

**SCIENCE COUNCIL OF THE CGIAR**  
**Report by Per Pinstrup-Andersen, Chair, Science Council**  
*Prepared for the CGIAR Annual General Meeting 2006, Washington DC, USA*

Since my last report to you at AGM '05 in Marrakech, the Council has made significant progress in each of our four main areas of work: Priorities and Strategies, Monitoring and Evaluation, Impact Assessment and Mobilizing Science. Some notable recent achievements and a brief description of key activities planned for 2007 are highlighted below. I encourage you to see the results of our recent meetings at CIAT and WARDA as well as other Council documents and latest reports at [www.sciencecouncil.cgiar.org](http://www.sciencecouncil.cgiar.org).

### **Priorities and Strategies**

Following the endorsement in late 2005 of 20 *CGIAR System Research Priorities* focusing on problems for which the CGIAR is likely to have the greatest impact, the attention of the Science Council has turned to strategies and means to implement the research within a three year time frame. I am pleased to report that Centers have already started to describe existing work for each of the 20 Priorities in this year's MTP submission. However the formulation of framework plans for each Priority is required to delineate the scope of research and to allocate responsibilities across the system and its partners. The SC has laid out a schedule for the development of framework plans and will be working with the Alliance to develop the plans, with additional inputs through workshops or additional studies to further define the specific goals where necessary. Some of the Priorities may be suitably developed as Challenge Programs or other kinds of consortia, according to the research needs and range of partnerships. The framework plans will help inform the work of the Ad Hoc Committee of ExCo working to establish mechanisms for funding the new System Priorities for research.

*Other strategic studies* being conducted by the SC include: development of a strategy for Genomics Research in the CGIAR, defining opportunities for handling Intellectual Property in the context of International Public Good research, and Ethics and CGIAR Research. The first has led to the reestablishment of the CGIAR's Genomics Task Force to help rationalize approaches and servicing of genetics research across the relevant Centers and Programs of the CGIAR. The studies on IP and Ethics have led the SC to recommend that CGIAR guidelines be developed in both of these areas. In the case of IP, an update to existing guidelines is required taking into account the need for the CGIAR to continue to provide IPGs in the context of the increasing complexity of public-private partnerships in technology sharing and product development. The SC study on ethics lays out the requirements and means for the CGIAR as a whole to address ethical aspects of its research and associated undertakings in a coherent fashion.

### **Monitoring and Evaluation**

Following the new approach to M&E of CGIAR Centers focusing on a more streamlined, cost-effective approach to Center-level monitoring and evaluation, several *external reviews* were completed or are currently underway:

- *A follow up review of the recent CIMMYT EPMR* as approved at ExCo-8 was implemented in mid 2006.
- *CIFOR, ICRAF, WorldFish and ICARDA EPMRs* were completed in 2006 and will be presented at this AGM.
- *ILRI and IWMI EPMRs* have been finalized in 2006 and will be considered by the SC, ExCo and the Group in 2007.
- *WARDA, CIAT, IITA, and CIP EPMRs* are being commissioned for implementation in 2007.
- The *CP external reviews* (CPER) for Water and Food, Harvest Plus and Generation are being commissioned and will be implemented in 2007 following new Terms of Reference and Guidelines.

In addition, the following reviews have been completed or are underway:

The review and impact *assessment of training activities in the CGIAR* was completed early in 2006. The study involved analysis of training information and data for the period 1990-2004, interviews of stakeholders and Center staff in three regions, questionnaire surveys of ex-trainees, CGIAR researchers, and research partners, and a summary analysis of evaluations and impact assessment conducted by the Centers themselves. The key findings included that although the shift to project funding has affected the longer-term commitment to formal training in the Centers, there has also been an increase in capacity strengthening as part of collaborative research. In some Centers, the number of short-term training events has increased, including those targeted at farmers. The quality of training has in general been high, and judged by the perceptions of stakeholders training has been effective, however, depending on the strengths of the NARS involved. The report found that in many centers there was no central node for coordinating training and that data compilation and access difficult. This limited the possibility to use past experiences to assess success and design future activities. The finding of the report was consistent with the approach to training as outlined in the CGIAR System Priorities (mainly as capacity building within the research priorities) but cautioned on the need for a coordination mechanism for training within the center. The SC endorsed all recommendations directed at the Centers, the CGIAR System and the NARS. A key recommendation was that training should be formally and fully recognized as an indispensable component of the CGIAR's activities, both for NARS strengthening and as a contribution to the execution of Centers' research. An important recommendation to the Centers was that they should increase the coordination and cooperation among themselves.

