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## **ISPC Commentary on the proposal CRP 3.6: Dryland Cereals**

The ISPC reviewed CRP 3.6 on Dryland Cereals in parallel with CRP 3.5 (on grain legumes) and noted many similarities in the basic characteristics of the programs and in their management and governance construct. Both CRPs are led by ICRISAT, and both propose research on a set of crops that are in the CGIAR Centers' current research portfolio. In addition, both are similar in having to rationalize the budget (i.e. more for less) typically in relatively harsh, high risk, rainfed environments. In consequence, there are several areas where the ISPC's observations in the commentaries to these two CRPs are similar.

### ***Summary***

CRP3.6 on Dryland Cereals aims to develop an integrated program of research on four dryland crops (barley, finger millet, pearl millet and sorghum) that are typically grown in harsh production areas of West and Central Africa (WCA), Eastern and Southern Africa (ESA), Central and West Asia and North Africa (CWANA), and South Asia (SA). ICRISAT (lead Center) and ICARDA are the CGIAR proponents for this program, which calls for expanding research investment on dryland cereals from current levels. Justification for this increase is the projected population growth and associated growth in demand for these crops, as estimated by IFPRI's IMPACT model. Proponents argue that the target areas in Asia and Africa contain pockets of poverty where resource poor farmers, who are among the most vulnerable and food insecure in the world, depend on CRP 3.6 cereals. It is also argued that increasing yields and productivity with these crops is particularly challenging—especially on the drier margins—due to environmental constraints and the likely effects of climate change. Although both economic and social reasons are presented for why the CGIAR should invest in these staples grown in dryland areas, the proposal does not explicitly demonstrate why and how the CRP would have clear added value over the individual Centers' programs as they now exist.

The ISPC acknowledges the weakness of the Strategy and Results Framework (SRF) in providing guidance to the CRP proponents on the emphasis to be placed on minor cereals within the CRP portfolio. To overcome this, the proponents need to demonstrate the relative importance of the dryland cereals to the CGIAR goals and the value-added from addressing them in one CRP (the same requirement applies to the grain legumes described in CRP 3.5). For consistency, a comparison can be made with the other crop-oriented programs. As reflected in the SRF, the CGIAR has always found strong rationale to work on rice, wheat and maize, which are the three major staples in developing countries. There are well documented impacts from research on these three crops confirming a strong track record. For dryland cereals the niche is smaller and more focused on marginal areas and the documented varietal adoption and yield impacts from previous CGIAR efforts have been considerably fewer although still impressive.

CRP 3.6 (in a fashion similar to CRP3.5) pulls together research on a set of crops that to a variable extent have commonalities, except for the environments where they are grown. It is necessary to think through what role each crop plays in contributing to the CGIAR objectives (SLOs) and planning how to improve the likelihood of delivering the proposed effects. The revised CRP proposal needs to make the arguments *de novo* and in relation to the research and developmental constraints in the clearly defined production systems targeted—not accepting current crop choices and research as a given.

Overall, the objectives in CRP3.6 are reasonably clear and an attempt has been made to link them to the System-level objectives (SLOs) in the SRF. The activities are generally well laid out, and milestones and partnerships are provided. The text suffers from being repetitive (and therefore rather long), and in some places contains unreferenced and poorly connected components. There are also inconsistencies, for instance in data given as justification.

However, more fundamentally, the ISPC argues that the basis for this proposal and hence the justification for an increase in funding levels for dryland cereal crop research needs to be made clearer. The demand estimates (for the targeted cereals) appear very high and therefore the underpinning assumptions should be more transparent and quantitative. The estimates of poor people living in dry areas includes other cropping systems such as rice-wheat where these cereals play a minor role and thus the figure of 650 million overestimates the actual number of poor people dependent on the CRP3.6 crops. A better analysis of demand and *consumption* dynamics would be appropriate because future demand is likely to be affected by other uses than just human consumption. This, in turn, makes it unclear how the poor will benefit from the research either as producers or as consumers, and what the magnitude of the expected benefits will be.

