Rural Innovation Institute

Discover your Innovation

Executive Summary 2005

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

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Introduction

The purpose of this summary is to provide a starting point for a forward-looking discussion of CIAT's *Enhancing Rural Innovation* Research and Development Challenge (RDC). For this purpose, it is useful to place the achievements highlighted in the 2005 annual reports in the context of the research questions and strategy that guide the overall work of this Development Challenge, based in the Rural Innovation Institute (RII). This includes the participatory research methods project (IPRA), the rural agro-enterprise project (RAeD), the information and communications for development project (INFORCOM) formed in 2002 and the CGIAR System wide Program on Participatory Research and Gender Analysis (PRGA). The RDC log frame in the CIAT mid-term plan includes a fifth area of work, termed "participatory technology development" that refers to a large body of work carried out in CIAT's germplasm and land use projects and by the Tropical Soil Biology Institute (TSBF) applying participatory or agro-enterprise development methodologies.

Although projects are the principal organizational unit for carrying out this work, there has been a steady process of cross-fertilization of ideas and shared proposal development since 2002. As a result there are several cross-cutting research themes and impact strategies that link related work across projects, but these linkages are not always apparent from reporting done on a project basis. These themes provide an important starting point for a forward-looking discussion.

One aspect of the common ground among the projects is the theory of change that underpins their impact pathways, or in other words, the expected outcomes and impacts of the projects' research results that are embedded in the project log frames. A second common aspect lies in the research themes that project scientists address, albeit in different countries, with different institutions and in diverse rural development contexts. A third common feature is the strategy used for producing international public goods. Each of these will be discussed in turn.

CIAT Research for Development Challenge III. Enhancing Rural Innovation (2006-2008)

	Outputs	Intended User	Outcome	Impact
OUTPUT 1 Information and Communications for Rural Communities	A suite of methodologies developed for fostering learning and knowledge-sharing (KS) in agricultural innovation systems.	NARS: public and private sector R&D organizations	At least 40 organizations are involved in Learning Alliances and are regularly interacting with one another, through face-to-face meetings and virtual platforms.	More dynamic learning and KS speed the processes of social and technological innovation in rural communities, leading to the identification of new market options for farmers and more effective strategies for strengthening their links to markets through sustainable enterprises that enable them and other rural people to improve their livelihoods.
OUTPUT 2 Rural Agroenterprises Development	Methodologies tested and disseminated for sustainably linking poor rural economies with profitable and dynamic markets.	▪ NARS: public and private sector R&D organizations ▪ Rural business service providers ▪ Private sector agents, retailers and processors ▪ Producer organizations	At least one regional network supporting rural business service providers and national innovation systems in at least three countries in Latin America, Eastern Africa or Asia use the territorial approach and related methodologies for agro-enterprise development.	The number of farmer organizations linking poor producers to dynamic markets has increased where the territorial approach is used, leading to more diversified livelihood options for farmers including profitable, higher value and value- added products.
OUTPUT 3 Research for Participatory Technology Development	New plant technologies co-developed and commercialized in national agricultural innovation systems using participatory research approaches.	NARS, Other national and international R&D Providers, private sector, and farmer organizations in Latin America and Caribean, sub-saharan Africa and south east Asia directly and globally.	PPB/PVS methodologies widely used in at least 10 countries. Farmers and R&D providers innovate in their production systems and value chains through the use of PPB/PVS crops or forages and agro-ecosystem health management strategies in at least 3 countries in Africa, Asia and Latin America.	Poor farmers have a wider diversity of better adapted genetic materials available and more healthy agro-ecosystem management strategies.
OUTPUT 4 Participatory Research Approaches	A suite of Community-Led Participatory Research methodologies for organizational and technological innovation in agriculture tested and widely disseminated.	Organizations and actors involved in rural innovation systems, e.g., IARCs, NARS, NGOs, private sector.	Through the application of these participatory methodologies, at least 25 examples documented of faster , sustained organizational or technological innovation with more diverse options, blending local, indigenous and scientific knowledge through better articulation of demand from the poor for research with R&D providers.	Better integration of local communities with research and development organizations leading to improved and more sustainable rural livelihoods.

	Outputs	Intended User	Outcome	Impact
OUTPUT 5 Participatory Research and Gender Analysis	Mainstream gender analysis and equitable participatory research to promote learning and change through partnership with CG Centers and NARS so that they can better target the demands of beneficiary groups, particularly poor rural women.	IARCs, NARS and their partners.	Capacity for mainstreaming gender sensitive participatory research approaches has increased in at least 4 NARIS and/or IARCs as a result of training.	Significant improvements in the food security income generation and empowerment of rural women who are beneficiaries of CGIAR research as a result of mainstreaming use of gender sensitive participatory research approaches.

Impact Pathways and the Theory of Change

The impact pathway, and the theory of change that provide the underlying framework for research priority setting and problem identification is summarized in Figure A. This discussion will start from the final impact identified at the bottom of Figure A and work back up the impact path, in order to explain the theory of change that justifies the initial research products (these appear at the top of Figure A).

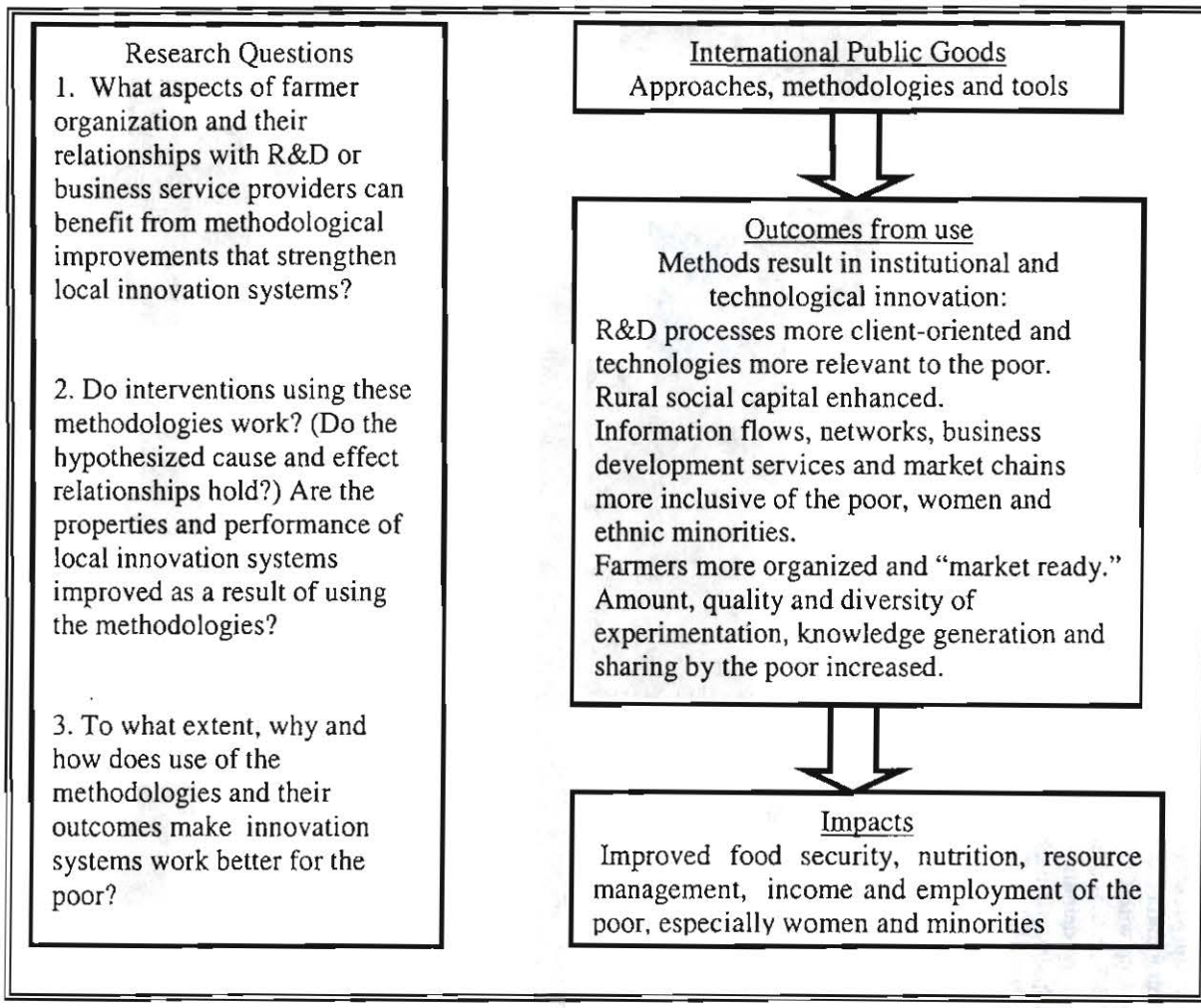


Figure A. Impact pathway.

The final impact issue for research is the question of whether the outcomes of interventions using RII research products do make innovation systems work better for the rural poor. (Question 3 in Figure A). The units of analysis for research addressing this question are typically individuals or farmer groups within an organizational or territorial unit that may be quite large, such as a municipality, a watershed, a project or national program, a network of organizations or a cluster of market chains. The entry points consist of for example, farmers' groups, small agro-enterprises, farming communities or farmer associations, their market chains or social networks, their business development partners and R&D service providers, whether local government or non-governmental. Together, these actors, their strategies and their technologies represent innovation *subsystems* or *local*

innovation ecologies that interact with parts of much larger innovation systems such as national R&D systems, national science and technology policy-making bodies as well as national and multinational private sector businesses.

Local innovation ecologies can be analyzed both in terms of how they interact with a larger innovation system, and in terms of their internal properties and performance. The Institute's research products are mainly the result of applied research addressing issues of how to strengthen internal properties and performance (Question 2 in Figure A). Specifically, this refers to whether the use of RII methodologies and approaches affect the properties and performance of local innovation ecologies, defined as improving farmers' collective action, cooperative decision-making, gender empowerment, shared experimentation and learning in informal groups, formal associations, social networks and market chains. However, as the next section will explain in more detail, moving international public goods along the impact pathway from research results to development impact necessarily involves RII in "thinking beyond the farm" and engagement with innovation systems at a non-local scale.

In general, RII research products are approaches or suites of methodologies that build on a variety of participatory research or participatory learning principles. These products must be understood as ways of introducing new institutions, in the sense that they provide novel sets of "rules" and norms as well as "roles" or strategies for patterned interaction among actors (North, 1995; Leach et al. 1999). For example, participatory monitoring and evaluation methodology provides a bundle of rules and norms about how farmers and service providers can interact to improve their performance. In a different example, market opportunity identification methodology introduces new rules and norms enabling farmers to produce what they can market, instead of trying to market what they produce. A third example is participatory plant breeding that involves farmers in novel ways in the plant breeding process and so alters the norms and procedures of plant breeding in several respects, such as how breeding objectives are set and plant ideotypes are designed.

The theory of change that drives the research strategy says that interventions using participatory approaches, methods and tools will result in institutional or technological change. Participatory plant breeding is a good example because it changes the way research is done *and* the kinds of plant varietal technologies developed as a result. Methodology for improving market chain governance by giving more decision-making power to women producers is principally an institutional innovation but can *also* lead to technology innovations such as post-harvest processing technologies that are favored by women. One of the basic research questions for RII is therefore: do the methodologies and tools work? I.e. do they result in institutional or technological change? (Question 2 in Figure A).

Approximately sixty percent of the research effort is invested in addressing Questions 1 and 2 in Figure A: what are the opportunities and needs for applied research to develop methodologies and approaches to improve science and technology institutions, markets and rural institutions so that they work better for the poor? Is the application of participatory principles the best way to design these methodologies? And in practice, do they work?

Research Themes

One of the key characteristics of small, poor producers is their lack of organization. This limits their access to information, their ability to articulate a coherent demand for innovation from R&D and other service providers; their negotiating power in markets and in forming

partnerships. Cross-cutting research themes in the projects are concerned with understanding how institutional innovations (such as those embedded in methodologies for farmer research groups, agro-enterprise development, learning networks and alliances) affect:

1. Levels of farmer organization, in particular types, dimensions and levels of social capital required for improving :
   - experimentation and participation of poor farmers in research to ensure more gender-equitable, pro-poor agricultural technologies that improve food security, make the poor more competitive (especially in higher value crops such as fruits and vegetables) and increase their income generation
   - chain governance and power asymmetries among market chain

   Actors, leading to successful, sustained market engagement with value chain opportunities by poor producers (especially women and minority groups)
   - networks for learning and sharing knowledge that enhance productivity and competitivity and reduce gender and ethnic disparities

2. Levels and types of market engagement
   - What is the relative effectiveness of a market-led versus a supply-led innovation process, and of the different types of market linkages and chain governance these entail, in empowering small producers, improving their productivity and competitivity, and reducing gender and ethnic disparities?
   - What are the minimum asset, capacity and skill levels, including decision-making, and negotiation skills, required for successful organization and sustained market engagement by poor producers(especially for women and minority groups)?

3. Properties and Performance of Local Innovation Ecologies
   - How can information flows, knowledge generation and sharing be optimized among farmer organizations, their service providers and other actors to improve the planning, decision making, evaluation and negotiation power of the poor?
   - What properties of local innovation ecologies provide an enabling environment for successful and sustained farmer organization, market access, chain transparency, network diversity and shared learning that favor the poor? What institutional innovations and policies influence "enabling" properties of innovation ecologies?

International Public Goods

Public goods research is defined as research that provides benefits for individuals and society that cannot be made exclusive or proprietary. The research carried out through the RDC projects produces generic methodologies, approaches and tools that are developed and tested simultaneously in different countries with contrasting institutions and agro-ecologies. As a result, these research products have broad applicability internationally and are used by a variety of users, ranging from University researchers to networks of NGOs to farmer associations in numerous countries. The resultant technological and institutional innovations may, or may not be site-specific: there are for example, varieties produced by participatory plant breeding that have broad applicability; and agro-enterprise or farmer research committees that appear under numerous different guises in various countries but that all practice the same basic principles encapsulated in those methodologies. Site

specificity of results depends largely on the degree of co-development and local adaptation carried out by partners testing and validating the generic approach or methodology. For example, impact studies show that propensity to innovate with new varieties, species and cultural practices among members of farmer research committees is much higher that of non-members and that rates of technology adoption are significantly faster and higher in communities with farmer research committees compared to communities that do not have these committees. Similar results are consistently observed by partners using a version of the same methodology in different countries. Use of the territorial agro-enterprise development approach has led to an average annual income increase for smallholders of up to 20% across a range of products in the agro-enterprise project's research sites.

The common strategy used by the "heartland projects" in the RDC for producing international public goods in the form of approaches and methodologies for enhancing institutional and technological innovation is best described in terms of a product cycle. The type of research carried out to develop a methodology evolves as it moves through the product cycle illustrated in Figure B. Methodologies being developed are at different stages in the product cycle. As Figure C illustrates, some are at the prototype stage while others are being institutionalized.

