

CGIAR

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IAEG – Report on Activities

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IMPACT ASSESSMENT
of the CGIAR

Report on Activities

Mid-Term Meeting of the CGIAR
Beijing, China, May 1999

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IMPACT ASSESSMENT AND EVALUATION GROUP

Report on Activities

1. Composition and Organization

As of January 1999, Prof. Hans Gregersen (USA) of the College of Natural Resources, University of Minnesota, has chaired the IAEG. He succeeded Dr. Jim Peacock (Australia) who served as Chair since the IAEG's inception in 1995 until end 1998. The members of the IAEG are Dr. Cristina David, Philippines, and Dr. Frans Leeuw, Netherlands while the third position is vacant. The IAEG is supported by a Secretariat that operates under the auspices of UNDP/UNOPS but is located at FAO, Rome. Dr. Guido Gryseels is the Executive Secretary of the IAEG. The IAEG Secretariat shares facilities and pools resources with the TAC Secretariat. While originally it was intended to locate the IAEG Secretariat at UNDP Headquarters in New York, following the System Review recommendations it will now remain based in Rome. Currently no other staff is employed by the Secretariat although one support staff will be appointed during 1999. Other professional inputs are provided through the use of consultants. Dr. Peter Matlon, Chief, Food Security and Agriculture Programme/SEED at UNDP provides oversight on behalf of UNDP and the administrative support is provided by Cecile Collas of UNOPS. At FAO, the IAEG Secretariat is attached to the Sustainable Development Department headed by Mr. Henri Carsalade, Assistant Director-General.

2. Activities

2.1 Impact of Research on Integrated Pest Management (IPM)

The IAEG proposes to focus its 1999 impact report to the CGIAR on the theme of integrated pest management (IPM). It would contain the results of a solid analysis of the costs and benefits of CGIAR investments in IPM over the last 10 years. This would hopefully allow for an assessment as to whether and how CGIAR efforts in IPM have been cost-effective. While information provided by the centres and their collaborators will provide the basis for the evaluation, Prof. Hermann Waibel of Hannover University will assist the IAEG in the development of an analytical framework and the conduct of this study. Prof. Waibel is a recognized expert in the field of evaluation of IPM. It is expected that the Study will be completed by September 1999 in time for presentation at ICW99.

2.2 Impact of CGIAR Germplasm Improvement on Food Production

The collaborative research study to evaluate the aggregate productivity impact of CGIAR germplasm improvement programmes (GIP) is now well under way under the leadership of Prof. Robert Evenson of Yale University. The study involves all the crop-related centres namely IRRI, CIMMYT, CIAT, CIP, ICRISAT, WARDA, IITA, and ICARDA and covers all major CGIAR mandate crops, i.e., rice, wheat, maize, cassava, potato, groundnut, sorghum, pearl millet, barley, lentil, and chickpea. These crops account for 90% of the area planted with food crops in developing countries. The study will identify all the new varieties released since the start of the centre work, their pedigrees, area planted and yield advantage. Together with the use of other economic data, the study will quantify the CGIAR's contributions to productivity growth directly through the release of cultivars developed at the centres and indirectly through the use of its own crosses and cultivars as parental lines, facilitating international exchange of germplasm materials, screening, and testing of advanced breeding materials, and contribution to capacity building in plant breeding. In addition to, and together with, national collaborators, this study will also measure the overall impact of the CGIAR's GIP on the agricultural productivity growth of the three largest developing countries - China, India, and Brazil.

The preliminary results of the centres' and country collaborators' studies will be discussed at a workshop scheduled on 7-8 August 1999 in Nashville, Tennessee. The workshop is held in

association with the annual meetings of the American Agricultural Economics Association. Since a number of the centre studies started later and thus require more time to complete, only a preliminary integrative analysis will be presented during ICW99 in Washington. The final and complete report will be available by MTM 2000. For wider dissemination, arrangements have been made to present selected studies and the integrative analysis during the meetings of the American Association of Advanced Sciences in Washington, D.C. in February and the International Agricultural Economic Association in Berlin in August 2000. Financial support is being explored to present the findings at an international conference in which NARS, donors, and developing country policymakers would participate together with the participatory centres and their collaborators.