It is clear that adoption of new technologies will be particularly challenging for CRP3.6 given the environmental constraints to production (further exacerbated by climate change in dryland regions), and the circumstances of the targeted beneficiaries in terms of risk, infrastructure, support systems and extension services, etc. Yet there is a lack of rigorous analysis of why impacts in the past have been limited among the poor and vulnerable. To a large extent, the proposal is a presentation of past and current activities and approaches. Although overall variety adoption for some of these cereals has been high, except in Africa, it seems essential to pioneer new approaches to break the past record of slow progress in the more challenging regions and environments. Furthermore, the theory of change and the impact pathways presented in the proposal assume a mostly linear track, which is not realistic given the challenging circumstances of agriculture in dryland regions. Indeed, impact pathways are presented in a very generic manner, without analysis of the constraining factors, feedback loops and specific opportunities for the particular crops and target domains. The proposal thus reflects a sense of continuing current commodity research under a CRP umbrella, without much change.

The justification for including the four cereal crops is primarily based on the fact that they are grown in harsh, water-limited environments. It isn't obvious from the CRP how four commodity programs can be efficiently integrated for added value. The proposal would benefit from crop-specific analysis of the opportunities and challenges on the basis of past experience and advances in research, and crop-specific breeding and dissemination strategies with elaboration of where there are clearest synergies and best opportunities for integration. The crop-specific analysis should include matching research opportunities with the likelihood of having impact on the target populations who are the poor and vulnerable in dryland areas. A different prioritization among crops might result from such analysis.

The ISPC observes some shortcomings with the proposed management and governance arrangements in CRP3.6, similar to those in CRP3.5. Effective management and leadership of the program is diluted by giving the CRP Director too limited authority and almost no resources to manage a program with a projected annual operating budget in the range of USD50 million. Effective coordination of the six Strategic Objectives seems to be undermined by allocating only 25% of the time of those six staff members who have the coordination responsibility. Two of the proposed management structures, the Steering Committee and the Research Management Team, have similar representation by the primary partners and allow too little independent, disinterested decision making. The R4D Advisory Panel as described is too *ad hoc* and not sufficiently resourced.

**The ISPC recommends that CRP 3.6 be approved subject to substantial revisions and resubmission, taking into account the detailed commentary that follows, with emphasis on:**

- An improved analysis and presentation of the target populations who can realistically be expected to benefit from the CRP 3.6 research;

- Better justification and prioritization of the proposed work plans on a crop-specific basis and identification where efficiencies can be gained by pooling research efforts across two or more of the dryland cereals;
- Reduction of the scope of research in terms of crops and target areas when a clear case for the likely effectiveness of the research at scale cannot be made.
- Analysis of the large array of current work with the aim of identifying barriers to adoption and shifting to new areas of innovative research and approaches to overcome these barriers.
- Presentation of new and innovative approaches to overcome constraints to adoption of the range of technologies by the poor and vulnerable, particularly in Africa, and to increase the likelihood of impacts in their livelihoods;
- Realistic and research-specific impact pathways that carefully address the conditioning factors and incorporate feed-back loops. Better integration of CRP3.6 with CRP1.1 (Dryland Systems) is needed, as well as justification for their separate identities or merger, and there needs to be a plan to monitor the impact pathways for CRP 3.6 cereals research drawing lessons from both CRPs.
- In management and governance, a more streamlined structure is needed that provides for independence in decision making, monitoring and evaluation. (i) The Advisory Panel needs to be more appropriately structured and resourced with formal oversight by lead-Center Board; (ii) redundancies in the Steering Committee and the Program Management Team need to be addressed; (iii) the role and authority of the CRP Director needs to be strengthened; and (iv) the CRP management functions central to the success of the program, including communications, resource mobilization, and program evaluation, need to be clarified, adequately resourced and managed.

### **1. Strategic coherence and clarity of Program objectives**

The research agenda presented in six Strategic Objectives (SOs) is coherent within the context of the SRF and in relation to the overarching mission of the CGIAR and there are explicit links from program objectives to the SRF. The problems addressed are important for improving the contribution of dryland cereals to the livelihoods of the targeted beneficiaries. The SOs are interlinked; with SO1 on targeting research and SO2 on genetic resources feeding into SO3 on breeding and SO4 on crop management, while SO5 on seed and SO6 on post-harvest address technology dissemination and value-addition. The budgetary emphasis of the proposal is on improving yields.

