

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

SC Secretariat, 20 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.*¹

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.² 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.³ 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.

¹ *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.

² 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.

³ 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 ⁴ 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.

⁴ 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.