

SCIENCE COUNCIL OF THE CGIAR

Report to the EXCO-14 *13-14 May 2008, Ottawa, Canada*

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The SC organized its 9th Meeting in Nairobi March 31st – April 1st 2008. It was a very productive and informative meeting where SC Members and meeting participants had a good chance of seeing how ICRAF and ILRI implement substantive research for development activities, including crucial links with several key partners. The meeting provided the opportunity to have technical presentations and discussions on agricultural research challenges in SSA; recent developments in the African Agriculture Technology Foundation (AATF); as well as discussing the critical situation of land degradation in Africa. In addition, the SC discussed elements for scoping the future of the CGIAR as inputs to the Change Management Initiative as well as a SC perspective on CGIAR research on biofuels. A SC position paper building on such discussions examines the questionable benefits of biofuels in relation to energy efficiency, environmental effects (particularly GHG emissions) and clear risks to food security via inflated commodity prices and suggests an appropriate CGIAR strategy for research on biofuels (discussed later in this report).

The SC would like to report to ExCo on progress made on several key items for the CGIAR, such as: assessment of new proposals for CGIAR CPs (Climate Change and Oasis); the results of the first external review of the Generation Challenge Program; comments on the second phase of the Water and Food Challenge Program; status of SWEPS in the CGIAR; as well as accounts of other SC activities and Plans.¹ Most of these matters are separate items in the ExCo-14 agenda.

Monitoring and Evaluation

To simplify the means of reporting Center and CP annual progress on the *Medium Term Plans* (MTPs) the Council has promoted the development of an online tool for both submitting the 3 year rolling MTP on an annual basis by all Centers and for use internally. In addition, the Council is 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. In 2008 the SC will review 13 MTPs in-depth as last year 6 MTPs were considered of sufficient quality and structure to “graduate”.

Because the MTPs by their very nature are framed by the overall Strategic Plans of the Centers and because each Center is expected to contribute to a coherent CGIAR research agenda, the *SC will in the future provide a commentary on Center Strategic Plans* at their final drafting stage. The Council is preparing criteria to assess the Strategic Plans and will continue dialogue with the Alliance to clarify the aspects in them that the SC’s will be looking at. The SC’s commentary will focus on System Priorities and the System’s perspective and it will become a public record.

The SC is currently organizing the *External Program and Management Reviews* (EPMRs) of ICRISAT, BIOVERSITY and IRRI. Reports from these reviews would be submitted for ExCo consideration by October 2009. The M&E policy for Centers adopted in 2005 put emphasis on using the CCERs explicitly as building blocks in EPMRs. *The SC recommends that Centers should not be obliged to conduct CCERs in preparation for the EPMRs.* Although CCER utility and

¹ See list of recent SC Reports, Commentaries and Studies in **Annex 1**.

quality may have improved, they are still, according to the feed-back received, of variable quality and intended by Center management and governance primarily for internal use in evaluation and strategic guidance. Nevertheless, CCERs can be valuable inputs to EPMRs among other self-assessment results and the EPMRs will judge the Center for their use among other internal means of assuring quality and relevance.

The SC contributes to the CGIAR *Performance Measurement System* (PMS) by assessing outputs, outcomes and impacts. Experience to-date suggests that making Centers accountable annually for full achievement of output targets has led to perverse incentives to set low output targets. *The SC recommends discontinuing the measurement of the achievement of output targets as an indicator in the PMS.* Rather, monitoring of output target achievement should become a self-monitoring process by the Centers, facilitated by the new CGIAR on-line MTP tool (CGMap) which also facilitates external monitoring of achievement over time. *The SC feels that this change, together with other improvements to the current indicators, as elaborated in Annex 2, is needed in order both to provide appropriate incentives for the Centers to continuously improve their performance and to provide credible information about Center performance to the PMS users.* The SC considers that the overall PMS should be made simpler with better communication of what is expected from Centers as “best practice” performance in all indicator groups.

