

**Report on the Impact Assessment (IA) workshop held at Cimmyt, Int.  
El Batan, Mexico, May 3-6, 2005**

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## Introduction

The Impacts Targeting and Assessment Program (ITA) at CIMMYT held an IA workshop in El Batán between May 3-6 2005. The other CIMMYT programs as well as ITA scientists from the regional programs all contributed people and time.

In this report we wish to reflect the richness of the discussions that were held in the workshop and point up the areas where we need to strengthen our efforts. This is captured by a set of sources of information (websites, documents, manuals, etc.) to make it available to workshop participants and to other CIMMYT staff at large.

## Rationale

CIMMYT has an exemplary tradition of adoption and impact studies at global, national and project levels. Pingali traces the evolution of methodologies and content in "Milestones of IA". Common numeraires were food, monetary benefits and consumer/producer surplus.

Recently, Seeds of Innovation, the new Strategic Plan of CIMMYT, emphasized people-centered, livelihoods and systems approaches to research and development, which have significant implications for IA. These include the necessity to identify a broader range of impacts; incorporate vulnerability; identify impact pathways; and recognize indirect impacts arising from linkages within farming systems and between agriculture and the local non-farm economy. The new Strategy also proposed a multi-stakeholder approach that embraces diverse stakeholders with different expectations of IA.

The workshop is the first major step in a one-year learning process to establish and develop an ITA-led learning and operational platform for IA comprising bio-physical specialists and social scientists from eco-regional and global programs across CIMMYT. The platform will build on existing staff competencies and reflect CIMMYT's research and development principles laid down in Seeds of Innovation, notably people-centeredness, systems, livelihoods and poverty reduction.

## Objectives

The goal of the workshop was to establish a multi-disciplinary learning and operational support platform across research programs for relevant, high quality impact assessment (IA) at project, national and global levels and to support ongoing internal learning and capacity building. Specific workshop objectives were to:

- Develop a [support and learning platform](#) for IA at CIMMYT
- Jointly develop a working conceptual framework and guidelines for IA at CIMMYT in the context of the new strategy, "Seeds of innovation"
- Strengthen capacity for IA of team members and of the ITA program as a whole.

The workshop covered four days. A detailed program is given in the Annexes.

The **Steering committee (SC)** was composed of the following participants:

John Dixon: ITA Program Director  
Roberto La Rovere: facilitator, resource person  
Peter Kosina: facilitator, resource person  
Jon Hellin: facilitator and resource person  
Beatriz Rojon: resource person, logistics

Janin Trinidad: resource person, logistics  
Doug Horton (CIAT): facilitator, program and process  
Jamie Watts (IPGRI): facilitator, ILAC process

**Acknowledgements**

We wish to acknowledge particularly the ILAC initiative for supporting this workshop and the ILAC facilitators for their inspiring and continuous support. The work of the administrative assistants has been excellent and essential for the success of the workshop. Thanks are also due to Mike Listman, Corporate Communications, for documenting all plenary discussions, and to those who kindly helped revising this report.

## Process

This section outlines the workshop process and program. There were both small group and plenary group sessions. In the former the various topics identified were discussed in detail with the aid of a facilitator, and the results reported to plenary by a presenter. The groups' composition depended on the topic. In some cases group members were pre-identified to ensure geographic or disciplinary diversity or – alternatively, homogeneity; in other cases the participants were allowed to self-identify their preferred group. The plenary sessions were used to communicate the process, to have start up and closing sessions, to report the outputs of small group discussion, or to give panel presentations.

The key elements were that:

- Participants bring along their expertise, experience, perceptions, expectations
- There is a collegial interaction between participants having different views, as different points of view are being respected
- Reaching consensus is desirable, but not essential at this stage
- The key point is learning from and understanding each other's view point
- Small group work is emphasized with minimal formal presentations

The main norms and rules are that:

- All voices are equal during the workshop
- The workshop is informal (use first names): therefore no formal registration etc.
- All points made should be kept short and crisp ('short is beautiful')
- Everyone's opinions must be respected, and there is no need to 'convince' others
- Discipline should be kept in terms of time and objectives of the workshop.
- No mobiles, No on-line laptops: E-mail is available outside of meeting times
- It's a collective learning process! Resource persons and participants learn from and support each other and play different roles!
- Keep track of issues to deal with later
- Provide copies of flipcharts to the administrative assistants for documentation
- Clarify group tasks, procedures & time
- Listen & seek understanding
- Stick with your group

## Roles and responsibilities

Three main roles were shared during the workshop: Facilitator, Chart writer, Presenter. The facilitator helps everyone do their best thinking, by: encouraging full participation, promoting mutual understanding, fostering inclusive solutions, and promoting sense of shared responsibility. The facilitator in particular:

- o Is neutral and does not evaluate or judge the contributions of others
- o Focuses the group on accomplishing its tasks
- o Protects individuals and their ideas from attack
- o Encourages participation from all members of the group
- o Keeps the group on time
- o Helps the group to organize its time to accomplish its task

The small-group presenter:

- Presents a summary of the key issues
- Uses simple language – avoids technical jargon
- Makes brief and crisp presentations
- Respects time allocated for presentation
- Validates their presentation with their group and asks for additions or clarifications
- Works from the charts prepared by the Chart writers, without inserting their own opinions beyond what had been captured on the charts

The chart-writer:

- Acts as a neutral servant of the group
- Captures the ideas of members on flipcharts in everyone's full view
- Does not edit ideas or paraphrase but captures to the extent possible in the words of the speaker
- Records ideas, not names
- Writes in a manner that can be read
- Numbers charts in sequential order and by group and topic
- Takes responsibility for ensuring that charts are typed into the meeting record
- Captures all ideas
- Labels charts by topic and group

## **Opening session activities**

At the beginning of the process, Jamie Watts, the main facilitator, stated the workshop's objectives of developing a learning and support platform, a framework and outline of IA guidelines, and strengthening capacity of participants.

Thereafter the participants introduced themselves and their expectations. These were:

## **Establishing a Learning and Support Platform**

- To learn more about IA, and exchange ideas and experiences.
- To establish an operational group that can work to conduct IA effectively.
- To understand fully what CIMMYT intends to do in IA in the future and the practical implications for the individual's work
- To learn more about IA so to improve support to research and develop projects.
- To have a discussion that links the "past" of CIMMYT with the "future"
- To define work modalities among global and eco-regional programs.

## **Developing an IA Framework and Guidelines**

- That link old and new concepts.
- To explore the role of qualitative methods in IA.
- To understand how to incorporate farmers' perspectives in IA.
- To conceptualize IA and communicate to colleagues and external audiences.
- To develop frameworks that build on past work but incorporate new elements
- To come up with guidelines for implementing IA with CIMMYT staff and partners.
- To link economic IA with poverty analysis.
- To define and agree on modalities between ITA and eco-regional programs.
- To integrate "traditional" impact criteria into a broader livelihoods framework.

## **Strengthening capacity for IA**

- To improve methodologies and standardize methods and tools for improved traditional IA and adoption work and build capacity on IA.
- To learn how to easily incorporate poverty and livelihoods concerns into IA.
- To learn more about poverty and consequently improve the life of farmers.
- To help facilitate the ties between ITA and their own program
- To learn more about what non-traditional IA is and how to apply it with partners
- To identify areas of application for spatial technologies
- To arrive at a shared understanding of what IA means for CIMMYT and how we can take IA forward in innovative ways.
- To establish and promote enhanced linkages with ITA for bio-physical scientists
- To promoting linkages between IA and communications, resource mobilization, and capacity building efforts at CIMMYT.
- To meet and interacting with other ITA staff
- To build relationships with other programs and take these up to the level of DDG-Research, e.g. inclusion of well-resourced IA in project proposals

In summary, the process that is being undertaken by the workshop aims at building on the strong tradition of CIMMYT in IA. The challenges in achieving the objectives outnumber the strengths as it appears that CIMMYT and partners are under-resourced in

terms of staff and funds for the proposed type of IA. There is a strong group of social scientists with great awareness of poverty and livelihoods issues, but little experience in measuring impacts, and an uneven distribution of capacity across the regional programs. It will also be crucial to find ways to achieve better buy-in on IA from biological scientists. This will also need strong support in terms of communication and resource mobilization.

## **Welcoming notes**

### **John Dodds**

Part of the aim of this workshop is to improve the engagement of social scientists with biological scientists at CIMMYT; to ensure the proper implementation of the new strategy to impact on the livelihoods and food security of the poor. It's a true challenge! Perhaps we will even be able proudly to say that the farmers we serve are sowing less wheat and maize and more of value-added crops—but also to demonstrate to our donors that this in fact represents a success! You'll be tackling several issues: how to apply a systems approach, understanding the meaning of terms like “poverty”, “livelihoods” – and having ways to measure them - and fleshing out what CIMMYT will do in-house versus what we'll do with partners. Hope we reach clarity on roles, guidelines, and a framework for IA. It is good to set priorities, but hopefully by the end of the week we'll have crafted good messages for the outside world about how and why we are doing what we do, for example choosing NOT to work on the poorest of the poor since we'd not get impact.

### **John Dixon**

There's been excellent impacts assessment work by CIMMYT in the past. The major challenge for us, with our new vision of systems and new strategy for reaching through and improving livelihoods, is to enrich and build on the tradition of impacts assessment to incorporate new concepts of poverty and livelihoods. We expect to come up with very tangible products. We'll be of use not only to ITA but to colleagues in the eco-regional programs. We'll have to decide how we'll support and guide them in IA work to ensure top quality. IA—both ex ante and ex post—is one of the pillars of the ITA program, as well as targeting research to poverty reduction. This workshop is a first step in a year-long process of learning, building out capacity. We'll also co-host a participatory IA workshop with PRGA in October. We hope to bring this same group together next year to assess our progress in IA and, maybe, draw up guidelines for IA work at CIMMYT.

## Reflection on the group's experiences with IA

One of the first activities consisted in the reflection of programmatic groups on their own experiences on IA, specifically on the capacity in their program, the way how they would understand and define impact, their main strengths and best practices in implementing IA, as well as the main challenges and weaknesses they see ahead in relation to IA work. This was done for each of the regional programs: TES, IAP, ALP, and RFW. The small group sessions were followed by reporting to plenary and plenary discussion on the common and cross-cutting aspects of the programs' experience with IA.

### Tropical Agro-ecosystems (TES)

#### Capacity for IA

A has a strong capacity for traditional IA when impacts occur in farmers' fields, whereas they are not strong in assessing impacts in livelihoods, policy, well-being.

Has done a lot of adoption studies, B/C ratios of technologies and farmers' feedback, financial analyses, estimation of number of varieties, releases, areas, as well as analyzing the bio-physical aspects and doing substantial training.

However our capacity is partial (esp. with reference to Mexican staff), for instance we outsource on training, and have limited capacity on policy assessment

#### Definition of impact

Is having an effect: for farmers, on policy, on livelihoods, on well-being. One question is whether we make an impact and not assess it, or assess it but not make it. Attribution is the issue, and it is difficult to document. Keywords to define impact: influence process outputs, creating change, providing benefits, having an effect!

#### Main strengths and best practices in IA

*Strengths:* Good at showing direct benefits of varieties release, but in simple ways; but not account for the broader picture; strong capacity for academic/research type studies, but weaker in interaction with farmers, both in CIMMYT and partners. Good studies, like wheat rust IA, to build upon, and good diversity of skills in ITA group.

#### Main challenges and weaknesses in IA

*Weaknesses/challenges:* We are weak in defining the desired impact from the outset, for instance for the case of training, in attributing impacts, in capturing the broader picture and the wider benefits of interventions. Also there is low capacity both inside CIMMYT and outside within our partners. The IA of NRM is particularly difficult, and we are not very effective in advocating with partners a culture of IA, in demonstrating cost-effectiveness of IA studies, and have been not very effective in learning from our mistakes. We are also weak in defining desired impacts from outset of projects.

Participants: Badstue, Waddington, La Rovere, Aquino, Kosina.
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## **Intensive Agro-ecosystems (IAP)**

### **Capacity for IA**

Much 'informal' experience of ex-ante and ex-post IA. In case of latter, an example is ex-post analysis of zero-tillage in S. Asia (other ex-post analyses in Asia are a little premature as many technologies are in the pipeline and it is too early to do ex-post IA. In S. Asia use of random surveys, documenting characteristics of adopters, financial impact analysis and looking at issues of equity and poverty. One problem in S. Asia is limited staff available especially in NARS. Bio-physical experience from S. Asia and Central America (e.g. yield, soil properties, water use efficiency, and use of zero tillage) and less on socio-economic aspects and ex-post economic analysis. The main strength is that we have people with forward-looking approaches and appreciation of farmer realities i.e. skills that complement a livelihoods approach.

### **Definition of impact**

Understanding of the concept of impact is mainly linked to that of direct impact on income. Other perceptions are those of environmental impacts and in terms of equity. A widespread perception is the association of impact to the adoption and use of technologies. The concept of impact is associated to the idea of contribution to policy debates, in terms of influencing how partners perceive IA and carry out IA, and in terms of institutional change in CIMMYT with the result that there is a greater appreciation of why IA is important as well as a willingness to include IA in all types of research.

### **Strengths and best practices in IA**

Strengths include our cross-disciplinary skills and the fact that we have carried out rigorous and objective IA work to date. Our experience is diverse in terms of the countries and regions where we have worked and also with whom we have worked (e.g. academic and research organizations as well as NGOs). Another strength is our ability to build on work carried out by CIMMYT's Economic Program and others at CIMMYT, e.g. Rob Tripp.

### **Challenges and weaknesses for IA**

Main challenges include that time and other resources are constraining as there is a time lag before IA can be done or to accomplish good IA. Working with partners is admirable thing but it can slow down the process of doing IA and there may be a tendency to do it alone and do it quicker.

ITA and the whole issues of IA may be perceived as a threat to bio-physical scientists in CIMMYT and other research organizations

It is a challenge in IA to get social and natural scientists to work together and also for them to work effectively with local farmers

People may have raised expectations/hopes about the impact of their work and want us to carry out an IA that 'proves' this positive impact

It is a challenge to get some people to see IA as something that goes way beyond plot-level yields and financial analysis.

Group Participants: Erenstein, Pulleman, Hellin
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## **African Livelihoods Program (ALP)**

### **Capacity for IA**

- The ALP program has a strong group of economists that can carry out classical IA, though with lower capacity in the new methods. The local NARSs are a potential source of assistance, but they are weak in IA skills.
- Among the NARS partners, there is strong technology adoption capacity in East Africa (Kenya, Ethiopia and Tanzania). In southern Africa, capacity in adoption studies is weak because of lack of trained people. The NARS are generally weak in new dimensions of IA in both skills and experience.