2.3 Impact of Agricultural Research on Poverty Reduction

Following discussions at ICW 98 between IAEG, members of the CGIAR and IFPRI, a revised proposal of the study on *The Impact of Agricultural Research on Poverty Reduction* was developed by IFPRI, which serves as convenor on behalf of IAEG. Drs. Peter Hazell and Lawrence Haddad of IFPRI will manage this study. It will involve eight CGIAR Centres and over 40 national partners. An Advisory Committee (Michael Lipton, Alain de Janvry, Jere Behrman and the Chair of IAEG) and a panel of external impact assessment evaluation experts assist in the research design and in providing a peer review process for the completed studies. The study will estimate the links between research productivity and poverty reduction and so doing will develop a set of impact assessment methodologies. The study is organized in two phases. Phase I will involve: a literature review of the impacts of agricultural technology on the poor; a review of methods for assessing empowerment and the extent to which such measures can be linked to the adoption of new technologies; and a design workshop to finalize the selection and research design for 14 country case studies. Phase II will involve: execution of the 14 country case studies; preparation of three concept papers on aspects of the design of a monitoring system to enable the CGIAR to better track its future impact on the poor; and the organization of an international conference at which the results of the study will be presented and discussed together with proposals for a future monitoring system for the CGIAR. One of the concept papers will synthesize the results of the case studies, both in terms of their empirical findings and the lessons learnt about impact assessment methods. A second paper will evaluate the use of spatial (GIS) methods for targeting and assessing the productivity and poverty impacts of agricultural research. In the third paper the findings of the study will be integrated into a set of design principles for a monitoring system that could be adopted by the CGIAR.

The study started in January 1999 and will be completed by June 2001. Phase I will be completed by April 1999. A design workshop on 12-14 May 1999 in Washington will be the start of Phase II. The total cost of the project is approximately US\$ 1.94 million over a 2.5-year period. Thanks to generous support from the Governments of The Netherlands, Denmark and India, and of IFAD, the IAEG has been able to initiate this project. However, available funding still falls considerably short of the requirements for Phase II.

This study is conducted in close collaboration with CIAT's efforts in organizing an international conference on the impact of agricultural research on poverty alleviation in September 1999. Representatives of the IAEG and of IFPRI are on the steering committee of CIAT's workshop and IFPRI will produce a major paper resulting from Phase I of the IAEG study that will be presented at the CIAT workshop. The results of Phase I would also be presented at ICW99.

2.4 Impact of Strengthening Scientific Capacity and Partnerships

The IAEG is initiating a study on the CGIAR's impact on scientific capacity of NARS. This assessment will be conducted in close collaboration with the NARS Secretariat and ISNAR. As an initial step, the IAEG will develop and update data available on the accomplishments of the CGIAR in the area of training since the 1984 TAC training study. The IAEG will also conduct a study including citation analysis on the impact of information developed by the CGIAR.

In close collaboration with the NARS Secretariat, the IAEG will also conduct an evaluation of the effectiveness and the impact of collaborative research partnerships between the CGIAR and NARS. Two aspects would be covered:

- (a) A review of recent efforts to evaluate research partnerships and of characterizing cases of successful partnerships. This will entail going outside the agricultural sector, to learn from experiences and methodologies of other sectors.
- (b) Identification of existing CGIAR/NARS research partnerships, identify modes of operation, and studying the various products and impacts of such partnerships including the capacity building aspects.

Such an approach will allow the IAEG and NARS Secretariat to assess and evaluate the impact of research partnerships and of collaborative ventures. Information will also be collected on transaction costs of collaboration and the theories of collaboration and partnering. The study will hopefully lead to conclusions regarding the cost effectiveness of research partnerships, and impact and synergies of research partnerships. Finally, the study will also look into the opportunities provided through recent advances in information technology for the effectiveness of partnerships through distance learning, net meetings, etc. The study is expected to be completed by ICW 2000. It will be linked with an ongoing strategic study of TAC and the CGIAR Secretariat on how to better manage CGIAR partnerships; efforts will be made to avoid overlap.

