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Rethinking Impact:
Understanding the complexity of poverty and change
Key Issues Discussed at the Workshop

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**FUTURE
HARVEST**

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Rethinking Impact: Understanding the complexity of poverty and change Key Issues Discussed at the Workshop

Patti Kristjanson, Nina Lilja and Jamie Watts

This paper presents six key issues from the **Rethinking Impact: Understanding the complexity of poverty and change Workshop (RIW)** held in Cali, Colombia, March 26–28, 2008. The workshop discussed how agricultural and natural-resources research can be more effective in generating solutions for poverty alleviation and improving gender, social inclusion and equity, and how such research can be brought into the mainstream and how its impact can be assessed.¹ A diverse group of over 60 participants (42% women) from 33 organizations (54% CGIAR² and 46% non-CGIAR) attended the meeting. In this paper, we do not purport to represent a consensus of opinion among this diverse group, but rather our perspectives as the meeting organizers. These ‘take home messages’ were informed by an active dialogue before, during and after the meeting. We are associated most closely with the CGIAR and much of the discussion at the meeting was focused on the CGIAR. Therefore, the key issues are primarily oriented toward the CGIAR, but they would certainly be relevant to other organizations with similar goals and challenges.

The following six issues are discussed in this paper.

Issue 1: We know that the causes of poverty, gender and social inequity and exclusion are multi-dimensional and complex. We don’t understand enough about this complexity and the implications for how best to target and manage research and development (R&D) efforts to more effectively address these complex issues.

Issue 2: A lot of our ‘on the ground’ experience shows that distinctions between research and development are breaking down. Rather than aiming to isolate its research from development, the comparative advantage of CGIAR science lies in conducting use-oriented research that deliberately aims to link knowledge with action.

Issue 3: Researchers must play an important role in helping to link academia, farmers, policy-makers, civil society and market forces to create and share knowledge as the basis for effective and sustainable action. Research organizations must recognize the legitimacy and challenges of such boundary-spanning work, reward it, and dedicate sufficient time and resources to it.

¹ The meeting was organized and sponsored by the CGIAR Systemwide Programme on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (PRGA Program), the International Livestock Research Institute (ILRI) Innovation Works Programme and the Institutional Learning and Change (ILAC) Initiative.

² Consultative Group on International Agricultural Research.

Issue 4: Traditional economic impact-assessment methods (i.e. rate-of-return studies) are not well suited for evaluating many of the complex activities and roles described above. An assessment of CGIAR Financial Plans and the Workshop papers indicates that the CGIAR's work is no longer concentrated around traditional crop-improvement research and that a wide range of methods is already in use to assess the diverse outcomes and impacts arising from the CGIAR investment portfolio. Thus, there is an urgent need for CGIAR management to acknowledge the legitimacy of this diversity and the broad range of impact-assessment methods needed to evaluate it.

Issue 5: New capacities are needed if we are to adopt new approaches to research for poverty reduction and associated impact assessment. Capacities include technical skills, and skills in other areas such as collaborative problem-solving, facilitation, and systems thinking. Social-science staffing in research centers needs to be adequate (political scientists, sociologists, anthropologists, human ecologists, economists, psychologists and possibly others). Policies, procedures and accountability mechanisms need to be adjusted and organizational learning capacity increased. However, capacity development ultimately depends on the commitment of top-level leaders.

Issue 6: Learning organizations that are effective at innovation are also likely to be effective in engaging end-users. We need to thoughtfully assess who to involve and how, using participatory action-research, planning and priority-setting processes, evaluation and other mechanisms in order to engage farmers and the poor, or the civil society organizations that represent them, in meaningful ways at appropriate points throughout the research process.

Discussion

The six key issues are described in more detail in this section. We make reference throughout to papers presented at the RIW. In response to an open call, 98 abstracts were received. The selection committee invited 35 authors to present their papers at the workshop. In addition to the open call, seven leading thinkers were invited to prepare and present keynote papers.³

Issue 1: We know that the causes of poverty, gender and social inequity and exclusion are multi-dimensional and complex. We don't understand enough about this complexity and the implications for how best to target and manage research and development efforts to more effectively address these complex issues.

One of the keynote speakers, Patricia Rogers from Royal Melbourne Institute of Technology, discussed the conceptual differences between simple and complicated or complex interventions (summarized in Table 1).⁴ She described this difference as being similar to following a recipe in cooking (with clear, well-tested steps leading to standard products and

³ All papers are available on the workshop web-site www.prgaprogram/riw.