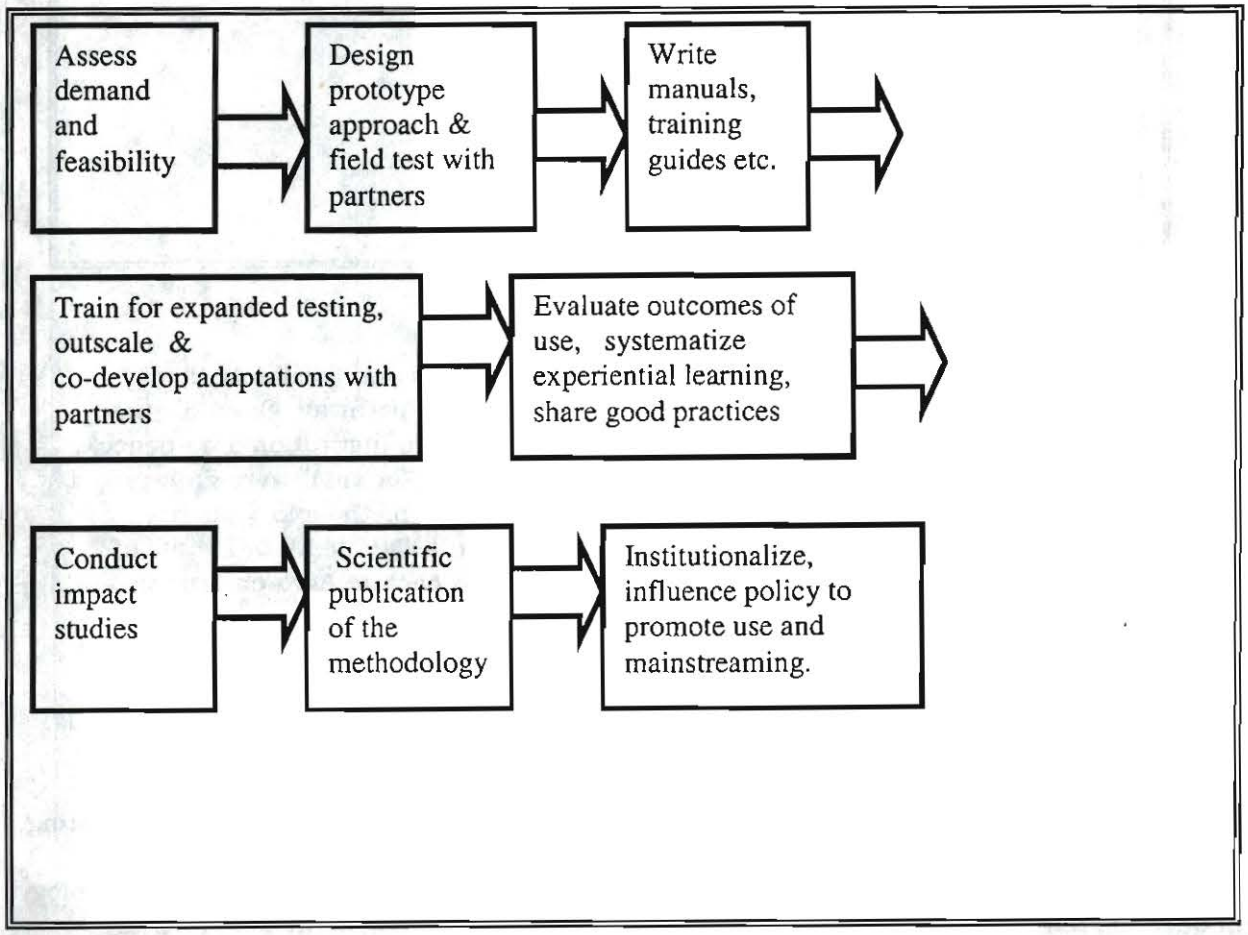


Figure B. Diagram of product cycle.

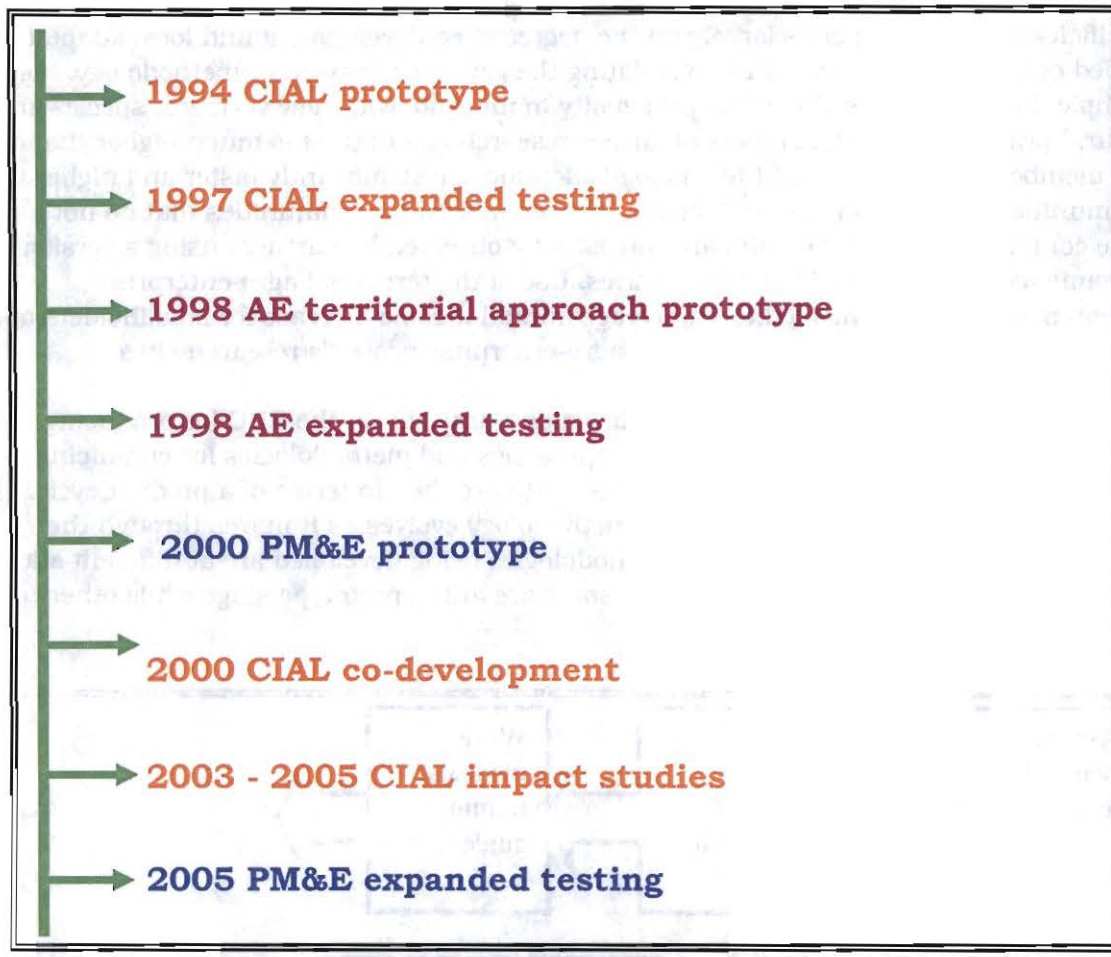


Figure C. Product cycle stages of three RII methodologies.

The cycle begins with a diagnostic assessment of demand and feasibility that essentially involves addressing the first question in the impact pathway. Often demand arises from experience with partners in the field who identify an institutional bottleneck, such as the need for improving business development services for small agro-enterprises. This leads to design of a prototype that may consist of a single methodology such as Community-Driven Participatory Monitoring and Evaluation (CD-PM&E), or a suite of methodologies and applications, such as the Territorial Approach to Agro-enterprise Development.

At the next stage of the product cycle, action research is undertaken with a few partners to co-develop the prototype into a finished product. These partnerships test and evaluate the feasibility and outcomes of applying the prototype methodology within their ongoing development processes or projects. This research addresses Question 2 in the impact pathway. For example, farmer groups and their service providers took part in testing, evaluating and refining methods for development of profitable enterprise options and business models. Research was designed to discover if in practice the prototype methodology in question did foster mutually beneficial relationships between small holders and large commercial buyers.

The result of this work is the preparation of manuals, training guides and software that systematize what has been learned from prototype testing into a teachable set of procedures. Often partners write their own manuals at this stage and there is a process of cross-fertilization between the product of their site-specific experience and the generic or more broadly applicable product sought by the international center. An example is the several manuals on Community-Driven Participatory Monitoring and Evaluation produced interactively by teams in Colombia, Bolivia and Uganda.

At this point in the product cycle, the challenge is to establish whether the methodology that has been tested in a few sites is robust enough to be taught and used by large numbers of potential users in many diverse institutional settings and development contexts. Research will have established first stage cause and effect relationships by this point in the product cycle: for example, those groups of women farmers using CD-PM&E are more organized; or that farmers trained in the market opportunity identification methodology reorient their production and increase sales. However, the issue of whether the improved level of organization or sales lead to improved food security, nutrition, income and employment of the poor, especially women and minorities (i.e. question 3 in the impact pathway) has yet to be addressed.

Research at this stage is focused therefore, on assessing the robustness, broad applicability, outcomes and (where feasible) impacts of the methodology. Larger scale testing and validation requires training of trainers, often implemented in cooperation with some of the partners who tested the prototype methodology. One-off courses are avoided and there is typically an institutional commitment to test the methodology for an agreed period of time by the trainees' organizations. Trainers follow a general strategy of having trainees develop an action plan that is to be implemented on their home ground, and there is a process of mentoring and sharing of good practices fostered among researchers, trainers and trainees, that includes evaluating the process of applying the methodology and its outcomes. The most elaborate form this procedure is the Learning Alliance, a process of identifying, sharing and adapting good R&D practices undertaken jointly with partners.

The results of this stage of the product cycle are:

- Co-developed refinements and adaptations of the methodology. For example, the Global Learning Alliance with Catholic Relief Services (CRS) is streamlining, repackaging and bundling together several of our methodologies together with some complementary ones from CRS.
- Scaling up use, as some partners decide to apply a methodology on a larger scale. An example is the decision of the Bolivian Chaco Foundation, one of the four national R&D service providers, to implement CD-PM&E in all of their projects in 2005.
- Applied comparative research or impact assessment examining how the application of a participatory methodology or tool in different institutional settings and development contexts is correlated with certain key variables, such as social capital or gender equity, and influences specific outcomes, such as marketing outcomes or the types of technology developed. An example is the PhD study of innovation processes in Colombia and Honduras.
- Publication and dissemination of research findings and training materials.
- Development impact (as outlined in Figure A) together with evidence on the outcomes and impacts of using the methodology, based on evaluations that include systematized experiential learning, collections of case studies and empirical research often in the

form of dissertation research. An example is the impact studies of farmer research committees carried out in Colombia and Honduras, and that will be replicated in Bolivia, Peru and Ecuador with new funding.

At the end of the product cycle, research information about the costs, benefits and impacts of a given methodology or approach are used to spur its institutionalization or mainstreaming. This involves "thinking beyond the farm" when organizations testing the methodology decide to incorporate it, making the necessary policy, procedural and cultural changes. An example is the integration of multiple elements of the agro-enterprise territorial approach into CRS projects in over 30 countries. Another is the use of our impact findings into the policy debate in the Bolivian national innovation system, SIBTA, about the desirability of requiring CD-PM&E to be included in all their technology innovation project proposals. A third is the gender mainstreaming initiative of the PRGA program with African NARIs.

Conclusion

One of the issues for the future is how to make this cycle more agile, increasing the number and diversity of international public good-type of research products while reducing the time it takes to get them tested, published and disseminated. Improving the division of labor and specialization among staff in implementing different stages of the product cycle might help to make the process more agile: currently small cliques tend to form around a given methodology and then to nurse and perfect it through every stage of the product cycle. Learning Alliances where research and methodology development are in demand may be a step towards greater agility and a more efficient division of labor. Another might be increasing the number or importance of strategic alliances with Universities, business schools, or corporate networks such as the Sustainable Food Lab to enhance the flow of novel ideas for methodology development and the supply of graduate students who are able to do in-depth research. A major challenge is how to maintain a strategic and coherent research effort that is interacting with development practice without it being hijacked by the need to meet development partners' and short term projects' demand for fast results, as they have become the dominant sources of funding for this type of applied social science in the Center.

Institute Inputs

Fundraising

Figure 1: 2005 Rural Innovation Institute Funding (Total: $5,582,062)

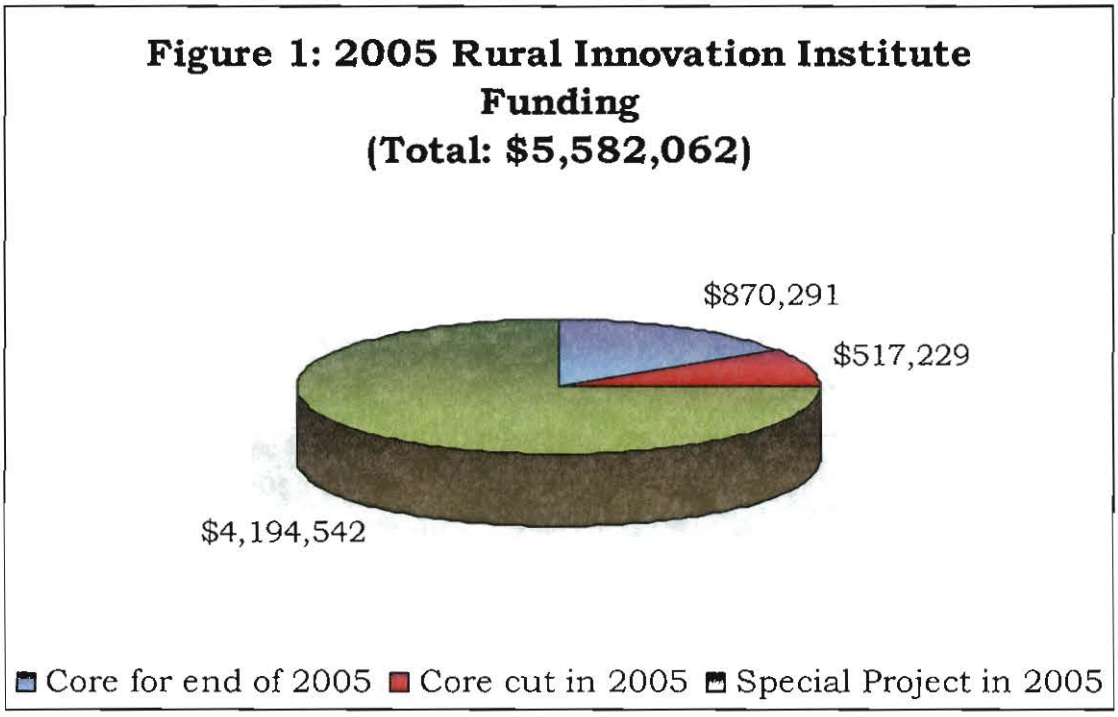


Figure 2: 2005 Rural Innovation Institute Funding Special Project Vs. Core

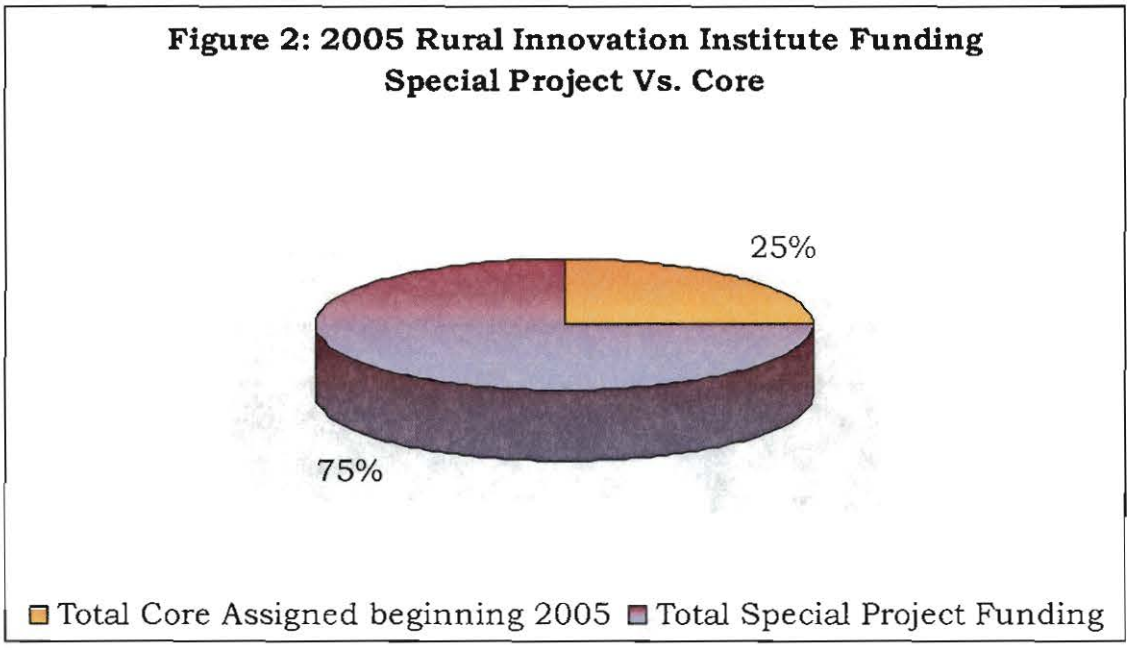


Figure 3: 2002 - 2006 Rural Innovation Institute Total Income

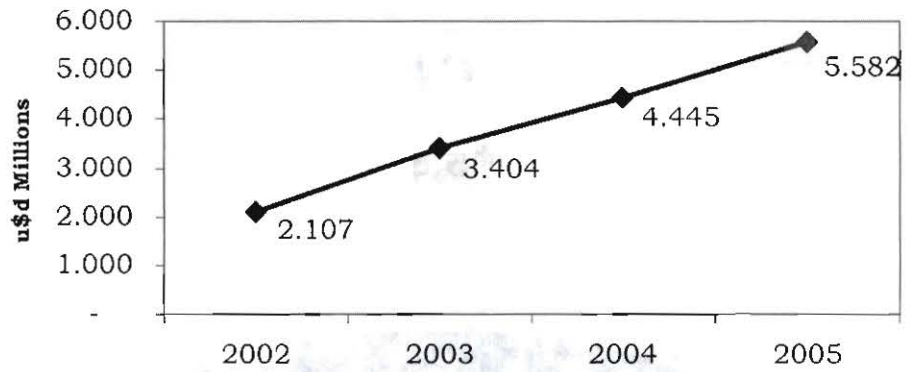
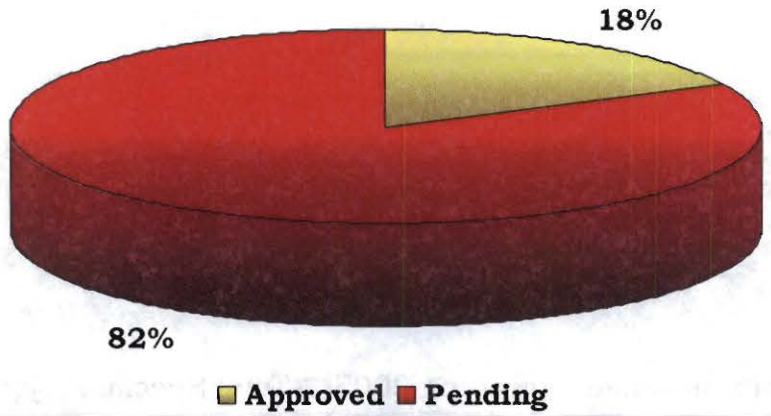