The SC recommends not enlarging the PMS to include indicators for Challenge Programs. CPs are time-bound and intended to evolve rapidly from inception and partnership building phase to focused research phase to delivery of results and exit. The CPs need both progress indicators and success indicators that are better built into internal CP M&E (including the CP MTPs) that is the responsibility of the CP governing body and externally monitored through the mid-term reviews and by the ExCo and the SC.

The SC has assessed the current status of CGIAR *System wide and ecoregional programs* (SWEPs). Such programs were originally developed for a number of purposes – as means to engage in ecoregional NRM research, to maximize 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 multi-center partnerships. Some SWEPs continue to perform strongly whilst others have mutated towards new goals or funding has diminished to a point where some are probably unsustainable. *Following up on the meta-study of SWEPs commissioned by the SC in 2007 the Council has submitted to ExCo (February 2008) an assessment of SWEPs, including a typology for future programs.* The SC commentary is available as a separate item in the agenda for this meeting. The Council recommended continuation of the following five programs: Rice Wheat Research Consortium; Sustainable Agricultural Development in Central Asia and the Caucasus; Collective Action and Property Rights; Systemwide Genetics Resource Program; and the Systemwide Livestock Program. The Council provided several suggestions to either improve or discontinue the other SWEPs as well as a rationale for the creation of future programs organized under three potential mechanisms (coordination programs, NRM initiatives, and short term systemwide research task forces).

Impact assessment

The SC is initiating a study that emphasizes the development and broad application of *social and environmental indicators of impact* in an effort to move further down the impact pathway and hence nearer to CGIAR goals. Both quantitative & qualitative indicators will be explored in this

study but quantitative indicators are more desirable since they are more robust and measurable. A comprehensive inventory and assessment of the available “non-economic” impact of CG research studies will be undertaken, evaluating their adequacy and identifying promising methods (including indicators for measuring social and environmental impacts). A proposal for a main phase (case studies and methodology development) will be developed later in 2008.

The development of a document to provide *strategic guidance for conducting ex-post impact assessment* is nearing completion. Key topics associated with good practice offer guidance to practitioners on PMS indicators 3A/3B and a range of other impact assessment topics. The draft document co-authored by a leading expert plus several Center focal points and two SPIA members has benefited from contributions and critical comments from many stakeholders, including donors and the ADE.

Good progress was made on the *policy-oriented research impact assessment* (PORIA) study: a workshop attended by case study leaders was held at IRRI in late 2007 to review progress to-date and second drafts of case study reports were reviewed by SPIA and consultants. These case studies attempt to document the influence and impact of CGIAR policy research under widely varying situations. Next steps involve completing abridged versions of the case studies, developing a synthesis green cover report, and coordination and preparation of articles for a special issue of a policy journal.

The penultimate draft of a paper reviewing and synthesizing the literature on the *impacts of CGIAR research in South Asia (post-Green Revolution)* was recently submitted by the lead consultant and is undergoing external peer review. The report summarizes the impact and identifies the gaps in the literature on the impact assessment of CGIAR research in South Asia, especially for environmental impacts.

Priorities and Strategies

The SC has put emphasis on the development of *Framework Plans (FPs)* to articulate and implement System Priority (SP) research. The intention of developing FPs was fourfold. Firstly, was to move towards the implementation of the CGIAR SPs by encouraging collaborative planning for SP research at the System level. Secondly, to review and revise where necessary the specific goals and the scope of research (compared with the descriptions offered in the Priorities document of 2005) that should be undertaken by the CGIAR and its partners in a realistic time-frame. Thirdly, to describe the partnerships and the means to conduct the research (placing the CGIAR research contribution in the context of global efforts to deliver developmental impacts in the various fields) so as to meet the targets that had been set. Fourthly, to provide a means of linking the short term research planning described in Center MTPs to agreed strategic, longer term objectives of the System as a whole. It was not expected that the FPs would be written as proposals to donors. Rather, that they would describe the means to conduct priority research so that the SC could assure donors that the claims were valid means for reaching CGIAR goals and so endorse the portfolio of research for system level funding. The SC notes that these intentions are congruent with the targets for Change Management identified by the CGIAR Chair.

