

## SCIENCE COUNCIL OF THE CGIAR

### Report to the CGIAR Annual General Meeting 2007 (AGM'07)

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The Science Council (SC) has the following functions: (i) quality control, monitoring and continuous upgrading of the work of the CGIAR Centers and Challenge Programs and to strengthen and extend their impact; (ii) formulation of CGIAR System priorities and research strategies; and (iii) the strengthening of collaboration with knowledge centers and universities in developed and developing countries to extend support to the CGIAR research program and the constituency of the CGIAR. Working through a Panel arrangement, with regular Meetings and with support of the full time SC Secretariat substantial progress was accomplished in 2007 in these areas (a list of the Council's major written statements is itemized in an Annex to this Report). Amongst others, the Council has been particularly effective in focusing the CGIAR on five key agricultural research for development priority areas and in bringing the monitoring and review schedules for Centers up to date.

Following the Science Council's Eighth Meeting in Rome in August, the SC was able to provide advice to ExCo 13 on a wide range of fronts: the annual review of Medium Term Plans for 2008-2010, four External Program and Management Reviews of Centers and two External Reviews of Challenge Programs, scientific advice on new Challenge Program pre-proposals, Lessons Learned from the conduct of a large number of EP MRs, and on the CP process to date, as well as accounts of other SC activities and Plans. These are reviewed here briefly, highlighting issues of importance to Members.

#### **Monitoring and Evaluation**

The Science Council's Standing Panel on Monitoring and Evaluation (SPME) continues to oversee the conduct of the annual review of Center MTPs, the External Program and Management Reviews (EP MRs) of Centers and the External Review of Challenge Programs. This year, overcoming a back-log, the Council has considered an unprecedented number of *EP MRs* (and ExCo considered those of CIAT, CIP, IITA and WARDA as well as the External Review of two challenge programs -- Water and Food CP and HarvestPlus CP). In consequence, only three EP MRs are planned for 2008-09 (BIOVERSITY, ICRISAT, IRRI) and one External Review of a CP (Generation).

Over the last few years the SC has placed high importance on ensuring that Centers develop high quality *Medium Term Plans* (MTPs) as a basis for monitoring the relevance of science. The MTPs are public documents that link the planning of the Center to the System Priorities. The SC goal has been, through its commentary, to help the Centers to improve the quality of this public planning document. The assumption by the SC is that a quality MTP is essential for internal coordination, monitoring of performance and helpful for external monitoring. Increasingly, Centers are using the MTP for internal management purposes.

Now that many Centers have developed a useful MTP for internal and external purposes, the SC is working with others to simplify the means of reporting. Such means include:

- 1) An online tool for both submitting the 3 year rolling MTP on an annual basis by all Centers and for use internally. This tool is being developed by the ICT-KM Unit jointly with Bioversity International and IIRRI with inputs from SPME.
- 2) Reducing the frequency of an in-depth review and the development of a full SC commentary (to every three years) for those MTPs of adequate standard. This year the SC has identified a number of Centers whose MTPs are of such a standard. The SC still intends to monitor the implementation of SPs annually during the transitional period of completing the framework plans (which need to be reflected in the MTPs). It will also assess MTPs when the Center/CP has recently gone through an external review or has completed a new Strategic Plan. The SC anticipates that, with the considerable improvement in the MTPs, more of the SC's effort on monitoring the relevance of science will shift to commentary on the Strategic Plans of the Centers (including seeing that they align with the System Priorities).
- 3) In a recent SC *performance measurement* workshop held with CGIAR Secretariat and Center representatives, the CGIAR indicators of performance dealing mainly with relevance and quality of science were examined for utility and possible simplification. As a result, the SC is recommending discontinuing the measurement of the achievement of output targets as an indicator in the PM System. Rather, it recommends that monitoring of output target achievement will become a self-monitoring process by the Centers, facilitated by the on-line MTP tool mentioned above which also facilitates external monitoring of achievement over time. The SC believes that the overall PMS should be made simpler with better communication of what is expected from Centers as "best practice" performance.

The Council and the CGIAR Secretariat have developed a joint paper on *lessons learned from the Challenge Programs*. The paper benefited from the just completed external reviews of two of the CPs. It is believed that the paper and the lessons will be timely to inform the current cycle of full-proposal development and selection.