Table 1: Fundraising Effort Total Proposed and Approved Proposals for 2005[1] (USD Millions)						
Project	**Approved**		**Pending**		**Total**	
SN1 - RAeD	$	1.06	$	24.95	$	26.01
SN3 - IPRA	$	4.02	$	10.40	$	14.43
SN4 - InforCom	$	1.44	$	0.45	$	1.89
SW3 - PRGA	$	1.22	$	-	$	1.22
Total proposals 2005	$	7.74	$	35.81	$	43.54

Figure 4: Rural Innovation Institute Fund raising Effort. Percent approved and pending in 2005



1. These are multi - year proposals with income spread over 2 – 3 years.

Staff Composition

Figure 5.1: Number of Staff by Individual project: RAeD

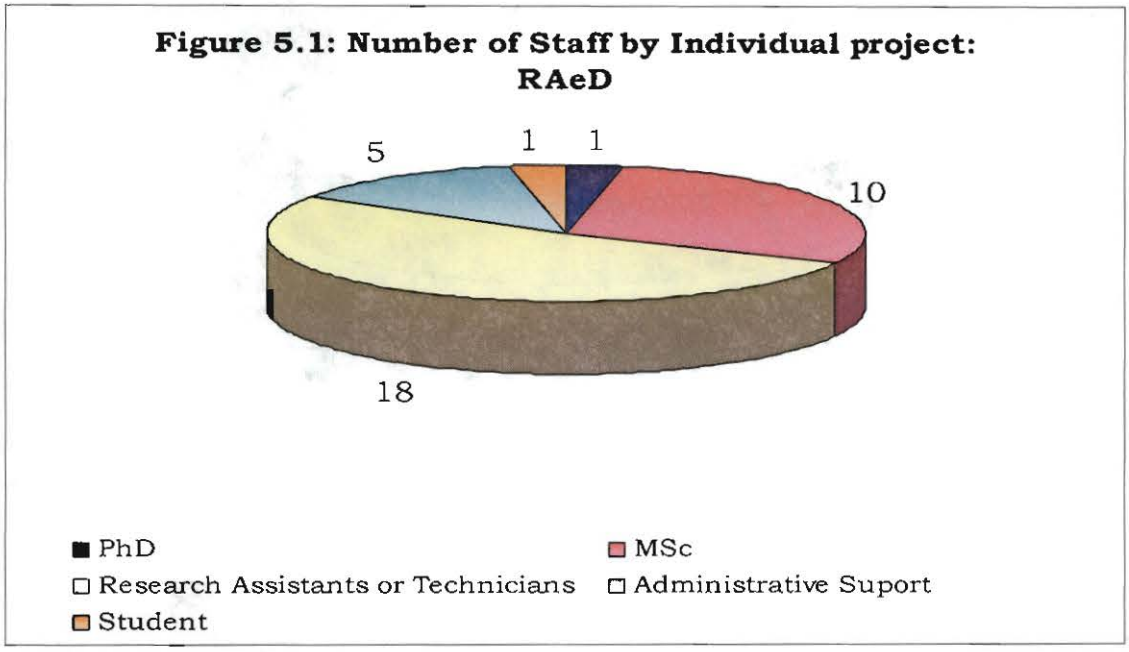


Figure 5.2: Number of Staff by Individual project: INFORCOM

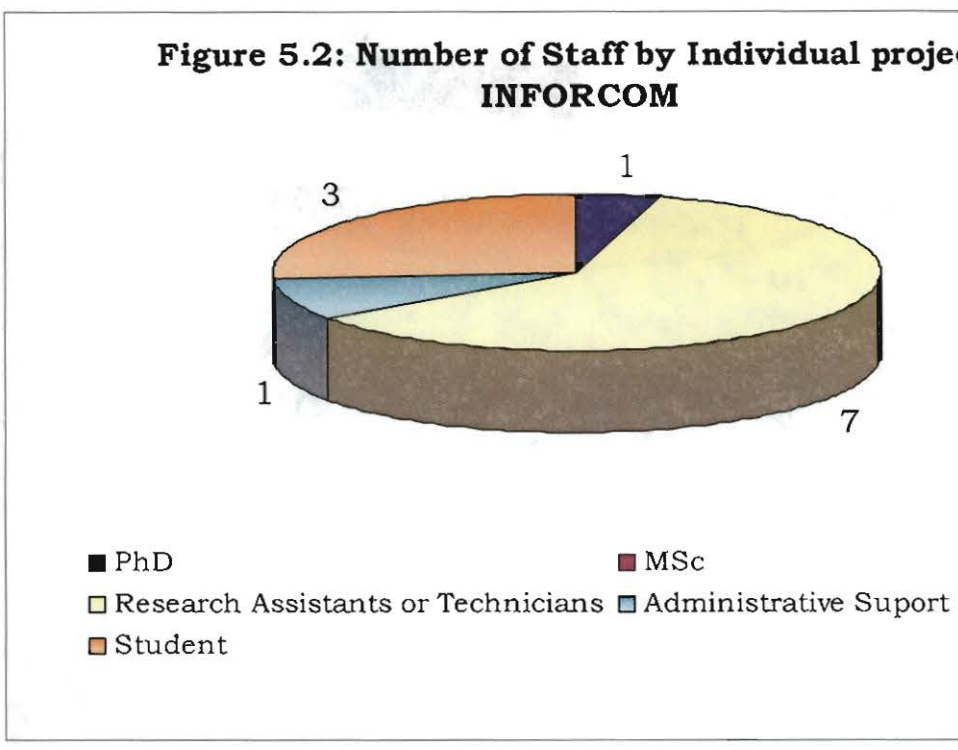
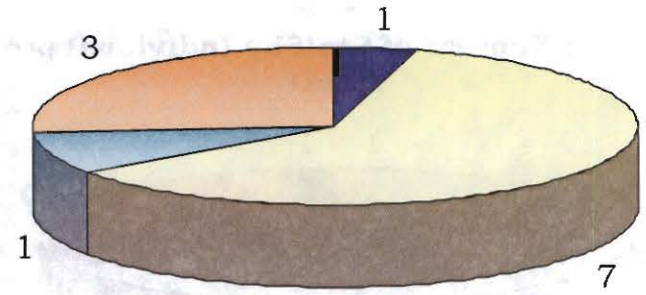
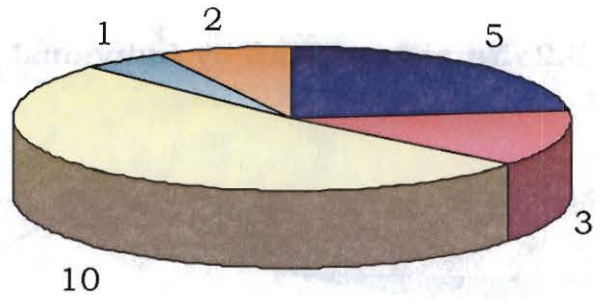


Figure 5.2: Number of Staff by Individual project: INFORCOM



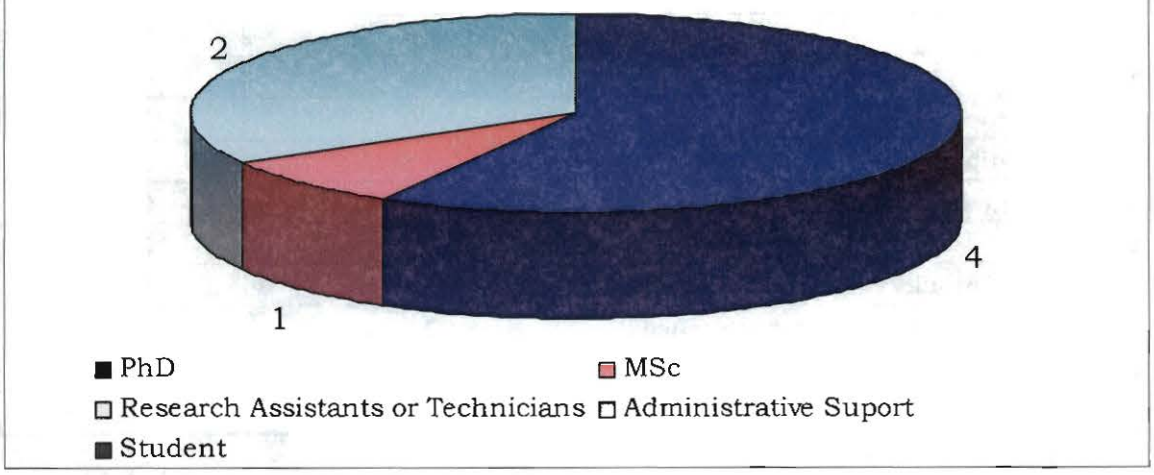
PhD
MSc
Research Assistants or Technicians
Administrative Suport
Student

Figure 5.3: Number of Staff by individual project: IPRA



PhD
MSc
Research Assistants or Technicians
Administrative Suport
Student

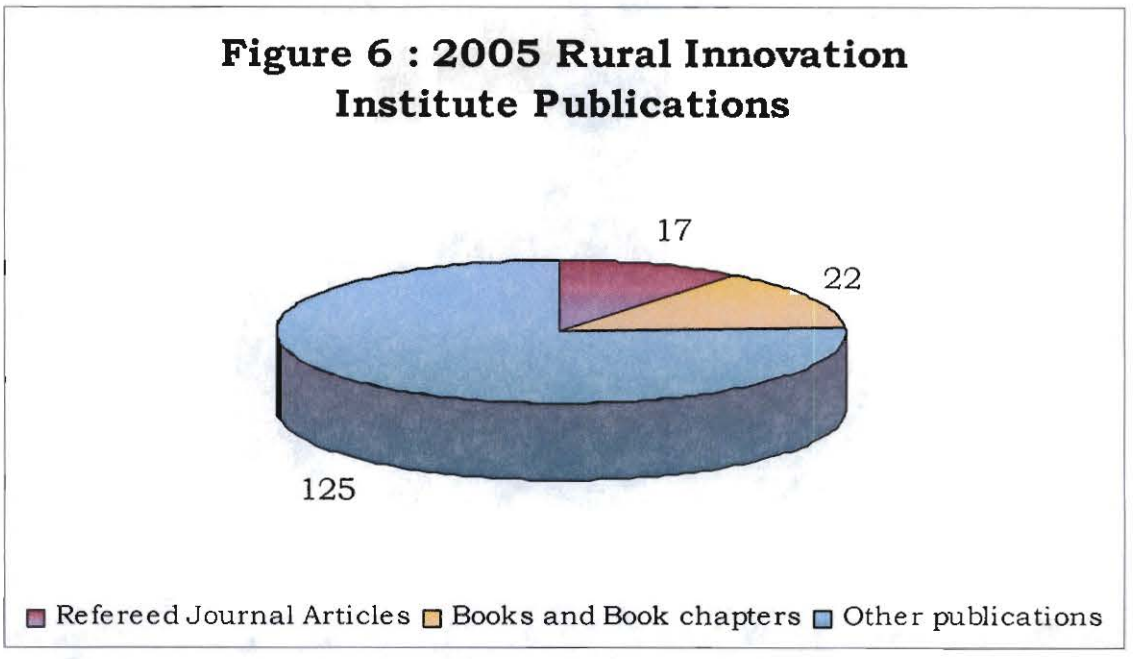
Figure 5.4: PRGA Staff Composition: Number of Staff



Publications

RII 2005 Publications					
Type	**RAeD**	**IPRA**	**InforCom**	**PRGA**	**Total**
Refereed Journal Articles	0	15		2	17
Books	1	0		3	4
Book Chapters	1	11		6	18
Conference proceedings	1	0		23	24
Other Publications	16	15		6	37
Training manuals	11	9		0	20
Power Points	5	0		0	5
Other forms of intellectual property	5	5		0	10
Oral /Poster presentations at conferences	8	19		0	27
Internal seminars	2	0		0	2
Representation of CIAT with Donors	0	0		0	0

Figure 6 : 2005 Rural Innovation Institute Publications



Project SN-1:

Rural Agro-enterprise Development (RAeD)

Preface

Market trends are rapidly changing the livelihood prospects for poor smallholder farmers in developing countries. The effects of liberalisation and free trade agreements have led to increasing competition in both domestic and export markets. Iterative rounds of mergers and acquisitions in the private sector have also led to considerable market concentration. These changes have benefited wholesalers, retailers and consumers, but for most farmers, particularly those in developing countries, income earning potential and terms of trade has steadily declined.

To compound these negative effects, many developing countries, have also undergone structural readjustment programmes which has meant that many Governments no longer provide farming communities with direct financing and few offer services. Reduced support means that many smallholders are less organised now than they were 20 years ago and many earn less in real terms.

The consequences of these changes are profound, as farm incomes fall, supply and prices are more prone to volatile movements, thin margins lead to lack of investments in natural resources, business services cannot be supported and the result is that poorly managed farming systems are spreading into increasingly marginal areas. As recognised in many major commodities, the markets then are subject to increasing volumes of lower quality produce, which further weakens the market and suppresses prices.

Given the magnitude of the marketing challenge faced by smallholders, there is both considerable scope and a pressing need to address this challenging situation. This sense of urgency is increasingly reflected in the agenda's of many development agencies which are re-focussing their efforts on "making markets work for the poor".

To support this endeavour, the Rural Agro-enterprise Development Project (RAeD) project, working closely with other CIAT projects and partners from the public and private sector, is conducting research to develop and test a range of new participatory tools, business models, services and policy based approaches to assist in promoting enterprise development and employment in poor rural areas of developing countries.

Some of the key events of the project this year have included:

- supporting CIAT's new initiative in linking farmers to "High Value" markets,
- linking farmers into high value supply chains such as fruits and speciality coffee,
- expansion of a market information service in Honduras and 10 African countries,
- evaluating prospects for smallholder farmer micro-insurance schemes,
- co-implementation of a learning alliance conference in the Netherlands,
- management of a ACP[1] wide conference on Market information and marketing institutions with CTA[2],
- establishment of a global learning agro-enterprise learning alliance with international NGOs, and

1. ACP – African, Caribbean and Pacific countries.
2. CTA – Technical Centre for Agriculture in support of ACP countries, part of the EU – Lomé Agreement.

- implementation of an advanced study tour to evaluate farmer group marketing, new finance approaches for the poor and farmer led innovation systems.

These activities are helping to renew the research agenda of the RAeD team and laying the foundation for a global "action based" research platform with hubs in West Africa, Eastern Africa, S. E. Asia, Southern Asia and Latin America. To support these ongoing initiatives the RAeD team is currently publishing the updated set of learning tools and introducing new titles into the good practices guide series. The project is also involved in renovating web-based activities to foster our scaling up processes. Advanced copies of the manuals and links to the new websites are already available on the project website.

New initiatives include (i) insurance for smallholder farmers, (ii) impact analyses of market information services in Uganda, (iii) new strategic partnerships being established with Oxfam in Nicaragua and SNV across Central America, (iv) support to the Challenge program projects in Sub-Saharan Africa and (v) new studies on services for the agricultural sector. These activities were initiated in late 2005 and we hope to expand and intensify this work with partners in 2006.

Project SN-1: Rural Agro-enterprise Development (RAeD)

Project Description

Goal

To improve market access of poor rural communities in developing countries by promoting improved business support services, better means of organisation and policies that enhance smallholder competitiveness.

