

## **Independent Science and Partnership Council**

### **Commentary on the Proposal for Mega Program 7: Climate Change, Agriculture and Food Security (*August 2010*)**

(13 October 2010)

#### ***General***

The proposal for a potential MegaProgram<sup>1</sup> on Climate Change, Agriculture and Food Security (abbreviated here as CCAFS) grew out of the planning for a Challenge Program on Climate Change which sought to conduct research at the nexus between agriculture and the global climate science community. This was a welcome initiative between the CGIAR and, to that point, a largely untapped scientific community. The Challenge Program promised to be a relatively well focussed program.

It is clear that much time and participatory consultation has gone into its further development as a MegaProgram. However, the ISPC finds that whilst the current global context and the case for addressing mitigation of, and adaptation to, the effects of climate change through developing country agriculture are well described, the proposal is in several senses less convincing than the earlier program. It is highly ambitious in its research and policy aims. However, by including the current climate change work of virtually all Centres (except CIFOR) it reduces the focus and possibly the likelihood for success. Indeed the proposal is structured more for the CCAFS to be a platform servicing and, to an extent, co-financing the other Centres and managing climate change policy relationships, than a true research program in its own right.

The ISPC confirms that there is a strong case for a strategic MP on climate change as part of the CGIAR portfolio and in partnership with the climate science community, but considers that the current proposal needs substantial revision in the light of the general and specific issues identified below. This could be best achieved by redirecting the strategic direction of the program, fully engaging the outside “new “ partners and changing the management structure to provide clearer boundaries among CGIAR activities. The ISPC would expect to review a recast proposal for future endorsement.

#### ***Issues that relate to the development of the new CGIAR portfolio***

In the absence of an adequate SRF to guide demarcation of work between potential programs there is a risk that each proposal submitted claims a scope of work which cannot be judged adequately in the absence of strategic principles governing the whole portfolio. This is manifested in the CCAFS by inclusion of a large amount of current CGIAR activities with deliverables in a short time frame, but lack of identification of what portion of this work will be selected for strategic development within the CCAFS or will (continue to) form the basis of other MPs. Also there is the conspicuous exclusion of work from CIFOR on climate change expected to take place under the *Forest and trees* MP. CIFOR has shown leadership in

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<sup>1</sup> This Commentary continues to refer to MegaProgram or MP (as does the proposal itself) rather than CGIAR Research Program. The term MegaProgram is also indicative of the intent to form inclusive research and development partnerships in the field being addressed.

raising the profile of the CGIAR in relation to climate change and it is not clear why there should be two parallel tracks and how the policy objectives of CCAFS relate to that program.

Secondly, and arising from the above, the generation of this MP (and potentially other following MPs) aggregates currently funded components of CGIAR research projects which continue under existing contractual obligations. Several of the Centres have individual contacts with new research partners in work which has been folded into this proposal (and may or may not be directly relevant to a strategic climate change agenda) and which is expected to deliver outputs in the initial 3 year time frame (through 2013). It is unlikely that *all* such components will or should continue as part of a strategic, long term research program. The MP proposal needs to be discriminatory regarding the work to be included in the program from the start, and make clear how much of such work will continue as part of the MP beyond current deliverables. It needs to itemise existing and required new funding (including more specifically for partner contributions) in areas which will be central to the strategic nature of the MP as it matures.

Thirdly, the ISPC is concerned that the suggested governance of the program through a lead Centre (in this case CIAT) undermines the authority of the Consortium Board and the flexibility of the program leadership and its scientific advice to set program direction. The checks and balances built into the current proposal do not tend to service a new CGIAR. The positive experiences gained from the relative independence of the Challenge Programs should be built upon.

The ISPC believes that development of a program on climate change is urgent but it does not consider that the current proposal sufficiently fulfils the common criteria as discussed below

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

The overarching objectives of the Program are essentially those of the SRF, and accord well with the CGIAR's vision, including provision of IPGs:

- 1. To identify and test pro-poor adaptation and mitigation practices, technologies and policies for food systems, adaptive capacity and rural livelihoods.*
- 2. To provide diagnosis and analysis that will ensure the inclusion of agriculture in climate change policies, and the inclusion of climate issues in agricultural policies, from the sub-national to the global level in a way that brings benefits to the rural poor.*

Four Themes are described; three "place-based" Themes will identify and test technologies, practices and policies, and will enhance partnerships, to decrease the vulnerability of rural communities to a variable and changing climate. They are, Theme 1 – Adaptation to Progressive Climate Change; Theme 2 – Adaptation through Managing Climate Risk; and Theme 3 – Pro-poor Climate Change Mitigation. The fourth Theme – Integration for Decision Making – provides a framework for the whole of the MP and ensures effective engagement of rural communities and institutional and policy stakeholders, grounds CCAFS in the policy context, and provides downscaled analyses of, and tools for, future climates.

#### *Strengths:*

- The overall rationale and general diagnosis provide a very credible and comprehensive review of the issues of climate change and food production. By taking a system view, the MP promises to enhance overall synergies, share knowledge and promote

collective action. The strong partnership with ESSP leverages capacities that are important for the System's work in Climate Change.