⁴ Rogers P, 2008. Four key tasks in impact assessment of complex interventions. RIW Keynote presentation.

certain results) compared to raising a child (where each situation is unique, outcomes are uncertain, expertise and guidelines can help but do not ensure success).

Table 1. Differences between simple and complex interventions

Simple intervention	Complicated or complex intervention
Single causal strand Intervention is sufficient to produce impacts	Multiple simultaneous causal strands required to produce impacts
Universal mechanism Intervention is necessary to produce the impacts	Different causal mechanisms operating in different contexts
Linear causality, proportional impact	Recursive, with feedback loops, leading to disproportionate impact at critical levels
Pre-identified outcomes	Emergent outcomes

Recent work led by the International Food Policy Research Institute (IFPRI) that assessed the impacts of research on poverty confirmed that the adoption of technology is affected by three major factors—vulnerability, assets and institutions, even where the technology was likely to improve productivity gains.⁵ Examples of just a few of the factors inhibiting or encouraging adoption by poor farmers illustrate the diversity and complexity that need to be understood by researchers and managed for in the research process. These include security issues (especially for women); land ownership or control over water; the perceived risk of a catastrophic loss of production; the effect of adoption of the technology on the farmer’s relationship with his or her neighbors; government policies; trust and power relationships. However, even recognition of the diverse range of issues affecting adoption of technologies presents a relatively simple picture when considering the broader range of non-technology (and non-agricultural) factors that affect well-being and poverty alleviation.

Several of the RIW papers also demonstrated the diversity and complexity of factors related to achieving change. Biggs and Gurung⁶ presented a case study from Nepal, where positive but largely *unanticipated* changes took place. They investigated the contradiction between this reality and the implicit assumptions of change that underlie managerial approaches to development that rely heavily on tools such as logical frameworks, management-by-results techniques and economic rate-of-return methodologies. Their experiences also challenged the notion that ‘good’ and ‘best’ practices can be successfully transferred and scaled up.

5 Meinzen-Dick RM; Haddad AL; Hazell P, 2004. *Science and Poverty: An interdisciplinary assessment of the impact of agricultural research*. IFPRI, Washington, DC.

6 Biggs S; Gurung B, 2008. Innovation as relational practice. RIW selected paper.

Prasad *et al.*⁷ documented a series of changes at farm, household, market and other levels associated with the change to hybrid maize in India. They found that farmers were making changes in their own systems to adapt to new technologies, but also modifying technologies to adapt them to their systems. Formation and actions by networks of stakeholders/actors played an important role. This experience threw into doubt the reliability of efforts to establish a causal link between costs, benefits and changes, even at the level of adoption.

From the experiences of Oxfam Hong Kong, Kurian Thomas⁸ concluded that development is essentially a complex, non-linear process, with high levels of uncertainty and unpredictability that require a flexible and adaptive approach that builds on the contributions of different development actors.

When we accept the complexity of interventions to address poverty, we then need to re-assess institutional planning, monitoring and evaluation mechanisms to ensure that they stimulate dynamic research processes that serve to co-create knowledge by different actors. Developing dynamic planning, monitoring and evaluation processes would take some careful thought, but an example of how impact assessment would vary depending upon the complexity of the intervention is given in Table 2.

Table 2. Impact assessment in simple, complicated and complex interventions⁹

	Simple	Complicated	Complex
Defining impact	Likely to be agreed	Likely to differ depending upon perspective	Likely to be emergent
Metrics	Standardized measures possible	Evidence needed about multiple components	Metrics emerge as definitions of impact emerge
Counter-factual	Clear counter-factual likely	Non-linear causality	Unique, highly contingent causality
Replication	Relatively easily	When similar conditions can be achieved	Site-specific adaptation needed

Issue 2: A lot of our ‘on the ground’ experience shows that distinctions between research and development are breaking down. Rather than aiming to isolate its research from

7 Prasad VL; Gurava Reddy K; Bezkorowajnyj PG, 2008. Mapping of processes associated with the change: Adoption of hybrid maize in Nalgonda district, Andhra Pradesh, India. RIW selected paper.

8 Thomas K, 2008. Rights and responsible well-being dimensions of development: Capturing change and impact. RIW selected paper.

9 Rogers P, 2008. Four key tasks in impact assessment of complex interventions. RIW Keynote paper.

development, the comparative advantage of CGIAR science lies in conducting use-oriented research that deliberately aims to link knowledge with action.

