passive data integration and information exchange are substantially overestimated. Experience shows from other systems that such initiatives need purposeful strategic action that is both expensive and time consuming.

### 4. Quality of research and development partners and partnership management

There are many good ideas in this area but insufficient detail about how exactly they will work.

**Partnerships with other CRPs and the CPs:** There is a lack of a clear framework for how various types of activities will be disaggregated between different CRPs and CPs which may cause problems if not resolved. The proposal lists potential and important linkages to other CRPs and between themes of this CRP but rarely gives any information on exactly how synergies will be harnessed (other than inadequate statements about passive information sharing) and the Product Line Description Tables are not compelling in this respect. Conversely, there are some cases where effective networks established by the CPs could be jeopardized by disaggregation into various CRPs.

**Capacity strengthening of partners:** The capacity strengthening activities listed are often too passive to be effective alone and require much more active and integrated approaches.

**Role of the private sector:** The cassava community has a long history of working with the private sector. However, there is limited evidence in the proposal that proactive mechanisms will be put in
place for other RTB crop communities to benefit from these experiences and to help them identify, assess and translate key opportunities. There is an unresolved tension throughout the proposal between serving the subsistence needs of the poorest of the poor versus devising market-based opportunities. The CRP needs to clearly define its strategic position on these issues.

5. Appropriateness and efficiency of Program management

The exclusive dominance of Center staff in the management of the program seems to be in direct opposition to building the type of balanced partnerships required to support the new CGIAR consortium vision.

Management effectiveness: The thematic structure of the CRP reflects a traditional CGIAR organizational model but there is little detail on what mechanisms will be implemented to overcome the typical problems regarding lack of synergy between elements of such a structure.

IP management: Given the current absence of a CGIAR IP policy, the current CRP IP statement (5.8) is not adequate. The CRP must inform the Consortium Board and Fund Council through this proposal of the type of IP management system required to fully implement the proposal. Some promising statements have been made elsewhere in the proposal but there needs to be a single integrated comprehensive strategic statement.

Operational efficiency: There is no detailed discussion about the suitability of current operational structures and where there might be opportunities for efficiency gains such as shared research and training facilities.

Quality of monitoring and evaluation process: The CGIAR Consortium Joint Declaration requires that: ‘Monitoring and evaluation of progress toward and achievement of tangible and measurable results, outputs and outcomes under the SRF are accurate, comprehensive, verifiable, timely and harmonized’. The CRP proposal is extremely brief on this issue and although the ‘Product Line Description Tables’ may be useful for management of activities they are often inadequate for evaluating progress towards specific impact goals. It seems that in the spirit of the new CGIAR consortium vision, regarding enhanced accountability and increased emphasis on impact, that this issue should be comprehensively resolved before the beginning of the project.

6. Clear accountability and financial soundness, and efficiency of governance

Given the declared > 40% funding gap, it seems essential that there is a ‘downside scenario’ budget. In addition, there needs to be some information on how changes in funding levels will affect specific areas of research and partnership. It would also be important to give some details about the broad effects of differences in the ratio between Fund Council versus bilateral grant allocations.

Budget credibility: There is very little information on the assumptions made in generating the budget figures which seems unacceptable for a $200M program that is aspiring to greater transparency and accountability. Moreover, where specific information is provided, it often provides cause for concern. For example, “Maintenance of existing collections has not been included ... except for CIAT”, this seems a precarious approach given the lack of approval for a genetic resources CRP and the inconsistency created by CIAT only further confuses the issue. Similarly, “The budget
developed for the CRP-RTB does not consider the generation or maintenance of reserves for the centers, nor for a substantial upgrade of centers’ infrastructure”. Again this seems a precarious approach in the absence of any separate long-term commitment from the Fund Council to infrastructural support.

The year 1 funding gap and the assumed dramatic increase in Fund Council commitment (as compared to historical unrestricted allocations) are also a significant cause for concern. While the absence of an activity-based budget severely undermines the credibility of the financial planning of this proposal.

**Staffing requirement:** There is no information on the staffing requirement at any level or division of labour between the Centers and partners, and no mention of how changes in the Centers’ research portfolio required to serve this CRP will drive adjustments in the complement, profile or positioning of the Centers’ critical mass. These are critical issues that will significantly affect the start-up and long-term success of the project.

**Division of labour and responsibilities:** It was requested that the proposal should provide a clear description of the CGIAR Centers’ and partners’ respective input and responsibilities. However, this is generally not provided and further erodes the credibility of the resource allocation process. Not being clear about the respective roles also confounds analysis of whether activities fall into the Center’s areas of comparative advantage.

**Resource Allocation Process:** There is no clear information on how stakeholder feedback, NPV and ROI estimates, and global trend data have been used to determine relative budget allocation across crops, themes, targets and approaches.

**Efficiency of governance:** There are substantial uncertainties regarding the ability of the proposed governance structure to deliver upon the new way of working that the CRP requires in order to live up to the aspirations of the new CGIAR Consortium. Most importantly regarding interaction between the Centers and with those partners responsible for reaching end-users.

The composition of the Steering and Management Committees will have a profound effect on these issues. Lessons learnt from the CPs and BMGF projects do not seem to have been considered when formulating the governance structures. Most importantly, representatives of partners responsible for reaching end-users must be empowered in these governance structures if the CRP is to live up to the new CGIAR consortium vision. Stakeholder feedback was very clear about the wish for partners to take more responsibility in the CRP management.

The CGIAR Consortium Joint Declaration defines a number of operational principles including ‘change culture and approaches ... changed structure ... and the way we engage Stakeholders… promote active engagement and partnership’. Meanwhile, the proposal claims that the CRP “will promote a strong impact culture” which is certainly a critical step to enable the new CGIAR to fulfill its aspirations. This culture must be reinforced at every level of the CRP – starting with the design of the management and governance structures.