The ISPC raises some issues about the overall justification for the program. On the demand side the estimates for people who could benefit (650 million) seem very high. Assumptions underpinning the predictions from the IFPRI IMPACT model would need to be critically evaluated. On the basis of the figures presented in the proposal 250-300 million poor seems a more appropriate figure with poor people in the rice-wheat systems in South Asia and maize systems in Africa being excluded. Demand for research is likely affected by the hesitance of farmers in investing in technology for dryland crops given the high production risks and potentially low demand by users. This is acknowledged in the proposal but not assessed further. It would be appropriate to follow-up on these issues in designing work for SO1 and in looking for crop management possibilities specifically to address risks.

Moreover, it seems likely that the role of dryland cereals for food security is declining under urbanization and shifts in diet. Given that *per capita* consumption for these crops is falling almost everywhere, increased demand is coming from feed and other uses, such as brewing. There is no discussion of how the poor might participate in this growth, either as producers or consumers. Given that the new demands are income elastic, the assumption is that the poor will participate less than in the past, when demand came from food uses. The forecast of demand may be affected if hotter and drier seasons increase the attractiveness of these relatively hardy cereals in wider geographic regions. Indeed, supply side motives could be more strongly presented. The proposal suggests likely serious implications of climate change pressures on dryland crops' productivity. The consequent need for interventions to reduce these systems' vulnerability appears a very strong motive which is not fully highlighted as a justification of the program, beyond quoting forecasts of negative yield effects.

In the proposal, priorities are shown by cropping system but it would have been more useful if priorities were also presented in an equivalent way across the systems. There are large differences in the prevalence of poverty and in capacity between the targeted regions. CWANA (low relative poverty and very small area for dryland cereals except for barley) does not appear to be a high priority region. Other questions on prioritization are: why pastoral areas of millet in WCA are included but pastoral area of sorghum (2m ha) are not, and why barley in SA is included although the area is smaller than the cut-off size (given as 800,000 ha or 1 million ha in different parts of the proposal)? Furthermore, differences in R&D capacity (which are sometimes significant), could have been a factor in prioritization. In general, capacity in the target environments is limited, but in India it is significant.

The justification for including the four cereals—sorghum, pearl and finger millet, and barley—in the same program is given on the basis of the similarly harsh environments in which they are grown. Common issues are the need for drought tolerance and the dual-purpose value for these crops as grain and fodder. Dissimilarities include breeding systems and characteristics of the target beneficiary groups who typically depend on these crops. In reality, integrating research on barley, the two millets and sorghum is likely to be challenging. For barley, the poverty focus is less clear than for sorghum and millets. With regard to finger millet, the resources devoted to it appear minimal, being limited to one project aimed at using genetic male sterility to facilitate the development of breeding and research populations. While there is no explicit breakdown of costings on a crop basis, which would have been informative, the obviously limited research on finger millet raises the question of why it was included in the proposal at all. Furthermore, the area sown to the crop is relatively small. Both for barley and for finger millet there is a requirement for a stronger justification for inclusion in the CRP and a strategy for generating impact among the poor. The CRP on dryland farming systems provides an opportunity to carry out work on crops such as finger millet if deemed critical to the research of that CRP.

In conclusion, the justification for focusing research on selected dryland crops could be good, but the inclusion of all the target regions and crops with the volume of activity proposed is not clear.

## **2. Delivery focus and plausibility of impact**

The Proposal puts a strong emphasis on delivery and potential impact. It focuses on the requirements of small landholders, especially female farmers, and aims to deal directly with these landholders and their concerns, mostly through regional partners. Impact pathways, however, are presented in a generic way without the specificity required by this particular CRP and assuming a simple linear tract. The impact pathways lack the detail that ought to derive from the crops and target prioritization, and they suggest few measures along the pathway for evaluation and adjustment. For example, regarding crop management technologies, extension is not considered. For comparison, CRP1.1, in which both ICARDA and ICRISAT participate, presents a much more nuanced construct for impact pathways recognising the obvious feed-back loops. Given very likely constraints such as poor markets, high risk, poor education levels etc. achieving widespread adoption has been, and will likely continue to be, difficult. It is hard to see how the activities in CRP3.6 will lead to some of the principle impacts depicted in Figure 1; for instance “improved gender equity and smallholder farmer organization” and “reduced environmental footprint in [dryland crop] production/and or processing”. Furthermore, the disaggregated presentation of impact pathways for each SO leads to de-emphasis of the inter-linkages between the SOs. The sections on lessons learned are not consistently referenced, for instance in identifying the source of those lessons or how they are used in impact pathway design.