### **Definition of impact**

Discussion of impact was in the context of a given project in ALP. Two definitions were given: the classical and the “new” definition.

#### 1) Classical definition:

- Adoption (as in the number of farmers or area under improved technology)
- Yield
- Productivity
- Surplus, etc.

#### 2) The new definition includes the classical plus:

- Household food security
- Poverty reduction
- Enhance livelihoods
- Capacity building (of farmers and researchers)
- Institutional development
- Gender/environmental effects

### **Main strengths and best practices in IA**

The experience of CIMMYT staff and partners in adoption studies (institutionalized with some NARS) and culture of cooperation between the two and of tracking germplasm chains/pipelines. CIMMYT also does extensive training of NARS on adoption studies.

### **Main challenges and weaknesses in IA**

Focus on patterns, but not intensity; and inability to synthesize information for lack of standardization in adoption studies across locations; a mechanical application of methods; lack of an eco-regional framework in adoption studies; lack of experience in new IA methods. Most studies are focused on patterns and not intensity of adoption.

Participants: Dixon, Mekuria, de Groote, Warburton, Langyintuo
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## **Rainfed Wheat Systems (RFW)**

### **Capacity for IA**

The internal capacity in RFWS is low (40% of the time of one scientist). The external partners' capacity is low in CA&C and focused on technology delivery, rather than IA

while in WANA is higher but still low. Other program scientists (biological / biophysical) have low / little knowledge or understanding of IA

Partners (External)

1. Central Asia and Caucasus (CAC)

- Their capacity is low, both with reference to social scientists and other scientists, with little understanding of concepts and measurement methods
- Major partners are crop breeding institutes (Ministries of Agriculture), NGO's (in Armenia, Tajikistan), FAO, agricultural economic institutes (Government department). Most projects mostly focus on technology delivery rather than IA.

2. West Asia / North Africa (WANA)

- In Turkey the social science capacity is higher than in CAC but IA capacity is low
- In Turkey the major partners are the MoA, Crop breeding Institutes, etc. Generally there is very low IA capacity, but its awareness is present.
- There is no information in Iran, Syria but current CIMMYT partners are very few.

In the overall the only current known IA work in RWS are the:

- Dryland Conservation Agriculture project for Yellow River basin (this project only just started and IA work is at its planning stage).
- In Turkey the in situ Conservation Project. There also is some IA work on welfare implications for households growing landraces.

### **Definition of impact**

The definition is traditional: area planted and yield / productivity increases. Beyond this there is an increase of the need to include other measures. But there is also increasing concern that technology reaches farmers and there is impact on poverty and livelihoods.

### **Main strengths and best practices in IA**

There is baseline data available, especially for Turkey, Central Asia, and Yellow River<sup>1</sup>; though we should move to better characterization of target groups and ecologies e.g. though USAID linkage wheat livelihoods project and Yellow River project.

### **Main challenges and weaknesses in IA**

- Low capacity – both internal CIMMYT and partners. Possibly some linkage between the two i.e. no CIMMYT knowledge flow to partners
- Change in mindset within RWS program
- Institutionalizing IA within the program and NOT having it seen just as 'add-on'
- Little understanding of ex-ante IA, the currently thinking is in terms of ex-post IA.
- Better understanding of impact pathways of CIMMYT technologies on poverty and livelihoods.
- Moving away from “area planted” as the only measure of impact.
- Lack of understanding of data requirements and methodologies to assess direct vs. indirect impacts.

Participants: Hodson, Meng, Rogger
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<sup>1</sup> Household variety use & variety characteristics, 2 time periods, panel series. Yellow river (planned) – farmer current practices. Also baseline data in Kazakhstan, Uzbekistan, Tajikistan.

## **Plenary discussion and cross-cutting observations**

### **Capacity for IA**

There are Varying levels of partner capacity across regions, and different staffing and resource allocation across the regions, with limited or at times inadequate resources for IA both within CIMMYT but particularly within our partners, particularly beyond traditional economic approaches and in areas such as adoption, farmer feedback, and production improvements from varieties, though also a high interest in new approaches. IAP has informal experience on ex post and ex ante in South Asia (heavy on the latter; much technology still is in the pipeline or spreading). We have used random surveys and looked at impacts on equity and poverty, but there are limited skills (especially in NARS). It sounds better IA on the biophysical side, less on the socioeconomic side.

### **Definition of impact**

There's a "classical" definition, centered on economic effects of new technologies, although to this new dimensions should be added. The "process Impacts" are currently ill defined but are seen as important: for instance institutional, development and policies, changes in perceptions. The fact that different definitions are still prevalent is because of lack of awareness, different interests, and inadequate communication.

### **Strengths for IA**

Our diversity of skills and experiences, particularly in adoption studies, and the fact that several projects already recognized and injected the need for baseline data.

### **Challenges for IA**

We need to mobilize and utilize diverse skills in IA into projects, build awareness and responsibility for operationalising IA. There is also need to recognize all of those involved in IA studies. The functioning of multi-and interdisciplinary teams is still not achieved. In practical terms we need to develop targeting and scaling-up frameworks, do ex-ante IA more systematically, look at attribution and field measurement issues, and make sure that a proper design for IA is established early enough in project proposals. A balance should also be found between achieving future impacts vs. assessing impacts.

### **Cross-cutting themes:**

#### **On capacity**

- Varying levels of capacity among partners.
- Variable staffing and resource allocations by CIMMYT across the regions.
- Limited financial resources.
- Capacity in adoption studies, farmer feedback on technologies, biophysical benefits/production improvements from varieties.
- Lack of specific experience beyond traditional IA; need for training, but high level of awareness of and interest in different approaches.
- General decline in capacity for traditional IA.

## **On the definition of impact**

- Definition includes classical aspects (economics effects of new technologies) plus added dimensions (much broader, but builds on the classical).
- Process impacts (awareness, approaches, institutional change and development—intermediate level impacts that lead to improved livelihoods, etc.)
- Differing definitions within CIMMYT, due to a lack of awareness, different interests, inadequate communication.

## **On our strengths and best practices in IA and on our weaknesses**

- *Strengths:*
  - Diversity of skills, experiences, partners, areas—but not necessarily easy to tap into and use them. (we need to do that better!)
  - Experience in adoption studies.

### *Weaknesses/challenges:*

- Build awareness, consensus, responsibility, participation among biophysical scientists.
- Defining the respective roles of everyone.
- Having proper designs (standard, so that they can be comparable).
- Recognition of contributions of partners in IA process.
- Working better within and across disciplines.
- Showing the worth of broader IA studies, as resources (funds, time) are limited
- Developing proper frameworks for targeting and scaling up.
- Lack of ex ante IA.

## Understanding key concepts: livelihoods, poverty, systems

A second initial main activity consisted in familiarizing the participants with the concepts and application of key concepts that reflect the new CIMMYT thrusts on livelihoods, poverty, and systems. This discussion allowed also revealing the main concerns and challenges in implementing these concepts in operational ways in the scientists every day's work. This included discussion on what is available and needed for applying them.

### Poverty

*Definitions:* Failure to meet basic needs (food, health, housing, security, education), exclusion, vulnerability. Or having less than a certain minimum of available income (typically a national average or \$1 / person / day). Through group discussions, criteria to judge if people fall in a low, medium or high wealth category can be assessed for a particular community by "wealth ranking" techniques, to see if people in that community can be placed in one of those categories. Exclusion is another aspect, linked to a limited access to institutions (such as seed systems or credit organizations), infrastructure, markets, social networks, etc.

*How it affects work at CIMMYT?* Through poverty mapping we can target, redesign, and do ex ante IA to identify areas where we can have impact on poverty. Should we target the poorest of the poor? No, they are not likely to adopt some agricultural technologies. Working for the poor requires working with the appropriate partners; we have to work with farmers or other groups to engage in the participatory identification of researchable constraints on which we have a comparative advantage and on which our work can have an impact, to target our work appropriately, to see the full impact pathway right through to the poorest (e.g., landless laborers working on someone else's farm) and take into consideration the spillovers in terms of labor opportunities, lower prices for food, etc. We need to analyze impacts on the poor using a consumption lens and go as low as we can to explain this to donors in a logical, compelling way. We need to make markets work for the poor and address potential of added-value traits of maize and wheat products.

*What are the implications of the pro-poor approach on IA?*

- a. Increased use of poverty mapping
- b. Use of participatory IA
- c. Broaden the IA to take into account the impact of other factors, technologies, results of other research institutes
- d. Need to monitor institutional links, collaboration, participation in activities
- e. Measure the impact of our products on the poor consumers (indirect effect of price reduction of staples through improved production.
- f. Assess the impact on food security
- g. Analyze the policies that influence the impact of our work on poverty, and
- h. We need adequate resources for this extended agenda, and a smarter, focused approach to develop models and test them in pilot studies
- i. Make recommendations to reduce bottlenecks

Participants: Hodson, Mekuria, Aquino, Hellin, De Groote
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## Livelihoods

*Definition:* Stocks and flows of assets, and how they contribute to well-being. All must be considered in a specific context. Now we look at maize and wheat as big and centric components. Moving to a livelihoods approach we expand our context and look at the linkages of maize and wheat to stocks and flows of assets and to household activities. We also look at a broad range of benefits linked to markets. We'll need to understand the benefits that people, households, communities derive from growing and consuming maize and wheat, and how to enhance those in different contexts. We'll thus need to:

- Adopt a broader view of productivity (productivity of what, for whom, under which circumstances) and examine a broader range of options to raise livelihoods in maize / wheat systems by value added and cash crops
- Look at interactions in food crop systems: cost savings, additions to welfare, etc.
- Partner better with other crop and marketing specialists
- Endow CIMMYT staff with a broader set of skills.
- Translate the above into specific, practical recommendations for researchers.
- Adopt a farmer perspective, with more attention to marketing, infrastructure, etc.
- Apply expanded baselines that bring in other info besides maize and wheat; use of both quantitative and qualitative methods; finer understanding of well-being.
- Agree on what is an acceptable impact—involves a process of negotiation with farmers and other partners.
- Be very clear on what we are accountable for, with early agreement on IA roles

Design and implementation of IA will be very critical; we can't use one type for all cases, although it is too expensive to develop individual designs for each case.

The implications for CIMMYT work are that there will be need for:

- More resources in understanding maize and wheat in overall livelihoods
- Partnerships with other crop specialists, and on issues of marketing
- CIMMYT staff will have to have a broader set of skills and experience
- Better ability to link livelihoods into technology development opportunities
- Stronger farmer perspective in understanding livelihoods
- More attention to the utilization and marketing of increased production

The implications for IA are that there will be need for:

- More expanded baseline documentation beyond maize and wheat
- An ability to follow and show linkages among activities
- More use of qualitative methods (or a mix of quantitative + qualitative)
- Understanding concepts and contexts such as that of wellbeing
- Recognition that the matter of attribution becomes more difficult
- Design and implementation of IA methodology becomes more critical; no one format will be fitting all
- Negotiation element among stakeholders will make it even more difficult and crucial to agree on acceptable criteria
- The need to define what we are accountable for
- An early agreement on the role of IA in projects.

Participants: Bellon, Meng, Rogger, Langyintuo, Waddington, Badstue
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## Systems

*Attributes:* networks, linkages, complexity, interaction (actions), system's components..

*System types of relevance:* social (policy, economic, marketing), agro-ecological (farming, cropping, etc.), knowledge (communications, research, information, learning)

All are interrelated at some level.

- Knowledge at CIMMYT: Exists but is fuzzy and poorly documented. Ad hoc approach, so knowledge is lost. Lack of feedback systems (these relate for example to IA targeted to policy makers). In knowledge systems, we're still in the initial stage, so we aren't reaping as many benefits as we could or should.
- Agro-ecological system at CIMMYT: We've been strong, although could get better at interactions. Has varied over time and (especially) across regions.
- Social systems at CIMMYT: Huge area. Importance acknowledged at CIMMYT, but too big for us to address alone. Diversity of geographic coverage according to external considerations (donors, availability of resources, location). In social systems, must remember that our product should match clients needs (someone must need it and want to use it).

*A systems approach:* Working in a system: we are only one partner, one piece in a system. In diversity for example, we get info from advanced institutes, develop a product in the lab, and pass it to breeders.

*Implications for IA:* Need for a bi-directional interaction for members in the system, to make it work. Example: In the case of a gene for disease resistance, who needs it? Is it better to do in the lab, or field, or both? How to get it to the field? Did it have any impact, and were the impacts good (were there unintended consequences)? Need to account for other levels and work the effects into the big picture. Can't work all levels into IA, because too many things going on at one time at all levels. How do we define this area?

How do we understand **systems**?

Network

Linkages

Complexity

Interactions

Components

Systems have levels and boundaries.

List of systems that came across our minds without any particular order:

Farming systems

Cropping systems

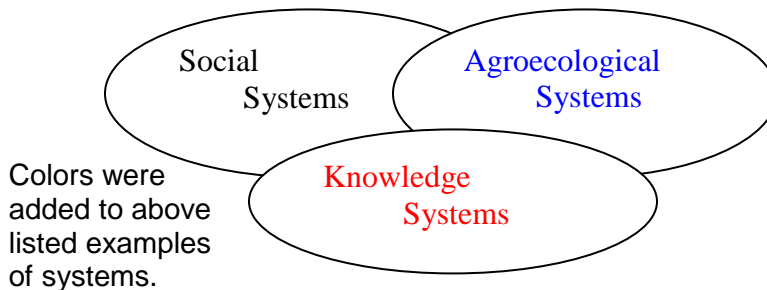
Agroecosystems

Research systems

Information systems

Production systems  
 Socio-economic systems  
 Seed systems  
 Marketing systems  
 Communication systems  
 Learning systems  
 Innovation systems

We have realized that the systems listed above can be grouped in 3 clusters



There definitely is overlapping in between systems – as shown in the picture. During presentation it was agreed that connection between 3 clusters of systems would probably be better described as ‘sandwich’.

### How does this approach affect our work?

This question was answered separately for each of the three clusters of systems that we have identified above:

#### Knowledge systems:

- These systems are ‘fuzzy’ in Cimmyt
- Not well documented
- Components and complexity aspects exists
- Interactions, linkages, and networks are weak
- Usually an ‘ad hoc’ approach is used (not a systematic approach) which results in lose of information and knowledge
- Feedback to sources is weak (example of farmer surveys)
- Feedback of impacts to policy makers (including donors) is weak

#### Agro-ecological systems

- Knowledge, components, and capacity aspects are strong
- There is a need to improve interaction and communication aspects
- Strength of these systems is variable over (1) time and (2) regions where CIMMYT works

#### Social systems

- Overall importance of these systems is acknowledged
- But due to their high complexity the allocated resources are insufficient
- There is geographic diversity of these systems (related to CIMMYT presence)

Then we discussed what is ‘system approach’ and what it means to our work?