*System wide and ecoregional programs* (SWEPs) were originally developed for a number of purposes – as means to engage in ecoregional NRM research, to maximise synergies across CGIAR expertise (such as crop-livestock interactions through the System-wide livestock program) and to produce communities of practice (such as with CAPRI – the group established to synthesise experiences in common property research). They were largely successful in creating cross-system efforts and in enhancing partnerships. Some continue to perform strongly whilst others have mutated towards new goals or funding has diminished to a point where some are probably unsustainable. At a time when the System is re-orienting to new research Priorities it is apposite to re-examine the different SWEPs (both as vehicles for the conduct of research and in terms of subject matter) for their utility to contribute to a new and more integrated CGIAR portfolio. Following up on the meta-study of the SWEPs completed in early 2007 and using that as source of analysis, the Council is preparing a more complete typology of SWEPs and analysis of their current agendas so as to consider their utility for implementing the SPs in the context of CPs and framework plans. This will help identify relevant and viable SWEPs and provide inputs to the CGIAR Scoping Team assessment of appropriate vehicles for research.

### **Impact assessment**

The Standing Panel on Impact Assessment (SPIA) leads the Science Council's assessments of the impact of the CGIAR at the system level. The SC, acknowledging feedback from Centers and donors, has noted some mis-interpretations of the *3a impact indicator* of the CGIAR Performance Measurement System, so the title of this indicator has been changed to reflect more accurately what it actually measures – commitment to documenting impacts and building an impact

assessment culture. Some had inappropriately interpreted this indicator to reflect the size of the actual impact of Center research. The results of this year's PM exercise, including Center scores, the weights and scoring method used, have been documented and shared with Center IA focal points in the interest of transparency and feedback. While some further changes are being considered, it has been agreed that no major changes in the 3a impact indicator itself should take place for the 2008 exercise.

A two-page draft *SPIA strategy* has been developed that envisions making the CGIAR a leader in design and conduct of *ex post* impact assessment (IA) of agricultural research, building investors confidence in their past and future investments' in the CGIAR and institutionalizing IA as an essential part of research management and planning. SPIA's mandate is to provide quality and timely information to CGIAR members by partnering with Centers. SPIA strives to achieve that by maintaining its independence, objectivity and the quality of its work through peer-review processes, development of new methodologies and broadening the scope of IA.

There has been progress with several impact studies: the *Policy-oriented Research Impact Assessment study* is nearing completion with final drafts of the seven case study reports to be discussed in depth at a workshop at IRRI in mid December. A second draft of the *South Asia Impact Assessment* study is being reviewed by SPIA. Preparation of the *Strategic Guidelines for Impact Assessment report* is underway. A third draft of the document has been circulated to interested donors and research managers for their input, and is expected to be finalized by the end of the year.

SPIA is planning to organize an Impact Assessment Focal Point Meeting with EMBRAPA in Brasilia for November 2008. Donors and IA experts participated with SPIA, 13 Centers and 4 CPs, participated in the last IAFP meeting held in 2006. In addition, SPIA is planning to organize a special session on impact assessment at the International Association of Agricultural Economics meeting in Beijing in 2009.

### **Priorities and Strategies**

The activities of the Standing Panel on Priorities and Strategies (SPPS) focus on the identification of new science and issues affecting the context and conduct of IPG-focussed research. The SC has put emphasis on the *development of Framework Plans* (FPs) to articulate and implement System Priority (SP) research. Framework plans help identify the core competencies required by the CGIAR in fulfilling its vision in global agricultural research for development. Collectively they help describe the CGIAR's niche in the international agenda and what the System and its partners will do in a collaborative and coordinated fashion. The Alliance Deputies' Executive has agreed to a program and schedule for development of FPs and the SC continues to provide advice and inputs as needed. A number of FPs is scheduled to be finalized by the Alliance by the end of 2007, and these will be subject to a SC managed peer review process. The schedule of planning and submissions reaches to the end of 2008.

The SC has convened a Workshop with IFPRI on *Food Safety* which was held in Washington DC, USA, on 8-9 May 2007. The Council Commentary has distilled the key conclusions relevant to the development of food safety research as part of the system priorities and highlighted some follow-up studies that the SC might wish to consider. In the discussion of these strategic studies, the importance was noted of linking food safety research as it relates both to income generation and to producer and consumer health. It was suggested that successfully conveying such a message would be important for recognition of this research by the CGIAR membership.