*A follow up review of the inception phase of the SSA CP* as requested by AGM04 was implemented in early 2006. The basic finding of the Panel is that while the Program has not met the main milestones set for the Inception Phase (of 18 months), there is sufficient evidence of progress toward the milestones to support an extension of the Program in order to address significant research issues such as the testing of the benefits of an innovative platform—the IAR4D concept—in designing and implementing research at the interface of productivity, environment, policy and markets that would increase demonstrably the delivery of the benefits to the end users. Thus, the Panel recommended an extension of the research phase of the Program for 3 years with a number of conditions, one of which is to remain focused at three sites, and that the program strengthens the research planning and design and implements a process to ensure systematic monitoring and evaluation to develop IPGs. The SC agrees with the Panel that the research phase should end by December 2009 answering the following question: does the new IAR4D concept measurably improve delivery and have an impact? The effect of the ecoregional and sociopolitical contexts for which the primary learning sites were

selected would inform any future strategy. If the outcome to this challenge is positive, others more directly involved in development could scale out the results.

*A Meta review of 17 system wide and ecoregional programs* (SWEPs) as requested by ExCo has just been completed during the last week of November and will be discussed by the SC, ExCo and the Group in 2007.

*An external review of the Systemwide Program on Participatory Research and Gender Analysis* (PRGA) will be completed by March 2007. This review includes a literature review of studies of ex post impact assessment of participatory research within and without the CGIAR.

*Review of Medium Term Plans.* In 2006 the SC assessed the MTPs for all 15 Centers and 3 CPs. The Center MTPs covered also the 17 SWEPs. The Council found the MTPs in general to represent clear planning that facilitates the monitoring of achievements in the CGIAR's performance measurement system. Impact pathway descriptions, although still rather general, allow the Centers themselves to plan delivery of their research outputs to the targeted users. Most MTPs provide good descriptions of partnerships in the projects and specific activities. The SC noted that the CPs, in particular, provided succinct and clear MTPs and are all showing a well-focused program with ambitious targets for delivery. The SC would have liked to see a bigger effort across Centers to direct research towards implementation of the System Priorities. Instead, many Centers still describe their research in isolation from similar activities by other Centers. Regarding the annual review process, the Council is considering the possibility of sequencing the 19 reviews over a 2-3 year period after the completion of the implementation phase for the SPs in order to allow for more in depth discussion at SC and ExCo and for Centers and CPs to continue their internal monitoring in the intervening years.

*Review of the two SSA sub-regional MTPs.* At the request of ExCo-10 (May 2006) a preliminary SC commentary on the two subregional MTPs (East and Southern Africa - ESA and West and Central Africa - WCA) was sent to ExCo mid July 2006. At the time, the SC felt that only after it has assessed all the Center and CP MTPs, could it provide a more complete commentary. The SC discussed the subregional MTPs at SC6 (September 2006) and submitted commentary to ExCo-11 (October 2006) recommending that a clear-to-all collective research strategy be developed for each region, and the strategy be implemented through a cohesive and comprehensive Plan that encompasses all activities by the participating centers in the two regions and through an appropriate regional organizing entity. The Plans should indicate who is going to do what and how that contributes to the SP. The expected economies of scale and scope and captured opportunities need to be laid out. The MTPs should be explicit also about the specific Center and CP activities to integrate within the MTP. The MTPs of the Centers would show how they contribute to the regional Plan and would monitor and evaluate the scientific progress toward the SP.

After a pilot phase last year, the *performance measurement* (PM) system was implemented fully in 2006 based on 2005 results. The Council, through a task force involving members of SPME and SPIA and SC Secretariat staff, assessed the output indicator submissions and rated the outcome and impact indicator submissions. It also contributed to drawing lessons on PM system elements (output, outcome, impact, quality of and relevance of current research) for further improvement. The SC will also contribute to revising the PM instructions for 2007. The EPMRs have begun drawing data and information from the PM system.

## Impact Assessment

The Standing Panel on Impact Assessment (SPIA) has completed several activities during 2006, such as: the agricultural research and poverty impacts study (led by IFPRI), impacts of natural resource management research, and impacts of CGIAR & partner research in SSA.

The *Impacts of CGIAR & Partner Research in SSA* report uses a meta-analysis approach to quantify aggregate economic benefits and finds that the total investments by the CGIAR and partners is justified under a fairly wide range of assumptions, provided that benefits continue at their reported levels beyond 2004 (“*ex post + ex ante*” scenario). The aggregate benefit cost ratios under this scenario range between 1.12 and 1.64. If only reported benefits up to 2004 are included (“*ex post*” scenario), the benefit-cost ratio falls to less than unity for one of the most conservative scenarios, where only “substantially demonstrated” benefits are counted. Under all scenarios, the vast majority of documented benefits stem from a relatively limited array of activities (biological control, and to a lesser extent crop genetic improvement). The report shows that documented benefits well exceed total investments in research in a region better known for its development failures than agricultural productivity growth, but there remains significant scope to better document the benefits from agricultural R & D investments in the region.