- It means to keep in mind all components (Network, Linkages, Complexity, Interactions, Components of all three clusters of systems)
- Specific meanings of each system cluster:
- **Our work is part of chain (heading towards product)**
  - **It should help us to work faster, easier, and more effectively, but .... We are not in that stage yet. Initial investment into knowledge systems is high**
  - It is important to link properly demand and supply in our work (through diagnosis)

## What are the implications for IA?

- Need for both direction **interactions** between components of systems and systems (social, knowledge, and agroecological)
- Need to measure unintended impact (whether positive or negative) as well
- Need to account for different levels within the systems and link them to reach the 'big picture'
- Need for framework and guidelines to help to implement system approach for IA

Participants: La Rovere, Erenstein, Pulleman, Warburton, Kosina

## Skeletal framework for IA

A framework for IA, proposed by the ILAC facilitator Doug Horton, was discussed with the participants. This was subsequently revised and implemented, in order to frame the more practical discussions on IA case studies that were to follow in the next days.

### \*Skeleton of impact (evaluation<sup>2</sup>) framework

Management	Foster Use	Communication and Negotiation	<ol style="list-style-type: none"> <li>1. Focus the IA</li> <li>2. Design the IA</li> <li>3. Develop the instruments</li> <li>4. Collect and manage information</li> <li>5. Analyze and synthesize</li> <li>6. Validate and interpret</li> <li>7. Report and disseminate</li> <li>8. Promote use of results</li> <li>9. Meta-evaluation (assess the assessment)</li> </ol>
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### Plenary observations on the proposed IA framework:

- It is too linear; however it was explained that the points in the framework are not sequential — they are iterative and interrelated.
- It is assessor oriented, but could take different path depending on other interests
- It should have a negotiated process of planning the IA. It needs an explicit recognition of the value judgments inherent in the process. Communication and negotiation are crucial: users need to be involved in big decisions all along the way, so that they accept and buy into results.
- Much of the value of IA comes from involvement in the process, rather than after the actual publication of results. It depends on who is involved in the process.
- The planned uses and type of study will affect the levels of involvement in the IA.

<sup>2</sup> During Horton's presentation of the program for the day, the use of the term "evaluation" in regard to impacts was discussed. The concern is that it seems to imply an exclusively "ex post" focus. It was agreed that, to avoid confusion and false perceptions among non-ITA staff, we'd use the term "IA".

- It was added that at IFPRI, they form advisory groups for IA studies; this team guides the process of defining the evaluation, and is involved periodically throughout the implementation of the study, especially in drawing conclusions.

**General comments during the sessions:** what's being assessed is often not an intervention: for example for rust it is the potential effects of an epidemic; while the RWC proposal didn't focus on specific impacts of the Consortium, as described by the group, hence the subject of the evaluation is not completely clear. In none of the cases is the study topic somebody's project or activity; very complex topics. For dissemination we need to identify target audiences and carefully craft messages based on the IA results.

The afternoon session was opened by Jamie Watts who presented a model situation of project impact, which illustrated the relationship between the different dimensions of IA, including 1) the baseline which is the situation before the intervention; 2) the outcomes with the intervention and 3) the outcomes without the intervention. The impact is the difference between the outcomes with the intervention and the outcomes without the intervention. In this model, impact is not an analysis of the baseline situation against the outcomes from the intervention. It is only assessed against a control of some kind which could be considered the counterfactual—, social scientists in the evaluation community consider it essential to have a contemporary control against which to compare the project intervention results.

## **Working through the IA framework**

Based on the proposed guiding IA framework, three major proposed practical IA case studies were discussed during several small group and plenary sessions over two days. These covered the background of the IA case study and its purposes; the key intended uses and users of the information to be generated by the proposed study as well as the key stakeholders to be involved. It also included a definition of what would need to be assessed, the scope, boundaries, and the critical questions to be addressed. The three cases comprised Conservation Agriculture in India, the global impacts of maize breeding, and the potential impacts of the spread of wheat rust.

## **Conservation agriculture in India**

### **Background and context of the IA**

The Rice-Wheat Consortium (RWC) and sustainability problems of rice wheat systems

- Step by step approach: Conservation agriculture (CA) as final goal, resource conserving technologies (RCTs) as intermediate building stones
- RCTs decrease input use (labor, water, energy, production costs)
- Basket of RCTs under development
- Zero tillage (ZT) of wheat most significant adoption so far
- Partial adoption: of technology components, within same farm, over time
- Use potential impact as building stone
- To which extent have RCTs s the resource-conserving technologies contributed to make Rice-Wheat systems more “sustainable” (biophysically and sociologically) and how can this information enhance our future impacts?

### **Main purpose of the IA**

- Assess the “impact” so far (current situation on the ground)
  - o What has been done and not done?; Which technologies have been adopted and not adopted – and why?; What have been the implications?
- How can we use this info to enhance our “impact” (future directions)

### **Key intended users and intended uses of the information generated**

The key audiences are the RWC partners, the national agricultural research and extension systems, NGOs and the CG system, national and regional decision-makers, the media, the donors, machinery shops, and farmers themselves.

The intended uses of the IA will be to gauge current impacts, to mobilize resources through justification of past resource use, to enhance future impacts (re-direction of efforts, institutional change), and to methodologically advance IA.

The roles of different users need to be defined; in fact, part of the analysis could be to describe individual roles of different RWC members and their contribution to impacts.

### **Key stakeholders who should be involved in the IA**

Those who should be involved are farmers (adopters and non-adopters!), landless laborers, private sector service providers, international and national researchers, donors.

## **What will be evaluated**

What will be evaluated are technologies that have been adopted / not adopted or adapted. Their effect on livelihoods and socio-economic and biophysical aspects/systems should be estimated.

What have been their effects on socio-economic and biophysical aspects.

## **Scope and boundaries**

Scope and boundaries of the RWC are areas with varying biophysical and socio-economic conditions; where RW systems have been in place for a long time or are relatively new.

RWC target area includes areas with and without significant adoption, different traditions of rice wheat systems (old vs. new), different intensity of systems, and different biophysical and socio-economic conditions.

We'll not try to attribute impacts to specific players, because it is virtually impossible given the complex nature of the technologies, factors, players, etc.

The Rice-Wheat Consortium IA focused only on one technology: zero-tillage for sowing wheat after the harvest of rice. It is thus an impact pathway for this single technology. Important components are understanding : donors, system constraints (biophysical and socioeconomic), and the roles of donors, researchers, extension, farmers, implements, machinery manufacturers (private sector), service providers.

Potential livelihood benefits will consist of: cost savings, intensification, diversification, increased labor demands (thus increased employment for landless laborers).

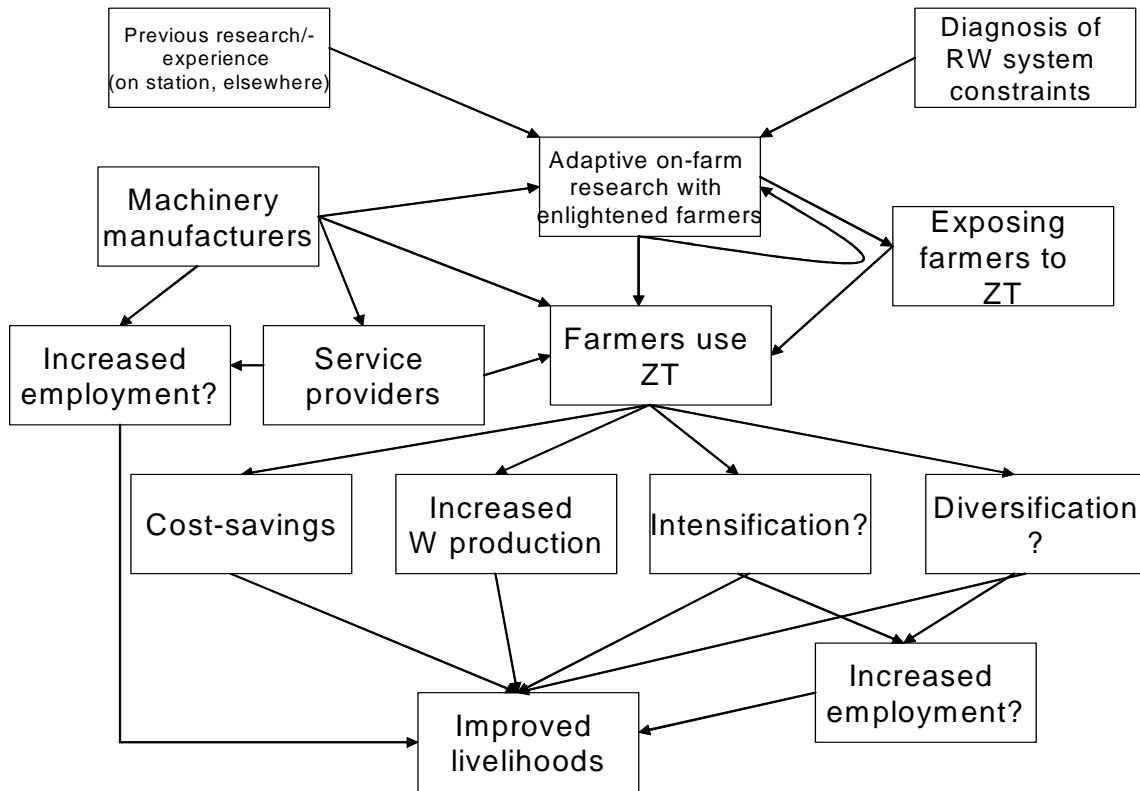
## **Key questions that guide the IA**

The extent of adoption of the zero tillage technology? By whom? Why is there adoption or non adoption? What have been the positive and negative impacts (including on income and wealth and on natural resources)? Which promotional methods have been successful? How can we use the lessons learned to better target future work? What are other potential target areas and populations?

**Plenary comments:** Distributional and equity analysis is a key issue: which categories of farmers or other people benefit and how. The model would be like a delta diagram, with major pathways, and then define on which CIMMYT contributions have had an influence. It is necessary to define well who is the target group of the study, who has been exposed to the intervention? In this particular case, where the setting and the interventions are complex, it was suggested to sending out a good investigative reporter or historian to document the story of what actually happened and map out the sequence of events. We also need to think about how poor farmers access the technology. A case study approach can be very powerful if done properly. Another approach would be to propose impact pathways as hypotheses and seek to prove or disprove them through rigorous, objective field research. Rigorous follow up on the above questions will provide

many of the answers regarding actual impact. It is also good to combine qualitative and quantitative analyses, perhaps beginning with the former to fine-tune the latter.

### Outline of the “impact pathway”



Methods and approaches consist in the proposed use of:

- Expert consultation and existing data
- Information from machinery manufacturers and service providers
- Remote sensing (if possible)
- Random stratified surveys to conduct more detailed studies monitored over time
- More detailed information on who and why, after selecting representative cases (depending on hypothesis, e.g. adoption is greater in areas where the RWC was active, while outside these adoption is through the initiative of private sector)
- Detailed representative case studies that are monitored over time
- Use quantitative and qualitative methods to measure effects on natural resources

### Disciplinary expertise needed

- Social scientists (sociologist; economist; anthropologist; people with knowledge in small enterprises)
- Biophysical (agronomist; remote sensing and GIS, soil scientists)

### Resource mobilization

- Project proposal (get the money to do so)
- Demonstration to potential participants of the benefits they'll derive, and letting key stakeholders (researchers, donors) realize that they need each other

## Ensuring use of IA products

- Involvement key stakeholders (researchers/donors) essential to make sure results will be used/contribute to internal learning (RWC)
- Develop policy briefs with main messages
- Feedback to private sector stakeholders (e.g. to machine manufacturers)

## Main comments:

- The group encountered difficulties in formulating hypotheses because of the complexity. Working through the steps and the hard questions, however, is unavoidable and productive in the end. Going through this normally results in a narrowing / focusing of scope, and contributes to the methodological rigor.
- Mobilization involves engaging potential participants in drawing up the pathway. It is important to emphasize, and get buy-in among participants, that IA will show both what went well and what didn't, and will highlight both successes and weaknesses. Yet it is not always easy to get engagement from potential participants. It needs negotiation, facilitation, communication skills.
- About equity: it's easy for strong institutions to open up and admit weaknesses, whereas the weaker institutions that need to improve are less able to admit weaknesses. Since there are so many value judgments built into this work, the choice of who will evaluate the work is crucial. Sometimes IA may involve not getting a report or journal article, but more of the learning process. There may be a tradeoff between participation and external objectivity, and we may not be able to have both at the same time in the same study.
- There is a tradeoff between rigor and participation; more engagement may result in sacrificing some of the quality of the final output. It is also true that standards of rigor vary across disciplines.

Participants: Meng, Pulleman, Waddington, Hellin, Erenstein
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## Assessing global impact of maize breeding: 1999-2003

CIMMYT has done these types of studies every 5 years to know the level of investment, to understand the spread of germplasm, rates of return, etc. However it now needs to document the contribution to improved livelihoods.

## Purpose

- To extend / continue the 5 year cycle of IA of CIMMYT's breeding
- To expand this work to the impact on livelihoods and poverty

## Objectives

1. Estimate the level of private and public investment in maize research in developing countries
2. Document outputs of germplasm (new varieties)
3. Document CIMMYT's contribution to that germplasm
4. Calculate the rate of return to those investments

5. Estimate the economic value of extra production due to the improved germplasm
6. Document the use of CIMMYT's germplasm by seed companies and by farmers
7. Document the impact of CIMMYT's germplasm on the livelihood of poor farmers

## **Users and uses of the study**

The main users are CIMMYT investors (donors), researchers, CGIAR bodies, national policy makers, development agencies, seed companies (private and public), NARS, extension services and the farmers and general audiences.

Main uses are to document the contribution of maize breeding to development, help in research priority setting, resource mobilization, and create awareness of CIMMYT work

## **Who should be involved?**

Different groups should be involved at different stages. The first stage is data collection and consultation as to what the IA should include. The partners involved are: NARS, seed companies, farmers, breeders, all at different stages in the study. The analysis should be done by a smaller group, consisting of people from ITA, social scientists from the eco-regional programs, and a breeder. The case studies should be done by the eco-regional programs, with help from ITA to coordinate the methodologies. These may be able to show impact on poverty in specific areas, cropping systems, or at the farm level.

## **What needs to be assessed?**

The impact of maize breeding on the public and private seed sector, and on the maize production, livelihood and poverty of poor farmers in developing countries.