Arising from earlier work, the SC had proposed that the System should revise and renew CGIAR guidelines for the use of IPR in the context of IPG research. However, missing knowledge to make this possible includes a better grasp of the expected stewardship regimes and issues surrounding liability of Centers in entering into arrangements with the private sector. Terms of Reference (or TOR) for such new *studies on Stewardship and Liability* have been developed. This activity will be undertaken as part of the SC's new Workplan in close consultation with CAS-IP, and with inputs solicited from the CGIAR Secretariat and PSC. The outputs of the study will serve to inform the GRPC in its development of the System-wide IP policy.

Having completed a practical study of Ethics and CGIAR Research, which also resulted in the recommendation for new CGIAR guidelines, the Science Council is initiating the third planned study, *Ethics and the Mission of the CGIAR*. The Panel, commissioned under the Chairmanship of Professor Peter Sandoe, will start work early in 2008 for a report to SC10. This is expected to be timely input into the CGIAR change process now underway.

A workshop on *Biosafety*, which had been pending as one of the recommendations from an SC-commissioned study in 2004, is being planned for early in 2008. The meeting aims to network key Centers and NARS involved in transgenic research in order to inform the scientists of the recent developments, as well as to involve national counterparts in the early stages of transgenic research activity. It is also hoped that the workshop would assist the work of Bioversity International in bringing together the Centers to discuss policy-related matters in this area.

### **Mobilizing Science**

Partnerships are key in the conduct of CGIAR science, and there are different modes of engagement with the different players in the research for development spectrum. The main findings of a study on *CGIAR Centers' partnerships with civil society organizations* (CSOs) will be presented at AGM07 and will be published in early 2008. A companion study of links with advanced research institutes is under consideration as a means by which the CGIAR can mobilise science in support of the new System Priorities for research. This Panel has provided advice to the CGIAR Secretariat on their development of the program for the *Science Forum on Harnessing Advances in Science for Sustainable Agriculture* at the stakeholder meeting at AGM07. The needs of investors and science providers differ, however, and in order to foster more specific dialogue on science, the SC is considering setting aside time for discussions between CGIAR Center scientists and scientists outside the System unlinked to AGM. The intention would be to hold a meeting on science for development, designed to showcase and provide a platform for discussion of new developments in science outside the CGIAR, with potential to be used in CGIAR research. The Panel co-authored Chapter 7 on *Innovating Through Science and Technology*, of World Bank's World Development Report 2008.

### **The future operations of the Science Council**

The SC acknowledges the contributions of SC Members Dr. Vir Chopra and Dr. Onesmo Olé-MoiYoi, both departing the Council at the end of 2007. The SC looks forward to a timely process so that their successors can be appointed early in 2008. Dr. Flavio Avila, a member of SPIA, and Drs Reynaldo Martorell and Scott Rozelle of SPPS have stepped down in 2007, and their contributions are gratefully acknowledged.

The SC has taken steps to streamline its internal working: for each of its major roles, SC panels and portfolio holders have been identified. The efforts of two of the standing Panels are

continuous functions aimed at ensuring highest quality performance and relevance of research within the CGIAR System. The Standing Panel on Monitoring and Evaluation (SPME) is composed of two SC members (one chairs the panel) and two panel members. The Standing Panel on Impact Assessment (SPIA) has a chair (who is an ex-officio SC member) and two panel members. A second role of the Council is addressed by the current Standing Panel on Priorities and Strategies (SPPS). The third role of the SC is currently addressed by the Standing Panel on Mobilizing Science (SPMS). The SC thinks that in the current step of the evolution of the CGIAR centers and their research agenda this role is of pivotal importance and hence requires more attention; that is, to promote better and more extensive scientific partnerships with centers of excellence in the public sector, private sector and civil society and to mobilize public and private sector investments into international agricultural science for development.

The SC has now been in operation for 4 years; the mode of operation of the Council with active working members has been productive. The standing panels are functioning well for the first core tasks of the SC, that is monitoring and evaluation and impact assessment. It is also clear that the SC Secretariat has assembled a solid technical team which has been very effective in implementing Council decisions. Those elements should be maintained in the coming years. To enable the SC to better meet the challenges in the other two fields (priorities and strategies and the mobilization of science) their activities will be mainstreamed into the SC agenda, starting in 2008. Priorities and strategies and mobilization of science issues will be addressed by the SC as a Committee of the Whole. A SC member will continue to be focal point ('portfolio holder') for Priorities and Strategies and another one for Mobilization of Science. Rather than the current practice of having two Standing Panel members in each theme, the portfolio holders will have the flexibility to call on the expertise of specialists for specific tasks. This constitutes a small internal reorganization and not a change in mandate. It is expected to provide more operational versatility, full input of all SC members, and more efficiency (by reducing the transaction costs of two formal panels).