A *Policy-oriented Research Impact Assessment* study is underway in cooperation with Centers and Challenge Programs to document more rigorously the impacts of CGIAR policy-oriented research, which currently represents about 20 per cent of the CGIAR budget. Both supply- and demand-side approaches will be used, non-economic literature reviewed, and historical, political and sociological approaches explored to better capture the complexities of policy making processes.

SPIA and ICRAF organized a two-day CGIAR *Impact Assessment Focal Point Meeting* in October 2006 to discuss work on IA within the CG. Focal points from the 15 Centers and the four Challenge Programs gave brief presentations and sessions focused on key challenges facing IA in the CGIAR today. Specific objectives included building up knowledge of “best practices” in IA, identifying where Centers and SPIA can work collaboratively and identifying how and where they can together better communicate the results of IA in the CGIAR. Strategic guidelines for conducting IA are being prepared by SPIA addressing a range of pertinent topics, e.g., user needs, impact pathways, attribution, counterfactuals and transparency, but focus on methods rather than methodologies. This complements IA user manuals being developed for practitioners by some Centres.

A comprehensive assessment of *CGIAR Impacts in South Asia* is being planned for 2007. It will assess the direct and indirect pathways of impacts of CG and partner research on different producer and consumer groups resulting from productivity improvements in different commodities, including identifying cross-commodity effects. Ultimately, this ex-post impact pathway analysis of the S. Asia region would provide a better understanding of economic and non-economic (health, nutrition, environmental) impacts and the distribution of those benefits (also adverse effects) to poor and non-poor groups—which in turn could have implications for priority setting.

SPIA is also developing a proposal for a *Demand-led and Institutional Learning* impact assessment to be conducted in 2007. The study responds to the perceived need for evaluations that meet not only investor demands for accountability, but also satisfies Center management and scientists’ demands for “learning” oriented feedback.

## **Mobilizing Science**

A survey to provide an initial overall picture of *CGIAR Center Collaboration* has been completed. The survey revealed that Centers collaborate with over three thousand organizations worldwide. It has shed light on the various reasons that Centers have for collaboration, and has enabled a better understanding of how collaboration contributes to the successful performance of the CGIAR.

A *CGIAR Center - Civil Society Organizations Collaboration* study is underway to document CGIAR-Civil Society partnership experiences with selected Civil Society organizations, and will examine the importance that such collaborations have for mobilizing science and for achieving the CGIAR mandate. It will identify and disseminate lessons learned from such partnership experiences, and will enable a better understanding of the factors behind successes and failures with such partnerships.

The second edition of the Council's flagship publication *Science for Agricultural Development 2007* is being prepared. The document will discuss the policy implications of the shifting nature and location of innovation, the changing pattern of knowledge and technology spillovers, and new institutional arrangements to harness and apply modern science to benefit the poor. A summary of this document will also constitute a Chapter on "Science, Technology and Skills" of the forthcoming World Bank's World Development Report, which will focus on Agriculture for Development.

Among several planned activities for 2007, the Standing Panel on Mobilizing Science will focus on examining CGIAR Centers' partnerships with Advanced Research Institutions. The aims will be to determine the constraints to further collaboration, identifying innovative ways by which institutions such as strong national agricultural research institutes, national councils for science & technology, international and national private sector companies and other organizations mobilize agricultural science.

## **Science Council and its Secretariat**

Dr. **Mariza Barbosa** (Brazil - Advisor to the Ministry of Agriculture of Brazil) joined the Council in July 2006 and an additional member will be appointed to be a SC Member starting in January 2007. Four new Standing Panel Members joined last July: Dr. **Scott Rozelle** (USA - Stanford University, USA); Dr. **Walter Baethgen** (Uruguay - Columbia University, USA); Dr. **Paul Vlek** (The Netherlands - ZEF, Germany); and Dr. **Oswaldo Feinstein** (Argentina - international consultant currently based in Spain).

The SC Secretariat is strong, with outstanding management and technical capacity to underpin the SC's comprehensive work plan.

As this is my last report to you as SC Chair, let me thank you again for your continued support of the Science Council. You have a very strong Council and Secretariat and I have no doubt that the SC will be even more effective under the new leadership that begins January 1, 2007.