The presentation of contributions to the SLOs and vision of success is simple, but not very convincing. The “theory of change” encapsulated in the conceptual framework of the CRP promises to speed up progress substantially. It presents a rather conventional approach predicting a similar change process which in the past resulted in substantial benefits in some cereal improvement in the CGIAR. However, as is discussed later under the *Quality of science* section, previous efforts on the dryland cereals have led to very limited impacts on the poorest and most vulnerable, and this proposal does not analyse the effectiveness of past efforts. There are no data on how the yield increases and the probability of

success were estimated. Behavioural parameters such as income elasticities should have been used and better baselines would be needed for linking the projections to current realities. The program projects an annual increase in productivity of about 1.9%, but the grounds on which these changes in trends are predicted should be more carefully presented.

Commendably, a complete value-chain of agricultural R&D and its consequences from the lab to the consumer are considered and the proponents recognize the pivotal role of the small landholders in that chain. It is also very positive that women, who are the majority of farmers in most areas, are explicitly targeted involving participatory research. Such partnerships can bring about continuous on-farm testing of potential innovations in cultivars and agronomy, and thereby foster continuing adaptive research. Opportunities for many feed-back loops exist to provide focus throughout the chain.

Milestones are quite clearly presented but are not very specific, and outcomes are often not substantiated. The timeframe for success to achieve farm-level production increases appears unrealistically optimistic. Reaching new breeding goals for such difficult environments - and for the effects to be visible in the field - are likely to take longer than described. Also, substantial agronomic innovation takes a long time to develop, particularly for highly variable environments, and time for widespread adoption to occur could be considerable, particularly if the required infrastructures are lacking.

In the proposal, gender features both at a generic level and in SO descriptions and there is an annex on gender. This makes the presentations repetitive but there are very few instances where a specific challenge and possible intervention are mentioned. A very positive feature is that gender issues will be addressed in the development of new varieties. It will be important that the requisite expertise on gender will be available either in the Centers or among partners. With 6% of the budget occupied by gender research and analysis, the content should be more substantial. While capacity strengthening is mentioned for all the SOs, capacity is not addressed with the thoroughness it deserves. CRP 3.6 is, appropriately, planning to collaborate with universities and AGRA on capacity building but what is lacking in the proposal is an indication of the volume of this activity and the budget for it.

### **3. Quality of science**

The proposed research and the approaches are generally solid, representing current practices. The lead Center and key partners of the CRP have good track records in crop improvement research. However, while the proposal is optimistic on some of its expected outcomes, it lacks ambition and clear innovation that would allow the projection to be considered credible. There is a lack of hypothesis-driven research; the proposal doesn't actually present testable research hypotheses for any of the SOs. Apart from putting the dryland cereals into one CRP, rather than the two Centers in which they are handled now, there is not much ambition in the research program which could draw a lot more from the new expanded partnership. As mentioned earlier, the lessons are not effectively analyzed to help shape a new research agenda. There is ample reference to "innovations" but those suggested constitute a rather mixed picture and in the specific section *Program Innovations* five of the six examples are from SOs 2 and 3. As production risks due to drought are a major constraint for production of these commodities, more innovative approaches on ways to reduce such risks could be expected from this program, both through technologies as well as institutional innovations. This, coupled with the proposal to largely continue past and present approaches, suggests that opportunities have not been captured to harness a new program to deliver results more effectively for the intended beneficiaries.

There are areas that warrant further consideration and clarity. It is common that credible information is lacking on the relative performance of improved varieties under realistic production constraints, which are typically not represented in sites where varietal performance is tested by Centers and NARS. This is a constraint, as spill-over to smallholder agriculture and resource poor farmers is limited. Co-location of trials and poverty could be checked with respect to the priority regions for targeting varietal assessment in these particularly challenging environments. A case by case evaluation of the current situation by breeders and agronomists would help design and facilitate the elaboration of crop-specific breeding strategies for the cereals to be included in this CRP. The

estimates on progress should be based on past performance and presented in a crop by crop basis. This is particularly relevant for hybrid breeding which is emphasized in the proposal and where the private sector will be engaged from the start. A more thorough discussion on the biological and socioeconomic constraints encountered in current hybrid breeding in SSA (WCA) should be the basis for planning future strategies. Providing farmers with relevant information on varietal performance, yield comparisons and crop management options will be a key issue for adoption to occur.