### **Science Council workplan 2008/2009**

The workplan for the SC in 2008-2009, endorsed by ExCo in October 2007, addresses its core functions and presents a set of key activities that the Council believes are significant actions to implement its mandate within the CGIAR. Driven by the findings of several EPMRs there is emphasis on understanding the current capacity and optimal arrangement of social science in support of the CGIAR's research for development goals; a much needed investigation on non-economic measures for impact assessment to ensure that the CGIAR measures all of its different effects (e.g. on natural systems, and on human attributes such as learning); support to the continuing alignment of the CGIAR around the system priorities for research, and renewed efforts to link the mobilisation of research to the same ends. The following are highlights of activities that will be conducted during 2008-09:

**1. Review of CGIAR Social Science research.** The CGIAR requires social science research in several functions, including priority setting, impact assessment, policy research, participatory methods, and gender analysis. There is a perception in the CGIAR that the social science research capacity has somewhat eroded in the recent past and/or may not be most relevant to the CGIAR mandate. There has been an expansion in the functions involving social sciences and in the tasks assumed by social scientists. For the purpose of the study, social science includes: economics, anthropology, sociology, geography, education, communication, knowledge management, gender studies, rural development studies, political science. The stripe review is intended to take stock of the current situation in terms of productivity, roles and capacity of social sciences in

general, and with a focus on a more narrowly defined set of functions identify key constraints and challenges on social sciences research and services faced by the CGIAR Centers and make recommendations for improvement. The review would assess social science needs and capacity as well as the output of social science based research in the Group. The review will include the following activities: collect data on social science staff numbers, composition, productivity, partnerships, costs and trends; construct a normative model for evaluating social sciences functions in the CGIAR; define the functional areas focus within which the study will assess disciplinary capacities, interactions between social and natural sciences and scientists, roles in methodology vs. provision of services, and management issues.

**2. *Environmental and Social Impacts of CGIAR Research.*** There is a need to expand greatly the number and quality of epIAs that focus on goals further down the impact pathway. Many of these are non-pecuniary impacts of agricultural research, both direct and indirect, and are related to environmental, nutritional, health and other social impacts. As there is no market valuation for them, they are not easily measured. This study would include: (1) undertake a comprehensive inventory and assessment of the available “non-economic” impact of CG research studies, evaluate the adequacy, identify promising methods (including indicators for measuring social and environmental impacts) and develop a proposal for a main phase (case studies and methodology development) if warranted; and (2) commission a more focused study aimed at (a) methodology development; (b) database development and (c) selection of case studies in collaboration with the Centers.

**3. *Internal CGIAR demands for and uses of Impact Related Information.*** Key stakeholders and CGIAR staff frequently emphasize the need for evaluation that responds not only to external investor demands for accountability, but which also satisfies internal demands for “learning” oriented feedback. Ex post impact assessment (epIA), as one form of *ex-post* evaluation, has also been subject to these demands, yet clear means by which epIA can contribute to internal information needs have not been systematically identified. To help identify the most effective means for epIA, among other evaluation approaches, to inform internal decisions, SPIA will undertake a study with the following objectives: (1) Characterize and explore the current application of information regarding past research outcomes in CGIAR research management decisions; (2) Identify current sources of feedback and unfulfilled decision needs for information regarding past research outcomes; and (3) Identify options for selecting and adjusting evaluation processes so that they contribute effectively to research and planning and management.

**4. *Implementation of CGIAR System Priorities via Framework Plans.*** In 2005, the Council completed a substantial consultative process, which has led to the identification of new CGIAR Priorities for the period 2005-2015. In 2008-9, this activity includes support to the planning and refinement of the scope of research of the System Priorities for research, and monitoring the progressive alignment of the current research portfolio of the Centers. Particular focus will be on those large FPs for which assistance has been invited by the Alliance Deputies Executive (e.g. 2A, 2D, 4A and 4D; the latter two FPs also comprising a large part of the NRM agenda of the System; together these priorities are expected to account for a total of USD166 million of the CGIAR budget in 2008). Centers are expected to provide relevant CGIAR expertise to the FP Meetings and the SC will commission external experts and facilitation where necessary.

**5. *Ethics and the Mission of the CGIAR.*** This is the third of three studies of Ethics as it affects the context of CGIAR research. It will examine the ways and means by which the CGIAR approaches its mission through agricultural research. It will be conducted in the first half of 2008 and its

Report will be available to inform the continuing discussion of alignment and renewal in the CGIAR.