To evaluate the FPs developed to date, the SC has initiated a peer review process of those plans available by early January 2008. Three reviewers (two external to the CGIAR and one from the SC) were engaged and the compiled reviews have been provided to the Alliance of CGIAR Centers for consideration. Reviewers are largely comfortable that the areas for research that have been chosen are appropriate and worthwhile for CGIAR involvement. Nevertheless, whilst

overall progress has been made in the crystallisation of certain areas of research (and this has plainly been more difficult to do in new areas than those which represent current areas of CGIAR expertise), the very general nature of the delineation of research areas in many plans make several of the claims for outcomes and impacts impossible to assess. The extent to which some FPs describe collaborative partnerships (even within the CGIAR) is too vague to ascertain who will coordinate and who will take responsibility for the delivery of aspects of the research. The claims for required levels of funding, therefore, cannot be evaluated or endorsed to ExCo and Members as they stand.

A framework plan for priority 1A has been successfully developed. Since this is an exceptional case, the Council believes that the process should be reviewed and sees two options at this critical juncture. The first is that, based on the forthcoming results of the Working Group 1 of the CGIAR Change Management Initiative, priority areas for research could be mapped to the strategic objectives as defined by WG1. Subsequently, in concert with the Alliance, research plans should be prepared to address such objectives. This option means clustering groups of the current set of FPs, or aspects of them, as foreseen for higher level cross-cutting issues. In the plans developed, it would be necessary to achieve the appropriate level of detail for scientific evaluation and endorsement. Alternatively, noting that the entire Change Management deliberations will not be confirmed until AGM08, a second option could be to continue to prepare FPs for the 'heartland' areas of the CGIAR research portfolio which would be anticipated to be central to any future research role of the system (i.e. 1A, on conservation of staple crops; 2A, germplasm enhancement of staples for yield and income; 3A, income from high value fruit and vegetables; 4A, natural resource management at the landscape level; and, 5C on policy and institutions). The SC stands ready to review the guidelines for the completion of FPs and to help catalyse the collaborative actions needed for joint planning by Centers and partners. For either option, a strong donor position on funding the endorsed research plans is absolutely critical.

Mobilizing Global Agricultural Science

A study of CGIAR-CSO partnerships has been finalized in 2007 and a Brief was available at AGM07. The SC has decided not to publish a final report but to use the substance of the initiative internally in its activities. The SC contributed to the development of Chapter 7 - *Innovating through Science and Technology* - of the World Development Report 2008. The Council has also published a background report through a joint document between the SC and the University of Minnesota (*Science, Technology and Skills* - October 2007). The SC has provided inputs and advice to the formulation of the *Science Forum* at AGM07, Beijing.

The SC is preparing a set of studies to be presented at a joint *CGIAR-science for development dialogue meeting* on science for development to be held in mid 2009. This meeting would bring together external experts from ARIs (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. A simultaneous goal is to establish links to scientific communities of practice to assist CGIAR research and examine modalities for this partnership. A summary of the results of this activity would be presented at AGM09 if a Science Forum will be organized at such event. A full proposal for the proposed Science Dialogue 2009 detailing the set of studies is being discussed by the SC.

The SC considers that it's too early to come up with a *metric of performance for mobilizing science* as originally suggested by ExCo in 2007, especially since the SC is a catalyst and the centers are the 'mobilizers'.

Other Ongoing Activities

The *Review of CGIAR Social Science research*, assessing social science needs and capacity as well as the output of social science based research in the Group has started, main activities to be undertaken late 2008 and early 2009, with a report to ExCo by October 2009.

A study on *Ethics and the Mission of the CGIAR* examining the ways and means by which the CGIAR approaches its mission through agricultural research is ongoing under the leadership of Professor Peter Sandøe and will be submitted for consideration of SC10 in September 2008.

The Final Report of the study on *Food Safety* had been published in December 2007 following from a Roundtable expert workshop co-convened and held with IFPRI earlier in the year. The study includes valuable recommendations which could inform CGIAR debate and entry points for research.