There is a widespread perception that the CGIAR aims to strengthen the distinction between research and development (and keep scientists out of the ‘development business’). This goes counter to the field experiences presented by many participants at the RIW. They found no clear distinction between research and development, as researchers found themselves having to play multiple roles. As William Clark of Harvard suggested in his presentation at the CGIAR AGM in Beijing in December 2007,¹⁰ the linear research-to-development continuum needs to be replaced. He further suggested that the comparative advantage of research organizations, such as the CGIAR, lies in pursuing ‘use-inspired basic research’ (see Fig. 1) and many RIW participants concurred. Use-inspired basic research bridges pure basic research and applied R&D. It is informed by both basic research and development experience.

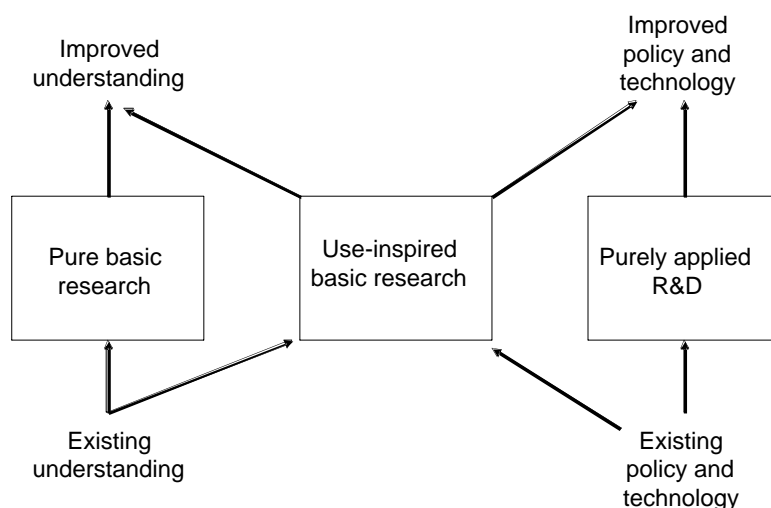


Figure 1: Knowledge systems linking research with action (after Stokes, 1997).

The concept was further developed by Nancy Dickson¹¹ in her keynote talk at the RIW, in which she presented five major challenges to linking knowledge with action:

1. How can we better inform research priorities through dialogues between decision-makers¹² and scientists?
2. How can knowledge from scientific investigation, tradition and practical experience be better integrated into research?
3. What sort of boundary work can help bridge knowledge and action?

¹⁰ http://ictkm.cgiar.org/archives/KIARD_session_report.pdf.

¹¹ Dickson N, 2008. Knowledge systems for sustainable development: The effective use of knowledge to support decision-making. RIW Keynote presentation.

¹² Here ‘decision-maker’ is broadly defined as anyone who might use knowledge to make decisions, including farmers, policy-makers and others.

4. How can we design adaptive systems so that the experimental character of efforts to link knowledge with action can be more meaningfully evaluated?
5. How can governance be forged and managed in a way that responsibly and accountably guides the choice of which problems are addressed, which knowledge is used, and which decision-makers are supported through science-based efforts?¹³

Other papers presented at the workshop described use-inspired research already going on in the CGIAR. Nyangaga,¹⁴ for example, described the multiple roles and strategies undertaken by the International Livestock Research Institute (ILRI) and partner researchers when analysis of impact pathways demonstrated the myriad issues affecting the uptake of research outputs and the ability of these to contribute to better outcomes. For example, researchers developed multiple strategies aimed at influencing policy processes, and empowered and motivated groups of farmers through capacity-building activities. Mowo¹⁵ reported how researchers identified and used entry points (to address the most pressing problems) and linked technologies (crossing the boundaries of disciplines and types of interventions) to engage farmers in more comprehensive natural-resources management. Raitzer¹⁶ reported on the Center for International Forestry Research's (CIFOR) role in catalyzing an international coalition of civil society advocates regarding clearing of natural forest for Indonesian pulp production. This advocacy coalition convinced foreign pulp buyers and investors to place pressure on the major pulp producers for more sustainable practices, and led to policy changes supporting more sustainable use of forests. Several other papers reported on how the research process was applied as a means of engaging farmers, researchers and others in collaborative problem identification and solution development.¹⁷

Issue 3: Researchers must play an important role in helping to link academia, farmers, policy-makers, civil society and market forces to create and share knowledge as the basis for effective and sustainable action. Research organizations must recognize the legitimacy and challenges of such boundary-spanning work, reward it, and dedicate sufficient time and resources to it.

13 'Linking Knowledge with Action for Sustainable Development,' Arthur M. Sackler Colloquia of the National Academy of Sciences, organized by William Clark, Pamela Matson and Nancy Dickson, April 3–4, 2008, National Academies of Sciences, Washington, DC. www.nasonline.org/SACKLER_sustainable_development.