2.5 Impact on the Environment

The IAEG will initiate a study on the impact of the CGIAR on the environment, following its support to the workshop organized by ICRAF on *Assessing the Impact of Research in Natural Resources Management* in April 1998. The IAEG will, however, not only look at the impact of NRM research, but evaluate the impact of all CGIAR research on the environment. A concept note has already been prepared. As a first step, a comprehensive state of the art paper will be commissioned which will identify the various CGIAR outputs that may have had major impacts (positive or negative) on the environment, in terms of land, water and air quality, human health and biodiversity. These outputs range from improved crop varieties (plant, fish and animal breeds); water, forestry and fishery resource management; policy and institutional analysis, germplasm conservation activities, and so forth. That review of the literature will highlight not only the findings on environmental impact, but also the conceptual and measurement issues related to assessments of impacts on the environment. It should also propose a strategy for the IAEG's activity with respect to assessing environmental impact of the various CGIAR endeavours.

The study will include an analysis and documentation of information on the additional land area that would be required to produce the current levels of outputs of CGIAR mandate crops without the input of the CGIAR and its partners. Initial results will be available by ICW99. It should also be noted that the current collaborative research on germplasm improvement, discussed in Section 2.2, will generate global information about the nature of pest resistance, cropping period, and genetic diversity of modern crop varieties in developing countries worldwide, their adoption rates, and impacts of germplasm exchange and international testing. This will be invaluable in subsequent IAEG initiatives on evaluating the impact of the CGIAR's technologies and activities on water quality and human health, land degradation, and biodiversity.

2.6 Other IAEG Activities

2.6.1 CGIAR Logframe and Impact Assessment

The IAEG organized jointly with TAC and the CGIAR Secretariat a workshop on the implementation of the CGIAR logframe. It was held at FAO, Rome on 19-20 March 1999. The progress of four centres in implementing a logframe format for programme planning and in reviewing their experiences regarding the congruence with the CGIAR logframe was discussed. A report on this workshop is available at the IAEG and TAC Secretariats. A further workshop will be organized at the end of August 1999 which will provide a more comprehensive forum for discussion of issues related to the implementation of the CGIAR logframe. The IAEG will prepare a paper on using logframes for impact assessment as an input to that meeting.

2.6.2 Report on Adoption of CGIAR Innovations

The IAEG Study on factors affecting the adoption of CGIAR innovations, which was conducted in close collaboration with eight CGIAR Centres and their partners, with support from consultants from the University of Arizona, has been edited following the discussions on the report at ICW98. The report is currently in print and will be available for distribution by the end of May 1999.

2.6.3 Workshop on Impact Assessment of Agricultural Research in Eastern and Central Africa

The IAEG is helping to organize the ASARECA/ECART/CTA workshop on impact assessment of agricultural research in eastern and central Africa, to be held in Entebbe, Uganda, from 15-19 November 1999. The IAEG will give a keynote address and present a state of the art paper on impact assessment of agricultural research. This paper will also provide a background for the organization of an IAEG workshop on best practices of impact assessment in agricultural research to be held in March 2000 at FAO, Rome.

2.6.4 Website

The IAEG Secretariat is in the process of developing a website on which information on IAEG activities, and on impact resulting from CGIAR work will be posted.

2.6.5 Data Sharing and Publications Policy

The IAEG has prepared a policy for data sharing and publications, which has been circulated in draft form to Centre Directors. Their comments have been incorporated and a final draft has been circulated on a no-objection basis.

3. Original and Evolving Mandate of the IAEG

The IAEG was established to:

- provide members with timely, objective and credible information on the impacts of past CGIAR outputs in terms of the CGIAR goals;
- provide support to and complement the centres in their ex post impact assessment activities.

These functions are still as relevant as they were when the IAEG was established. However, it is becoming increasingly evident - as most recently emphasized by the System Review Report - that there is a third important function for ex post evaluation, namely, to help create the benefits that can arise when it is brought together in a synergistic fashion with ex ante assessment in the overall planning and evaluation functions of TAC and the CGIAR Secretariat.