In order for the CGIAR to develop comprehensive guidelines for the *management of IP* a study is being commissioned on product stewardship of third party IP and liability issues in CGIAR research utilizing proprietary technologies, in close collaboration with other key CGIAR players in IP in the system (GRPC, CGIAR Secretariat, CAS-IP, and the Private Sector Committee).

The SC is convening a workshop (22-24th April 2008 at IRRI in the Philippines) to examine the requirements for networking *biosafety* issues across Centers of the CGIAR. The objectives for the workshop are to establish a network of Centers and NARS engaged in transgenic research, identify collaboration mechanisms for efficient delivery of Centers' products, anticipate research needs in emerging areas (fisheries, livestock, trees), and identify means by which the CGIAR Centers could coordinate their representation at international scientific and regulatory fora.

As biofuels production draws on the same resources that agriculture, livestock, forestry and fisheries sectors now depend, it is incumbent on the CGIAR and other international agencies to offer R&D guidance and appropriate advice for government policy on biofuels. A *SC position paper on biofuels* draws attention to the critical issues surrounding biofuels, food security and the environment, highlighting the positive and negative consequences likely to emerge from different biofuels policies. A biofuels policy statement has been proposed.² Expansion of biofuel production worldwide has clear implications for CGIAR research, in particular for: (i) policy-related research—especially developing analytical frameworks and tools to assess the potential impacts of biofuels production on food security and environmental sustainability; and, (ii) sustainable intensification of traditional and new food crop and livestock systems, keeping a tight

² Science Council policy statement on biofuels production: *There are serious concerns about the greenhouse gas (GHG) emissions, energy and nutrient and water use efficiency of large-scale, first generation bio-energy feedstocks currently in use. A major question is whether biofuels obtained from these feedstocks are effective in combating climate change and what impact they will have on soil and water resources. Another fundamental issue relates to the magnitude and nature of their impact on food prices and ultimately on the livelihoods of the poor. A possible solution to overcome the current potentially large negative effects of large-scale biofuel production is developing second and third generation conversion techniques from agricultural residues and wastes and step up the scientific research efforts to achieve sustainable biofuel production practices. Until such sustainable techniques are available governments should scale back their support for and promotion of biofuels. Multipurpose feedstocks should be investigated making use of the bio-refinery concept (bio-based economy). At the same time, the further development of non-commercial, small scale production of first-generation biofuels in rural settings, e.g., biodiesel for rural household electricity supply in developing countries, should be explored in terms of promoting rural development to reduce dependence on imports of fossil fuels.*

focus on food security and environmental health goals consistent with the CGIAR mandate.

Science Council Membership

The SC welcomes two new Members, Dr. *Gebisa Ejeta* (from Ethiopia, currently a Professor of Plant Breeding and Genetics at Purdue University) and Dr. *Jeff Sayer* (from the UK, and currently at the International Union for the Conservation of Nature) and thanks the SC nominations committee of ExCo for identifying two excellent experts to join the Council. Ms. *Zenda Ofir* from South Africa has joined the Council as a Standing Panel member (SPIA), and Mr. *Edward Ayensu* from Ghana has joined the Council as a Standing Panel member-at-large.

The SC acknowledges the contributions of SC Members Mr. *Jim Ryan* (SPIA Chair) and Ms. *Mariza Barbosa* departing the Council after our forthcoming meeting (SC10) during the first week of September 2008. The SC thanks ExCo for confirming Mr. *Derek Byerlee* as incoming SPIA Chair and looks forward to a timely CGIAR process of identifying a new SC Member, hopefully to be able to join by October 2008. A profile defining terms of reference for this slot has been sent to the CGIAR Secretariat.

Next Science Council Meetings

The next Council meeting (SC10) is confirmed for **September 2-4 2008 at the Royal Museum for Central Africa in Tervuren, Belgium**. The SC welcomes the presence and values the inputs of observers to its Meetings, particularly those who are members of ExCo.