14 Nyangaga J; Smutylo T; Romney D, 2008. Research beyond borders: Five cases of International Livestock Research Institute (ILRI) research outputs contributing to outcomes. RIW selected paper.

15 Opondo C; Mowo J; Tabiu J; Nyaki A; Mazengia W, 2008. Institutional innovations for enhancing impact of research in Eastern Africa Highlands. RIW selected paper.

16 Raitzer D, 2008. Assessing the impact of CIFOR's influence on policy and practice in the pulp and paper sector. RIW selected paper.

17 E.g. Vandeplass I; Vanlauwe B; Sagwa AM; Asimba JA; Merckx R; Deckers J, 2008. Bridging the gap between farmers and researchers through collaborative experimentation: Cost and labor reduction in soybean production in South-Nyanza, Kenya. RIW selected paper.

Nancy Dickson's¹⁸ keynote presentation described how boundary-spanning work takes place at the interface of knowledge and action, and thus is increasingly considered an important role for research that aims to effect policy and institutional changes that contribute to sustainable poverty reduction. A boundary organization (and boundary work) promotes the sharing of knowledge between organizations that generally inhabit different spheres and have limited means and motivations to share knowledge directly with each other (Fig. 2).¹⁹

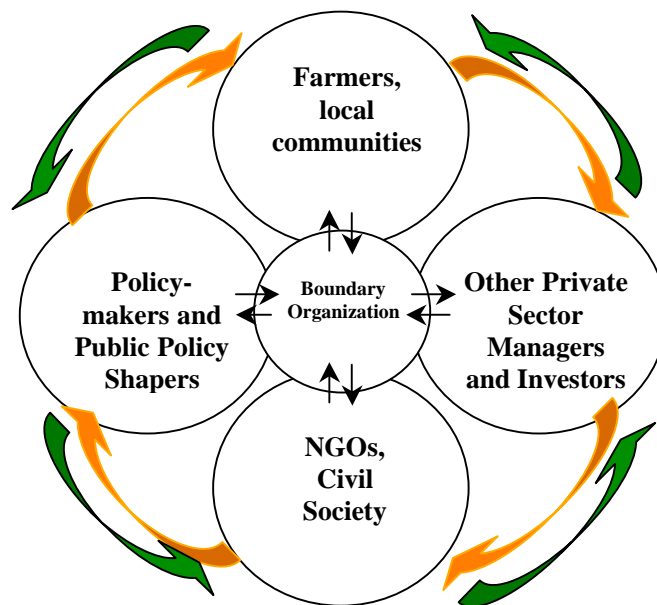


Figure 2: Spanning boundaries.

Boundary organizations treat boundary management seriously, recognizing that it is difficult and time-consuming; they invest in communication, translation and mediation of knowledge. Boundary organizations support ‘safe spaces,’ where politically sensitive questions and experiments can be pursued and innovative scientists are protected. Evaluation is practised not so much as an accounting mechanism, but rather as a means of learning and improving the contribution of knowledge to action—a point stressed in several RIW presentations. Boundary organizations recognize that it is difficult to attribute ultimate impacts (such as poverty reduction) to a particular program or project, because all actors make important contributions, but focus instead on strategic goal- and priority-setting for measurable outcomes.

18 Dickson N, 2008. Knowledge systems for sustainable development: The effective use of knowledge to support decision-making. RIW Keynote presentation.

19 Clark *et al.*, 2006. External Review of Alternatives to Slash and Burn. CGIAR Science Council, Rome.

Many of the experiences presented at the workshop reflected how CGIAR researchers are already playing boundary-spanning roles effectively in the challenge of delivering on the CGIAR mandate to apply knowledge for poverty alleviation, food security and environmental protection. Salahuddin²⁰ reported on the Poverty Elimination Through Rice Research Assistance (PETRRA) project in Bangladesh. The project partnership included a CGIAR Center, a development agency, local NARS and NGOs. The study gives some practical examples of establishing a continuum in the research-to-development pathway. The study concludes that “choosing partners that were able to respond with a long-term organizational commitment towards pro-poor agricultural development and the ability of each organization to locate the project component into the wider context of their own organizational program were important for success.”

Issue 4: Traditional economic impact-assessment methods (i.e. rate-of-return studies) are not well suited for evaluating many of the complex activities and roles described above. An assessment of CGIAR Financial Plans and the Workshop papers indicates that the CGIAR’s work is no longer concentrated around traditional crop-improvement research and that a wide range of methods is already in use to assess the diverse outcomes and impacts arising from the CGIAR investment portfolio. Thus, there is an urgent need for CGIAR management to acknowledge the legitimacy of this diversity and the broad range of impact assessment methods needed to evaluate it.