Objective

To develop strategic research products in collaboration with research and development agencies, private enterprise and the State to promote improved market access of poor smallholder farmers with profitable and dynamic markets.

Purpose

To develop methods, tools and applications that address the entrepreneurial needs of business development partners that support rural communities, with an emphasis on market linkage based on collective action, diversification and value-addition.

Assumptions

- Secular decline in commodity prices does not overwhelm incremental economic and employment advances due to agro-enterprise activities.
- Political and institutional support for sustainable rural and agricultural development at the reference sites and targeted countries is maintained.
- Natural disasters or civil strife do not impede progress toward the project's goal.
- Collaborating institutions have adequate capacity, knowledge, local management support and resources to use the materials and tools developed.

Clients

Technical personnel of GOs, NGOs in rural development, policy makers from public sector and commercial partners from the private sector.

Business partners

Farmer groups (men and women), entrepreneurs (small, medium and large-scale); and BDS providers.

Collaborators

Development of methods and technology components

Public sector: NRI, PRODAR, IDRC, CIP, KIT, SEARCA, UPWARD
Private sector: Sustainable Food Lab, Busylab, Uganda Grain Traders, Parmalat, IDE
Civil society: CRS, CARE, AfriCARE, GTZ, Swisscontact, SNV and PLAN

Execution of pilot projects

CIPASLA (Colombia), Central American Learning Alliance (Honduras, Nicaragua, El Salvador and Guatemala), Andean Region Learning Alliance (Peru, Ecuador, Bolivia and Colombia), Enabling Rural Innovation projects in Eastern and Southern Africa, in Uganda, Tanzania and Malawi; Global Learning Alliance, DAPA project in Cauca Valley.

Learning Alliance networks

Central American Learning Alliance: (GTZ, CARE, Swisscontact, CATIE, SNV, UNA); Andean Region Learning Alliance (Colombia, Ecuador, Peru, Bolivia).

CRS global learning alliance: (Kenya, Ethiopia, Tanzania, Sudan, Uganda, Rwanda, Burundi, Eritrea, Madagascar, Burkina Faso, Mali, Niger, Gambia, Senegal, Sierra Leone, Ghana, Liberia Democratic Republic of Congo, Honduras, Nicaragua, Guatemala, El Salvador, Haiti, Peru, Ecuador, Afghanistan, India, Pakistan, Philippines, Vietnam, Laos, Cambodia, Timore l'est, Aceh and Myanmar.

Higher degree training

CATIE – diploma course, ICRA.

CIAT: SN-1 Project Log Frame (2005-2006)

Project: **Rural Agro-enterprise Development**
Project Manager: **Shaun Ferris**

Project	Outputs	Intended User	Outcome	Impact
Output 1 Enabling Rural Business Development Services	Alternative rural agro-enterprise methods, strategies, and applications that effectively link smallholder farmers and rural services with market opportunities widely adopted by research and development partners, State organizations and private sector. (5 years)	Research and development agencies and service providers including NGOs, Gov extension workers, local business support providers, private sector, farmer organizations.	More effective identification and exploitation of market opportunities by poor rural communities.	• Increased and more diversified incomes for poor rural communities.
Output targets 2006	• Agro-enterprise methods and strategies validated and adopted on mass by partners, materials published in print and disseminated via electronic formats in English, Spanish, French and at least one other language.	• Service providers including NGOs, Gov extension workers, local business support providers, Private sector entrepreneurs engage with increasing emphasis on higher value products	• Service providers and farmer organizations focus on market led processes to drive their innovation systems.	
Output targets 2007	• Agro-enterprise methods and strategies, market based software applications validated and contextualized with development partners, products published in print and disseminated in electronic formats available in English, Spanish, French, Vietnamese and Swahili.	• Development partners and service providers linked to selected market chains , enhance through Local ICT providers, and CBO's	• Market based software and ICT market information applications will open new opportunities for commercial investment.	
Output targets 2008	• Training materials for agro-enterprise completed, software applications commercialized, web based marketing portals expanded through partners with emphasis on private sector business development partners, available in 10 languages.	• Marketing services in East and Western Africa linked to private sector software houses. NGO's, farmer associations, Micro-finance, NGO's, farmer associations	• Private sector invest in services and farmers link services and financial investments in higher levels of innovation and market engagement.	
Output 2 Understanding Institutional Innovations for increased rural investment and business expansion	Understanding institutional innovations to facilitate market linkage, collective action and financial support for improved market entry and business development among segmented rural agro-enterprises evaluated and tested with partners in selected sites (10 years)	Strategic partners from NGOs, Gov extension, private enterprise, donor agencies and farmer organisations	New business approaches and financial instruments enable institutions to extend enterprise opportunities deep into rural communities targeting both high volume and high value markets, with scaling opportunities realized through ICT expansion and co-investment between public and private sector partners	Increased and more diversified incomes for poor rural communities

Project	Outputs	Intended User	Outcome	Impact
Output targets 2006	• Processes of co-development in agro-enterprise topics initiated with partners in at least 15 countries in Latin America, Africa, and Asia and available in at least 3 major languages.	• Strategic partners from NGOs, Gov extension, private enterprise, donor agencies and farmer organisations	• Strategic partners invest in learning process and integrate marketing skills into project development and implementation	
Output targets 2007	• ICT based knowledge management systems and first level enterprise "tool box" learning alliance completed in selected sites in LA, SE Asia and Africa, scaled up to 30 countries.	• Clients: Strategic partners from NGOs, Gov extension, private enterprise, donor agencies and farmer organisations	• Strategic partners invest in learning process and integrate marketing skills into project development and implementation	
Output targets 2008	• Expansion of and ICT related knowledge management systems expanded and deepened in 30 countries, with second order "strategic" learning alliances established and University courses mainstream agro-enterprise concepts with partners in Latin America and Africa and rural finance mechanisms linked with non-financial business development services	• Strategic partners involved with co-innovation of new processes and products	• Strategic partners invest in new areas for co-innovation, such as linkage between HIV and enterprise, Gender and market chain equity, local policy reform and enterprise	
Output 3 Pro-poor policy options for the rural communities in LDCs and DCs	Policy options to enhance access to markets for small holder farmers developed and advocated with partners at local, national and international levels. (5 years)	National and regional policy makers in Asia, Africa and Latin America; donors and private sector, NGOs, advocacy groups.	Partners using national and cross continental data to formulate better policy options for smallholder farmers in LDC countries to enhance access to selected high volume, higher value and value added markets.	Increased and more diversified incomes for poor rural communities
Output targets 2006	• Guide on policy mechanisms to link small-scale farmers effectively to regional, national and international agri-chains, including super markets and to improve governance and equity in the production chain approach developed, based on research with development partners and state organizations.	• Policy makers in Andean region • Donor and private sector partners	• Policy makers have new options to support local enterprise development • Change in arrangements between target partners.	
Output targets 2007	• Projects developed to link major private sector firm and smallholder farmers with criteria of equity, NRM and economic sustainability, with reference to the impact of globalization trends on selected trade opportunities for small-scale producers in selected sites.	• Advocacy groups, NGO's, Policy and economics researchers, National – regional trade policy groups, Private sector firms	• Debate for alternative trade policy options. • Workable model for linking smallholders with major private sector firms in a sustainable fashion.	
Output targets 2008	• Guide on policy mechanisms to link small-scale farmers effectively to regional, national and international agri-chains, and to improve governance and equity in the production chain approach validated and adjusted.	• Policy groups as above	• Broader understanding of impact of current policies on CGIAR clients and beneficiaries	

Introduction

Making **"markets work for the poor"** is a critical challenge being faced by many research and development agencies as a means of underpinning processes and pathways to achieve targets such as the Millennium Development Goals. Increasing attention on the market focus is clearly reflected in the science council's recent shift to place greater emphasis on high value products as a means of providing smallholder farmers with new income streams. The private sector is also keen to strengthen supply chains due to concerns about the viability of marginalised, farmers as regular suppliers of quality goods and Governments also need to secure competitive supplies of basic food to feed rapidly expanding urban centres.

The changing research agenda of the CGIAR clearly needs to address the desires of these different constituencies in finding innovative ways to achieve stable supplies of agricultural produce that provides food security but also promotes growth. The role of market research is equally important however, in monitoring the effects of greater commercialisation in terms of equity, governance, risk management and environmental parameters, particularly for the more marginalised communities who have little voice in process of change and have much to loose when markets fail or when shocks severely impede their ability to access markets.

It is unfortunately the case that the marketing problems faced by smallholders in identifying and accessing markets with existing and new products are complex and mounting. There are few silver bullets and strategies to improve market access for the poor, depends upon many factors and circumstances. These include:- location, history, assets, education, skills, organisation, natural resources, access to services, level of innovation, surrounding economic growth conditions and political stability.

Clearly, the marketing prospects for smallholders, to a large extent, depend upon how well the surrounding economy is doing. For example in many parts of S.E. Asia, Southern Asia and Latin America the economies are currently achieving strong growth and in these countries, farmers near market centres are rapidly becoming more organised and taking advantage of new productive technologies, modern communication services and finance options. Strategies in these regions are often focussed on finding ways of linking marginalised areas and ethnic groups into the economic success that surrounds them for both high volume and higher value products. In Africa, the poorest continent, growth is elusive, with much depending upon local governance issues and political stability. In many African countries however, marketing strategies are focussed on maintaining stable product supplies and raising competitiveness where possible to offset declining market share in traditional export markets and imports.

Given the complex nature of the marketing context, market intervention projects require skilled and knowledgeable staff to devise practical interventions that will improve market linkage. This is especially the case if development projects are of a short duration and ongoing marketing strategies are to be implemented by the communities themselves. Invariably, market interventions need to be tailored to local situations and take best advantage of the available human and natural resources.

To support and facilitate rural communities and their service providers in a transition towards greater market engagement, RAeD is developing strategies that seek to leverage to maximise benefits for smallholder farmers. To be successful the methods, tools and

applications that have been developed by RAeD need to be used in a flexible and innovative manner, such that marketing rhetoric is translated into simple, practical and positive impact in the field.

Whilst strong partnerships and sound market analysis are essential steps in devising effective market interventions, the point of intervention within a market chain depends on local conditions and the parameters of a given market chain / sub-sector. When working with rural service providers, RAeD is emphasising the need to **"think outside the farm"**, this is because many research and development agencies find it difficult to evaluate opportunities for change that do not START at the farm. To support the broader market chain perspective, we are also emphasising the positive role played by traders, with the mantra **"all traders are wonderful"**. Whilst many agencies are still disparaging about the role of traders, our experience shows that in many remote, poor rural areas, traders are often the only reliable service provider. Traders can play a critical role in change marketing prospects of farmers particularly when attempts are made to strengthen business relations based on equity and trust.

Experience shows that in many cases, market linkage can be achieved more quickly by introducing a buyer to farmers within a producing region, rather than working from the farmer up. Similarly, market interventions should always evaluate if and how an improved local service could play a catalytic role in opening up the possibility of accessing new markets, improving product quality and or reducing product costs. In addition to these options, it is very often the case that organising farmers is a helpful process, particularly with bulky goods that are being sold into distant markets. However, once again, this is not always the case and therefore market facilitation needs to be assessed from an objective analytical perspective and not based on dogma.

RAeD is keenly aware that assisting poor, often marginalised communities in raising their marketing linkage is not a simple task and that in some situations it will take several years of incremental change before most national R&D institutions and non Governmental organisations, the front line of R&D activities, will have the necessary skills and capacity to support market based projects. However, the process of change is taking place and one of the key roles for the RAeD team is to provide research outputs on processes and impact, foster new partners in the marketing arena, help to share knowledge and learning processes and provide well documented best practices and case studies to support the case for market intervention with poor communities.

Demand for CIAT's agro-enterprise research findings and methods are increasing with new requests for joint activities from a range of partners wanting to test and adapt the information systems, methods and training materials to local needs. The current developments in the "learning alliances" have expanded rapidly with partners in at least 30 countries from Africa, the Americas and Asia, seeking more specialised types of partnerships, some tools based, some more strategic in nature and others focussing on business requirements.

Through our alliances, CIAT's findings are being tested more systematically, research challenges are more focussed and the team is able to work with dedicated partners that are generating new findings more quickly and disseminating these results more effectively through ever more efficient ICT options.

Project Inputs

RAeD Staff List

Name	Position	Location
Africa	***Africa***	***Africa***
Shaun Ferris, PhD	Agro-enterprise Project Manager	Kampala, Uganda
Elly Kaganzi, BA	Regional agro-enterprise support	Kampala, Uganda
Patrick Engoru, MSc	Economist	Kampala, Uganda
Flavia Asiimwe, BSc	Economist	Tororo, Uganda
Loyce Kaitira, BSc	Economist	Lilongwe, Malawi
To be hired, BSc	Economist	Lilongwe, Malawi
Asia	***Asia***	***Asia***
Willie Bourne, MSc	Outgoing SADU[3] co-ordinator	Hanoi, Vietnam
Tiago Wandschneider MSc	Senior Marketing Advisor SADU	Hanoi, Vietnam
Cu Thi Le Thuy, BA	Economist SADU	Hanoi, Vietnam
Nguyen Thi Hiep Hoa	Finance & Administration	Hanoi, Vietnam
Ms. Hoang Thu Thao	Administrative Assistant.	Hanoi, Vietnam
Tran Manh Chien, MSc	Post havest SADU	Hanoi, Vietnam
Phan Van Quy, BA	Provincial Coordinator	Hue, Vietnam
Dang Ngoc Toan, MSc	Community Planning	Daklak, Vietnam
Do Thanh Chung, BA	Provincial Coordinator	Daklak, Vietnam
John Connell,* (50%)	Community development specialist	Vientiane, Lao PDR
Ounkeo Pathammavong	Educationalist SADU	Vientiane, Lao PDR
Andean Latin America	***Andean Latin America***	***Andean Latin America***
Verónica Gottret, PhD	Socio - economist	Cali, Colombia
Carlos F Ostertag, MSIM	Business and market specialist	Cali, Colombia
Dora Patricia Arévalo, BA	Social communicator InforCOM**	Cali, Colombia
Sandra Rivera, BSc	Industrial engineer	Cali, Colombia
Clara Feijoo, BSc	Administrative Assistant	Cali, Colombia
Carlos Chilito	BDS / Agro-industrial processing	Cali, Colombia
Diego Izquierdo, BA	Economist	Cali, Colombia
Diego Tenorio	Agro-enterprise management	Cali, Colombia
Juan Francisco Barona, BSc	Marketing and Business	Cali, Colombia
Oscar Andrés Sandoval, BSc	Agro-industrial Engineer	Cali, Colombia
Fernando Rodríguez, BSc	Agro-industrial Engineer	Cali, Colombia
Central Latin America	***Central Latin America***	***Central Latin America***
Mark Lundy, MA, MSc	Rural agro-enterprise specialist	Cali, Colombia
Marco A Vásquez, MBA	Enterprise specialist	Tegucigalpa, Honduras
Jhon J Hurtado, BSc	Food Technologist Info specialist	Cali, Colombia
Angela Arenas, BA	Social communicator	Cali, Colombia
Erika Eliana Mosquera, BA	Social communicator	Cali, Colombia

3. SADU Small-scale Agro-enterprise Development in the Uplands of Lao PDR and Vietnam project.

Name	Position	Location
Students	***Level***	***Students***
James Barnham	PhD	Arusha, Tanzania
Reinhild Bode	PhD	Cali, Colombia
Elly Kaganzi, BA	MSc	Kampala, Uganda

All 100% dedication to project unless otherwise indicated.