## **Scope**

- Developing countries: Sub-Saharan Africa, Asia, Latin America (not in all countries, but enough to cover most of the maize production areas)
- For the case studies: use secondary data, and local experts to focus on areas where impact on poverty is likely and can be assessed

## **Key questions:**

- How many Cimmyt lines are used by partners in maize breeding?
- How many maize varieties have been released 1999-2003?
- How much money has been invested in maize breeding? Input to be solicited from public and private sector and national and international breeding institutions
- How many of the above mentioned released varieties are / have been under seed production and what are the quantities produced?
- How many of these varieties are in farmers fields?
- How much; in what ways have this improved productivity?
- How; in what ways; how much has the use of these varieties translated into livelihood improvement for poor farmers?

Answers: Through collection of secondary information can answer questions 1-4, of collection of primary data for questions 5-7, though household surveys, and through key informant interviews (processing industry, policy makers, traders / market agents, consumers, farmer and farmer groups, seed producers, NARS and CIMMYT breeders).

The necessary disciplinary expertise includes: economist, sociologist / anthropologist, breeder, system agronomist, nutritionist, GIS specialist, to be found in-house, through

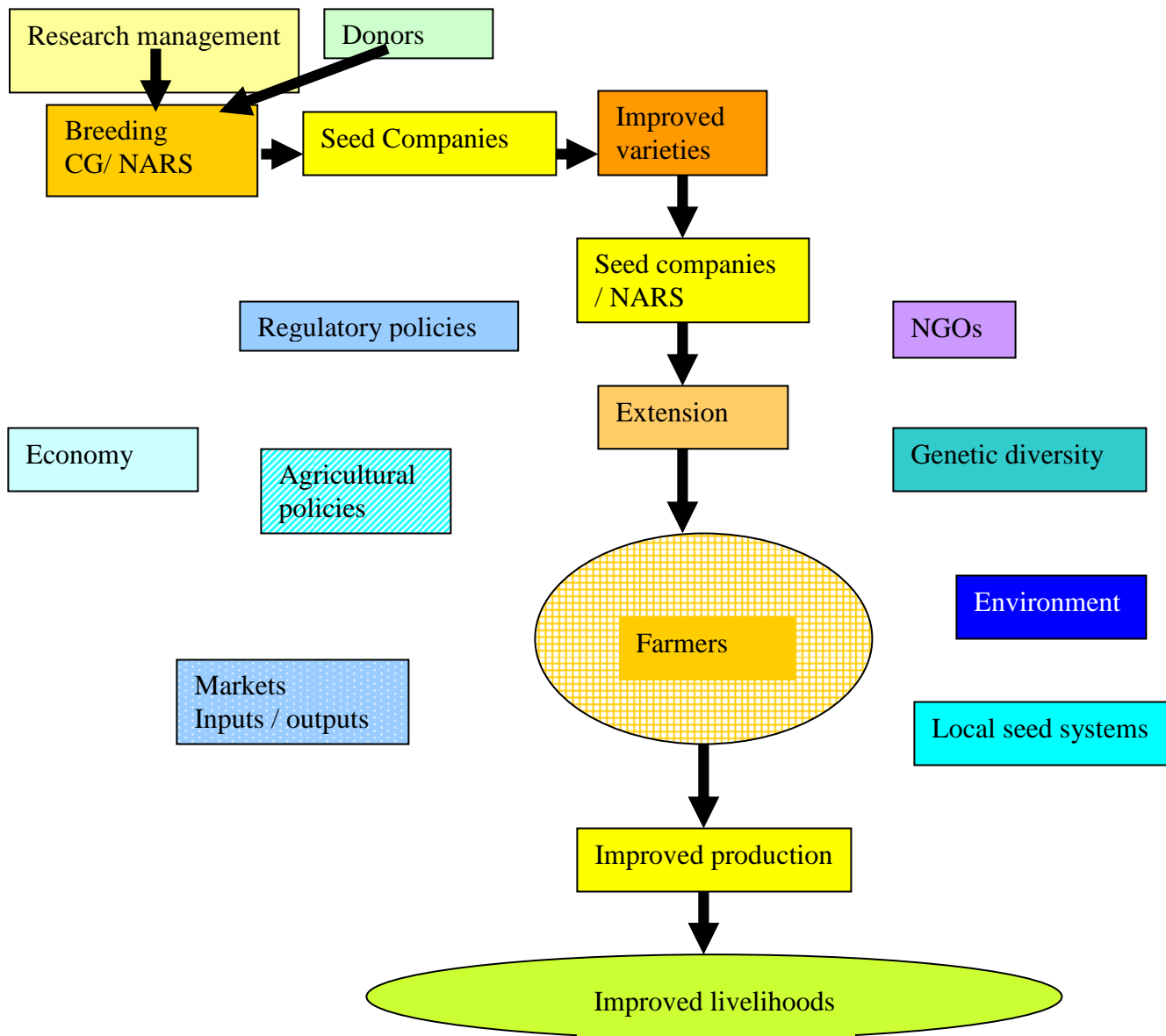
partners, and by outsourcing. In order to make a difference it is necessary to involve all stakeholders in defining the focus, objectives, impact indicators, and having a midway feedback. The main dissemination pathways include the production of reports, policy briefs, brochures, posters, and media briefs. Internal feedback can be obtained through seminars, co-authoring of publications, the website and a newsletter.

### **Additional comments on global maize impacts:**

- If something will be achieved soon, a proposal could be sent to Pioneer, which has expressed interest in participating with CIMMYT in an impact study.
- Obtaining proprietary information from private companies regarding the use of CIMMYT germplasm is an issue. The fact that past studies have not cited confidential information has helped in gaining trust for us among companies.
- Who is the informant for studies will influence the result:
- We need to document biophysical benefits in farming systems using hard data. We have to engage staff involved in agronomy and other delivery activities.
- The proposed impact pathway is very linear and not necessarily in the right order; farmers (and not breeders!) should be at the beginning and at the end.
- Involving all stakeholders could increase complexity and costs: thus it is suggested to change “all stakeholders” with “key stakeholders.”
- It may be useful to do a readership study on who might use our previous impact studies, by means of a low-cost survey. Some evidence suggests that public and private sectors have found our studies useful. We need to package information distinctly and target different audiences. Software can track accession to IA reports and other information to assess the impact of reporting IA information.
- The term “productivity” in the impact pathways flowchart per se is not significant; it is rather what it means to farmers. In the diagram, there’s a big jump from “productivity” to “livelihoods”, but it is not possible to get wealthy just by growing maize. It is also crucial to specify which farmers”, the poor ones or others.
- There is need to add “processing industry” and “consumers” to the diagram. Also, a huge risk factor is the effective functioning of extension agencies.
- When talking about a chain, that implies linearity, but what actually occurs is a network, with many possible different pathways.
- Middlemen also play a huge role as market intermediaries.
- The impact pathway “model” doesn’t necessarily have to reflect every factor or player equally; the purpose is to get people to ask the right questions and to take into account the middle-level components involved in a pathway.
- Simply getting a good impact study analyzing mainly the area under improved varieties took 5 years and cost 0.5 million \$.
- To develop meta-analysis at the global level it may be sufficient to consider the option of synthesizing case studies at the regional level.

Participants: Mekuria, Badstue, De Groote, Langyintuo, La Rovere
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**Chart of the impact pathway of global maize impacts**



## Stem rust

### What is the purpose of the IA?

STEM RUST STRAIN UG99 – What is the potential impact on wheat production?

A new strain of wheat stem rust (UG99) has emerged in eastern Africa that is virulent to most modern wheat varieties currently sown. Its spread is likely, and a major stem rust epidemic could have a substantial effect on world wheat production.

Two possible approaches to the above formulated question:

- (a) What will be potential negative effect of UG99 spread?
- (b) What will be positive effect if immediate action will be taken?

Back-of-the-envelope evidence exists about possible damage from new strain UG99, although more specific information is needed. The aim of the study is to avoid or minimize negative effects, but finally this will have to emphasize the intended benefits.

### Who are the **key users** & **intended uses** of the IA?

- Donors, governments, research institutions, agric. outreach services
- To prevent (avoid) or at least minimize the negative effects of UG99 spread.

### Who should be involved in the IA (process)?

- DONORS - to provide standards of credibility.
- SCIENTISTS (pathologist, epidemiologist, social scientist, GIS specialist) – to provide technical expertise and IA itself!
- GOVERNMENTS & POLICY MAKERS, NARS – consultations, to provide parameters and also credibility.

### Identify clearly what will be assessed.

Pilot study will assess potential negative effects under different possible scenarios.

List of some possible negative effects of UG99 spread: Yield loss, quality reduction, income loss, food security loss, migration, increased imports, price increase (especially in isolated areas), changes in cropping patterns, change in diet, loss of diversity.

### Determine the scope of the exercise (temporal, spatial....)

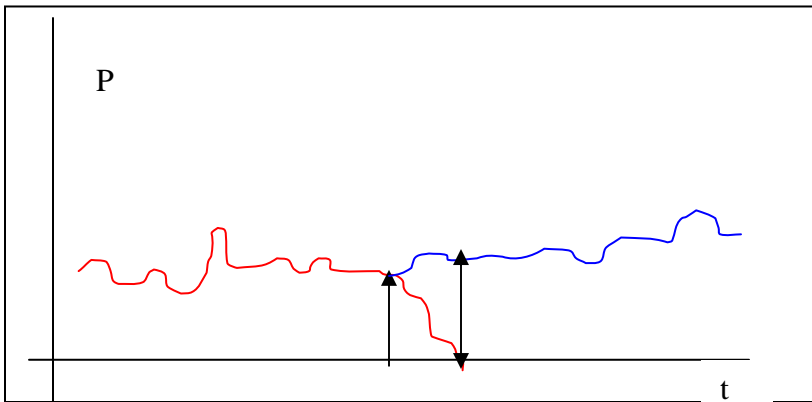
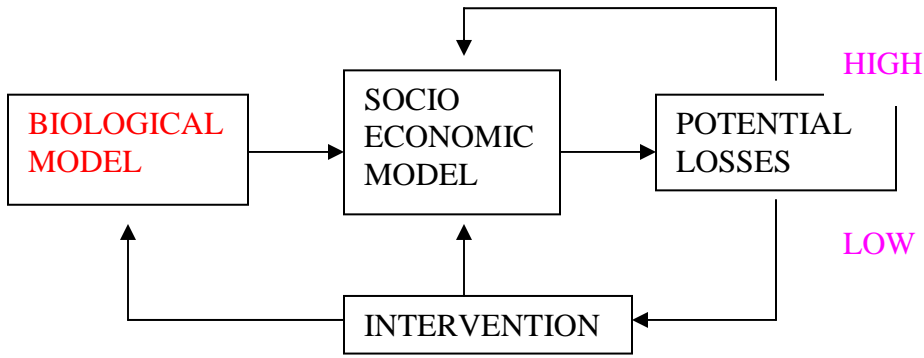
- Timeline aspect of assessment (speed of UG99 spreading)
  - Geographical aspect of assessment (directions of spreading)
- ⇒ What can realistically be done in the **pilot study** (by July 2005)?

Pilot study should mainly concentrate on 'most probable situation if we do nothing'

Maximal possible accuracy of the pilot study is extremely important for credibility!

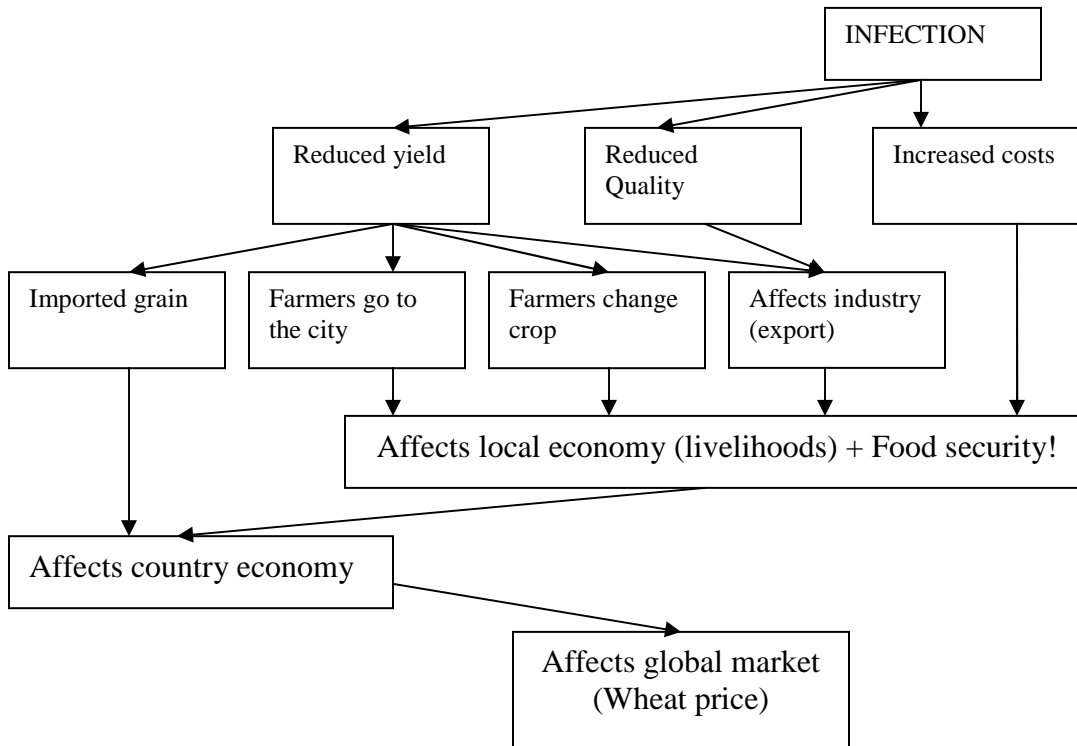
Recommended sequence of study:

- 1) Biological model (+ it's consequences)
- 2) Biological model translated into socio-economic relations



Curve (potential) of wheat production hit by UG99  
 Curve (ideal) of wheat production if effect of UG99 eliminated

**Chart of the impact pathways of rust spreading**



It is difficult to establish the impact pathways of this problem; it would be the difference between the status quo (no disease) and the effects of the spread of the new strain. A problem is that nothing has happened yet. The presence of the new strain could reduce yields and raise production costs where it's possible for farmers to obtain fungicides. The disease will also affect grain quality, which will affect industry and exports. The reduced yields will affect the efficiency of input use, affect local economies and in turn, will also affect the global economy. We need to come up with viable scenarios that minimize the risks of either over-estimating or under-estimating possible losses. Key questions are:

- The speed of the spread of the new strain
- The estimation of losses (based largely on evidence from past epidemics: , plus susceptibility of wheat varieties in the potential impact area – yellow rust epidemics in 80's, stem rust epidemics in 50's, soybean rust epidemics – recent)
- How to ensure reliability of such comparison (with similar epidemics in the past)
- Any original assumptions will have a huge influence on the final outcomes
- Opportunity costs: can farmers buy fungicide? will they need to change crops
- Cropping cycles in potentially affected regions
- Weather patterns in dissemination pathways
- The influence of modern varieties (their earliness as a potential mitigating factor)
- Availability of historical data
- Number of farming families likely to be effected?