SC Report to ExCo-14 – Annex 1

Recent Science Council reports, commentaries, studies

Documents available at www.sciencecouncil.cgiar.org

2008

- Bio-fuels Research in the CGIAR: a Perspective from the Science Council (forthcoming)
- Strategic Guidelines for ex post Impact Assessment (forthcoming)
- Impacts of Agricultural Research in South Asia – a meta review (forthcoming)
- SC Commentary on CGIAR Climate Change Challenge Program proposal (April 2008)
- SC Commentary on CGIAR Oasis Challenge Program proposal (April 2008)
- SC Commentary on Generation Challenge Program External Review (April 2008)
- SC Commentary to Water & Food Challenge Program proposal for Phase II (April 2008)
- SC Report to ExCo – 14 (April 2008)
- SC-9 End of Meeting Report (April 2008)

2007

- SC Report to AGM07 (November 2007)
- CGIAR Center-CSO Partnerships study (November 2007)
- Science, Technology and Skills. Background paper for the 2008 World Development Report of the World Bank. Joint publication of the Department of Applied Economics of the University of Minnesota and the Science Council of the CGIAR. (October 2007)
- 2008 World Development Report of the World Bank - Chapter 7 'Innovating Through Science and Technology' (October 2007)
- SC Report to ExCo-13 (October 2007)
- SC-8 End of Meeting Report (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 8th 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-7 End of 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)

SC Report to ExCo-14 - Annex 2
SC Suggestions to Strengthen the CGIAR Performance Measurement System
(PMS)

SC Secretariat, 18 April 2008

The CGIAR has now four years of experience with the Performance Measurement System (PMS), launched in 2005 as a pilot. After several years of progress implementing the system it is widely understood within the CGIAR community that annual monitoring of the main financial, institutional and research performance indicators is part of good management and can help spot problems early on, sustain and improve resource mobilization and help maintain the overall credibility of the System. The PMS has stimulated improvement of databases and development of data tracking in Centers which is valuable for the overall management, monitoring and evaluation. The current structure of the PMS (Box 1) includes three main components (indicators of results; indicators of potential to perform; and stakeholder perceptions).

Box 1. Current Structure of PMS

Component I. Indicators of Results

- Element 1: Outputs *Indicator 1:* % MTP output targets achieved in 2007
Element 2: Outcome *Indicator 2:* SC assessment of 5 outcome cases submitted by Center
Element 3: Impact *Indicator 3A:* SC/SPIA rating of Commitment to documenting impacts and building impact assessment culture
Indicator 3B: SC/SPIA rating of two Center impact studies for rigor (every three years)

Component II. Indicators of Potential to Perform

- Element 4: Quality and Relevance of Current Research
Indicator 4A: Number of externally peer-reviewed publications per scientist (excluding journals listed in the Thomson Scientific/ISI).
Indicator 4B: Number of peer-reviewed publications per scientist published in journals listed in Thomson Scientific/ISI.
Indicator 4C: Percentage of scientific papers that are published with developing country partners
- Element 5: Institutional Health
Indicator 5A: Score of governance check list
Indicator 5B: Assessment of Board statements
Indicator 5C: Score of culture of learning and change checklist
Indicator 5D: Gender diversity goals: Does your Center have Board-approved gender diversity goals?
Indicator 5E: Percentage of women in management
Indicator 5F: IRS Nationality concentration
Indicator 5G: Diversity in recency of PhDs
- Element 6: Financial Health
Indicator 6A: Short term solvency (liquidity)
Indicator 6B: Long-term financial stability (adequacy of reserves)
Indicator 6C: Efficiency of Operations (indirect cost ratio)
Indicator 6D: Cash Management on Restricted Operations
Indicator 6E: Audit Opinion

Component III. Stakeholder Perceptions (survey every three years)

The Science Council has had the responsibility to design, monitor and improve the indicators for Component I: Outputs, Outcomes and Impact (elements 1, 2, 3, respectively); and Element 4 of Component II: Quality and Relevance of Current Research (SC related indicators are underlined in Box 1). The Output and Quality and Relevance of Current Research indicators are based on self-assessment. The Outcome and Impact indicators derive from the SC's assessment of Center submissions. The CGIAR Secretariat has had the responsibility to monitor elements 5 and 6 of Component II, and Component III.