There is frequent reference to dealing with abiotic stresses, as though these are a generic problem with possibly generic solutions. This view has proven so far to be barren, especially in relation to generic “drought tolerance”. There are no compelling reasons to expect that it will be any more useful in the future. Instead, treating water as a limiting resource has proven to be much more effective in generating penetrating testable hypotheses that have resulted in more effective use of whatever water is available through a combination of genetic improvement and modification of agronomic practices. Applying this approach in the target areas would certainly count as an important IPG.

With regard to the dual-purpose nature of the target crops, the proponents are confident that there are good prospects for improving both the quality and amount of grain and stover without trade-offs. This view ought to be challenged based on fundamental underpinning science. Further, there is the tension between maintaining good ground cover to protect the soil surface during fallow periods, and requirements for generating feed for livestock. This tension is not recognised in the suggested work on conservation agriculture. These important researchable issues deserve consideration.

Seed delivery is an important issue for this CRP, which faces serious challenges because (except for hybrid pearl millet and sorghum) commercial possibilities are limited. ICARDA and ICRISAT have both dedicated a great deal of effort to seed system analysis and development and it is therefore disappointing that the document does not adequately reflect that experience and expertise. The material on seed-related activities (p200-203) is poorly constructed and unfocused and the milestones are fuzzy. The activities and role of the CRP with regard to farmer-based seed enterprises need to be clarified. It would be important to evaluate those types of enterprises that were established in the past to learn lessons. Efforts to ensure that new varieties are widely available can interfere with attempts to establish viable commercial entities. In general, the CGIAR’s considerable efforts on seed systems have not been very effective, especially in Africa. Source seed (breeder seed and foundation seed) from public agencies is appropriately identified as a particular bottleneck and this is something that ICRISAT and ICARDA can work on for their crops. Moving further down the chain, towards commercial seed, marketing and regulations, the CGIAR Centers (or CRPs) must work together rather than each one going it alone in setting up local systems. Previous involvement in regional initiatives should be referenced and lessons learnt.

Given the nature of the crops involved, having the SO1 on targeting research is commendable. However, the description of planned activities could be clearer; for instance regarding difference between “value chain analyses” and “analysis of sub-sector”. Because many of the non-food or non-traditional uses of these crops will be determined by industries (brewing, biofuel, etc) that are “beyond the control” of the CRP, it will be important for the CRP to carefully monitor the development and needs of these industries and how that affects CRP targeting and potential impact on SLOs. A few priority examples of the specific value chains/locations to be examined would be helpful. It is too broad to “...document the R4D in value addition of all the dry land cereals”.

Social science research components are included in SO1, 4 and 6 where they are most appropriate. The social science methods do not represent current state-of-the art, and it maybe appropriate to link with other providers of social science expertise, including CRP2/IFPRI, and the substantial social and institutional work required in the approaches advanced for CRP1.1. The sections on communication and information convey an unclear picture of what is planned, as references are only to rural radio.

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

A complex integrated program such as CRP3.6 cannot be operated without full participation of a host of partners. This is well recognized and relevant international and national partners are apparently included in the proposal. The potential to collaborate and the risks of potential duplication of effort appear to have been evaluated realistically. With regard to new partnerships, the need of which is acknowledged, particularly for SO4 and 6, the partner lists are generic and there are not yet anticipated contributions to outputs. Potential partners include very diverse kinds; uncovering, enlisting and managing these partnerships will be critical and require resources. It can be noted that the lead Center's track record of building entrepreneurial relationships is good. Alternative suppliers are discussed cursorily, merely asserting their scarcity. A better discussion is needed on how efforts at the national level, particularly by ICAR and EMBRAPA, complement those by the CGIAR.