List of Partners

Private Sector	***Private Sector***	***Private Sector***
ASIAVA	Asociación de Ingenieros Agrónomos del Valle Colombia	Colombia
Biotrópico	Biotrópico, Colombia	Colombia
Busylab	Busylab – ICT incubator company	Ghana
CC	Corpotunia, Colombia	Colombia
CDP	Consultant for Development Programme EA Ltd.	Tanzania
CIPAV	CIPAV, Colombia	Colombia
DELAP	DELAP	Bolivia
CORPEI	Corporación para la Promoción de Exportaciones, Ecuador	Ecuador
Ecopetrol	Ecopetrol, Colombia	Colombia
EDC	Marketing consulting firm, Vietnam	Vietnam
EDC	Enterprise Development Centre	Tanzania
EPSA	Colombia	Colombia
FAIDHA MALI	FAIDHA Market Link (Private business service provider)	Tanzania
FCC	Fundación Carvajal, Colombia	Colombia
FDQ	Fundación para el Desarrollo del Quindio (FDQ)	Colombia
FEAC	Fundación El Alcarabán, Colombia	Colombia
FIT (Uganda)	Private Specialist Business Development Services provider	East Africa
Frutiginebra	Frutiginebra, Colombia	Colombia
IDE	Marketing and consultancy firm, Vietnam	Vietnam
Intelligencia	Coffee export company	USA
Nandos	Nandos Uganda. Fast food African chain restaurants	Uganda
NDJSC	Nam Dong Joint Stock Company	Vietnam
OIMC	Organización Internacional de Migraciones, Colombia	Colombia
Parmalat	Parmalat, Colombia	Colombia
Radio Works	FM radio company, Uganda	Uganda
SAG	Sociedad de Agricultores y Ganaderos del Valle, Colombia	Colombia
SC	Serraniagua, Colombia	Colombia
SCC	Smurfit Cartón de Colombia	Colombia

Private Sector	*Private Sector*	*Private Sector*
SFL	Sustainable Food Lab	USA
SINCHI	SINCHI, Colombia	Colombia
SMS Media	SMS service provider, Uganda	Uganda
Tonnet Enterprises	Tonnet Enterprises (Agro- processing machinery)	Uganda
UGT	Uganda Grain Traders	Uganda
Vallenpaz	Vallenpaz, Colombia	Colombia
Virmax Café	Virmax Café	Colombia
Public Sector	***Public Sector***	***Public Sector***
ACT	Agencia de Cooperación Técnica, Ecuador	Ecuador
AIR	Agro-industrial Rural Committee of CIPASLA	Colombia
ASPS	Agricultural Sector Program Support	Uganda
AUV	Alcaldía y UMATA de Versalles, Colombia	Colombia
BTC	Belgium Technical Cooperation, European Union	Europe
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Costa Rica	Costa Rica
CEUHB	Committee on Ethnic and Uplands in Hoa Binh	Vietnam
CIPASLA	Consorcio Interinstitucional para una Agricultura Sostenible en Laderas, Colombia	Colombia
CIPAV	Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria, Colombia	Colombia
CLAYUCA	Consorcio Latinoaméricano y del Caribe de Apoyo a la Investigación y Desarrollo de la Yuca	Colombia
CLODEST	Comité Local para el Desarrollo Sostenible de la Cuenca del río Tascalapa, Honduras	Honduras
CNEARC	Centre national d'études agronomiques des regions chaudes, France	France
CONCOPE	Consorcio de Consejos Provinciales del Ecuador	Ecuador
CONDESAN	Consorcio para el Desarrollo Sostenible de la Ecorregión Andina, Peru	Peru
CORFOCIAL	Corporación para el Fomento de los Comités de Investigación Agropecuaria Local, Colombia	Colombia
CORPAMAG	CORPAMAG, Colombia	
CORPOICA	Corporación Colombiana de Investigación Agropecuaria	Colombia
CORPOTUNIA	Corporación para el desarrollo de Tunia, Colombia	Colombia
CreA	Centro Regional Andina of IICA	
CREPIC	Centro Regional de Productividad e Innovación del Departamento del Cauca	Colombia
CTA	Centre for Technical Assistance in the ACP	Netherlands
CTB	Corporación Técnica Belga, Peru	Peru
CTB	Corporación Técnica Belga	Belgium
DALDO	District Agricultural Development and Livestock Office	Tanzania
DARD, Vietnam	Hue Provincial Department of Agriculture and Rural Development (DARD), Hoa Binh DARD, Dak Lak DARD	Vietnam
DARD, Vietnam	Hue Provincial Department of Agriculture and Rural Development (DARD), Hoa Binh DARD, Dak Lak DARD, DARD Nghe An	Vietnam

Public Sector	*Public Sector*	*Public Sector*
DARS	Department of Agriculture and Research Systems	Malawi
DPC, Vietnam	District People's Committees (DPC) of Da Bac, Tan Lac, M'drac, Krongbong, Nam Dong and A'luoi	Vietnam
EARO	Ethiopian Agricultural Research Organisation	Ethiopia
EARTH	Escuela Agrícola de la Región Tropico Humedo, Costa Rica	Costa Rica
ETSP	Extension and Training Support Program, Vietnam	Vietnam
FOODNET	Marketing and Agro-enterprise Network for Eastern and Central Africa	East Africa
FRG	Fondo Regional de Garantías, Colombia	Colombia
ICA	ICA Magdalena, Colombia	Colombia
IICA	Instituto Interamericano de Cooperación para la Agricultura	Area Andina
Incoder	Incoder Guaviare, Colombia	Colombia
IPMS	Integrated Promotion of Market Oriented Agriculture in Ethiopia	Ethiopia
IPRA	Investigación Participativa en Agricultura of CIAT	Colombia
IRD	Integrated Rural Development Program, Colombia	Colombia
ITDG	Intermediate Technology Development Group, Kenya, UK	UK
LADD	Lilongwe Agricultural Development Division (Government Division Malawi)	Malawi
LRC	Livestock Research Center (Lao PDR)	Lao PDR
MADR	Ministerio de Agricultura y Desarrollo Rural, Colombia	Colombia
MAE	Ministère des Affaires Etrangères, France	France
MARD, Vietnam	Ministry of Agriculture and Rural Development	Vietnam
NAFRI	National Agriculture and Forestry Research Institution	Lao PDR
NARO	National Agricultural Research Organisation, Uganda	Uganda
PAFO	Agriculture and Forestry Organization, Lao PDR; Xieng Khouang and Luang Prabang provinces	Lao PDR
PDPM	Programa de Desarrollo y Paz del Magdalena Medio	Colombia
PHTI	Post-Harvest Technology Institute, Vietnam	Vietnam
PPC, Vietnam	Provincial People's Committees (PPC) of Thua Thien Hue, Hoa Binh, Daklak and Nghe An	Vietnam
PRGA	Participatory Research and Gender Analysis Programs	Latin America
PRODAR	Programa Cooperativa de Desarrollo Agro-industrial Rural	Latin America Caribbean
PROINPA	Fundación de Promoción e Investigación en Productos Andinos de Bolivia	Bolivia
SAM	Secretaría de Agricultura Magdalena, Colombia	Colombia
SAP	Secretaría de Agricultura y Pesca del Valle (SAP), Colombia	Colombia
SENA	Servicio Nacional de Aprendizaje, Colombia	Colombia
UMATAs	Unidades Municipales de Asistencia Técnica Agropecuaria, Colombia	Colombia
UNC	Universidad Nacional de Colombia	Colombia

International NGOs	*International NGOs*	*International NGOs*
Africare	Africare Food Security Initiative project Kabale	Uganda
Agropyme Project	Swisscontact Honduras	Honduras
CARE	CARE Nicaragua, El Salvador, Guatemala, Peru	Central America and Peru
CARE	CARE –I Life Malawi	Malawi
CRS	Catholic Relief Services	In 30 countries
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit	Ecuador and Peru
IC	Intercooperación, Area Andina	Bolivia, Ecuador and Peru
PLAN	Plan International	Malawi, Zambia
SNV	Dutch Service for Development Cooperation	Peru, Ecuador, Bolivia, Honduras and Nicaragua
Oxfam GB	Oxfam Great Britain,	Central America, Caribbean
CI	Counterpart International	Guatemala
R&D Institution	***R&D Institution***	***R&D Institution***
AHI	African Highlands Initiative	Uganda
ASARECA	Association for the Strengthening of Agricultural Research in Eastern and Central Africa	Eastern Africa
AUP	Alcaldía y Umata de Pradera, Colombia	Colombia
DFID	Department for International Development, UK	UK
FAO	Food and Agriculture Organization of the United Nations, Italy	Italy
FCC	Carvajal Foundation, Colombia	Colombia
GFAR	Global Forum on Agricultural Research	Italy
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit	Germany
HAFU	Hue Agriculture and Forestry University	Vietnam
HAU	Hanoi Agriculture University	Vietnam
IC	Inter-cooperation, Andean Region	Latin America
ICFR	Institute for Crop and Food Research, New Zealand	New Zealand
IDRC / CIID	International Development Research Center, Canada	Canada
IESE	Instituto de Estudios Sociales y Económicos Universidad de San Simón	Bolivia
IFAD	International Fund for Agricultural Development, Italy	Italy
IFPRI	International Food Policy Research Institute, USA	USA
IICA	Instituto Interamericano para la Cooperación Agrícola, Andean Region	Andean Region
IMCA	Instituto Mayor Campesino, Buga, Colombia	Colombia
INRA	Institut National de Recherche Agronomique, France	France

R&D Institution	*R&D Institution*	*R&D Institution*
ISNAR	International Service for National Agricultural Research, Costa Rica	Costa Rica
JIRCAS	Japanese International Research Centre for Agricultural Sciences	Japan
NRI	Natural Resources Institute (UK see TPI)	UK
NZAID	New Zealand Overseas Development Agency	New Zealand
RIFAV	Research Institution on Fruit and Vegetable in Hanoi	Vietnam
SwissContact	Swiss Foundation for Technical Development, Perú	Peru
TNU	Tay Nguyen University in Daklak	Vietnam
UNA	Universidad Nacional de Agricultura, Honduras	Honduras
UNIVALLE	Universidad del Valle, Colombia	Colombia
UPWARD	Users' Perspectives with Agricultural Research and Development, Manila, Philippines	Philippines
TIP	Traditional Irrigation Environment Development Program	Tanzania
NAADS	National Agricultural Advisory Services	Uganda
KARI	Kenya Agricultural Research Institute	Uganda
A2000 Network	Africa 2000 Network	Uganda
RSSP	Rural Sector Support Program Rwanda	Rwanda
MISTOWA	Market Information Systems Program of West Africa	West Africa
Techno Serve	Techno Serve East Africa	East Africa
RUDECT	Rural Development and Environmental Conservation Trust	Tanzania
SHILDA	Southern Highlands Livestock Development Association	Tanzania
VeCo	Vrandsaiden Coopibo	East Africa
Farmer Organizations	***Farmer Organizations***	***Farmer Organizations***
ACF	Asociación Campesina Fruticampo	Colombia
Acuaoccidente	Acuaoccidente, Colombia	Colombia
ADAGRO	ADAGRO	Colombia
AFA	Asociación Femenina Agropecuaria, Colombia	Colombia
AMER	Asociación de Mujeres La Esperanza Rural, Colombia	Colombia
APM	Asociación de Productores de La Montaña, Colombia	Colombia
ASERAGRO	ASERAGRO	Colombia
ASOAGRIGAM	ASOAGRIGAM, Colombia	Colombia
ASOFAMORA	ASOFAMORA, Colombia	Colombia
ASOPROCEGUA	ASOPROCEGUA	Colombia
COAPRACAUCA	Cooperativa Agraria de Productores y Procesadores de Yuca del Cauca, Colombia	Colombia
Cogance valle	Cogance valle, Colombia	Colombia
Cooversalles	Cooversalles, Colombia	Colombia

Farmer Organizations	*Farmer Organizations*	*Farmer Organizations*
FFS	Network of farmer field schools in Eastern Uganda	Uganda
FOHB	Farmer Organization of Hoa Binh	Vietnam
HBWU	Hoa Binh Women's Union	Vietnam
HODIFA	Hoima District Farmers Association	Uganda
IDAFASO	Ikundi Diary Farmers Association Tanzania	Tanzania
NFG	Nyabyumba Farmers group	Uganda
PC	Palenque Cinco	Colombia
TDFA	Tororo District Farmers Association	Tororo
ULT	Usambara Lishe Trust(Horticultural Producers Association)	Tanzania

Budget

Special Project Funding

The following donors provided special project funding for the RAeD during 2005:

- International Development Research Centre (IDRC), Canada.
- Swiss Agency for Development Cooperation, SDC
- DANIDA – via ASPS program in Uganda
- CIDA via the IPMS in Ethiopia
- USAID – through the Catholic Relief Services
- New Zealand Agency for International Development (NZAID), New Zealand
- W. K. Kellogg Foundation

Unrestricted core funding

In addition to the above, the project receives support from donors that provide unrestricted core funding to CIAT, including DFID and SIDA.

Actual expenditures 2005

Source	Amount (US$)	Proportion (%)
Unrestricted Core	240,137	20%
Restricted Core		0%
Sub-total	**240,137**	**20%**
Special Projects	948,380	80%
Total Project	**1,188,517**	**100%**

RAeD Highlights

This year's major advances focussed on field testing and tailoring our best practices to better meet client needs, which is being done through the learning alliance research platforms; evaluating new and higher order business support services, i.e., going beyond the local dimension; establishing methods to evaluate CIAT marketing tools against other market linkage methods; and finding ways of broadening the agro-enterprise approach to seek key leverage points in the marketing system, to include high value products in the diversification process and to integrate the policy dimension. Some of the highlights of the project this year have included:

Output 1: Improving Rural Business Development Services

Testing and Preparation of New Agro-enterprise Guides

Based on testing of the original training materials a number of new guides have been developed over the past year. These new guides are now being testing with partners in the field prior to printing. New titles include:

- A Participatory Guide to Market Facilitation
- A Guide to Rapid Market Appraisal
- Market orientation for small and medium scale rural producers (in Spanish)
- Guide to Fundamentals of marketing for small and medium rural producers. (In Spanish)
- "Rentagro" User's Manual (in Spanish and English versions)
- A Guide for "Partners for Rural Business" modules:
  - Participatory Monitoring and Evaluation
  - Legal Constitution of Non-profit Enterprises
  - Tools for Enhancing Collective Action.

These new Guides are currently being developed with partners and based on the CIAT materials, many partners aim to published their own guides for specific localized needs. These guides are also supplemented with other manuals on marketing basics and application of business techniques in rural innovation.

Translation and Application of the learning tools: The original RAeD Guides, written in Spanish, have now all been translated into English and partners are now assisting in translating the materials into French, Vietnamese and Lao. The original Collective Marketing guide has been translated into Chinese and there are plans to translate some of the new guides into Swahili, Amharic and Urdu. As these materials become available they will be posted onto the RAeD website which is currently being revamped for a new launch in late 2006.

Expansion of TRADENET into 10 countries in Africa and 2 countries in Latin America

Lack of accurate and relevant market information is a major obstacle in efforts to improve the competitiveness of smallholder agriculture in developing countries. However, few poor farmers have access to such information and virtually all market information services

developed by Governments in the 1970s, have subsequently collapsed due to poor performance and management.

Given this problem, partners from public and private sectors, have been working to develop effective, low cost business development services[4] (BDS), as indicated in CIAT's MTP 2002-04. One BDS developed in Uganda, Eastern Africa, through ASARECA's[5] FOODNET[6], was a simple market information service. This service was one of the first outsourced marketing services in Africa, with autonomy to test new data management systems.

In 2002, FAO facilitated a meeting between Busylab, a Ghanaian based ICT company and the Ugandan MIS team. This collaboration led to a beta version of TRADENET. TRADENET is the first of a new generation of software products that offers organizations an off-the-shelf solution to their market information content, aggregation and distribution needs. The system can be uploaded from the field using mobile phones, email or through a cyber café interface. TRADENET provides a platform to synthesise the information and disseminate it back to users through various formats including Internet, radio, email and Mobile phone SMS messaging.

In 2003, TRADENET 1.0 was used as the Ugandan marketing information service information platform. Based on the success of the product, projects in West Africa, such as MISTOWA, have purchased TRADENET and are using the software in 11 countries in West Africa, www.tradenet.biz. New sites have also been launched in Latin America. The TRADENET[7] service supports 5-7 million farmers in Uganda alone. As such this is a major new development using private public partnerships and cutting edge ICT's to make markets work for the poor.

Evaluating prospects for smallholder farmer micro-insurance schemes

In many parts of the world, climates are considered less predictable now than 20 years ago and many poor farmers, using rainfed production systems, find themselves increasingly exposed to crop failure caused by extreme weather conditions. In industrialised countries farmers are insured against weather based crop failure, whereas poor farmers in developing must suffer significant asset losses when drought occurs. Due to the risks associated with rainfed agriculture, formal banks have shied away from farmers without irrigation and therefore the poorest are most exposed to financial ruin. To address this situation CIAT has developed a software application to support insurance schemes for smallholder farmers. The approach is site-specific, is not dependent on pre-existing yield data and can be applied to a wide range of crops. The premiums and payouts can be adjusted as circumstances require, and the insurance instrument and its trigger points are transparent.