It is possible to apply models for studying the crop price effects. It is also necessary to add food security as a component. Economic studies exist from past crop disease epidemics. Infrastructure, transport systems, and regulatory mechanisms for new varieties and seed will all influence the speed of spread for varietal-based interventions. The speed with which institutions respond to a possible crisis include information dissemination, supply of fungicides, stocking and release of food aid (which may in turn affect local markets, distribution chains, etc.); and medium-term policies to diversify and adjust local economies. If famine is a possibility, this predictive study takes on a great urgency. An objective approach was however proposed to develop realistic possible scenarios, trying not to over- or under-estimate, just to get a sense of how big the problem could be. It could be wise to proceed with three or four scenarios of varying degrees of severity. Infection / yield loss studies often tend to be overblown, so inclusion of likely counter-measures, other effects and externalities should be part of the scenarios that can be developed in the short amount of time available. The report should end with a very clear proposed action for each or all of the scenarios. Given the potential negative humanitarian / food security element, the “precautionary principle” should be followed, with all necessary steps to avoid major negative impacts clearly outlined.

### **What methods or approaches are required to answer these questions?**

- (1) Collection of (experimental) data – current + historical
- (2) Develop epidemiological/biophysical/spatial modeling
- (3) Socio-economic modeling – initially simple economic model (prices, production, trade), and integration of the above two models
- (4) Scenario analysis

- i. Outline of the two most important factors (identify the drivers, look at extreme cases, and come up with four contrasting scenarios)
  - ii. Extreme cases of the 2 above mentioned factors
  - iii. Ethical analysis of the humanitarian context, by applying the precautionary principle and identifying the hot spots where, as a worst case, even potential famine may be a possibility
- (5) Intervention analysis by developing a follow-through scenario analysis

### **Disciplinary expertise that needs to be brought in the study**

- Epidemiologist
- Pathologist
- Micro/macro economist (initially) and later social scientist (sociologist) on aspects of trade, macro and farm level issues
- Breeder (knowledge of germplasm/risk)
- GIS expert
- Information and communication specialist
- Ethicist
- Seed systems / Institutional capacity (public/private)

NOTE: other expertise would be needed for implementation and interventions

As this was supposed to be a rapid initial study, it seems to have many participants. Yet many are already on board, and a few are initially not fully necessary e.g., ethicist.

### **Mobilization of expertise:**

- Provide resources (financial)
- Generate interest / awareness
- Networking and communication among stakeholders

### **How to ensure the use of the IA?**

- Ensuring credibility
  - i. Oversight committee
  - ii. Contract an external review
  - iii. Role of donors
- Good communication strategy
  - i. Clearly defined target groups (key users)
  - ii. Focused communication products to target groups
- Political support

Implementation points: The challenge is to convince donors about the potential negative effects and benefits and to involve them in ensuring that the evidence is credible. The potential negative effects will differ under different scenarios. This will require a global epidemiological model, linked to a social one to show potential impacts under various scenarios and changes in cropping patterns. Based on this, it is then possible to project the geographical and temporal scope and hypothesize the most likely counterfactual case. This could be the basis of a two-year project or MTP item. It is a clear opportunity for a pilot study to determine what will happen if the strain UG99 spreads, what groups will be affected. ITA can set a strategy on the actions of the Global Rust Initiative (GRI).

Participants: Hodson, Bellon, Rogger, Warburton, Payne, Kosina
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## **Panel on methods, approaches, and best practices**

Three crucial topics on impact assessment were presented to familiarize the participants with less well known aspects: these consisted of the current practices in the CGIAR for IA, including guidelines, methods, and main challenges for implementation; the application of sustainable livelihood approaches in IA with reference to applications of CIMMYT principally in Mexico; and the linkages between institutional learning and change and IA.

## **A tour of CGIAR practices on approaches, guidelines, methods, challenges for IA**

Presented by Roberto La Rovere

The CGIAR has been developing several experiences, networks, and resources on the topic of IA, targeting, and priority setting. This section compiles the most important ones by answering frequently asked questions on key topics:

### **What constitutes IA (IA)?**

It is an 'evaluation to determine consequences of an intervention'. It includes:

- Ex-ante assessment, performed before the intervention is initiated or any outcome is generated, used to ensure appropriate targeting of research and often for priority setting
- Monitoring and Evaluation M&E activities
- Ex-post assessment to measure the outcomes resulting from interventions.

### **Why IA?**

IA is necessary as resources are limited, hence these have to be targeted and spent efficiently and effectively. Also CG centers need to show that they CAN alleviate poverty and to prove that public investment pays off. IA is also often used to feed back impact information into programs, or often for internal learning and to better target research programs in order to principally ensure: ACCOUNTABILITY and FEEDBACK

### **Who does IA?**

Those typically doing IA are a team of people in each CG-centre, with a focal point (normally to be found in the management, or a social scientist). This is backed by the support of the Standing Panel on IA (SPIA), which has the purpose of being a forum for exchange of experiences from impact studies, a platform for feedback to the CG, for priority setting, strategic planning, and assists in periodic external reviews of quality and relevance of science.

### **Methods**

Methods are both conventional ones (econometrics, use of production functions used to determine, test, and compare the influence of alternative drivers, economic surplus, Net Present Values / Rates of Return / Benefit / Cost ratios of research investment. Models such as the DREAM one can help in some tasks. Yet when the purpose is IA of poverty outcomes, the use of the Sustainable Livelihoods Approach (SLA) has become more widespread. This is not the most direct way to assess impacts as it allows for complexity by considering a complex variety of factors, levels, livelihood strategies and forces. The SLA also allows focusing on technologies that stabilize yields in the face of risks and

fluctuations as opposed to those that maximize average production; require low inputs and are more accessible to poor people, and reduce labor needs and allow for alternative use of family labor.

The SLA needs an integrated, interdisciplinary approach and allows merging conventional quantitative economic tools with systems and pathways modeling, with qualitative tools, hence the use of household sample surveys, social analyses tools, gender, institutional, stakeholder, and market analysis. In general it relies comparatively more on participatory assessment.

### **Conceptual and operational issues**

The main issues in IA are the counterfactual, lag times and timing, and the spatial dimension. Establishing a realistic counterfactual, e.g. a 'forecasted scenario that would have occurred without the research output' is essential. The impact is the observed event minus the counterfactual. This allows generating 'before' / 'after', 'with' / 'without' scenarios. It is however difficult to build counterfactual in agriculture because of the inherent presence of dynamics, externalities, policy influences, conflicts, social and ecological changes and of course technological change.

The other issue is lag times and timing; research is a cumulative and evolutionary process, this posing problems in attributing impacts due to the presence of older projects, and the need to include the costs incurred in past activities, the sunk costs of past research investments, direct costs of for instance evaluation, travel, field work, data system building, analysis, overhead, and the opportunity costs for instance of scientists time, participatory research, ex-ante studies, etc. The timing of ex-post assessment is recommended to take place at the program level and higher ideally every 5-10 years.

The spatial dimension depends on the geographic mandate of the study; hence there can be IA at the global, system-wide, state, program, project, and individual study levels.

### **Emerging challenges for IA**

- INRM research: this is known to be expensive, complex, location-specific
- Participatory Research (the PRGA is the CGIAR organism looking at this)
- IA of non-research outputs: Training, capacity building, advocating services
- Social sciences research (marketing research, policy research, etc...)

The SPIA identifies the following challenges:

- Institutionalizing IA and making it credible and understandable
- Its complexity, hence the need to improve methods to cope with it, and to measure a broader array of impacts
- The need to better match IA results to the needs of decision makers

Finally, according to the CGIAR the keys to successful IA are to:

- Define minimum datasets
- Combine qualitative and quantitative assessment
- Decentralize decision-making on IA work

- Build institutional capacity for on-going evaluation
- Making IA and M&E a routine practice
- Requiring IA to be written in research proposals
- Developing institutional guidelines for databases for IA studies
- Developing workshops to build capacity for research evaluation
- Dedicating part of center's budget to IA activities

This information is based on the following CGIAR sources, available in the workshop CD-ROM and / or on the Intranet:

<http://impact.cgiar.org>

Maredia, Byerlee, Anderson, 2000: 'Good practices' for ex-post IA of agricultural research programs.

Fujisaka, White, 2004. Ex-post methods for IA of NRM research

Adato and Meinzen-Dick, 2002. IA of agricultural research on poverty using the Sustainable Livelihood Approach

Costa Rica 2002 Conference: Why has IA research not made more of a difference?

SPIA, SC Secretariat, FAO, Rome <http://www.sciencecouncil.cgiar.org/index.html>

## **Sustainable Livelihoods and Interdisciplinary Approaches**

Presented by Mauricio Bellon

This presentation dealt with the impact of Improved Germplasm on the Lives of the Extreme Poor: The Case of Tuxpeño -Derived Material in Mexico, a study by Mauricio Bellon, Michelle Adato, Javier Becerril, and Duvravka Mindek, developed between CIMMYT & IFPRI

The main question is the adoption of improved maize germplasm in Mexico. Improved maize varieties have been available in Mexico for more than 40 years. There has been a relatively low adoption despite strong government promotion. The low rate of adoption may be misleading in terms of the impact of improved maize germplasm on welfare of rural households, particularly of the poor.

Creolization is the process by which materials produced by formal plant breeding programs change when placed in the hands of farmers. These expose improved varieties to farmers' conditions and management, continually selecting the seed of these varieties for replanting, and in some cases, promoting their hybridization with landraces

The objectives of the study were: 1) to document how farmers in lowland tropical Mexico use improved maize germplasm, directly by adopting improved varieties, indirectly by creating creolized varieties, 2) and to assess the impact of the direct and indirect use of improved maize germplasm on rural poverty.

The hypotheses are that poor farmers benefit from improved maize germplasm through creolization that improved varieties provide desirable traits not found in landraces but also may lack traits found in landraces. Choosing between them presents trade-offs.

Creolized varieties are intermediate between them and provide traits not supplied by landraces, hence lessening the trade-offs.

The research methods and activities include:

1. Site selection
2. Two types of focus group discussions
3. Ethnographic case studies
4. Sample survey
5. Collection of maize samples
6. Experimental grow out of collected maize samples for agronomic characterization

Site selection included Oaxaca and Chiapas: poor states in Mexico, using a marginality index to select study areas. Two regions were selected for the study: the Pacific coast of Oaxaca and the Frailesca in Chiapas.

Maize production in the Pacific coast of Oaxaca is mainly for subsistence, the Frailesca in Chiapas is mainly commercial, but also subsistence. 12 communities were selected, six per region. Poverty is pervasive in both regions (See the presentation for tables).

The results of the qualitative study are that:

- Creolized varieties combine the benefits of resistance and acclimation to local conditions, with traits of improved seeds
- There is a perception of security provided to farmers by “knowing” the seed
- Creolized varieties improve well-being through a reduction in vulnerability

In terms of maize production and poverty:

- Maize production is a limited route to escape from poverty, but
- Continues to be very important in people’s livelihoods as it ensures food security, provides cash income for other basic needs, and provides maize germplasm that increases yields and reduces vulnerability, hence making a significant difference in people’s well-being.

The implications are that we should get away from the dichotomy of traditional versus modern varieties, go beyond a simplistic concept of yield as yardstick of impact, and we should consider multiple traits and trade-offs.

Even under poverty conditions, orientation of the farming system implies important differences such as those targeting tools that are useful for agricultural research.

## **IA for Institutional Learning and Change**

Presented by Doug Horton

### 1. Background on the ILAC Initiative?

- It emerged from concerns that CGIAR centers were not learning enough from their IA or using lessons to improve their work
- ILAC has academic roots in: utilization-focused evaluation, science & policy studies, organizational development, and action research.

ILAC seeks to bring about changes in: professional behaviors of those involved in the agricultural innovation, institutions (habits & norms) that guide behavior, and performance of R&D organizations.

#### ILAC and Innovation Systems

- Agricultural research organizations operate within complex, adaptive systems.
- Innovation is a socio-technical process.
- Innovations emerge at the interfaces of knowledge production, dissemination and economic activity.

#### Key Role of Evaluation & IA

- Evaluation, broadly defined, can serve as a tool for learning from successes & failures, so as to improve future actions.
- To serve this purpose, evaluations & IAs should be “Utilization-Focused,” and involve key intended users at various points throughout the evaluation process.

#### IA & Organizational Learning: Principles & Pitfalls

- We learn more from our “errors” than from our successes.
- We learn most grappling with problems “in the field”.
- Most organizations have serious “learning disabilities.”
- The higher you go the less you can afford to fail and learn.
- The “new boss syndrome”: new bosses often initiate new programs without taking into account previous or ongoing work.
- Staff turnover often results in a significant loss of “tacit” knowledge.
  - Few evaluations or IA are utilization-focused & actually support organizational learning & change
  - More learning generally results from participation in a IA process than from reading the report.

#### Implications for IA Methods

- Focus on questions of target audiences.
- Select from a wide variety of methods.
- Use collaborative approaches to interpret findings and develop recommendations
- Report in ways that facilitate understanding / assimilation & suggest practical uses.
- Assess processes by which impact is or isn’t achieved and the magnitude of impacts.
- Assess the roles that different agents play in achieving impact.
- Broaden the scope of IA to include changes in institutions, policies and capacity.

Four main standards for have been formulated by evaluation professionals, which also apply to IA: Utility, Feasibility, Protect the subjects of the IA, Methodology

#### Implications for CG Managers

- Centers will get most out of IA if they engender a learning, risk-taking culture.
- It’s essential to ensure that internal impact assessors have a clear and formal mandate to support organizational learning and change (not just the production of IA reports).

## Main ideas from the plenary discussion on the presentations

- We need to be aware of potential criticisms (from some donors and quantitatively oriented scientists) of new, qualitative, approaches and methods.
- Engaging those responsible for the development of technologies or the management of projects in their assessment can help ensure that the results are understood and acted upon
- We need to be careful on how we characterize our failures since failure may be itself may be a success in terms of stimulation for innovation.
- We need to take care to not abuse the term “participatory IA” and recognize that there are different levels and types of participation.
- The Sustainable Livelihoods Approach can be used as a ‘check list’ of important issues to consider systematically in IA.
- The concept of utility of an IA needs to be considered in terms of what is useful for CIMMYT in addition to what is useful for others (e.g. donors etc.)
- “Poverty” can be cultural, and cultural considerations can enter into IA methods.
- There is a literature regarding the application of IA in the development of projects. A big issue is the extent of participation of project staff in evaluating their own work— there are both substantive and perception concerns. One remedy is to examine honestly and openly what has and hasn’t worked, to give a credible picture that includes both successes and “failures”, and identify lessons.
- Informal learning mechanisms are important, but more formalized ILAC and good IA are seen as useful avenues for institutional learning.
- Participatory IA requires getting in touch with beneficiaries. However there are many degrees of “participation”, some less “intense” than others.
- Our discussion has brought out many good components of IA, under ideal conditions. How can we apply this under resource constrained conditions in the field? How do we narrow down the minimum best practices that IA should always include? It was suggested that usability and feasibility are two key criteria, and that our MTP will guide us in determining which IA studies are priorities.
- We should be modest about our findings and recognize the limits of our methods and our results, and degrees of uncertainty in presenting the results.
- We should seek a balanced portfolio of IA that reflects the breadth of our priorities and institutionalize standards, minimum datasets, and guidelines.