- The Program's strong focus on modelling, scenario building, and engagement with many partners is what gives strength to the second objective.

*Weaknesses:*

- With four themes, 3 objectives per theme and nearly 100 products to be delivered in three years the MP promises to cover a lot. The range of products is very diverse from genetic resource collection and evaluation, stress tolerant breeding lines, detailed scenario modelling, to institutional innovations in risk insurance, weather forecasting, safety nets and policies to manage food price volatility. Further prioritization (alluded to in the letter of transmittal) is needed.
- The bridge between the CGIAR's existing climate change work and the ESSP community is still to be developed. Whereas the CP brought in the Global science community as a full partner, and focused on the intersection (i.e. gaps) with the agriculture community, in the current proposal there appears an over dominance of all current Centre activities and simultaneous new regional work. The ESSP will contribute largely through Theme 4. It is not clear if actual partners have been selected for the work and at what cost versus the greater detail of the Centre-specific funding.
- The crowding of the MP with existing CGIAR work collected under the climate change banner may diminish the vision of success, namely, *"being recognized, together with the partners, as the foremost global source of relevant research that leads to strategies for tackling food insecurity in the face of climate change"*.
- The proposal is difficult to interpret on research (Themes 1 and 2) and it does not clearly define where the really innovative research breakthroughs may come from. Related to the ambitious scope of the program is the complexity of implementation.
- Nearly all Centres are involved in this MP, as are a wide range of partners. Indeed, this MP plans to significantly co-finance activities at 14 Centres (CIFOR being the exception) and in other MPs. As a result the proposal corresponds more to a description of a "platform".

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

The program has provided ostensibly measurable targets based on the SRF:

- *By 2020, help reduce poverty by 10%, increasing the incomes of hundreds of millions of people*
- *By 2020, contribute to a reduction in hunger, cutting the number of rural poor who are undernourished by 25%*
- *By 2020, help agriculture contribute to climate change mitigation by enhancing storage or reducing emissions, by 1000 Mt CO<sub>2</sub>eq (considering all gases) below the "business-as-usual" scenario.*

However, it is hard to judge the realism of these results or even how they were derived. For example, the proposal (p.12) implies that activities designed to "counter climate change" would increase productivity by 10% within 10 years. The proposal does not discuss other likely routes to improving productivity now (such as closing yield gaps) and whether the claims in the proposal are made for the CCAFS or the CGIAR as a whole.

*Other concerns in this area:*

- The intent to focus new research in a small number of discrete regions (East and West Africa and the Indo-Gangetic Plain of South Asia) and benchmarks is welcomed, as long term research and monitoring in these key initial regions would likely yield much

important knowledge and specific as well as broadly applicable climate strategies in relation to the food supply with time. However, the speed with which results are expected to be developed appears unrealistic and tempers enthusiasm for the swift enlargement of an already ambitious program.

- To achieve the impacts, the MP has planned for 12 key outcomes; many of which rely on close collaboration with other Centres. The boundaries between this and other MPs are unclear. Also the state of the art in the current CGIAR projects is not evident and the aggregation exercise causes the MP to have lack of strategic coherence. In the examples given on collaboration there is no mention of the large activity on global climate change in the rice program (GRiSP). A lot of the research seems to have delivery dates that do not seem credible (3 years). Overall, the MP lacks a longer term perspective with well-defined milestones to a far reaching goal.
- Concerns that should be discussed more fully include (i) data availability in some regions to be able to do local modeling (e.g. West Africa); (ii) the issue of scale transitions between place-based research and landscape and regional modeling results, (iii) the ability of mitigation strategies to lift poor farmers out of poverty (since their carbon footprint is small to start with once deforestation has occurred, and secondly because small farmers are not organized to capture the benefits of C sequestration that could happen through reforestation.) Adaptation and mitigation research may not be conducted at similar sites (as seems to be suggested (c.f. page 14, para 3).

### 3. Quality of science

#### *Strengths:*

- Much of the place-based work will be integrated within target regions, with activities starting in West Africa, East Africa and the Indo-Gangetic Plains in 2011 and extending to eight regions by 2013. Choosing to start work in the 3 places is appropriate since together they represent a substantial share of poor people affected by climate change.
- The planned research on mitigation appears to be well thought out, with clear, logically developed, researchable objectives. The second objective under mitigation is particularly important and challenging as measuring sequestration of carbon and emissions of GHGs is a major impediment to agriculture's being involved in carbon trading.