The methodology was developed in Honduras where six sites were chosen to represent a spread of annual rainfalls from 1000 to 2200 mm. Ninety-nine years of climatic data were generated for each site using CIAT's climate simulator MarkSim. This data was used as

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4. Business Development Services, see Link to CIAT's SN-1 2004-2006 MTP output 1.
5. ASARECA Association for Strengthening Agricultural Research in Eastern and Southern Africa.
6. FOODNET Regional Marketing Network.
7. TRADENET is currently deployed in Benin, Burkina Faso, Cote D'Ivoire, El Salvador, Ghana, Guinea, Honduras, Mali, Niger, Nigeria, Senegal, Togo, and Uganda, and has regional interfaces for Central America (www.agroemprendedor.org) and for West Africa (www.wa-agritrade.org). In 2006 TRADENET will add the remaining ECOWAS countries.

input for the Decision Support System for Agrotechnology Transfer (DSSAT) on a dry bean sub-model applied to eight soil types. Trials with bean farmers provided data from which a "drought index" was defined based on a seasonal rainfall deficit. Payout "trigger points" were set for each combination of site and soil for payout events on a one in ten year basis. Results from this trial could then be used to calculate premiums for each soil type and locality. Based on this work, the World Bank Commodity Risk Management Group (CRMG) contracted CIAT to provide a "proof of concept" drought index for a contract farming project in NE Thailand. Issues under research include (i) finding ways to rapidly estimate risks and premiums, (ii) updating premiums mid-season and (iii) evaluating the potential for re-insurance. Practical issues to be resolved include:-determining farmers willingness to pay for such a service, (ii) deciding where payment is due and (iii) organizing premiums and payments system.

Output 2: Understanding Institutional Innovations for Increased Rural Investment and Business Expansion

Management of a ACP[8] wide conference on Market information and marketing institutions with CTA[9]

From 28–30th November 2005, CIAT co-hosted an international Expert consultation on Market Information Systems and Agricultural Commodity Exchanges with the Technical Centre for Agricultural and Rural Cooperation ACP-EC (CTA) in hosting. CTA has been actively involved in the promotion and pilot testing of market information systems (MIS) and agricultural commodity exchanges (ACEs) that have operated at the local, national and regional levels in African, Caribbean and Pacific (ACP) countries and this was an opportunity to review past initiatives and plan for future investment over the next 5 years.

In general, the pilot work supported by CTA has been successful in finding new ways of disseminating market information however; stakeholders felt there was a need to enhance the utility of such services so that farmers and rural traders who receive this information can act on it more effectively. Similarly, investments in the development of market institutions such as auctions and product exchanges have also proven to be a success in testing new ideas, but problems remain as many farmer groups are unable to use these services effectively for their commercial advantage.

Key issues discussed included the value of practical sequencing in the introductions of new marketing institutions based on specific pre-conditions. This would assist in enabling interventions to play an additive role rather than introducing stand along projects. The group felt that management of an MIS was a critical area of action and that this should not be solely the domain of the Government, but rather a partnership between Government, private sector and development groups. In terms of the development of commodity exchanges, there was less support and or consensus for greater investment in this area. A compromise position was to pilot new approaches to warehouse receipt systems.

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8. ACP – African, Caribbean and Pacific countries.
9. CTA – Technical Centre for Agriculture in support of ACP countries, part of the EU – Lomé Agreement.

Output 3: Pro-poor Policy Options for the Rural Communities in LDCs and DCs

Supporting CIAT's new initiative in linking farmers to "High Value" markets

From 3-5 October 2005, the Secretariats of GFAR and the CGIAR Science Council convened an expert meeting to develop a common understanding about how smallholder producers can benefit from engaging in market opportunities for high value products. To achieve this objective, the workshop brought together strategic thinkers and knowledgeable practitioners from different points in the research and development continuum and from different stakeholder groups to explore options for actions in the field of high value agricultural products (HVAP) within research and development. The meeting underwent a series of discussion sessions that addressed the following questions:

a) How to identify HVAP market opportunities for increasing the income of the poor?
b) How to stimulate the domestic demand for HVAP?
c) How to organise small-scale farmers to realise the opportunities afforded by HVAP?
d) How to ensure access to business services in support of farmers and entrepreneurs involved in production and marketing of HVAP?
e) How to influence policy to create an enabling environment for pro-poor high value agriculture?

The meeting commenced with a session to define the parameters of high value markets and defining areas of action. The meeting then outlined a number of potential projects and partners who would be responsible for elaborating and developing project proposals. The final sessions then focussed on key principles and conclusions.

The meeting was an opportunity to highlight many initiatives in the high value area that are being undertaken by the CGIAR and its partners and to review pragmatic and practical ways of linking poor, marginalised people into high value markets. The inevitable question of "Risk management" was raised on several occasions and a key principles that emerged from the meeting was to consider starting such an initiative in high potential locations, to learn from a range of experiences and if successful to then move to more marginal areas.

Implementation of an advanced study tour to evaluate farmer group marketing, new finance approaches for the poor and farmer led innovation systems

Based on the findings of the eastern Africa learning alliance CRS, CIAT and local partners established an advanced study team, to review, strength, and develop more robust processes to facilitate the linkage of poor and marginalised farmers to markets. Areas of particular interest to the study team included (i) how to strengthen farmer groups for the marketplace, (ii) how to integrate rural finance methods into agro-enterprise projects and (iii) how to integrate approaches to innovation and experimentation into an agro-enterprise context.

The study tour began in Uganda and reviewed best practices being used by NGOs to form farmer marketing groups. Findings revealed how rapid but well targeted training, with no subsidies were proving an effective means of fostering groups into primary and secondary associations. The second stage of the evaluation was conducted in India, where the team

focussed on Self-Help Groups (SHG). This part of the study evaluated how SHGs scaled out and the prospects of this approach being applied beyond the Indian context. There are currently 23 million people involved with SHG's. The SHG's mainly comprised of women and this highly versatile group method is being used for many activities, such as savings and internal loans, adult learning and political advocacy. These groups are not yet working in agro-enterprise and this offers an interesting opportunity to link enterprise methods to this expanding movement. In Latin America, the study team focussed on how Farmer Research Groups, aka CIALs were developed through participatory research approaches at CIAT and offer an interesting way of integrating research methods and innovation processes into the rural community.

The study team identified six critical elements, including social cohesion, financial management skills, NRM development, enterprise capacity, innovation and advocacy, as key elements required for successful preparation for market engagement among poor producers. The team also developed a typology of market readiness at three levels that incrementally enable farmers to be better placed to link to markets. The study tour will conclude with a write-shop to compile the outputs of the AST and this will be held at CIAT, in Cali, Colombia in July 2006.

Problems Encountered and their Solutions

In Latin America

Severe funding cuts in CIAT at the end of 2005 have led to increased concerns about staffing stability. However, against this trend the RAeD team has been relatively successful in accessing additional local funds.

Solutions

- Staff has made considerable efforts to address the funding gap, with several new projects coming on stream to support both senior and support staff.
- **Incentives** are being developed such that if national staff members are able to find additional investment then RAeD will seek ways to provide an annual bonus. This system is currently under discussion.

In South East Asia

Key issues raised in the Mid term review of SADU were to make changes in: (i) project management, (ii) staffing, (iii) financial systems (iv) progress in districts of Vietnam and (v) project permits. The project has continued to suffer from high turnover of staff, losing 3 project managers in 2 years, which has affected project performance. This project will be reviewed in August with a decision on renewal being made at that time.

Solutions

- Project management was changed with management reporting shifting to CIAT-Asia.
- Following international recruitment, a new project manager was hired in January 2005 and a senior marketing economist in March of 2005.

- New management systems were put in place on arrival of new manager.
- Financial systems were upgraded with Oracle links between Lao and Cali.
- New districts were operationalised in two new provinces of Vietnam, Hao Binh and Dak Lak. New provincial staff were hired to support this expansion in work.
- Project permits have not been obtained in either Laos or Vietnam. Changes in the legal system in February of 2006, may offer some prospects of a permit, within an international category, but progress is unlikely to be rapid.

In Africa

Project work in Africa has been funded through support from a series of projects in particular the PABRA project. Funding cuts from CIDA have led to a series of new initiatives to raise additional funds.

Solutions

- Recruitment of a senior economist failed as identified candidate left CIAT. Subsequently, it was decided to split this position to support more local staff.
- Learning alliance work has continued to expand in Africa, with activities in both Eastern and Western Africa.
- A series of proposals have been submitted to donors to expand the enterprise work, with some success in Kilifi trust and the Sub-Saharan African Challenge Project.

Indicators: List Technologies, Methods & Tools

Software

Rent-Agro: In 2005, RentAgro a simple was completed, with manuals being written in Spanish and translated into English. This product will be launched in 2006.

Developing scalable market information services – Tradenet

Contributors: Shaun Ferris and Mark Davies* Busynet director

Other methods & tools

Testing and Preparation of New Agro-enterprise Guides: Based on testing of the original training materials a number of new guides have been developed over the past year. These new guides are now being testing with partners in the field prior to printing. New titles include:

- A Participatory Guide to Market Facilitation.
- A Guide to Rapid Market Appraisal.
- Market orientation for small and medium scale rural producers (in Spanish)
- Guide to the Fundamentals of marketing for small and médium rural producers. (Spanish)
- "Rentagro" User's Manual (in Spanish and English versions)
- A Guide for "Partners for Rural Business" modules

Indicators: Publications List

Books

Gottret, Maria Verónica. (Forthcoming). "Rural Innovation and Smallholders Livelihoods: Modes of Intervention in Hillside Communities of Latin America." PhD Dissertation, Institute of Social Studies.

Book chapters

SNV marketing book entitled "Learning from Implementing Pro-Poor Marketing Chains with smallholder farmers in Africa". Contributed to introduction methods and learning alliance chapters.

Conference proceedings

Shaun Ferris, Peter Robbins and Vincent Fautrel. 2006. Expert consultation on Market Information Systems and Agricultural Commodities Exchanges: Strengthening Market Signals and Institutions: Proceedings of an Expert meeting held in Amsterdam, 28-30th November, 2005. 200 pp

Other publications

Lundy, Mark, Maria Verónica Gottret, and Jacqueline Ashby. 2005. "Learning Alliances: An Approach for Building Multi-Stakeholder Innovation Systems." *ILAC Brief*, no. 8 (2005): 4.

Ferris, R.S.B. and Robbins, P. 2005. Market Information services, Quality, Governance, Sustainability and use of ICTs. Keynote. Paper presented at the first international conference on Postharvest quality, Sultan Qaboos University, Sultanate of Oman, 31st January – 2nd February.

M. Lundy, C. F. Ostertag, R. Best, M. V. Gottret, E. Kaganzi, P. Robbins, D. Peters and S. Ferris, 2005. A Territorial Approach to Enhancing Rural Innovation. Keynote. Paper presented at the first international conference on Postharvest quality, Sultan Qaboos University, Sultanate of Oman, 31st January – 2nd February.

Rupert Best, Shaun Ferris and Antonio Schiavone 2005. Beyond Agriculture: Making markets work for the poor Theme 1: Building linkages and enhancing trust between small-scale rural producers, buyers in growing markets and suppliers of critical inputs. Paper presented at NRI / ITDG conference, Chatham, UK. Entitled, Beyond Agriculture: Making markets work for the poor.

Rupert Best, Tom Remington, Shaun Ferris and Mark Lundy, 2005: Harnessing the Power of Partnerships in the Marketplace: Using a Learning Alliance for Agro-enterprise Integration into Agricultural Recovery: To be presented at the International Farming Systems Association Global Learning Opportunity (October 31-November 4, 2005, Rome Italy).

Rupert Best, Shaun Ferris, Irmgard 2005. Synthesis Report International Workshop on How can the poor benefit from the growing markets for high value agricultural products? held at Centro Internacional de Agricultura Tropical, Cali, Colombia 3-5 October 2005. pp30

Cock James, Ferris Shaun, Gonzales Alonso, Oberthür Thomas, 2005. CIAT Strategic and Business Plan for a High Value Crop Initiative, prepared for the International Workshop on How can the Poor Benefit from the Growing market in High Value agricultural Projects? held at Centro Internacional de Agricultura Tropical, Cali, Colombia 3-5 October 2005. pp33

Lundy, M., Bernet, T., Mancero, L. 2005 ¿Cómo hacer análisis de cadenas? Metodologías y casos. Serie ASOCAM. Quito, Ecuador

Gottret, Maria Verónica, and Diana Marcela Córdoba. 2005."Gobernabilidad y Articulación de Productores de Pequeña Escala a Cadenas Productivas: Marco Analítico y Metodología para la Realización de Estudios de Caso." 39. Cali, Colombia: Proyecto de Desarrollo Empresarial Rural, CIAT, con aportes de Intercooperación, CRS, CORPEI, SNV, GTZ y la Secretaria de Agricultura del Valle.

Córdoba, Diana Marcela, and Maria Verónica Gottret. 2005. "Gobernabilidad y Articulación de Productores de Pequeña Escala a Cadenas Productivas: La Experiencia de la Alianza de la Mora en el Valle del Cauca." 66. Cali, Colombia: Proyecto de Desarrollo Empresarial Rural, CIAT

Vallejo, Lilian, and Maria Verónica Gottret. 2005. "Gestión de Empresas Rurales y Articulación de Productores Rurales a Cadenas Productivas y Mercados: Marco Analítico y Metodología para el Análisis de Estudios de Caso." 14. Cali, Colombia: Proyecto de Desarrollo Empresarial Rural, CIAT

Huaman, Martha, W. Cifuentes, and Maria Verónica Gottret. 2005. "Diagnóstico de la Cadena de Valor del Café de Satipo y Chanchamayo." 52. Lima, Perú: Catholic Relief Services

Gottret, Maria Verónica, Reinhild Bode, and Fernando Rodríguez. 2006. "Fostering Innovation to Access High-Value Market Chains: A Conceptual and Analytical Framework for Strategic Research." In *DAPA Working Paper, CIAT*, 33. Cali, Colombia

Gottret, Maria Verónica, Reinhild Bode, Jenny Correa, Fernando Rodríguez, Jhon Jairo Hurtado, and Juerguen Piechaczek. 2006. "Memorias del Taller "Análisis de la Cadena de Café de la Asociación Orgánica", 28-29 January 2006." 17. Piagua, El Tambo, Cauca, Colombia: DAPA Project, CIAT

Innovation Briefs

CF Ostertag and D. Izquierdo. 2005 Método de "Socios para la Acción Empresarial" para el Fortalecimiento Empresarial de Organizaciones de Pequeños y Medianos Productores Rurales.

J F. Barona, O. A. Barona, and C. F. Ostertag 2005: "Alianza para el Desarrollo Empresarial Sostenible", metodología para el fortalecimiento empresarial de organizaciones de desarrollo y grupos de pequeños productores rurales vinculados a la conservación de recursos ambientales.

Training manuals

Shaun Ferris, Rupert, Best, Mark Lundy, Carlos Felipe Ostertag, María Verónica Gottret and T. Wandschneider. Strategy Paper: A Participatory and Area based Approach to Rural Agro-enterprise Development. pp 45

S. Ferris, E. Kaganzi, R. Best, Wandschneider, T., Ostertag, C. and Lundy M. A Market Facilitator's Guide for Agro-enterprise Development; 150pp in prep CIAT press.

T. Wandschneider, T, S. Ferris, C. Ostertag, and: M. Lundy. A Participatory Guide to Rapid Market Appraisal ; 100pp in prep CIAT.

Ostertag Gálvez, Carlos Felipe, Mark Lundy, María Verónica Gottret, William Cifuentes, Carlos Felipe Ostertag, Rupert Best, Dai Peters and Shaun Ferris. Identifying and assessing market opportunities for small-scale rural producers, 120 pp (UPDATED)

Lundy, M., Gottret, M.V., Cifuentes, W., Ostertag, C.F., Best, R., Peters, D., Ferris, S. Increasing the Competitiveness of Market Chains for Smallholder Producers. Manual 3: Territorial Approach to Rural Agro, 120 pp (UPDATED)

Oscar A. Sandoval and Carlos F. Ostertag: Guide to the market orientation in enterprise development for small and médium scale rural producers in Spanish

Juan F. Barona and Carlos F. Ostertag: Guide to the Fundamentals of marketing for small and medium rural producers. (Spanish)

Juliana Rizo, Sandra Rivera and Carlos F. Ostertag: "Rentagro" User's Manual in Spanish and English versions

Training materials for "Partners for Business Action" modules:

Oscar A. Sandoval: Participatory Monitoring and Evaluation, by

Oscar A. Sandoval: Legal Constitution of Non-profit Enterprises, by

Carlos F. Ostertag: Tools for Collective Action Motivation, by et al.

Power points

Bases for Rural Business Development, CF Ostertag

Summary of "Partners for Business Action" methodology, CF Ostertag

Several PP presentations for use in "Partners for Business Action" processes CF Ostertag

10 series PP presentations to support Market Facilitators Manual, Ferris and Kaganzi

6 series PP presentations to support Rapid Market Appraisal Manual, Wandschneider and Ferris

Other forms of intellectual property: (contribution to the development of databases, patents, copyright material, plant variety rights etc.)