## Prioritizing future impact IA studies

The following areas were collectively identified by the participants to represent the priority IA studies: ongoing or visionary IA projects for maize, global rust, spillovers, conservation agriculture, seed systems, and mapping impact networks.

IA' STUDY,	TYPE				STATUS		EX		LEVEL		FUNDING IDEAS	MTP OBJECTIVE			
	NRM	GRW	GRM	INS.	OG	VISION	ANTE	POST	GLOB	REG		O1	O2	O3	O4
Seed Systems		X	X	X	X	X	X	X	X		RF, Reg. Dev Banks		(X)		
Maize varieties (S. Africa)			X		X			X		X	Rockefeller	X	(X)		X
Drought tolerant maize Asia			X		X		X			X	Part A.D.B	X	(X)		X
Stress tolerant maize (E. Africa)			X		X		X			X	Syngenta, IFAD / R.F.	X	(X)		X
Global Rust		X				X	X	(X)	X		?		(X)		
Spillovers		X	(X)			X		X	X		?	(X)			
C.A (Global)	X					X	X	X	X		?		(X)		
C.A (Asia)	X				X		X	X		X	Regional Donors-USAID		(X)		
C.A (AF)	X				X			X		X	IFAD, C.P., BMZ		(X)		
Mapping Impact Network	X	X	X	X		X	(X)	X	X	X	Core / CG / Eco-Regional	(X)			

## Recently completed CIMMYT IAs

- Impact of wheat genetic diversity on TLP (total factor productivity) in China
- Biological control diamond back moth
- Impact of wheat genetic diversity on costs of production in China
- Biological control water hyacinth
- Impact of participatory research in CIMMYT
- IA of CIMMYT capacity building
- Impacts of rust research
- Impact of SDLF (Southern Africa Drought & Low Fertility) varieties
- Gene flow project
- Impact Zero tillage
- Creolization project
- Oaxaca Project
- ZT Impact India
- Impact of Ambionet (focus on network building & capacity in biotech)
- Impact of maize breeding in ESA
- Wheat productivity & competitiveness

As a conclusion of this collective effort from the ITA and associated scientists, the group looked at the practical implications for implementation of IA work. This was summarized as three main areas, including the process of development of a learning platform for IA within CIMMYT, the elaboration of working guidelines and a timeline for the next steps in the IA learning process, and the operational modalities for building IA into projects.

## Towards a learning platform for IA at CIMMYT

Definition of “platform”: a learning culture.

1. Learning about IA
2. Sharing the knowledge and results.
3. Working on guidelines.
4. Co-opting others to participate.

*Concerns:*

- That developing a learning culture, “falling forward”
- That results from IA improve CIMMYT’s work
- That doing IA and establishing a learning culture involves shifting resources

What	Who	When
Doing briefing papers of IA studies	Individuals and support from CC	Immediately
Culture audit for CIMMYT	ILAC	2005
Joint activities by ITA and biophysical scientists: (Presentations, field trips, attending professional events, publications). Publications on IA and non-IA, to help foster working together effectively.	1. Management (buy in, create the culture)* 2. Institutionalization of IA in proposals; donor intelligence on IA. 3. Need a champion. (ITA staff) 4. Resourcing	Next RC meeting. Soon (as part of JDodds resource mobilization strategy).
Champion	ITA with resources from management	
Meet again	ITA staff	October 2005

Suggestions:

- Investigate the role of internal auditors for institutional buy-in
- Get a discussion topic in a management meeting on IA & Allocation of time
- Include IA in work plans and work through program directors to establish collaboration between ITA staff and biophysical scientists.
- Get IA on personnel performance sheet and on work plans

Participants: Hellin, Aquino, Badstue, Bellon, Rogger
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## Towards guidelines for IA at CIMMYT

Negotiation is necessary that involves stakeholders to agree on indicators, on how to measure impact, and also a baseline data survey, as well as to agree on standards.

Key considerations were that:

- Not only social scientists should be involved
- Looking at broader outputs of IA
- Going beyond just ex post, but include monitoring and evaluation

- Need to distinguish and set time frames as projects are limited in time, and continuous activities like wheat breeding need regular cycles of evaluation
- IA is more than ex post; it is thus time to also build in Monitoring and Evaluation
- Control mechanisms are needed to ensure that IA and M&E take place and their quality. This is the role of a person external to the program but internal to CIMMYT, with support of CIMMYT staff, hence the need for peer group evaluation and an IA focal point to push the process, offer guidelines, harmonize and synthesize with support at the global level and in each program and project.
- Need to institutionalize mechanisms; to capture global spillovers; to choose when and where to conduct IA and to negotiate and prioritize what needs to be included into the IA and what to assess.
- Develop mechanisms to include IA within projects and within programs
- Build into projects and programs baseline surveys and regular reference points
- The type of assessment (traditional vs. new) depends greatly on the focus of IA
- It is necessary to distinguish between different types of IA, both traditional and new ways (SLA): a balance should be found for integrating new approaches, for which a checklist is needed and negotiation on how to include the new aspects.
- Impact pathways should be made explicit in project conceptualization for all projects, and we should be able to state how these makes a difference.
- IA does not only represent a service, but also helps to develop a vision.
- Minimum dataset standards for a specific type of IA (SPIA has proposed this; they have more detailed information about types of datasets and standards).
- Mechanisms are needed to include IA into programs (M&O, workshops)

### **Timeline of activities:**

- 1) Workshops
- 2) M&E processes (from just before the mid term workshop in Rome, onwards)
- 3) Establishment of focal points and peer groups (as early as within 1-3 months)
- 4) Definition of indicators (on-going process, from now until 2005 march)
- 5) Minimum datasets and standards (to be started within 3 months, completed in 9)
- 6) Checklists (to be started within 3 months, completed in 9)
- 7) Culture of ILAC (on-going process, from now, to be revised around March 2005)

This process needs to be closed in about a year's time, reporting back accomplishments in late 2005 and should have impact pathways as components for project proposals.

Participants: Erenstein, De Groote, Payne, La Rovere
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### **Operational modalities for building IA into projects**

Suggestions consisted of including "impact pathways" in proposals, defining "what is a project", that not all projects merit full-blown IA, and to consider also the negative effects.

The main questions were defining the meaning, objectives, and the action planning. To define the meaning for building IA into projects it is necessary to clarify how to actually put an IA into each project and when is it necessary. Putting IA into a project is useful for priority setting, to show when goals have been reached (or not, and why not), for self

learning and to notice unintended consequences. IA can help organize the project (what is done, how, for whom). IA is not project evaluation.

How can people from ITA work with others?

*Institutional:* The management committee must check a box approving that IA was considered and discussed and is adequately reflected in the proposal.

*Director:* Determine if adequate resources are available in the proposal for IA. If the assessment is regional, then regional staff can do; if global, it must use ITA resources.

*Scientist level:* Must be seen as a useful component. Need to determine who will pay: some donors don't want to include IA in proposal because they do it; others will demand that it be done and will pay for it. In some cases, donors will not provide additional money for IA; so there should be another pot of money for IA or alternative ways of funding to assure that IA does not compete for funds with other research activities.

To define the objectives for building IA into projects:

- ALL projects MUST have an impact explicit in the proposal or the course of the project and a definition of how the impact will be demonstrated.
- The definition of IA will depend on the project. In many cases we may already be doing it and may need to be no more involved than using the currently existing evidence to write it into the proposal.
- Depending on the objectives of the project an IA could be very useful for organizing the project to ensure maximum benefit. Hence it is necessary to start to define the IA at the beginning of the project by focusing on what kind of impact the project should have and how it should be done.

Action planning: who does what and when for building IA into projects:

- *What:* depends on the goals, scope, and size of the project. But if a project is generating and delivering a product or technology for adoption by someone, a detailed IA must be included from the beginning.
- *Who:* proposal writers must seek expertise to determine what type of IA is suitable and involve staff (from ITA or outside) into the proposal and research plan.
- *When:* it is necessary to start discussing the inclusion of IA at the stage of conception and before the proposal is finalized.

Operational Modalities

- How can people from programs 1 and 3-6 work with program 2 to ensure the proper IA is built into each project?
- If it is a large IA, how does it get done? Who does it? Who pays?

Institutional level: If each proposal submitted to the MAC gets check mark for certain prerequisites before it is sent to the donors, the proposal writers should appropriately discuss with the correct person(s) to determine and include the appropriate IA.

Program level: Program directors should help determine for each project if the available resources are sufficient for proposed / necessary IA, and if not, should propose / seek additional resources. If the scope of the IA is global and not regional, ITA takes a much larger role in planning and execution.

Scientist level: The culture of how assessment is considered must change. IA should not be viewed as yet more work for overburdened scientists, but rather as a useful component to maximize the benefits of a project.

An additional consideration is that of who pays for the IA. If this reduces the research budget, it may be done inefficiently and with resentment. There could there be another source to be used only for IA and be offered as additional money for researchers. Also, not all projects need an IA, although all should have their impacts stated. It is also important to define a project; small activities are not real “projects” while a full-blown IA is only necessary on selected, major projects. ITA needs to make a statement about what it will do and the respective roles of its staff and staff from other programs in IA.

Participants: Warburton, Langyintuo, Mekuria, Waddington, Hodson, Pulleman
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## Evaluation of the workshop by the participants

In the closing sessions of the workshop, the participants evaluated the workshop, the process, and its achievements and shortcomings and generated the much needed suggestions for the improvement of the process and its continuation in the future.

### General reaction:

- The IA workshop was rated by participants as good (marked at 4.12 out of 5).

### Achievement of planned outputs (5 = fully achieved; 1 = not achieved)

	Average
- Improved familiarization between participants and disciplines about new CIMMYT thrusts and IA relevance and applications	3.77
- Strengthened individual competencies through better understanding and ITA program capacity for high performance team research	3.4
- A multi-disciplinary learning and operational support platform across programs for relevant, high quality IA at project, national and global levels	3.2
- A working framework and key elements for IA in CIMMYT, drafted by participants based on selected materials and scientists' experience	3.22
- A workplan for ongoing learning and capacity building of the learning and operational platform, identified follow up activities until next IA workshop	3.06

### Strengths and weaknesses of the IA workshop

**Positive aspects:** generation of a team interaction and team building, applied a culture of discussion, sharing, and learning, worked with real practical cases, with good overall facilitation and some advances on the framework and methodologies while having had on board a diversified mix of social scientists as well as bio-physical ones.

**Negative aspects:** The main weakness was principally the timing, which did not allow sufficient breeders to join because of field work load, and the time-keeping during the sessions, that caused delays and loss of productive time. These were followed by the fact that it could have been more concrete than it already was, and to having had to specify in advance and communicate to the participants the objectives and action plan.

The duration of the workshop (4 days) was judged as appropriate by most participants

The workshop was judged as **useful** (4+) particularly for those from headquarters (>4) than those from regional programs (<4). Small group sessions were most useful, mainly for staff from headquarters, followed by plenary discussions, and panel presentations.

The suggested **improvements** consist of a greater inclusion of non-ITA colleagues, other partners, and program leaders, and a better management of workshop time. More synthesis would have also clarified the process and learning, as well as more information handed out before hand. There is now need to follow up with workshops having a thematic focus (for instance on conservation agriculture, genetics, wheat...). What could be usefully **added** is also guidelines and sufficient time for implementation, the use of successful experiences, and the participation of breeders.

The most important follow up activities consist of capacity building, documentation sharing, application and increased attention to the operational concepts of livelihoods and participatory research, more concrete methods, tools, and guidelines, the joint

definition of research proposals, the development of IA workshops in the various regional programs, and a series of executive and more comprehensive reports.

**Suggested improvements:**

- Increased involvement of non-ITA scientists, other partners, and program leaders
  - Better timing of the sessions and stricter sticking to set times. Informality or a relaxed format should not be confused with poor time management.
  - More information circulated before the workshop and consultation on the organization
  - Need for more synthesis of discussions at the beginning and end of days
  - More discussion of some sections and increased use of background documents
- It is clear that there are different ways to organize a workshop and that it is necessary to choose the correct one according to the type, objective, and audience of the workshop.

## **Closing statements**

As a conclusion, all participants expressed their main views on the workshop. In addition, some of the key players and representatives of the organizers and steering committee, as well as the CIMMYT management, had some final statements.

**Selected group comments:** There was good teamwork and interactions. We need to get down to the details... aerial views are good, but the problems are on the ground. Everyone learned a lot about the complexity and diversity of IA and on ways to apply it in our work. It also served the purpose of getting a better idea of the role of the ITA and for some new staff to get to know their colleagues. Although some with more experience in IA remarked that little new was revealed, they hoped to now be able to apply the lessons more in their work. There is also an increased awareness of the fact that we do not work alone, and of the importance of our CIMMYT colleagues and partners. Some ITA staff achieved a better vision of how they can serve their biophysical brethren in general, particularly in IA. There is also realization that this is cutting edge stuff and that there are many other institutions grappling with the same issues. The model of methodologies and meeting processes will be useful to other institutions. The importance of good communication, facilitation, and negotiating skills in pursuing IA was also mentioned.

**Jamie Watts** said that ILAC was happy to have had this opportunity to provide financial and other support to the IA initiative at CIMMYT. Some cutting-edge issues were addressed and that will implications for IA in other centers or at the level of the CGIAR system, including the need to define guidelines and minimum standards, considerations for the learning function of IA, broadening the definition of “impact”, and building on the strong tradition of economics-based impact studies; moving forward, without losing past strengths. ILAC would help to transmit this experience to the rest of the CGIAR through its communications mechanisms and publications, specifically the ILAC brief that will be prepared as follow up by CIMMYT.