#### *Weaknesses:*

- The ISPC would caution on the need to expand the place-based work to additional sites, suggesting that it would be better if the gap analysis is done well at 3 critical, representative and manageable sites. Research would be aided by some staging of activities where in the first stage the best bet options (agriculture) could be linked to the scenario analysis to identify major gaps. This could then focus much of the agenda.
- This proposal relies heavily on *ex ante* modelling. Some descriptions of the work on adaptation appear unrealistically aspirational and requiring better grounding with experienced agronomists or breeders e.g. [theme 1, objective 2, p. 45] Similarly, "*Modelling of virtual crops under a changing climate to identify future priority traits*" (p.42) is an attractive but challenging concept to implement.
- The research thrusts become hidden in the detail of the proposal and it is thus difficult to estimate science quality, although the ARI partners are often highly appropriate.
- In the area of mitigation, there is clearly a lot of synergy, and also possible conflict, with the program on *Forest and Trees*. If the current MP will focus on mitigation

through agriculture, the *Forest and Trees* program may address mitigation through forest conservation. Since agriculture is the major driver of deforestation, there could be much overlap. The ISPC has not seen the proposal for *Forest and Trees* at this stage and it is difficult to judge the relationships between these MPs. Also the general area of governance, especially relating to land use changes and land and forest tenure, are weak in the proposal. These governance issues will be critical to successful adaptation to climate change as well as for mitigation.

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

##### *Strengths:*

- Preparation of the Proposal has involved a wide range of potential partners, and their relative roles and responsibilities are spelt out under each of the main Themes. Whilst formal agreements with external partners are not in evidence, except as goals to work towards in the first year or two of the life of the MP, this seems appropriate at this stage.
- The proposal includes a number of “co-financed” research activities that will be undertaken with other prospective MegaPrograms. These are clearly elaborated but also highly contingent both on resources generally, and on the highly specific decision to co-finance.
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##### *Weaknesses:*

- There are clear illustrations of the flow of resources to and from the MP and the Centres, but it is not clear (in the budget information or narrative) the extent to which research resources will flow to ESSP as a partner, or from ESSP to the program (if at all). Neither does ESSP appear to have a significant say in the management or governance of the program.
- In general, the proposal shows evidence of “buying into” established work programs of a large number of other organizations. It will be challenging to command the leadership and fulfilment of obligations on such a large number of fronts and to work in several regions simultaneously. The very light coordinating structure may be over-extended trying to get all of this done.

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

The ISPC believes that a critical strategic decision for the Consortium Board is whether the vision proposed for the CCAFS Program could more likely succeed if the Program had a greater role (indeed a lead role) by Partners outside the CGIAR while bringing in the necessary agriculture-based knowledge. The proposed management structure with one Centre (CIAT) as a Lead Centre also leads potentially to a lessening of outside partner (Earth Science community) involvement in setting the strategic direction of the program. The decision-making role of the scientific committee was a strong suit of the earlier CP. However the current suggestion is for an *Independent Scientific Panel (ISP)* in a purely advisory function (on priority setting, partnerships and on the strategic allocation of resources) with the decision made by the CIAT Director/ Board. (In Figure 7, the role of the Consortium Board appears reduced to that of managing contract resources.) The ISP itself will be appointed by the Lead Centre’s Board, through a nomination process that seeks input from all Centres. This does not encourage hard choice decisions on strategic direction. The ISP, in a way that the CIAT Board cannot, will be the most potent source of knowledgeable priority setting and oversight

available to the program. This move to an advisory role of the independent panel formed to set the strategic direction of the CP is seen by the ISPC as a regressive step. There are suggestions (pages 26/27) that a future move of the coordinating body is anticipated from its current external location. The ISPC suggests that the Consortium Board needs to confront a fundamental question—what management is needed to deliver the program’s vision; and would that be best done from outside rather than inside the CGIAR?

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

### *Strengths:*

- Several aspects of management – communication and reporting mechanisms, monitoring and evaluation – appear sound.
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### *Weaknesses:*

- The allocation of the budgets is largely to CGIAR centers based on current commitments rather than strategic choice. Although leveraging of partner contributions (ESSP) is alluded to (Page 34), there is nothing in the pipeline and if this money is not leveraged, some of the plans may not be realizable. The MP does not discuss this in the budget (Page 38) or identify it as a risk.
- The position of regional facilitators and theme leaders is unclear. The cost of these positions may be captured in the salary budget, but it is not clear where these positions reside organizationally. They could be Centre-based staff or the program may choose to locate some of these positions with partners. By not describing more fully their place in the management structure (versus the program structure) the proposal fails to make clear the true costs of managing the program.
- MP7 will likely generate large transaction costs, with many meetings and negotiations required for smooth operations.
- As noted, CIAT’s management role appears to be very tightly scripted and controlled. The ISPC suggests that the balance of authority and accountability may be reviewed to enable these responsibilities to be shared in a more pragmatic and useful fashion to the Consortium board, donors and other stakeholders.

*In Summary:* The ISPC believes that in reorganizing towards a program that includes a great deal of current Center research that the CCAFS has missed its strategic target. The ISPC suggests that the proponents be asked for a smaller, more strategic new document that shows more independence from the existing CGIAR research portfolio (which may be completed under current funding) and offers a logical time frame for deliverables, including some long-term deliverables with intermediate products. The Rice MP gives some good examples of such staggered research objectives. The ISPC further suggests that as part of the revision process a management review should be implemented immediately, before the Program coordination is moved from its current location.