The CGIAR has historically used rate-of-return studies to assess impacts and these have become the ‘gold standard’ against which impact assessment in the CGIAR is judged. Such traditional neo-classical impact-assessment approaches are valid and necessary in assessing returns to commodity research, and these methods have been well discussed and documented in the literature.²¹ However, they are not sufficient for understanding (in a broader sense) how change happens and who benefits.

The draft CGIAR impact-assessment guidelines focus largely on this method, while at the same time recognizing its limitations for evaluating such ‘non-research’ services as policy interventions, germplasm conservation, information and capacity-building.²² As argued in earlier points above, our experiences indicate that effective research that is linked to problem-solving does not make such distinctions in reality.

Furthermore, experience from research linking knowledge to action, innovation systems and others suggests that assessing impact may be inappropriate in partnership scenarios.

Promising alternative methods presented at the RIW included Participatory Impact Pathways

20 Salahuddin A; Magor NP, 2008 Research to development process: PETRRA experience. RIW selected paper.

21 See, for example, Raitzer D; Ryan JG, 2008. State of the art in impact assessment of policy-oriented international agricultural research. *Evidence & Policy* 4(1): 5–30.

22 Walker TS; Maredia M; Kelley T; La Rovere R; Templeton D; Thiele G; Douthwaite B, 2008 (forthcoming). *Strategic Guidelines for Ex-Post Impact Assessment of Agricultural Research*. Prepared for the Standing Panel on Impact Assessment, CIGAR Science Council. (Draft presented December 24, 2007.)

Analysis that is being applied in several Challenge Programs and the UK Department for International Development's (DFID) new climate change program,²³ and Outcome Mapping being used in five ILRI projects. During the meeting, we were informed of debates about impact-assessment methodologies taking place outside of the CGIAR in which many senior evaluators are arguing for a wide range of methodologies and greater flexibility.

Rate-of-return studies are fully institutionalized as the standard for CGIAR impact assessment and this exerts a strong influence on most CGIAR planning, monitoring and evaluation. However, a recent analysis of the CGIAR financial reports concluded that at least 75% of the CGIAR's current budget is already directed to the types of activities for which rate-of-return studies are not best suited.²⁴ The risk inherent in this situation is that the application of rate-of-return studies to judge the impact of activities to which the methodology is not suited will result in inappropriate assessments of the performance of such activities and possibly lead to efforts to drive such work out of the CGIAR portfolio rather than promoting more of it.

Experiences presented at the RIW reflected the application of a diverse range of approaches and methods to address an equally broad range of impacts—those most frequently reported by authors were participatory research, innovation theory, institutional learning or sustainable livelihoods frameworks. All authors reported using more than one method. Nearly half (47%) of the authors reported using some type of participatory monitoring and evaluation methods or participatory rural appraisal tools. About a third (30%) of the authors reported having conducted quantitative surveys and analysis, and nearly a quarter of studies (23%) used case-study methodology. Other assessment methods reported included institutional or innovation histories, most significant change, social network or value chain analysis, benefit–cost analysis, and analysis of geographic data.

The methods were used to assess a broad range of impacts, and most studies assessed impacts within more than one domain. The most commonly assessed impact was changes in practice, attitudes, knowledge and/or skills, followed by technology adoption and production changes or institutional changes. A third (33%) of the authors assessed income and livelihood outcomes and/or changes in well-being. Moderately frequently reported impacts were changes in empowerment and equity (27%), policy changes/policy influence (17%), changes in access to, control over or ownership of resources (10%), and changes in social networks or

23 Douthwaite B; Alvarez S; Thiele G; Mackay R; Cordoba D; Tehelen K, 2008. Participatory Impact Pathways Analysis: A practical method for project planning and evaluation. RIW selected paper.

24 CGIAR Secretariat, 2007. Investment Proposals and Financing of the 2008 CGIAR Research Agenda (Draft). www.cgiar.org/pdf/agm07/agm07_draft_2008_finplan.pdf. Table 2 shows that only 24% of the proposals are in 'genetic improvement' for which rate-of-return studies, as outlined by Walker *et al.* (forthcoming, *loc. cit.*) are most appropriate. The 75% figure refers to the investment proposals of the CGIAR Centers only (US\$ 481 million), and does not include the US\$ 38 million going to the Challenge Programs (CP). It would seem likely that traditional economic impact-assessment approaches apply less to the work of the CPs than to the work of the Centers, and thus the 75% may underestimate the extent to which the entire portfolio of the CGIAR is 'non-traditional.'

relationships (10%). Some might argue that these are outcomes rather than impacts, but the list demonstrates that different people have different definitions of impact. Researchers working in the field with partners may well define impacts broadly in a way that does not conform to the current definition in use in the CGIAR, but rather in a way that is realistic and meaningful to them, their partners and beneficiaries.