Training Course on Business Development Services. Servicios de Desarrollo Empresarial para Fomentar la Competitividad de Empresas Rurales, 10 al 19 de Octubre de 2005. Módulo 4 Diplomado en Desarrollo Empresarial Rural. CIAT/CATIE. CATIE Costa Rica.

Established 4 Bellanet discussion groups

Market Africa – 91 members Site for sharing of information on marketing issues, methods and tools. Focus African researchers and development practioners.

Learning Alliance – 67 members Global membership from all CRS partners, involved I the learning alliance that are English or French speaking.

Expert consultation on Market Information Systems (MIS) and agricultural commodity exchanges (ACE): strengthening market signals and institutions, 116 members. Used in preparation for CTA conference and post conference networking.

Commodity Action. Established to support ongoing work by the group.

Oral/Poster presentations at conferences

Shaun Ferris. Steps 4 - 5 Market Information to Market Intelligence Services Institutions for Making Markets Work, IFPRI International workshop to advise the Ethiopian Marketing Team, 18-21 May, 2005.

Shaun Ferris. CTA marketing conference, Evolution of Marketing information Systems in ACP countries.

Mark Lundy and María Verónica Gottret. Building Multi-Stakeholder Innovation Systems for Rural Agro-enterprise Development: Reflections on Learning Alliance methods, process and initial results. International Seminar on Learning Alliances for scaling-up innovative approaches in the water and sanitation sector. International Center for Water and Sanitation, Delft, The Netherlands, 7-9 June 2005.

Mark Lundy. Cadenas de Valor: Estrategias para el desarrollo de sectores y productos de la biodiversidad. Seminario Internacional de Biocomercio Sostenible. Instituto Alexander von Humboldt, Cartagena de Indias, 25 al 27 de mayo 2005.

Mark Lundy. Conectando islas de éxito por medio de Alianzas de Aprendizaje. Taller internacional: La expansión de los supermercados y sus efectos en las cadenas agro-alimentarías: desafíos y oportunidades, RIMISP, Oxfam Great Britain, CEPES. Lima, Perú 26 al 28 de Octubre 2006

Carlos Ostertag. Seminario Binacional de Desarrollo Agro-empresarial en Fresa y Mora. Con el apoyo del PADEMER. Pamplona

Gottret, Maria Verónica. Rural Innovation and Smallholders' Livelihoods: Modes of Intervention in Hillside Communities of Latin America. Institute of Social Studies, The Hague, The Netherlands, 8 December 2005.

Russell, Nathan, Arévalo, Dora Patricia, Gottret, Maria Verónica, and Quirós, Carlos Arturo. Mejoramiento de la Gestión del Conocimiento para el Desarrollo Empresarial Participativo en Zonas Rurales: Una Alianza de Aprendizaje para apoyar el desarrollo de Conjuntos Integrados de Proyectos en Bolivia y Perú. Taller de Redes y Estrategias de Impacto, Conjuntos Integrados de Proyecto (CIP), Fundación W. K. Kellogg, Cochabamba, Bolivia 29 Agosto – 2 Septiembre, 2005

Internal Seminars

Mark Lundy and Jacqueline Diaz-Nieto. Designing Weather Insurance for Small-scale Producers. November 2, 2005.

Maria Verónica Gottret. Innovación Rural y Medios de Vida: Modos de Intervención en Comunidades de Ladera de América Latina, March 1, 2006.

Indicators: Training List

Number of person days of training for partners"

Title Learning processes	Numbers trained	Location	No of training days
Strengthening Municipal Technical Assistance Units (UMATAs) of the Valle del Cauca Department in Rural Business Development Services. February 2005	30	Valle del Cauca, Colombia	90
"Partners for Business Action" methodology through Training-Action-Research processes for the business and organizational strengthening of small rural producers. In collaboration with the Secretaría de Agricultura y Pesca (SAP) del Valle del Cauca. May-December 2005	40	Valle del Cauca, Colombia	120
Support to the high value aromatic and medicinal plant business development for two woman's organizations in the in Municipio de Yumbo, Valle del Cauca	50	Valle del Cauca, Colombia	150
With "ASOAGRIGAM" in the Municipio de Palmira, Valle del Cauca	15	Valle del Cauca, Colombia	45

Title Learning processes	Numbers trained	Location	No of training days
With AGRODESUR, Asociación Palenque Cinco, Asociación para el Desarrollo Agropecuario de Robles "ADAGRO" and the Asociación Ambiental Nuevo Futuro, in corregimientos de Quinamayó y Robles in the Municipio de Jamundí, Valle del Cauca	50	Valle del Cauca, Colombia	150
Training on Rural Business Development to rural development practitioners linked to the Centros de Aprendizajes e Integración de Saberes (CASI) funded by the Kellogg Foundation in Latin America. CIAT, November 2005	20	CIAT, Colombia	60
Training on Rural Business Development and Identification of Market Opportunities for Small Rural Producers targeted to Catholic Relief Services (CRS) staff in Afghanistan. 15 participants. Herat, Afghanistan, December 2005	15	Afghanistan	75
Training Course on Business Development Services. Servicios de Desarrollo Empresarial para Fomentar la Competitividad de Empresas Rurales, 10 al 19 de Octubre de 2005. Módulo 4 Diplomado en Desarrollo Empresarial Rural. CIAT/CATIE. CATIE Costa Rica	10	Costa Rica	90
Global Learning Alliance First business meeting with Regional managers 16-22 January. Abadares Country Club Kenya	15	Regional managers from East Africa, West Africa, South Africa, Afghanistan, S.E. Asia	75
Intermediate Technology Development Group: Training of methods for market analysis	10	Kenya, Uganda	20
CRS Eastern African fifth learning alliance meeting, with focus on "Getting to the Marketplace" 16-22 February. Abadares Country Club Kenya	34	Kenya, Ethiopia, Madagascar, Rwanda, Tanzania, Uganda, Eritrea, Belgium, Burundi, Sudan	170
CRS WARO First learning alliance Introduction to Agro-enterprise development 23-27th May, 2005. Niger	27	Ghana, Gambia, Niger, Ghana, Liberia, Sierra Leone, Senegal, DRC, Burkina / Mali	135
CRS SEAPRO First learning alliance meeting, with focus on "Getting to the Marketplace" 17-29th June. Davao Philippines	26	Aceh, Vietnam, Timor l'Est, Philippines, Indonesia, Cambodia	130
AMSDP TIP – CIAT Capacity Development of Partner agencies on Agro-enterprise Development - "*Getting to the Market*", Tanzania 15- 19 August, 2005.	35	Tanzania	175
CIAT – CLUSA – CRS Advanced Study Tour in Uganda to evaluate new innovations in farmer group development	10	Uganda, Kenya, Colombia, USA	50
IPMS marketing training with partners. Marketing basics and from analysis to action. 19-23 September	35	Ethiopia	70

Title Learning processes	Numbers trained	Location	No of training days
Marketing Basics training course for CRS S. Sudan, 11-13 October	32	Southern Sudan	64
CIAT – CLUSA – CRS Advanced Study Tour in India to evaluate new innovations in self help groups and finance mechanims	15	India, Uganda, USA, Kenya,	75
CIAT – CLUSA – CRS Advanced Study Tour to evaluate new innovations in farmer group development	7	Uganda, Colombia, USA,	35
CRS WARO Second learning alliance Market opportunity Identification and linking farmers to markets 13-17th February 2006	24	Ghana, Gambia, Niger, Ghana, Liberia, Sierra Leone, Senegal, DRC, Burkina / Mali	120
CRS SEAPRO Second learning alliance meeting, with focus on "Methods for Rapid Market Appraisal " 5-12 March Svai Rieng, Cambodia	22	Aceh, Vietnam, Timor l'Est, Philippines, Indonesia, Cambodia, Myanmar	110
Training Course on Business Development Services. Servicios de Desarrollo Empresarial para Fomentar la Competitividad de Empresas Rurales, 10 al 19 de Octubre de 2005. Módulo 4 Diplomado en Desarrollo Empresarial Rural.	19	CIAT/CATIE. CATIE Costa Rica	171
Taller Internacional: Promoción, Aplicación y Uso de los Estándares de Calidad y Seguridad Alimentaria a través de las Cadenas Agroalimentarias para Asegurar el Acceso y la Diversificación a los Mercados Nacionales e Internacionales 11 Septiembre a 1 Octubre 2005	25	Montería, Colombia	50
Curso "Vinculación de Pequeños Productores a Cadenas Productivas" 24 Enero – 3 Febrero 2005	25	Yapacani, Bolivia	15
Total	**591**		**2255**

Number of higher degree students supervised

Verónica Gottret PhD, James Barnham, PhD
Elly Kaganzi MSc, Jhon Jairo MSc, María Miguel Ribeiro MSc

Indicators: Resource Mobilization List

Project Proposals presented to donors

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
World Bank consultancy on evaluation of marketing services in uganda.	IT Uganda	World Bank			7,500
Developing an Interactive Community of Practice for Linking Farmers to Markets, Partners: CTA to lead in design and implementation of the information portal through a consortia of members. Participating Countries: ACP countries, $200,000. Donor EU, funding routed through UNCTAD and CTA..	UNCTAD, CTA	EU		200,000	200,000
Supporting Smallholders in their Pathway to More Formalised Markets, Impact evaluation and process monitoring. $200,000. Donor EU, funding to be routed through World Bank.	World Bank	EU		200,000	200,000
Evaluate the Current Status of Market Information Services in Uganda and to Formulate a Programme for the Next Five Years. Short term contract, approved December 2005. Danish ASPS unit, $14,500.	Chemonics	ASPS	14,500	14,500	
Short term contract with CTA to facilitate international conference on marketing institutions, CTA € 17,080. ($20,496)	CMIS	CTA	20,496	20,496	
CRS Southern Sudan. Short term training contract $2,400.	CRS	CRS	2,400	2,400	
Second phase marketing and enterprise development in Eastern Africa, as part of the SUIPA initiative. $10,000, approved under final SUIPA process)	MUK, KCC, CIP	CIP, IDRC	10,000	10,000	
Publication of RAeD manuals. CRS $24,000.	CRS	USAID	24,000	24,000	

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
Inspire 3. Integrated Soil Productivity Initiative through Research and Education (INSPIRE), Strategic Scaling-Up and Scaling-Out proposal. 4 years $750,000	TSBF	Kalife Trust	300,000	10,000	
Integrated Promotion of Marketing Support in Ethiopia project support 2005, 5 weeks. $10,000.	Ethiopian Min of Ag	IPMS	10,000	10,000	
CRS-CIAT Aceh ACCORD Agro-enterprise "Learning Alliance" Project $180,000, CIAT portion $100,000.	CRS	CRS	180,000	100,000	
CRS, CIAT, CLUSA, WWF, ODG WRI. Financial Integration, Economic Leveraging, broad-based Dissemination and Support Program Field RFA. Total 10,000,000. CIAT portion $1,000,000.	CRS	CRS			
Marketing support to RAMP project in Afghanistan.	CRS	DFID	9,838	8,000	
Taking the Next Steps with Self Help Groups to the Marketplace, 2006, CRS India, $65,000	CRS	CRS	10,000		65,000
Partnerships to Share Benefits from High Value Agricultural Markets, *Participating Countries*: Smallholder farmer associations in Uganda, India, Colombia, IFAD, *Tentative Budget:* $1,222,000 over 4 years.	GFAR, IFAP	IFAD			1,222,000
CRS, ARD, CRS. Ethiopian ATE. REAP.	CRS	USAID			20,000
FOCAL CITY IDRC CONCEPT NOTE Turning environmental burdens into livelihood benefits: building a sustainable neighbourhood through waste recycling, agro-enterprise and a cohesive community in Kampala, Uganda.	CIP	IDRC			1,196,670

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
SSA-CP proposal. Empowerment, Innovation and Partnerships as a means to unlock the benefits from Diversity and Enterprise for smallholder farmers in Kivu Region of Eastern Africa. Participating Countries: Rwanda, Uganda and Eastern DR Congo.	SSACP	World Bank		40,000	400,000
HARVEST PLUS. Reaching EndUsers with the Development and Diffusion of Biofortified beans. Marketing Component budget $2,168,750	Beans	Gates			1,000,000
Partnerships for Sustainable Agriculture, livelihoods and Markets in Southeast Asia (PSALM-SEA). Funded to 200,000	CRS	USAID			200,000
Aplicación de "Socios para la Acción Empresarial" con organizaciones económicas del Valle del Cauca, donor Secretaría de Agricultura y Pesca – Valle del Cauca, in execution	Socios para la Acción Empresarial	Secretaría de Agricultura	10,124	10,124	
Implementación de Metodología para la Creación de Cadenas de Valor con PPRs en el Valle del Cauca, donor Secretaría de Agricultura y Pesca – Valle del Cauca, in execution	Farmer organisations	Secretaría de Agricultura	16,700	16,700	
Apoyo al Fortalecimiento Organizativo y Empresarial de Pequeños Productores Rurales del Area de Desarrollo Rural del Sur Oriente del Valle del Cauca, donor Secretaría de Agricultura y Pesca – Valle del Cauca, in execution	Farmer organisations	Secretaría de Agricultura	7,000	7,000	
Formulación Proyecto de Desarrollo Agropecuario Sostenible – Provincia Chayanta en Potosí, donor Comisión Técnica Belga, Bolivia, executed	Farmer organisations	Comisión Técnica Belga, Bolivia	23,820	23,820	

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
Desarrollo tecnológico de frutales: Uchuva, Granadilla y Tomate de Arbol, donor FONTAGRO, in execution	Farmer organisations	FONTAGRO	20,700	20,700	
Modelo de Incubadora de Empresas Agroindustriales con TICS – Cauca, donor Programa Infodev del Banco Mundial, executed	TICS	World Bank	100	0	
Apoyo a los CAIS en América Latina, donor WKKF, in execution		WKKF	856,000	35,000	
Alianza de Aprendizaje para apoyar a los CIP en Bolivia y Perú, donor WKKF	CIP	WKKF	293,500	65,000	
Alianza Institucional al para el Fortalecimiento Metodológico y Operativo del Centro Provincial de Gestión Agro-empresarial del Sur-Oriente del Valle del Cauca, donor Delegación de la Comisión Europea para Colombia y Ecuador	Farmer organisations	EU	120,000	120,000	
Preparación de Planes de Negocio para Oferentes de la Metodología de Seguimiento y Evaluación Participativa, donor Fomentando Cambios "FOCAM" Bolivia	Farmer organisations	FOCAM" Bolivia	8,950	8,950	
Asesoría CRS Afghanistán, donor CRS	CRS	USAID	12,385	12,385	
Alianzas de Aprendizaje en la Región Andina, donor FONTAGRO (ESTADO)	Farmer organisations	FONTAGRO			
Alianzas de Aprendizaje en la Región Andina, donor FONTAGRO (ESTADO)	Farmer organisations	FONTAGRO			
Fortalecimiento de cadenas productivas incluyendo TICs en Colombia y Bolivia, donor FONTAGRO (ESTADO)	Farmer organisations	FONTAGRO			
Apoyo Empresarial a la Asociación de Paneleros del Cauca, donor FOMIPYME	Farmer organisations	FOMIPYME	10,000	10,000	

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
Asesoría CLAYUCA, donor CLAYUCA	CLAYUCA		5,000	5,000	
Alianza para el Desarrollo Empresarial Rural en Arauca – Fase 2, donor Fundación El Alcaraváno	Farmer organisations	Fundación El Alcaraváno			56,200
Apoyo al Desarrollo Empresarial Rural para el Sector Agropecuario del Municipio de Tulúa, donor Alcaldía de Tuluá	Farmer organisations	Alcaldía de Tuluá			
Fortalecimiento de cadenas productivas en Colombia y Ecuador, donor FONTAGRO	Farmer organisations	FONTAGRO			
Alianza para el Fortalecimiento de Empresarial de la Cadena de Sandía en Córdoba, donor Secretaría de Desarrollo Económico de Córdoba	Farmer organisations	Secretaría de Desarrollo Económico de Córdoba			
Alianza de Acción para fortalecer la capacidad empresarial de seis micro-empresas rurales pertenecientes a tres organizaciones de AIPACHA, donor FOMIN Bolivia (USAID)	Farmer organisations	USAID			
Apoyo al Fortalecimiento Organizativo y Empresarial de los Productores Rurales de El Cairo y San José del Palmar, donor Corporación Serraniagua	Farmer organisations	Corporación Serraniagua			
Fortalecimiento del Programa Vocacional Agropecuario en las Instituciones Educativas de Desarrollo Rural en el Departamento del Valle del Cauca., donor Gobernación del Valle del Cauca y Cooperación Internacional	Farmer organisations	Valle del Cauca			
Establecimiento y Operación de Centros de Servicios Económicos, donors Actividad Rural Competitiva (ARCO) Bolivia	Farmer organisations	ARCO			