The need for objectivity, credibility, and transparency dictated the original idea of creating a group of evaluation experts independent of the centres, the CGIAR Secretariat and TAC. The first group carries out the activities that result in impacts, the second is directly involved in the allocation and management of resources of the System, and the third (TAC) is responsible for policy advice, centre programme reviews and recommendations, and other planning activities. The logical reasoning at the time of establishment was that the group to evaluate the impacts of the System's activities should have an arm's length relationship with those entities that plan and manage the System's resource uses.

The original concern for credibility through independence still is a strong consideration. However, since the IAEG was originally established, it has become evident that there is need for closer association between all the different assessment and evaluation activities in the System. There is need for linkages with TAC and the CGIAR Secretariat to realize the synergies that are possible. At the same time, independence is essential in functions to assure the level of credibility required by the Group and higher-level decision-makers in the organizations that support the work of the CGIAR. These issues are further explored in the joint paper of TAC and the IAEG on their future relationship, prepared for MTM99.

4. Evolving Strategy of the IAEG

The process of reassessment and preparation of a new strategic plan is not complete, since widespread input from the centres, the Group and research partners still needs to be incorporated in the strategic plan being developed. The IAEG was initially conceived and established to provide support to the centres in their impact assessment work and, of course, to meet the information needs of the members of the Group. Both these aims will play central roles in the forthcoming IAEG strategic plan.

Furthermore, decisions still remain regarding the linkages between the IAEG and TAC. These decisions are being made and their implementation will take place shortly. Once that has happened, the IAEG strategic plan for the future can be completed.

We intend to operate on two complementary tracks as we move ahead. One is the short-term track, where the aim is to generate more immediate results for the Group. The other is a longer-term track that recognizes that it will take considerable time to develop a fully operational, coordinated programme of monitoring, evaluation and impact assessment across the System. Such a programme will need to meet the needs of the Group for accountability purposes, the TAC in its planning and evaluation functions, the CGIAR Secretariat in its resource mobilization, information dissemination and monitoring functions, and the centres in their planning and accountability functions. The aim of the longer-term track is to eventually have in place a state of the arts evaluation mechanism in the System.

The Shorter-term Track: Providing Indications of Impacts in the Short Term

The IAEG is involved in a number of on-going activities related to ex post impact evaluation, in addition to its already completed adoption study, which explored some of the elements in the impact pathways associated with CGIAR research. These have been discussed in Section 2 of this report.

The Longer-term Track: Building a State of the Arts Impact Assessment Capacity in the CGIAR

Considerable time will be needed to build adequate capacity and the development of an impact assessment culture in the System. Most centres are doing impact assessments now, and some are doing state of the arts work and leading the way in methodology development. However, there still is a longer term need to: (1) develop improved methodologies for many types of impacts, e.g., in assessment of the impacts of natural resources management research, social science research and institutional development; (2) develop an impact culture in all the components of the System; and (3) install the monitoring functions that are needed to establish base line data and develop the “with and without” analysis capacity needed for effective impact assessments.

Most of the centres have already moved ahead with their plans to develop impact assessment capacity and cultures. Different centres are at different stages in the process. Further, they are all in need of developing effective mechanisms to use the logframe process in their impact assessment activities. In fact, implementation of the logframe process should be a positive step in this process, since it is well suited as an aid in impact assessment - both ex ante and ex post. The IAEG will keep working on this longer-term strategy, thereby ensuring a closer integration of evaluation and priority setting activities of TAC.

5. Annual Impacts Report for ICW99

The IAEG proposes that the Annual Impacts Report to be presented at ICW99 will be different in format to that presented at ICW98. This report provided a compilation of centre-by-centre accumulated impacts from many years of centre work and not just work completed in the course of 1998. Thus, a similar presentation in 1999 would have to include many of the same innovations reported on in 1998.

The IAEG, therefore, suggests focusing the 1999 CGIAR Annual Impacts Report on the theme of Integrated Pest Management and the results of the IPM impact study discussed in Section 2.1. The IAEG would welcome any views the Members of the Group have on this proposal.

At ICW99, the IAEG will also present tentative results of three other ongoing studies: the preliminary analysis of the impact of the germplasm improvement programmes (see Section 2.2); the findings of phase one of assessment of poverty impacts (see Section 2.3); and the outcome of the environmental impact work (see Section 2.5).