The CRP's plan to interact and coordinate with other CRPs is well articulated and reflects a good assessment of where the potential linkages exist. There are, however, several important issues. CRP1.1 and CRP3.6 are very close in subject matter and expected outcomes due to the commonality of dry areas. Many crop improvement activities are proposed to be done in conjunction with CRP1.1, and this mode of operation applies particularly to SO4 on crop, pest and diseases management. Management of the program component in conjunction will pose a challenge. Several other CRPs are likely to deal with the same farming systems; relevant components include agro-forestry in CRP6 and grain legumes in CRP3.5. The characteristics of the dryland crops in CRP3.6 link it with CRP7. The opportunities for stronger link with the CRPs for wheat (in relation to barley) and maize (in relation to sorghum) on pest and diseases could be explored. Seed systems work requires collaboration between all crop or policy-based CRP and recognizing others working in this area (e.g. AGRA).

There clearly is scope to streamline and manage breeding efforts across commodity oriented CRPs to benefit from obvious synergies. This would include consideration of shared services and use of information coming from genomics and proteomics, soil and climate databases, socio-economic data and information etc. The plan for CRP 3.6 to outsource a number of analyses to institutions outside the CGIAR is considered appropriate.

There is some evidence of the participation of partners in the research planning process, but it seems only core partners were involved in the program design. Regional consultations have been held, but the extent to which they have influenced proposal development is unclear. The level of involvement of NARS, private sector and Community Based Organizations is not clear, particularly regarding new and potential partners. Considering the complexity of partnership management, the time and attention given to management is too limited, as is discussed in the next section.

#### **5. Appropriateness and efficiency of Program management**

There are similarities in the management and governance structures of the CRPs 3.5 and 3.6 where ICRISAT is the lead-Center and many of the ISPC's observations on these two CRPs are the same. The proposed structure for CRP 3.6 management and oversight includes:

- A Steering Committee (SC) of approximately 12, initially comprising the "top leaders (or their designates) of the major partners—including regional/sub-regional organizations, IARCs, NARS, ARIs and private sector organizations..." (p103), to oversee strategic direction, monitoring of overall performance, and improvements to operational mechanisms
- The CRP Director, whose duties include external communications and research mobilization
- A Research Management Team (RMT), comprising the coordinators of the six SOs as well as the research directors from key partners not represented by coordinators
- An R4D Advisory Panel of six to 10 members to provide input and advice primarily to the RMT

The lead Center, ICRISAT provides an unspecified range of financial and management services to the CRP and its DG acts as chair of the SC for an initial period. No executive office or program management staff other than the CRP Director is described in the proposal. The six positions

dedicated to coordination of the strategic objectives are budgeted to spend 25% of their time on the responsibilities that attach to the RMT. This limited time means that they can hardly be considered managers of the strategic objectives much less a management staff for the overall program, the challenges of which should not be overlooked.

Both the SC and the RMT are problematic. Each is essentially wholly representative of the primary partners. All primary partners are represented on the SC and each is guaranteed a spot on the RMT. The roles of both the SC and the RMT in priority setting and resource allocation fail to provide any formal space for independent, disinterested decision making; instead they have significant potential to preserve the status quo. The impulse behind the structure may be to build transparency among partners and enable consensus but the effect is to create a drag on the potential for genuine leadership and innovation. Between the SC and the RMT there is very little incentive to move past the aggregation of existing projects, partnerships and funding that characterize the start up of the CRP to create a program with its own priorities and accomplishments that has the capacity to attract the influence and resources needed to advance its goals.

Although the R4D Advisory Panel offers a mechanism for engaging scientific and development advisors from outside the partnership circle, it is primarily an input to the RMT with the potential for additional interaction with the SC. It has no formal or informal relationship with the ICRISAT governing board. Finally, its name subtly but effectively signals its standing in the structure—it is a panel, not a committee, and its members are described as being part of a “pool.” The budget allocation for is further proof of the intended limits of its role.

The CRP Director has not been given the scope of work or sufficient authority to manage a program with a projected annual operating budget in the range of USD25 million. The fact that the position will be internationally recruited and compensated accordingly does not offset the limited conception of the position. The Director is expected to serve as the public representative of the CRP, helping to raise its profile and the value of its work, to lead partner/donor relations, and to be active in resource mobilization. Despite this, the position does not appear to have any authority—to appoint a management team or to evaluate the performance of team members, to provide genuine leadership for the achievement of the program’s strategic goals, or to shape ongoing planning.