**Roberto La Rovere** was happy to have met people with whom he would be working in the field. Also thanked the facilitators and said that they would be working together in the future on the process of learning for IA. He also emphasized that the IA learning process will cover the coming year, and that we should be patient and not react impulsively (ad-hoc) to requests. He'll need to visit and assess regional programs and offer IA training in

the region. IA is actually not so complex in the end; we have people who can guide us, we have learned and are still learning, so we'll be able to move forward. He mentioned the role of ITA as an umbrella and emphasized his role as focal point and resource person; but of course the real IA work will have to take place in the research programs. We need a good follow-up to apply guidelines and minimum standards. This whole way of working is still in its infancy in the CGIAR; hence as we progress we can be among the leading CGIAR institutes.

**John Dodds** thanked outside visitors who provided support, regional staff of CIMMYT who stayed awake and participated, despite jet lag. At one point many advocated closing the ITA, but many and himself have always believed in the necessity for the program. Success needs energy and commitment at all levels. You've come a long way in identifying short, medium, and long-term actions. But follow-up is required: we don't want to lose the spark! It was good that we laid out some long-term objectives and dreams: it rests in our hands to make them happen. We should not lose sight of them.

**John Dixon** was happy that everyone did so well. After an initial trepidation, the group did well and self-organized. This workshop was a milestone. We're creating, we're innovating, and we're leading thanks to this group. We have to keep that energy going! The program made progress on guidelines, on building a learning platform, and on building individual and group capacities. The major outputs are a clear agreement that we have to go for an impacts and learning culture and to foster it. Interesting issues were raised regarding linkages, working with programs and internal auditors. Resources are also important—our gut feeling that CIMMYT could invest up to 11% in IA was interesting, as well as the importance of IA in ITA work (35%). IA is closely related to knowledge sharing and management, targeting, and capacity building, key areas of the program. One potentially useful idea was the pool of resources for IA work, perhaps under a matching funds arrangement, to make sure that important IA gets done. It seemed clear that IA needs nurturing and support from the management, including a sense that you can't add on to scientists' activities without taking away other; it's multidisciplinary and needs teamwork. It should also be recognized in performance appraisals. This is the first step in a 1-year process. There will be support from the headquarters. Several events are lined up such as briefing sessions for other staff that wanted to be in the workshop but couldn't. Also in October, when the social science interest group meets on seed issues in Rome, a sub-group will meet to review progress; and in early 2006 we'll come together again to review accomplishments.

#### **Final plenary comments about required follow-up actions**

- The materials from the workshop will include a longer report and a shorter executive note on the main outcomes for all CIMMYT staff and workshop participants
- There will be chance for all to feed into the agenda for the October mid term meeting
- There will be a briefing session for some EI Batan staff who wanted to attend, starting with the wheat workshop on May 25<sup>th</sup>
- There will be an article to be posted on the CIMMYT intranet regarding the workshop
- An ILAC briefing note will be made with focus on guidelines and minimum standards

# Annexes

## Program

Tuesday 3 May

Session	Purpose, objectives, outputs
8:45	Welcoming and registration (tickets reconfirmation, etc.)
9:00 – 9:15	Welcome by John Dodds
9:15 – 9:30	Welcome by John Dixon
9:30 – 10:00	Overview of objectives Presentation followed by go-around of each person to introduce themselves
10:00 – 10:15	Group Picture, Coffee Break (All staff and participants)
10:15- 10:20	Announcements
10:15 – 10:45	Presentation and discussion of: Roles, Participatory values, Working norms for the week, Agenda
10:45 – 12:30	<b>Understanding our experiences with IA</b> 1. What is our capacity for IA? 2. How do we define impact? 3. What are some strengths and best practices in IA? 4. What are the challenges/weaknesses in IA? Working in Eco-regional groups, we discuss the following questions and prepare flipcharts that are then reported to plenary
12:30 - 13:30	LUNCH at the Rincon Mexicano, free time
13:30 – 15:15	<b>Increasing understanding of livelihoods, poverty and systems.</b> Work in thematic groups 1) How do we define the thrust area? 2) How does this approach affect our work? 3) What are the implications for IA?
15:15 – 16:30	Livelihoods, poverty and systems
16:30 – 16:45	Evaluation of the day Key questions: - Are we working together effectively? - Have we gained sufficient clarity on the concepts of livelihoods, poverty and systems? - Have we gained sufficient clarity on the implications of these for IA?
16:45 – 17:00	Quick review of agenda for Day 2

Wednesday 4 May

Session	Purpose, objectives, outputs
08:30 – 08:45	Recap D1, Objective and Plan D2
08:45 – 09:15	Present and critique the skeleton for an evaluation framework (see below*) <ul style="list-style-type: none"> <li>• Introduction of the framework:</li> <li>• Discussion of the logic and uses of the framework.</li> <li>• What is missing from it or unhelpful?</li> </ul>
09:15 – 09:30	Introduction of group exercise on focusing and designing an evaluation
09:30 – 10:30	Group exercise on scoping an evaluation. <ul style="list-style-type: none"> <li>• 3 groups are formed, one per evaluation case</li> <li>- Hodson presents the case of Wheat Rust impacts</li> <li>- Erenstein presents the case of Conservation Agriculture</li> <li>- Langyintuo presents the case of Global Maize Impacts</li> <li>• The case presenter summarizes the evaluation job to be done</li> <li>• Group asks for clarifications, and begins answering main questions:               <ul style="list-style-type: none"> <li>○ What is the purpose of the IA?</li> <li>○ Who are the key users and intended uses of evaluation?</li> <li>○ Who should be involved in the evaluation?</li> <li>○ Identify clearly what will be assessed (the 'evaluand')</li> </ul> </li> <li>• Determine the scope of the exercise (temporal, spatial...)</li> <li>• What does the Impact Pathway look like? (charting impact pathways)</li> <li>• What are the key <u>evaluation questions</u>?</li> </ul> Using a skeleton of impact framework proposed by Doug Horton (see below*)
<b>10:30 – 10:45</b>	<b>Coffee break</b>
10:45 - 11:15	Presentation and discussion of group results in plenary
11:15 - 12:00	Same groups develop an "impact pathway"

<b>12:00 – 13:15</b>	<b>LUNCH Box + Field Visit, El Batan (i.e. conservation agriculture)</b>
13:15 – 14:30	Same groups develop impact pathways and formulate key evaluation questions <ol style="list-style-type: none"> <li>1. What <u>methods/approaches</u> do you propose to answer the key questions?</li> <li>2. What <u>disciplinary expertise</u> will you need?</li> <li>3. How will you mobilize this expertise?</li> <li>4. How will you ensure that the IA study “makes a difference” (the results are <u>used</u>)?</li> </ol>
14:30 – 15:00	Presentation and discussion of group results, Recap Day 2, Plan Day 3
15:00 – 16:00	FREE TIME, Q&A TIME DODDS, MEETINGS
19:00 >>>	Workshop dinner

### Thursday 5 May

\*\*\* Sessions of May 5 are a continuation of those of May 4, with additional questions raised on the 3 case studies. Hence all discussion is given above aggregated by case study.

<b>Session</b>	<b>Purpose, objectives, outputs</b>
8:30 – 9:00	Recap D2, Overview of agenda for Day 3
9:00 – 10:00	Reporting out of impact pathways and key questions
10:00 – 10:30	Brainstorming on existing and possible impact studies: present and future ones
10:30 – 10:45	Coffee break
10:45 – 11:45	Brief panel presentations on methods, approaches and best practices: <ul style="list-style-type: none"> <li>- CGIAR IA approaches and guidelines La Rovere</li> <li>- SLA and interdisciplinary approaches Bellon</li> <li>- IA for Institutional Learning and Change Horton</li> </ul>
11:45 – 12:30	Case Study Team Role Play: <ol style="list-style-type: none"> <li>1. Given the identified key questions, what methods would be required to answer these?</li> <li>2. What disciplinary expertise needs to be brought in to the study?</li> <li>3. If more than one disciplinary expertise is needed, how would you mobilize this expertise?</li> <li>4. How could it be ensured that the products of the IA are used and make a difference?</li> </ol>
12:30 – 13:30	LUNCH, Rincon Mexicano, free time
13:30 – 14:00	Case study continued
14:00 – 15:00	Reporting out and discussion
15:00 – 15:30	Announcements, evaluation, starting time and brief overview of agenda for Friday Closing comments, Evaluation time
15:30– 15:45	Coffee break
15:45 – 16:30 +	Free time for groups to finish their write ups (hand over to Janin!)

### Friday 6 May

<b>Time</b>	<b>Topic</b>
9:00 – 9:05	Recap D3, Overview of the agenda
9:05 – 10:30	Participants were divided into 3 teams to address the following issues: <ol style="list-style-type: none"> <li>1. Learning platform for IA.</li> <li>2. Framework and guidelines. Defining best practices and what are the “do’s” and “don’ts.” An action plan for CIMMYT on IA to implement IA with limited resources.</li> <li>3. Building IA into projects and operational modalities. (How global and eco-regional programs interface. Defined by common research themes, joint activities.)</li> </ol>
10:30 – 10:45	Introduction on ITA intranet knowledge sharing facility, and workshop CD-ROM contents
10:45 – 11:00	Coffee break
11:00 – 12:30	Reporting to plenary, discussion: Who, when, what, how, and budget considerations
12:30 - 13:30	LUNCH Outdoor Picnic, free time
13:30 – 15:30	Categorizing and ranking, and matching to MTP draft objectives Interpretation and plenary discussion
15:30 – 16:00	Card writing of needs for follow-up from this meeting over the next year
16:00 – 16:20	Distribution, filling in, and collection of workshop evaluation forms Distribution of draft workshop summary in CD-ROM
16:20 – 16:45	Closing

## Participants list

	Last name	Name	Position	Institution	Program
1	Aquino	Pedro	Economist	CIMMYT, Int.	ITA
2	Badstue	Lone	Social Anthropologist	CIMMYT, Int.	ITA / TES
3	Bellon	Mauricio	Human Ecologist	CIMMYT, Int.	ITA / TES
4	De Groote	Hugo	Senior Economist	Kenya	ALP / ITA
5	Dixon	John	ITA's Director	CIMMYT, Int.	ITA
6	Erenstein	Olaf	Agricultural Economist	India	IAP / ITA
7	Hellin	Jonathan	Poverty Specialist	CIMMYT, Int.	ITA
8	Hodson	Dave	Interim Head, GIS Laboratory	CIMMYT, Int.	ITA
9	Horton	Douglas	Coordinator ILAC initiative	IPGRI	ILAC & KSP
10	Kosina	Petr	Training Coordinator	CIMMYT, Int.	ITA
11	La Rovere	Roberto	Impacts Specialist	CIMMYT, Int.	ITA
12	Langyintuo	Augustine	Post-Doctoral Fellow	Zimbabwe	ALP / ITA
13	Mekuria	Mulugetta	Economist	Zimbabwe	ALP / ITA
14	Meng	Erika	Economist	CIMMYT, Int.	ITA / RFW
15	Pulleman	Mirjam	Post-doctoral fellow	CIMMYT, Int.	IAP
16	Rogger	Toni	Economist (DED)	CAC	RFW
17	Waddington	Stephen	Agronomist/NRG Associate	Zimbabwe	ALP / TES
18	Warburton	Marilyn	Molecular Geneticist	CIMMYT, Int.	GRP / ITA
19	Watts	Jamie	Head, ILAC Unit	IPGRI	Office of the DG
20	Payne	Tom	Scientist, Breeder	Cimmyt, Int.	GRP
21	van Ginkel	Maarten	Wheat Health Plants Bank	Cimmyt, Int.	GRP

### Program acronyms:

ITA: Impacts Targeting and Assessment; TES: Tropical Eco-systems; ALP: African Livelihoods  
 RFW: Rainfed Wheat Systems; IAP: Intensive Agro-ecosystems; GRP: Genetic Resources.



With partial participation of other ITA Staff: Dagoberto Flores, Yinia Montoya, Alejandro Ramirez, Federico Carrion, Maria Luisa Rodriguez, Janin Trinidad, Beatriz Rojon.

## Synopsis of participants

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Pedro Aquino-Mercado was born in Mexico. He studied agronomy in the UNAM (National Autonomous University of Mexico), and earned a MSc degree in 1993 and PhD degree in 2002 both of them in Agricultural Economics, from Colegio de Postgraduados in Mexico. From 1983 to 1994 he worked for different local agencies in Mexico -CODAGEM, Banrural, PEPMA, Colegio de Postgraduados- carrying out credit, technical assistance, and research activities. He joined CIMMYT in 1994 as research assistant with former Economics Program, since 1998 started to develop his own projects for Mexican Maize and Wheat sector, working on themes like technology adoption, seed industry, productivity and competitiveness. He has authored and coauthored about 12 publications, including articles, book chapters, monographs and research reports.

**Lone Badstue**  
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Lone Badstue is a social anthropologist. She has worked with issues related to agriculture and natural resource management from a farmer's perspective in a variety of settings: small-scale maize farming in Mexico; subsistence farming in the agricultural frontier in Nicaragua; and agro-forestry in a land settlement scheme in Costa Rica. She has experience both with long term fieldwork for in-depth understanding as well as the use of rapid assessment tools.

Her research interests include seed system dynamics; the integration of agricultural research with small-scale farmers' practices; small-scale farmer livelihoods; and gender.

**Mauricio Bellon**  
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Synopsis is missing. Mauricio Bellon will be taking up a new post as Director of the Livelihoods Program at IPGRI as of June 1<sup>st</sup> 2005.

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As an Agricultural Economist based at the CIMMYT Kenya office, Hugo De Groote conducts participatory evaluation and economic analyses on new agricultural technologies, including maize varieties resistant to stem borers and witch weed (Striga), and IA and consumer studies of genetically modified and nutritionally enhanced maize. He also carries out policy analysis of the maize sector in East Africa, in partnership with economists in the national systems.

A Belgian citizen, De Groote holds a PhD in agricultural economics from the University of Wisconsin-Madison, an MSc in tropical agriculture from the University of Ghent, and a diploma in animal production from the Institute of Tropical Medicine, Antwerp.

De Groote's entire working life has been spent in developing countries, mainly in Africa. Upon completing his MSc studies in 1981, he worked for five years in rural development projects in Thailand and Togo. After obtaining his doctorate in 1992, he joined the International Food Policy Research Institute (IFPRI) as a postdoctoral fellow based in Mali, analyzing the impact of a micro-credit project on women's income and children's nutritional status. Following this, he remained in Mali, with the Royal Tropical Institute (KIT), working at the Institut d'Economie Rural (IER) based at Sikasso, where his assignment involved analyzing the cotton-cereals farming system, and conducting research on participatory evaluation of new crop varieties and soil fertility practices. He joined the International Institute of Tropical Agriculture (IITA), based in Benin, in 1997 and for the next three years, assessed the socio-economic impact of several of IITA's biological control programs. In 1999, he moved to Nairobi, Kenya to take up his current assignment with CIMMYT.