Issue 5: New capacities are needed if we are to adopt new approaches to research for poverty reduction and associated impact assessment. Capacities include technical skills, and skills in other areas such as collaborative problem-solving, facilitation, and systems thinking. Social-science staffing in research centers needs to be adequate (political scientists, sociologists, anthropologists, human ecologists, economists, psychologists and possibly others). Policies, procedures and accountability mechanisms need to be adjusted and organizational learning capacity increased. However, capacity development ultimately depends on the commitment of top-level leaders.

Addressing poverty requires greater social-science capacity (beyond economics to include political scientists, sociologists, anthropologists, human ecologists, etc.) and greater capacity to work collaboratively. Thus, we firmly support similar arguments made recently in the note from the Farmer First Revisited conference sent to the CGIAR independent review team.²⁵ Institutional support to learning processes are key, and require a broadening of impact-assessment approaches beyond the traditional, mostly quantitative and economics-based *ex-post* assessments.

Technical capacity entails changing organizational procedures, as well as building individual skills. Individuals can take their skills with them when they leave the organization, but new procedures and systems become integral to how an organization operates. The institutionalization of new research approaches cannot be unlinked from the learning capacity of an organization and the capacity for systems thinking (sustainable livelihoods and innovation systems are examples of where systems concepts are relevant to the work of the CGIAR).

Accountability mechanisms must be established to encourage and reinforce new behaviors and practices, which ultimately requires building responsibility for new research approaches and impact-assessment methods into job descriptions, work-plans and performance assessments. Organizational culture deals with the informal norms and embedded attitudes of an organization. The commitment of top-level leadership is required to actively support a new idea or approach, commit staff time and resources, and institute supportive policies and procedures. Without this commitment other efforts, such as skill-building, will likely have limited affect.

25 Scoones I; Thompson J; Chambers R, 2008. *Farmer First Revisited: Some Reflections on the Future of the CGIAR*. An Informal Note to the CGIAR Independent Review Team.
http://www.cgiar.org/changemanagement/pdf/farmer_first_revisited.pdf.

Concerns were expressed at the RIW that, in a general climate of increasing pressure to compete for grant funding (among other factors), some elements of the performance measurement system and medium-term planning process may be sending mixed messages about research for poverty impact (i.e. more demand for impact yet less recognition of multiple roles of researchers in the research process). This is likely to drive research away from the types of approaches we have argued are needed to address poverty, social exclusion and inequity. On a bright and hopeful note, Flavio Avila²⁶ presented a keynote paper describing the experiences from Brazil's agricultural research institute (Embrapa) that showed how the definition of impact and methods for its assessment seem to be broadening over time and how impact assessment is clearly linked to planning and other assessment mechanisms.

Issue 6: Learning organizations that are effective at innovation are also likely to be effective in engaging end-users. We need to thoughtfully assess who to involve and how, using participatory action-research, planning and priority-setting processes, evaluation and other mechanisms in order to engage farmers and the poor, or the civil society organizations that represent them, in meaningful ways at appropriate points throughout the research process.

This issue of inadequate meaningful engagement of end-users is possibly at the root of many other issues discussed at the RIW. This is not a new issue and has indeed been recognized in the CGIAR change process as a need to be addressed by the Partnerships Sub-committee. Many of the RIW papers (47%) used participatory impact-assessment methods and it is likely that most of the research presented used participatory approaches. This remains an important entry point for engaging farmers and users.

However, many RIW participants felt that the issue of farmer involvement in research has evolved beyond participatory action-research or participatory evaluation to include meaningful engagement in different ways at different 'levels' of the CGIAR System. For example, governance of the CGIAR does not give farmers, the poor or civil society organizations (CSOs) that represent them an effective voice in the System or an effective role in decision-making. An informal review of information related to the CGIAR Civil Society Organizations Committee, for example, leaves the impression that the committee is neither staffed nor resourced, has no internal leadership and little authority or responsibility.

Several participants expressed concern about an absence of requirements for *ex-ante* assessment for establishing priorities for research funding. While too much effort is spent on planning and bureaucracy, too little space and willingness exist for open discourse. As a result, resources may not be directed toward research with the greatest impact potential.

26 Avila AFD, 2008. Embrapa Experience on Impact Assessment: Multidimensional approaches and institutional uses. RIW keynote paper.