Program management appears to have no staff dedicated to it but relies on ICRISAT for unspecified management support. Although the proposal demonstrates a nuanced understanding of the value of both communications and knowledge sharing (p105), and the differences between them, no ideas are presented as to how a more externally focused communications strategy designed to raise awareness about dryland cereals and build interest at a global level will be coordinated or managed. All of the resources for communications and knowledge sharing are embedded within a strategic objective. To assert that “the program’s communication action plan [will be implemented] at all levels and be carried out by many of those involved in the R4D work” (p106) suggests that eventually nobody may be in charge. A comparable challenge can be anticipated in resource mobilization.

Assigning both of these important tasks to the CRP Director and then expecting the program to acquire capacity on an *ad hoc* basis is unrealistic. Neither of the Centers has approached these tasks in this way as part of their management structure, and for a reason. It is possible to subcontract for backroom functions like financial services and HR; it is much more difficult to subcontract for an ambitious communications program or professional resource mobilization, particularly if the Centers continue to maintain corporate identities and seek resources for programs that fall outside of the CRP.

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

The total budget for the project over three years is projected to be USD77.7 million, which includes a funding gap of USD24.8 million. Although each of the CGIAR Centers is assigned a portion of the funding gap, the presentation of the budget by SO and by region (tables 13 and 14) does not demonstrate where funding gaps in the program are anticipated to occur. It is therefore not possible to

see where a potential shortfall will have the greatest impact, nor is a contingency budget presented that illustrates how resources will be allocated in the event that the additional funds are not raised.

The CRP Management Budget allocates a significant percentage (30%) of its USD2 million budget to meetings that enable the full representation and participation of partners at three points in the program's governance and management (SC, RMT, Global and Regional Coordination Meetings). The Advisory Panel is provided with approximately USD16,000 a year to support the participation of its pool of six to 10 advisors. The imbalance is indicative of an inherent problem with the structure.

The Advisory Panel has the potential to bring together expertise and perspectives of value to the program and to provide a more independent level of planning and oversight than currently exists in the proposal. The Panel's role is to "provide independent guidance on strategic planning, new R4D opportunities, and research progress across the CRP agenda" (p1). It is proposed to have six to 10 members appointed by the SC based on recommendations by the RMT.

The proposal does not envision the Panel meeting as a group on any consistent basis, rather the Panel is intended to provide the program with a pool of experts who can be tapped a few at a time to participate in meetings of the research team, or occasionally the SC. Aside from a three-year term for appointments to the Panel, there is no other structure proposed—no regular meeting as a Panel; no leadership structure; no link, formal or informal, to ICRISAT's governing body. Although there is a reference to its role in evaluation of the CRP's performance, there is no realistic way it could effectively fulfill this function given its lack of structure and support. As noted earlier, the budget for supporting the work of the Panel is minimal.

The management structure has two bodies that are insufficiently independent, and one without the mandate and structure to be effective or fully useful. The CRP needs to establish a mechanism that can support its accountability, increase the transparency and independence of decision making, and reduce any potential risk of affirming the *status quo* at the expense of the CRFP's potential impact.

At present, the Centers and other partners are given adequate opportunities to observe the program and strengthen it through the involvement of their research staff on the management team as well as participation in twice yearly global and regional coordination meetings. The SC as described would seem to be superfluous and counterproductive.

With that in mind and to strengthen the management and governance of CRP 3.6, the following recommendations are offered:

- Strengthen the structure and terms of reference for the Advisory Panel to give it a more substantial role in monitoring and evaluation, and in recommending program priorities and resource allocations. Provide a mechanism that allows a DG or equivalent from one of the primary partners to be a member of the Panel, in addition to the DG of the lead Center who can serve *ex officio*.
- Establish a chair for the Panel, who is elected from among the members of the Panel, and who has reporting links ICRISAT's DG and board chair on the progress of the CRP
- Eliminate the SC and redistributed its proposed functions to the Advisory Panel, the RMT, or the CRP Director as appropriate.
- Strengthen the role and authority of the Director sufficient to lead and manage the program in an effective way. The evaluation of the Director's performance (and future recruitment) should include the chair of the Advisory Panel. The reporting relationships between the Director and the members of the RMT should also be strengthened to increase the ability of the Director to manage for performance.
- Identify more clearly the management activities that will be undertaken by the program office or management unit to assure that functions central to the success of the program, including communications, resource mobilization, and program evaluation, are adequately resourced and managed.