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John Dixon is a farming systems economist who joined CIMMYT in Mexico in 2005 as Director of Impacts, Targeting and Assessment. He grew up on a beef and wheat farm in Queensland, Australia and earned degrees through the University of New England, Australia -- B. Rural Science, M. Economics, M. Natural Resources and Ph. D. in the economics of sustainable agriculture. After two years as a Teaching Fellow at the Department of Agricultural Economics and Business Management, he joined FAO and has managed rural research and development initiatives in all regions of the developing world. In collaboration with leading Universities, CG centers and the World Bank, he has applied economic, systems, participatory and livelihoods analyses to natural resource management, sustainable intensification and diversification, development strategy and policy, and impacts of globalization. Recently he led the milestone study Farming Systems and Poverty: Improving livelihoods in a changing world and contributed to the Millennium Ecosystem Assessment and the Millennium Hunger Task Force Report. His current research interests include sustainable intensification and dynamics, integrated production systems, biodiversity and livelihoods, value chains, knowledge management, targeting and IA.

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Olaf Erenstein is an applied agricultural economist at the International Maize & Wheat Improvement Center (CIMMYT). He has a broad interdisciplinary background, including socio-economics, agronomy, and natural resource management and farming systems research. His experience spans diverse wheat, rice and maize-production systems in different countries across three continents – including South Asia (Pakistan), Latin America (Mexico, Costa Rica) and Africa (Cote d'Ivoire, Mali, Nigeria). Since 2004 he is based at CIMMYT India, New Delhi. His current responsibilities include strengthening the socio-economic research agenda within the Rice-Wheat Consortium. Areas of particular interest include technology need assessment; ex ante and ex post analysis; enhancing policy and development interventions; stakeholder involvement, participatory research and capacity building. He originates from the Netherlands, obtaining his MSc degree & PhD from Wageningen University, Netherlands.

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Dr. Jon Hellin has fifteen years' research and rural development experience in agriculture, forestry, soil and water conservation (SWC), and better land husbandry. This includes eight years' fieldwork in Latin America and the Caribbean, South Asia and East Africa. Much his work has been guided by sustainable livelihood approaches. In April, 2005 he joined CIMMYT, International as a poverty specialist. He has a BA and MSc from Oxford University and a PhD in Geography from Oxford Brookes University. His PhD was an inter-disciplinary study of why smallholder farmers in Central American steep-lands seldom adopt recommended SWC technologies, and the feasibility of alternative approaches to improved land management that focused on improving soil quality via the use of productivity-enhancing and conservation-effective agronomic practices. The research involved the use of both social and natural science research tools together with qualitative and quantitative data analysis. Recent work has focused on livelihood security and farmers' access to markets, including identifying practical solutions for improving market chain linkages. Jon Hellin has authored or co-authored over 45 publications, including two books, and has participated in three BBC radio programs about land management, poverty reduction and rural livelihoods.

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Dave Hodson is a GIS specialist at the International Maize & Wheat Improvement Center (CIMMYT). He has worked for CIMMYT since 1996, and currently holds the position of GIS unit head. Prior to joining CIMMYT, he worked in the Research Dept. of the Royal Society for the Protection of Birds (RSPB) in the UK. He is based at CIMMYT headquarters, located just outside Mexico City, but is actively involved in numerous regional projects in Africa, Asia & Latin America. Key activities of the GIS unit at CIMMYT include; improved targeting & priority setting for CIMMYT's research products, and enhanced capacity building for partners. Recent research activities have included: the development of user-friendly GIS tools, such as the Maize Research Atlas & Country Almanac series; rural poverty mapping in Mexico; and improved characterization of maize & wheat agro-ecologies. He originates from the UK, obtaining his Bachelors degree & PhD from De Montfort University, Leicester, UK.

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Douglas Horton is a specialist in organizational development and evaluation. He coordinates the Institutional Learning and Change (ILAC) Initiative, hosted by IPGRI. Doug also coordinates the CGIAR's Knowledge Sharing Project, hosted by CIAT. From 1990 to 2004 he worked for ISNAR in applied research, training and professional services related to evaluation, organizational development and capacity building. From 1975 to 1990, he was head of the Social Science Department of CIP, based in Peru. Doug received BSc. and MSc. degrees in agricultural economics from the University of Illinois, and a PhD in economics from Cornell University.

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Dr. Petr Kosina is crop physiologist by profession. Born in the Czech Republic, he has earned his MSc (1997) and PhD (2003) degrees at the Czech University of Agriculture (CUA) in Prague. Part of his research towards PhD was carried in Israel and Spain. During the years 1997-2004 he was working at the same university in Prague as an assistant professor and supervisor of plant tissue culture laboratory. He was closely collaborating with University of Namibia since 1998 and in 2002 accepted lecturer position at Faculty of Agriculture and Natural Resources (FANR). During years of collaboration with University of Namibia he established tissue culture laboratory at FANR and coordinated developing aid project sponsored by the government of the Czech Republic – 'Support of development of secondary and tertiary agricultural education in Namibia'. He also earned Diploma in education from CUA in 2003. He has authored and co-authored about 20 publications in scientific journals and magazines.

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Roberto La Rovere, economist, holds MSc in Agricultural Sciences from Bologna University, Italy, and Development Economics from Wageningen Agricultural University, The Netherlands. In 2001 he completed a joint PhD between Bologna University and the Wageningen Animal Production Systems Group, while being research fellow at the International Livestock Research Institute (ILRI) in Niamey, Niger. He worked in the public agricultural research sector in Spain, and as associate researcher on a project on the impacts of risk in Costa Rica. Between 2002 and early 2005 he joined the International Centre for Agricultural Research in Dry Areas (ICARDA) where he was responsible for ex-ante assessment and targeting of options for marginal rural areas within Integrated Natural Resource Management benchmark projects, mainly in Syria and in Iran in the Livelihoods Resilience Challenge Program. He played an energetic

role in the evolution of ICARDA's focus by supporting priority setting, advocating a closer targeting of research to poverty, a broadening of research domains to better address poverty, and by applying sustainable livelihoods, participatory, and holistic approaches. From an initial interest in 'harder' economic sciences, he evolved toward a closer integration of hard and 'softer' approaches to improve IA and targeting so to account for complex NRM-related poverty issues.

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Dr Augustine Langyintuo is an Agricultural Economist currently working as a Post Doctoral Fellow with the International Maize and Wheat Improvement Center (CIMMYT) based in Harare, Zimbabwe since May 2003. He earned a PhD degree from Purdue University, USA, in 2003. Before embarking upon his PhD studies in 1998, he spent the past decade with the Savannah Agricultural Research Institute (SARI) of the Council for Scientific and Industrial Research, Ghana as an Agricultural Economist and a Part-Time Lecturer of the University for Development Studies, Tamale, Ghana from 1995 to 1998. He has authored and co-authored about 54 publications on input and output market development, agricultural policy, and technology adoption and dissemination. He serves as a reviewer of Agricultural Economics and Food Policy journals. His current research focuses on strengthening seed the marketing incentives in Southern Africa to increase the impact of maize breeding research in line with his professional goal of improving the livelihoods of farm families in southern Africa through the use of improved, high yielding crop varieties and access to reliable input and output markets.

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Erika Meng has been an agricultural economist based in Mexico since 1997 when she joined CIMMYT through the Rockefeller Social Sciences Fellowship Program. Building on her dissertation research on the feasibility of household in situ conservation wheat landraces in Turkey, her research interests include household incentives for the in situ conservation of genetic resources, welfare implications for diversity-maintaining households, and the impact of crop genetic diversity on productivity. She has conducted research on the adoption and impact of crop variety and crop management technologies

and on research priority setting for national research systems through both detailed household surveys and farmer participatory assessment in maize and wheat systems in China, Central Asia and the Caucasus, Turkey, and Afghanistan. She has also conducted training for national collaborators in participatory research methods and survey methodologies as an integral part of her research. Current research interests also include the impact of micronutrient-enhanced wheat varieties on the health and nutrition status of target populations, particularly women and children, in India and Pakistan, and a better understanding of the role of wheat in the livelihoods of farm households in rainfed wheat systems. She holds a PhD and an MSc in Agricultural and Resource Economics from the University of California at Davis, with specialization in development economics, natural resource economics, and econometrics, and a BA in International Relations and Political Science from the University of Pennsylvania.

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Dr. Mulugetta Mekuria is a Senior Scientist: Agricultural Economist- CIMMYT, African Livelihoods Program based in Zimbabwe. He earned his PhD in Agricultural Economics from Michigan State University. Before joining CIMMYT, he was Professor and Head of the Department of Agricultural Economics and Vice Dean of the Faculty of Agriculture University of the North, South Africa. He is actively involved in capacity building initiatives and serves as external examiner for the University of Pretoria.. He has organized and led regional training workshops on tools and methods in socio economics research, for NARS in Southern Africa. He was co –coordinating and networking of the SADC Maize and Wheat Improvement Research Net Work and recently co-coordinating the Soil Fertility Management and Policy Network for Southern Africa. He has published and presented papers in the areas of technology adoption and the economics of Soil fertility technologies in Southern Africa. Dr. Mulugetta Mekuria has been actively involved in resource mobilization for a number of special projects including the Challenge Program on Water and Food-Limpopo Basin. His goal is to be instrumental in developing technologies for maize and wheat based farming systems, advocate for and promote the design of appropriate policy instruments to enhance technology adoption to improve the livelihoods of farmers and consumers in southern Africa.

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Mirjam Pulleman is a postdoctoral fellow in Conservation Agriculture at the International Maize & Wheat Improvement Center (CIMMYT). She started working with CIMMYT in October last year as a post doc with senior agronomist Ken Sayre. She originates from the Netherlands and is a Soil Scientist holding a PhD in Production Ecology and Resource Conservation. Prior to joining CIMMYT, she worked as a soil scientist with the Dutch National Institute for Public Health and the Environment and Alterra Research Institute in Wageningen, respectively. She is based at CIMMYT headquarters (El Batán), located just outside Mexico City, but a significant part of her research takes place in Ciudad Obregon, Sonora (NW of Mexico). She is also involved in the start-up phase of a collaborative research program in East and West Africa on Conservation Agriculture and Below Ground Biodiversity.

Key activities of the Conservation Agriculture Group include; management of long-term experimental trials on Conservation Agriculture at El Batán (rain-fed) and in Ciudad Obregon (irrigated) and the monitoring of crop performance and study of soil processes under different combinations of tillage, residue and fertilizer management. Research and implementation of Conservation Agriculture technologies in regions outside Mexico, mainly Central Asia, China, South Asia and Southern Africa also form part of the group's activities. This is mainly done by Ken Sayre and Pat Wall, in close collaboration with national research partners. In the future Mirjam is expected to be increasingly involved in such activities outside Mexico.

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Employed by the German Development Service – in collaboration with GTZ. Located at CIMMYT Office Almaty, collaborates with Dr. Alex Morgounov, head of CIMMYT Central Asia and Caucasus. In the region since January 2004, in Almaty until about end of 2005. 20 Years experience in practical laboratory work in the fields of chemistry (Pharmaceutical synthesis), Agro biology (Metabolism of Pesticides, Screening systems). Degree in Tropical Agriculture (Basel) and Water and Environmental Management (Brighton) and experience in Nigeria (IITA), Rwanda, Kenya.

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Stephen Waddington is a Maize Systems Agronomist with the CIMMYT African Livelihoods Program and is based in Harare, Zimbabwe. He joined CIMMYT early in 1983 as a postdoctoral agronomist/physiologist in the Wheat Program in Mexico, and then spent time in the Maize Program training unit at HQ before relocating to Zimbabwe in 1986. He has 18 years of experience with farming systems research and development, crop and natural resource management research, human capacity building and technology promotion for the smallholder maize-based cropping systems that feed most of the people in southern Africa. During the last 10 years, he has co-coordinated the Soil Fertility Management and Policy Network for Southern Africa. This initiative has helped develop a better understanding of the severe soil fertility problems in the region, the technology opportunities to overcome them, and the benefits they provide. CIMMYT management responsibilities have included coordination of CIMMYT Regional Project 1 for Sub-Saharan Africa from 1999 to 2003 and Country Liaison Officer for CIMMYT Zimbabwe 2004-05. Waddington is from the UK, obtaining his PhD from the University of Reading.

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Dr. Marilyn Warburton is a molecular geneticist working in the Genetic Resources Program of the International Maize and Wheat Improvement Center (CIMMYT) based in El Batán, Mexico. She was born in Tucson, Arizona, and completed her PhD at the University of California at Davis in 1995. Following one postdoctoral position at UC Davis and one at the USDA ARS Soybean Germplasm Repository in Champaign-Urbana, Illinois, she joined CIMMYT in 1998 to lead the Diversity group in CIMMYT's Applied Biotechnology Center. Her professional interests lie in the identification of new genetic diversity, particularly new alleles of useful genes, from CIMMYT breeder's lines, landraces, and exotic species in maize and wheat, many of which are housed in the CIMMYT Plant Genetic Resources Center. Once identified, this new diversity will be incorporated into improved maize and wheat cultivars for release to farmers. She has authored and co-authored over 70 publications and run multiple workshops, classes, and seminars to teach genetic diversity analyses to university students and NARS scientists.

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Jamie Watts is a Scientist managing the Institutional Learning and Change (ILAC) unit in IPGRI. In this position, she designs and carries out studies of IPGRI's impact and effectiveness and helps to establish an impact and learning culture in the institute. Jamie is also the project manager for the ILAC Inter-center Initiative. Before coming to IPGRI six years ago, she had a varied career in conservation and development, including ten years managing community resource conservation programs for the U.S. Forest Service, five years as grant development coordinator for a \$4.5 million per annum program to promote tropical forest conservation and then as coordinator of bilateral conservation projects for the Forest Service's Asia Program. For three years she was an Environment Specialist with Peace Corps providing support in training, program development and evaluation for environment projects in 92 countries around the world. Jamie has a BSc in Range Ecology from Colorado State University and an MA in International Relations from St John's University.

Final note: at the end of the workshop a CD-ROM containing the draft reports about all sessions and the process, as well as the critical accompanying literature, were handed out to the participants from the regional programs. These included 15 IFPRI papers on IA, 6 other general IA papers, 3 CIMMYT publication lists (on adoption, impact, and on the social sciences group outputs), 13 key CGIAR papers on IA, 12 Agricultural Systems papers on ILAC, 14 papers contributed by Hugo De Groote and 3 of his relevant presentations, 3 of the most relevant papers from the SPIA – Costa Rica conference in 2002, 7 DFID Livelihoods Assessment modules from a training manual on livelihoods assessment that can be used for IA, and a set of 29 pictures of workshop flipcharts and 49 pictures from the Workshop process nicely taken and assembled by Peter Kosina.