**6. IP Stewardship and Liability.** In order for the CGIAR to develop comprehensive guidelines for the management of IP and to follow up on earlier recommendations from the Science Council (*CGIAR Research Strategies for IPG in a Context of IPR*) a study will be undertaken on product stewardship and liability. The SC is commissioning this study in an interactive way with the other key players in IP in the system (GRPC, CGIAR Secretariat, CAS-IP, and the Private Sector Committee). It is expected to be conducted in the first part of 2008 and contribute to the CGIAR Guidelines on IP (which the SC has already recommended be developed with all due haste).

**7. Planning and Mobilizing Global Agricultural Science.** The SC undertakes to review CGIAR Priorities at approximately five-year intervals. The Priorities were endorsed in 2005 and so a review in 2010 would be expected to assess progress and make mid-course corrections rather than overhaul the Priorities newly established. In preparation for such a review the SC would seek stakeholder input, consider long-standing constraints and the rate of progress towards their alleviation, emerging issues and failures. There would be a need to commission strategic position papers on around six topics, including the ex ante assessment to the likely pay off to SP research described in framework plans. Together with the workshop in 2009, this activity will review suitable areas and partnership models from outside the CGIAR, by which upstream science can be mobilized to address CGIAR System Priorities. This represents necessary preparation for SC advice to the CGIAR that will be delivered in 2010 (the subsequent biennium).

**8. Joint CGIAR – Scientific Communities Meeting on Science for Development.** The intention is for the SC to organize a “Meeting on Science for Development” in 2009, bringing together external experts from ARIs in the north and south (whom the System wants to encourage into involvement with CGIAR science), national programs and other stakeholders, and key expertise from the Centers to debate the merits of new areas of research against the existing SPs. This discussion would have to be informed by an *ex ante* evaluation of the benefits of the research of the current SPs as outlined in the FPs. A simultaneous goal is to establish links to scientific communities of practice to assist CGIAR research and examine modalities for this partnership.

**9. Impact Assessment Focal Point Meeting.** The last SPIA-sponsored IA Focal Point meeting was held at ICRAF in Nairobi (October 2006) and was attended by 13 Centers. The response was extremely positive (see Synthesis Report on SPIA website) such that it was requested these meetings be organized frequently. SPIA plans to organize a meeting in late 2008, in Brazil, hosted by EMBRAPA.

### **Next Science Council Meetings**

The next Council meeting, **SC9** is confirmed for **March 28 – April 1 2008 in Nairobi** (co-organized by ICRAF and ILRI). The SC welcomes the presence and values the inputs of CGIAR observers to its Meetings.

*ANNEX*  
*2007 SCIENCE COUNCIL REPORTS, COMMENTARIES*

- SC Report to AGM07 (November 2007)
- CGIAR Center-CSO Partnerships study (November 2007)
- Chapter 7 on Innovating Through Science and Technology, of the World Bank's World Development Report 2008 (October 2007)
- SC Report to ExCo-13 (October 2007)
- SC Commentary on Center and CP MTPs 2008-2010 (September 2007)
- SC Commentary to Harvest Plus Challenge Program External Review (September 2007)
- SC Commentary to Water & Food Challenge Program External Review (September 2007)
- SC assessment of new CGIAR Challenge Program (Cycle 2) Concept Notes (May 2007) and Pre-proposals (September 2007)
- SC Commentary to CIAT EPMR (September 2007)
- SC Commentary to CIP EPMR (September 2007)
- SC Commentary to IITA EPMR (September 2007)
- SC Commentary to WARDA EPMR (September 2007)
- SC Commentary to EPMR Meta Analysis (September 2007)
- SC End of 8<sup>th</sup> Meeting Report (August 2007)
- SC Report to ExCo-12 (May 2007)
- SC Commentary to ILRI EPMR (May 2007)
- SC Commentary to IWMI EPMR (May 2007)
- SC Assessment CGIAR Performance Measurement System (May 2007)
- SC End of 7<sup>th</sup> Meeting Report (April 2007)
- SC Commentary to the Follow-up to ICRAF EPMR (February 2007)
- Report of the Biosafety Panel to the CGIAR SC on Biosafety Policy and Practices of the CGIAR Centers (May 2007)
- Advancing Impact Assessment of International Agricultural Research– Synthesis Report (May 2007)

**All documents available at [www.sciencecouncil.cgiar.org](http://www.sciencecouncil.cgiar.org)**