Each year the SC has prepared lessons from the exercise and consequently revised both the instructions to Centers and the assessment criteria and scoring. The SC has interacted annually with the CGIAR Secretariat and the Center Deputies for Research (ADE) regarding improvements in the PMS in general and with the CGIAR Impact Assessment Focal Group regarding progress with the Impact indicators. In August 2007, the SC organized an internal workshop to review PMS experiences with inputs from the ADE and the CGIAR Secretariat. The key concerns raised at the workshop focused on: whether the PMS has the correct incentives to improve performance; the clarity about expected performance; the ability for benchmarking over time; the very large number of indicators; the balance between research related and institutional indicators (with implications on funding); and the potential misinterpretation and misuse of the PMS results by donors.

As of result of such concerns and with the aim of continuously upgrading the PMS the SC suggests the following improvements in the system in order to: correct perverse incentives created by the output indicator; modify the PMS structure to facilitate better understanding of research performance; improve the indicators related to research; and set clear performance targets.

Correct incentives - de-linking output monitoring from the PMS

In the SC's experience and in the feed-back received from Centers the major problem related to the research indicators has been the perverse incentive affecting ambitious research planning created by the current *Output indicator*, which is the percentage achievement of output targets planned in an MTP for the year of reporting. There is a real danger that the mechanical use of the output targets as indicator of output leads to setting easy targets in order to ensure full achievement. The results over three years for the Output indicator (not including the pilot year) show an average achievement of 88% of planned target, ranging from 79-97%.

Such a high level of achievement reflects at best only modest ambition in planning and leaves little room for real improvement in achievement. The differences, albeit very small, in the average achievement rate between a Center with constantly high achievement (97%) and one with consistently lower (but still high) achievement (84%) are more likely influenced by different ways of planning and registering achievement than real differences in performance. In addition, the indicator does not facilitate the research process where a) failure to achieve the expected results may provide important understanding and feedback about the research problem, and b) serendipitous results can have high value. In research that is grappling with complex problems it is not reasonable to either expect full achievement of all results as planned or make the Centers and research programs accountable for 100% success with the potential penalty of reduced funding if the Centers fail to do this.

There is, however, consensus that the demand to describe clear and tangible research targets in the annual MTP cycle has helped the Centers and CPs to plan and articulate better the deliverable results they expect from their research and capacity activities, and it can help internal monitoring of progress. In the past four years, the definition of outputs (longer term achievements) and output targets (annual component achievements) in the MTPs has become clearer.

In order to encourage both the setting of clearly defined and adequately ambitious output targets and monitoring of the achievement of these targets, *the SC recommends that output target achievement be removed as a PMS indicator and be monitored in the central MTP database, CGMap.*³

Strengthening the research related indicators

The current PMS structure does not correspond clearly with what is expected from Centers with respect to research performance on one hand and institutional performance on the other hand. For instance, *publications* (Element 4) are currently used as a measure of “Potential to perform”; however, they constitute the universal means by which research institutes are judged for their results. In the EPMRs they are evaluated as a significant part of the Center’s research output. *The SC recommends that the structure of the PMS should be changed so that all research related indicators would be in a single component.* A new *Component I: “Research related indicators”* would include: publications indicators (current element 4), outcome indicator (current element 2), impact culture indicators (current element 3); and an indicator for research capacity building to be developed.⁴ In the future, this Component would also include *research performance ratings derived from EPMRs* if such rating can fairly and credibly be established. The other clusters of indicators in the revised PMS structure would be “Institutional indicators” (new Component II); “Financial indicators” (new Component III); and “Stakeholder perceptions” (new Component IV).