From the perspective of many of the RIW participants, representation and voice is related to power. Participants eloquently pointed out the challenges in getting the voice of poor villagers heard in the research process—for example, overcoming practical obstacles such as language barriers or more difficult issues such as power imbalances felt at different levels such as between non-scientists and scientists, villagers or NGOs and government officials, and national and international organizations.

A paper was prepared by the CGIAR Secretariat in 2006 that made recommendations for a multi-pronged approach to engaging CSOs,²⁷ but we do not know to what extent these recommendations were endorsed or implemented. In any event, many of the participants at the RIW felt that efforts to resolve the issue have not been adequate.

Suggestions for Action

In the interest of working toward practical solutions, this section provides suggestions for possible action by CGIAR leadership and management, and also presents actions that the organizers (PRGA Program, ILRI Innovation Works and ILAC) and other workshop participants are already committed to taking or actively supporting.

Recommended Actions for the CGIAR Leadership and Management

The CGIAR must recognize and stimulate the more complex and dynamic research that is oriented toward agricultural innovation and co-creation of knowledge. As a practical first step toward this, we recommend that the CGIAR Research Priorities be classified according to their degree of complexity, so that a more clear distinction can be made between those parts of the research portfolio that are complex, more likely to require an active partnership approach and thus need different approaches to management and evaluation, and those that are relatively simple and can use more traditional approaches. Box 1 presents a possible way of categorizing the Research Priorities.

Once we know which parts of the research portfolio are complex and require different approaches, research management and evaluation procedures should be differentiated accordingly. Most of the recommendations that follow assume a distinction between simple and complex, and are applied to the more complex types of research.

27 CGIAR Secretariat, 2006. *A Strategic Framework for Engagement Between the CGIAR and Civil Society Organisations (CSOs) – The CGIAR Perspective*. Prepared by the CGIAR Secretariat, May 2006.

Box 1. Proposal for the classification of CGIAR Research Priorities as ‘simple’ or ‘complex’	
Simple intervention	Complicated or complex intervention
Priority 1A • Spec Goal 2, 3, 4 & 5	Priority 1A • Spec Goal 1
Priority 1C • Spec Goal 1	Priority 1B • Spec Goal 1, 2 & 3
Priority 2A • Spec Goal 1 & 2	Priority 1C • Spec Goal 2 & 3
Priority 2B	Priority 1D
Priority 2C • Spec Goal 1 & 2	Priority 2D • Spec Goal 1, 2 & 3
Priority 2D • Spec Goal 4	Priority 3A • Spec Goal 1 & 2
	Priority 3B • Spec Goal 1 & 2
	Priority 3D • Spec Goal 1
	Priority 4
	Priority 5

The Science Council has already recognized that another set of impact-assessment guidelines is needed for those types of research that are not well suited to rate-of-return studies (those classified as ‘complex’). We urge management to support the rapid development and application of these guidelines in the performance measurement and other systems, lest we inappropriately assess the work we are doing and drive that which is most likely to lead to sustainable solutions to poverty out of the research portfolio of the CGIAR (see Issue 4 above).

Individual position descriptions, work-plans and performance assessments for senior scientists and managers should be reviewed to ensure that those responsible for managing complex research are spanning boundaries between policy, civil society, private sector, farmers and local communities. Efforts to do this should be recognized and rewarded at all levels of planning and evaluation.

Performance measurement, medium-term planning and other planning and evaluation mechanisms should recognize—and encourage scientists to play—a capacity-development role as an integral part of the research process, particularly for complex research. This might include, for example, the greater recognition of products such as training guidelines and synthesis of research results in the performance measurement system.

Innovation can be linked to innovation performance by tracking such indicators as new projects, new partnerships, new resources, more diverse resource base. CGIAR managers should support efforts to benchmark learning and innovation (as it does for gender and diversity through the Gender and Diversity [G&D] Program) and track performance over time. An external system for periodic performance assessment might eventually replace the annual performance indicators related to organizational learning currently in use, which have not been validated and do not provide data that can be compared against other organizations.

The CGIAR should make a stronger commitment to building capacity to manage complex research, including in areas related to participatory research, facilitation, leadership and management, poverty and development. ILAC, the G&D Program, Central Advisory Service for Intellectual Property, the CGIAR Secretariat and others are sponsoring staff development (for CGIAR and partner scientists and managers) in management, negotiation and facilitation, and those efforts should be encouraged.