In the SC’S view it is not advisable to replace the old output indicator by another based on quantifiable research results. The indicators for publications and capacity building will cover results that all Centers are expected to deliver. Many of the other outputs, for example in the area of new knowledge, cannot be appropriately quantified and vary from Center to Center, but their uptake and use can be documented. Therefore *the SC recommends that the Outcome indicator should be improved by making it based on Centers’ own monitoring of outcomes linked directly to research outputs planned in the MTP, and by making the number of cases to be submitted dependent on Center size.* An improved outcome indicator can a) provide the incentives for Centers to actively monitor the uptake and use of their research and capacity strengthening results by the intended users, and b) make the Centers accountable for demonstrating outcomes that accumulate from their work.⁵ Furthermore, the outcome indicator needs to be more equitable across Centers in terms of what is expected from Centers of different size and volume of research activity. Currently all Centers are asked to report on five outcome cases each year. However, smaller Centers have both less research that can lead to outcomes and smaller budgets to spend on monitoring of outcomes than do larger Centers. In 2009, the SC will request different number of outcome cases to be submitted based on Center size, using the same grouping as that used by the World Bank in its allocation of resources.

³ *CGMap* is a new database that the CGIAR community (and external review teams) can use to observe annual or longer term achievements. For external monitoring this source of information is particularly valuable as it allows a peer team to assess the achievement in the context of the research challenges and the overall Center performance during a period under review.

⁴ One of the misinterpretations observed has derived from the classification of the **impact** indicators as “results” indicators, when in fact they measure the Center’s ability to credibly document impact and steps taken to strengthen impact culture.

⁵ Over the years the properly documented **outcome** cases add up to a history of claimed success that can be evaluated by external reviewers, used for informing donors and stakeholders, and that can form the basis of subsequent *ex post* impact studies. Although Centers cannot be made accountable for all their research leading to an outcome, they can be expected to monitor progress along the plausible impact pathway and document the achievement of outcomes across their research portfolio. In 2008 the SC has worked with the Centers to improve the linkage of outcomes submitted to the PMS with previously planned outputs and to improve the clarity in describing and documenting the outcomes.

Expected performance

The SC recommends that in all the PMS components clarity would be improved in terms of what are good performance targets. Only this way can the Centers improve their performance management and be motivated to fully contribute to the PMS. In the research related indicators, the SC this year included a rationale for each indicator. In the **impact** indicator 3A, benchmarks have already been established. The SC will establish benchmarks and clarity of expected performance also for the publications indicators, the outcome indicator and the proposed research capacity strengthening indicator. In addition, a proposal to smooth out year-wise variability for all indicators by reporting a 3-year moving average each year is being considered as a future methodology.

Although the SC has not been involved in the design and monitoring of institutional and financial indicators and those related to stakeholder perceptions, it feels that the need to improve clarity in what is expected from Centers as best performance is also relevant to such indicators. There are currently 7 indicators related to research performance; 7 indicators for institutional health, including 33 independent sub-indicators for governance and 15 independent sub-indicators for institutional learning; and 4 financial indicators. Currently, indicator 5A and 5C do not represent a score. *As a first step the SC recommends that the sub-indicators for governance and institutional learning (current element 5) be combined into a single composite score with clear achievement targets.*

In conclusion

The SC is confident that the PMS has good potential to be an important component of the System's overall Monitoring and Evaluation. Therefore, the SC will be pleased to continue to work with the Centers and the CGIAR Secretariat to improve and streamline the PMS so that it can fulfil its original expectations. That is to: serve as a tool for decision-making and performance measurement by Centers, donors and the System; demonstrate accountability annually and across time; serve for benchmarking annually and among Centers; and promote resource allocation.

⁶ Each Center's performance on the components of the indicator is measured relative to its overall budget. Also, explicit recognition is given for areas for which impact is more difficult to measure, e.g., in policy-oriented research. Use of established benchmarks of achievement for various components facilitates Centers monitoring their own progress from year to year and de-emphasizes considering performance merely in relation to other Centers' results. Furthermore, for each component of the indicator transparent weightings indicate what is considered good performance. SPIA/SC and Centers have recently collaborated in producing a document that provides strategic guidance for conducting *ex post* impact assessment, where key topics associated with good practice offer guidance to practitioners on PMS indicators 3A and 3B indicators.