The CGIAR should develop and adopt a clear strategy and code of conduct for engaging users—including farmers, the poor and the civil society organizations that represent them—in the research process. Follow-up monitoring and evaluation should be done to assess success in terms of indicators such as adaptation and uptake of products, outcome achievement (in terms of behavior change or policy change), medium- or long-term sustainability of change, knowledge and relationships, and trust.

The Stripe Review of Social Science in the CGIAR (underway at the time of writing) is an excellent opportunity to assess the widest range of social-science disciplines represented in the CGIAR. Management should ensure that:

- Social science is broadly defined in the study and information disaggregated by discipline to ensure adequate assessment of capacity in anthropology, sociology and political science;
- A broad range of disciplines is represented in planning the review and on the review committee;
- The study explicitly addresses the adequacy of current staffing for research related to social and cultural systems, farm-to-market interactions, policy-making, institutional relationships, education systems, power dynamics and others;
- The study also addresses CGIAR capacity for inter-disciplinary research management (crossing different social-science disciplines and between social science and natural science);
- There may well be deeply embedded biases in the CGIAR against some social-science disciplines, based on the strong traditional orientation toward natural-science research. This should be addressed in the study.

Center Boards of Trustees, Science Council, external review committees, senior staff at Centers, CGIAR Secretariat and other formal governance and oversight mechanisms should be reviewed and monitored with an eye to ensuring that the interests of farmers, the poor and civil society are represented. In a practical sense, this could translate into CSO representation and/or representation of anthropologists, sociologists and political scientists on high-level boards and committees. This should then be monitored through the performance measurement system.

Actions to which the RIW Participants and Organizers have committed

The Research into Use Programme, Royal Melbourne Institute of Technology, ILAC Initiative and others made a commitment to develop an information portal for impact-assessment methodology. This would compile existing impact-assessment methods and examples to make them more accessible and understandable for use by researchers, research managers and practitioners, and would help identify gaps where new methods are needed.

CIFOR, with support from ICT-KM,²⁸ is leading an effort to develop a compendium of *ex-ante* impact-assessment methodologies currently in use in the CGIAR. This document will be published in 2008. A discussion forum will also be established to promote dialogue about how to best move forward with a more systematic research priority-setting process that stimulates dialogue and challenges assumptions.

ILAC Initiative is seeking resource support for a major impact-assessment research project that would develop or adapt methodology and then apply the methodology to participatory research for development. Ideally, CGIAR leaders would recognize the importance of the introduction of a wider range of methodologies for impact evaluation and the use of a wide range of methods would be institutionalized in the CGIAR performance standards and other mechanisms.

ILAC is investigating indicators for organizational learning capacity assessment and surveys that could be used by CGIAR Centers and their partners. Indicators are likely to include: tolerance of ambiguity, uncertainty and errors; degree to which new ideas and suggestions are dealt with sympathetically; scope of relationships with external environment (clients, other research institutes, political systems, etc.); and, level of influence that employees have in the decision-making processes.

ILRI's Innovation Works Programme and other RIW participants committed to further developing a set of principles for linking knowledge with action that was discussed at the workshop, and to link the principles with tools, methods, approaches and strategies. A training course for research managers—aimed at CGIAR scientists and their non-CGIAR

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partners—will be developed in collaboration with Harvard University’s Sustainability Science Program.

The third phase of the PRGA Program (2007–2011) includes five actions for supporting gender mainstreaming, which build on evidence from and experiences of the Program’s earlier phases (1997–2007). One of these actions is to build capacity within the CGIAR Centers. The Program conducted a gender audit at the International Center for Tropical Agriculture (CIAT) in 2008.²⁹ The results showed modest achievements in integrating gender analysis in research and in achieving gender and diversity goals. The audit report elaborates detailed steps toward gender-mainstreaming strategies for research and the workplace. These could start as early as June 2008 with the dissemination of the audit’s results. The CIAT Board of Trustees gave its full backing to the report in early 2008, and committed itself to action. A proposal is under development to conduct a similar audit at the International Maize and Wheat Improvement Center (CIMMYT). Support from the CGIAR leadership and commitment from the Center leadership would allow gender mainstreaming and capacity-building in other centers. The CGIAR G&D Program has noted the good timing of the audit *vis-à-vis* a high-profile gender event planned in spring 2009 with IFPRI.

The PRGA Program has prepared terms of reference for a Gender Research Prize (another of its gender-mainstreaming actions) to encourage and support gender-sensitive research in Centers and research teams. The Prize has been endorsed by the CGIAR Alliance Board, and a proposal for financing the Prize is being developed.

²⁹ Aviles Irahola DL, *in prep.* Gender Audit at the International Center for Tropical Agriculture. PRGA Program, Cali, Colombia.