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
Desarrollo rural integrado en las comunidades vulnerables de ladera en el Valle del Cauca, donor Gobernación del Valle del Cauca y Cooperación Internacional	Farmer organisations Farmer organisations	Valle del Cauca			
Alianzas Productivas en el Valle del Cauca – Piscicultura, donor IICA	Farmer organisations Farmer organisations	IICA			
Alianzas Productivas en el Valle del Cauca - Lácteos, donor IICA	Farmer organisations	Valle del Cauca			
Manual para identificación de oportunidades para servicios ambientales, donor Fundación Ford	Farmer organisations	Ford Foundation			10,000
Aplicación del Método - Socios para la Acción Empresarial - para el Fortalecimiento Empresarial de tres Grupos Consolidado de Productores del Corregimiento de Rozo, donor Secretaría de Agricultura y Pesca del Valle del Cauca	Farmer organisations	Valle del Cauca			
Curso corto en Desarrollo Empresarial Rural, donor Servicio Nacional de Aprendizaje (SENA)	Farmer organisations	SENA			
Improving fruit and vegetable quality from smallholder systems: Optimizing soil-crop-pest management for economically viable, socially acceptable and ecologically sustainable production	BOKU University	AustrianAid		70,000	600,000
Sustainable vegetable and fruit supply chains for Guatemala	Counterpart International	USAID		250,000	3,000,000
Supply Chain development in Central America.	Learning Alliance	NZAID		125,000	250,000
Livelihood Learning Alliance in the Colombian Pacific	Instituto Alexander von Humboldt	Dutch embassy, Bogotá		240,000	2,400,000

Title of the proposals and concept notes Developed	Lead Partners	Donor	Approved	RAeD receipts	Pending
Project SAFTInet: Secure African Farmers Through Insurance	Universidad Politécnica Madrid	EU			
Mejoramiento de la calidad de vida de agricultores bajo riesgo: Tecnologías y políticas para rehabilitar tierras degradadas en cultivos y pastos en Nicaragua	INTA	CIDA		80,000	8,600,000
Pilot study on fair returns for smallholders in French Bean production in Guatemala	Oxfam GB, Costco	Sustainable Food Laboratory	10,000	10,000	
Initial study for a drought insurance system for smallholder forage seed producers in Thailand.	none	World Bank	15,500	1,500	
Impact assessment of the Central American Learning Alliance.	Learning Alliance	PRGA	30,000	30,000	
Market opportunity identification study for Western Honduras	Oxfam GB	Oxfam GB	14,000	14,000	
Analysis of diverse organizational models and dynamic markets for smallholders vegetable producers in Honduras	Agropyme	Regoverning Markets	14,000	3,000	
Assessment of the dairy subsector in Michoacan, México	RIMISP, MSU	Regoverning Markets	80,000	6,000	
Institucionalidad y Mecanismos de Política para la Innovación Tecnológica en Cadenas Productivas	Andean Region Learning Alliance	FONTAGRO			
Totals			**2,129,013**	**1,803,575**	**19,427,370**

New Directions for 2006

In addition to the ongoing activities that RAeD is already committed to fulfilling in 2006, the following areas are proposals of work that the team is aiming to develop. Implementation of this work however, depends on funds being available:-

Fostering links with more commercial agencies

In 2005, several new linkages and projects were being established to investigate the opportunities for linking smallholders with larger commercial buyers. Initiatives in this area include (i) The DAPA project, Colombia, which is seeking to develop new business models that link smallholder farmers with specialty markets, (ii) the Sustainable Food Laboratory is developing links with CIAT in Colombia, to formulate new approaches to foster traceable links between smallholders and supermarkets, such as Costco and (iii) in the Philippines, to link smallholder producers in Davoa with supermarkets in Luzon. All of these initiatives,

Next steps on the learning alliances

Much of the project activities in 2006 will focus on the topic of market chain analysis, BDS evaluation and then moving from analysis to action. However, there is an urgent need to evaluate progress in the process and to start to gather information based on key issues that enable farmers to engage in markets.

Developing a Market led Innovation RII Database

As part of the impact analysis, RAeD is working with partners in RII to develop an evaluation questionnaire on core competencies and market access options that are being used to link farmers to markets. The information gathered will be used to initiate a RII wide database. The data will focus on the concept of Market led Innovation systems and the ability of service providers to generate successful methods that not only link farmers to markets but also enable the communities to re-invest in more sustainable and competitive agricultural system. Key issues include social cohesion, finance, NRM, Market access, marketing competence, innovation and experimentation and advocacy for empowerment and change. Data on these issues will be collated from groups in several countries in Africa, Asia and Latin America, to evaluate how context affects marketing capacity and how marketing strategies can be strengthened through using this knowledge base.

Strengthening Links with Institutes of Higher learning

RAed would benefit considerably from strengthening links with Universities involved in Tropical Agriculture. In recent discussions with faculty members at both Wageningen and KIT Universities it has become evident that formalising links between RAeD the University of Wageningen and Kit would provide a new arrangement in which students and staff could become involved in ongoing research activities related to enterprise development. These links are being investigated at this time with a view to developing long term exchange visits from students.

Project SN-3

Participatory Research Approaches to Reduce Poverty and Natural Resource Degradation through the Creation of Market Links and Social Control of Community Projects

Project SN-3: Participatory Research Approaches to Reduce Poverty and Natural Resource Degradation through the Creation of Market Links and Social Control of Community Projects

Project Description

Goal

To contribute to the socioeconomic improvement of rural communities through strengthening local and institutional capacities by means of participatory design, application and dissemination of approaches, methodologies and tools, emphasizing gender and equity issues

Objective

To develop and disseminate participatory research (PR) principles, approaches, analytical tools, indigenous knowledge and organizational principles that strengthen the capacity of R&D institutions to respond to the demands of stakeholder groups for improved levels of human well-being and agroecosystem health

Purpose

Participatory research methodologies for organizational and technological innovation in agriculture, co-developed, tested and widely disseminated, to benefit poor farmer groups and their organizations, particularly ethnic minorities and women

Assumptions

Institutional economic stability, Participatory research approaches remain a priority in the CG. Donors allocate sufficient resources to participatory research approaches. NARS and other stakeholders remain supportive and receptive to participatory research approaches.

Beneficiaries and End Users

This work will benefit small scale resource-poor farmers, processors, traders and consumers in rural areas, especially in fragile environments IPRA has a strong focus on supporting rural women and the poor build their capacity to generate and use agricultural technologies to their own advantage. Research and development service providers will receive more accurate and timely feedback from users about acceptability of production technologies and conservation practices. Researchers and development planners will profit from methods for conducting adaptive research and implementing policies on natural resource conservation at the micro level. Sounds good. The national agricultural innovation systems are in focus of the Project's activities. Strengthening their capacity to link local demands with service providers is a task being undertaken by our project in Bolivia.

Collaborators

Outside CIAT: In ***Latin America***: **Honduras**: Escuela Agrícola Panamericana-El Zamorano (EAP), Fundación para la Investigación Participativa con Agricultores en Honduras (FIPAH), Programa de Reconstrucción Rural (PRR), Centro Universitario del Atlántico (CURLA); **Nicaragua**: Instituto Nacional de Investigaciones (INIA), U. Campesina (UNICAM); **Ecuador**: Instituto Internacional para la Reconstrucción Rural (IIRR), Instituto Nacional de Investigaciones Agropecuarias (INIAP)-Programa FAO, Fundación Antisana, Proyecto MANRECUR; **Venezuela**: Instituto Nacional de Investigaciones Agropecuarias (INIA). **Bolivia**: Ministerio de Asuntos Campesinos y Agropecuarios (MACA), U. Mayor de San Simón (UMSS), Fundación PROINPA, Sistema Boliviano de Tecnología Agropecuario (SIBTA), FDTA-Valles, FDTA-Altiplano, FDTA-Chaco, FDTA-Trópico Húmedo, FDTA-Chaco, Proyecto INNOVA, Agua y Tierra Campesina (ATICA), Programa Nacional de Semillas (PNS), Centro de Investigación Agrícola Tropical (CIAT-Bolivia), Servicio de Desarrollo Agropecuario de Tarija (SEDAJ), Coordinadora de Integración de Organizaciones Económicas Campesinas (CIOEC), Programa de Desarrollo Integral Interdisciplinario (PRODII), Centro de Apoyo al Desarrollo (CAD), Comunidad de Estudios Jaina, eight grassroots groups; **Colombia**: Corporación Colombiana de Investigación Agropecuaria (CORPOICA), organizaciones campesinas, U. Nacional de Colombia, Corporación para el Fomento de los CIAL, CORFOCIAL, Fundación para la Investigación y el Desarrollo Agroindustrial Rural (FIDAR). In ***Africa***: **Uganda**: National Agricultural Research Organization (NARO), Africare; National Agricultural Advisory Services (NAADS); African Highlands Initiative (AHI); Africa2000 Network, Vision for Rural Development Initiative (VIRUDI); Local government; INSPIRE Consortium; Network of Farmer Field Schools (FFS); Makerere U. **Malawi**: Dept. of Agricultural Research Services (DARS); Lilongwe Agricultural Development Division (LADD); Plan International Malawi. **Tanzania**: District Agricultural and Livestock Dept. Office (DALDO), Traditional Irrigation and Environment Protection Program (TIP), World Vision Sanya Agricultural Development Program, Africa Highlands Initiative (AHI); Hai District Council (District Agricultural and Livestock Development Office). **Kenya**: Kenya Agricultural Research Institute; Community Against Desertification (CMAD); Extension Dept., Ministry of Agriculture; Kenyatta U. DR **Congo**: Institut National of Research et Etudes Agronomiques (INERA); Innovative Resources Management (IRM). **Mozambique**: National Agricultural Research Institute (INIA). 21 farmers' groups and communities, Uganda, Tanzania, Malawi, Kenya. ASARECA Network. **Ghana**: CSIR Water Research Institute. In ***Europe***: **Austria**: Boku University. ***In Asia***: **India**: Indian Council of Agricultural Research (ICAR) Research Complex for the Eastern Region, India; **Sri Lanka**: Challenge Program on Water and Food (CPWF) Secretariat.

Regional Networks in **Latin America:** Red latinoamericana y del Caribe de Nutrición Humana y Desarrollo Sustentable (RED LAYC); **Africa**: East and Central Africa Program Agricultural Policy Analysis (ECAPAPA), Eastern and Central African Bean Research Network (ECABREN) and Southern Africa Bean Research Network (SABREN) of the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA); African Network for Soil Biology and Fertility (AfNet) of Tropical Soil Biology and Fertility (TSBF) Institute of CIAT; Pan African Bean Research Alliance (PABRA).

Within CIAT: Inputs to: PE-3; PE-4, IP-2, IP-3, IP-5, SN-1, SN-2, SB-2, SB-3, BP-1. Outputs from: IP-2, IP-5, BP-1, SN-1, SN-4, PE-3, PE-4, TSBF.

CIAT: SN-3 Project Log Frame (2005-2007)

Project: **Participatory Research**
Project Manager: **Carlos A. Quirós (A)**

Narrative Summary	Indicators	Means of Verification	Important Assumptions
Goal To contribute to the socioeconomic improvement of rural communities through strengthening local and institutional capacities by means of participatory design, application and dissemination of approaches, methodologies and tools, emphasizing gender and equity issues	Results from the impact study of the interventions by SN-3 show: ▪ Better management of resources (e.g., human, economic, natural) in environments where participatory methods and tools have been incorporated ▪ Greater incorporation of the producers' needs in development plans supported by the State ▪ Active participation of community groups in decision-making about endogenous and exogenous initiatives ▪ Participating marginal groups enjoy socioeconomic benefits to a greater extent than similar groups where said decision-making has not been incorporated.	Projects, plans and reports of national public-sector entities, donors, NGOs and community-based organizations in the three reference sites and CIAT's mandated agroecosystems that refer to their use of project products	
Purpose Participatory research methodologies for organizational and technological innovation in agriculture, co-developed, tested and widely disseminated, to benefit poor farmer groups and their organizations, particularly ethnic minorities and women	▪ Set of at least five participatory decisions taken on technological innovation (PM&E, case histories of innovation, enabling rural innovation, evaluation of impact of technological innovation and knowledge management projects) evaluated and adapted for different contexts and stakeholder groups in marginal environments in Africa and Latin America (LA) ▪ At least three sets of new methods and tools (e.g., analysis of social networks, appreciative inquiry) that incorporate equity and gender developed, applied and disseminated at the level of members and stakeholder groups at the end of the third year (2007) ▪ A set of institutions not previously involved in the SN-3 activities implement, together with the project, co-development processes of decision-making and eco-technologies with a participatory approach. ▪ A set of institutions not previously involved in the SN-3 activities implement processes of integrated incorporation of participatory decision-making (i.e., Agroenterprises + CIALs + InforCom). ▪ The approaches and decision-making developed by SN-3 oriented toward. ▪ Evaluations of the performance of the project and its members show that they are in line with the mission and vision of SN-3 and CIAT.	▪ Impact study ▪ Institutional reports ▪ Publications ▪ Proceedings	▪ Institutional economic stability. ▪ Financing for training activities, publication and dissemination of materials. ▪ Institutions willing to prepare and support facilitators and share information. ▪ End-users—above all, farmers—willing to participate.

Narrative Summary	Indicators	Means of Verification	Important Assumptions
Output 1 Mechanisms, approaches and methodologies developed and disseminated for strengthening farmers' organizations and rural innovation systems to accelerate and institutionalize demand-driven innovation in production systems	▪ Methodology for evaluating the impact on the projects of agricultural and livestock technological innovation (PITAs) developed by the end of 2006 ▪ Impact of the CIAL methodology in Honduras and Colombia established by the end of 2005 ▪ Methodology for doing case histories on innovation developed by the end of 2006 ▪ Method for constructing and learning from innovation histories developed by end of 2005 ▪ Procedure for participatory evaluation of multipurpose forages validated in collaboration with the Forages Project by 2007 ▪ Effect of the CIALs in the communication networks established in pilot sites by 2006 ▪ Methodology for knowledge management at the local level validated and made available to the suppliers of technical assistance and member organizations ▪ At least 7 cases on the methodology of knowledge management systematized and shared with decision-makers by the end of the first quarter of 2006 ▪ Methodology for balancing supply with technological demand at the level of producer groups and suppliers of technical assistance services, ▪ At least 15 CIALs working on food security within the organizational structure of a government organization in Colombia ▪ Participatory methodology for studying and improving social networks prepared in 2007 ▪ At least one NGO using the methodology for improving social networks by the end of 2007 ▪ Participatory methodology developed for constructing project impact pathways by end of 2006 ▪ Participatory construction of the impact pathways of 18 CPWF projects in the Volta, Mekong and Karkheh basins	▪ Document on impact of the CIALs on communities' development in Cauca and Honduras (2005) ▪ Article submitted for revision and publication ▪ ILAC Brief on innovation history method published in 2005 ▪ At least 4 case histories on innovation published by 2006 ▪ Methodology for preparing case histories on innovation published ▪ Manual describing knowledge management available ▪ Final report of FIT-8 project ▪ Article on procedures for participatory evaluation of forages submitted for evaluation prior to publication ▪ FOCAM progress report ▪ Visits to the communities where CIALs have been established ▪ Records of CIALs established in the Cauca Valley in database (www.enlacecial.org) ▪ Thesis on participatory evaluation of multipurpose forages available ▪ Guide on methodology for studying improvement of social networks, published ▪ Guide to participatory construction of project impact pathways, published ▪ Impact pathway workshop reports, and individual project impact pathways written up	▪ Good coordination and integration among collaborators. ▪ Minimal conflicts for meeting demands. ▪ Full participation of stakeholder groups. ▪ Field staff fulfilling true facilitator roles. ▪ Data available from reference sites. ▪ Internet system functioning well.
Output 2 Conceptual and methodological frameworks for building institutional and local capacity of resource-poor communities, developed on the basis of an analysis of experiences in co-development in LAC, with emphasis on gender and equity issues; disseminated	Influencing policy: ▪ Partnerships with national and international entities for evaluating, adapting and disseminating participative decision-making methodologies ▪ Methodology for the co-development of technologies in an institutional context validated and disseminated by the end of 2007	▪ Documents on agreements, annual progress reports of the Kellogg-CAIS-IPRA/CIAT Project ▪ Methodological guide for co-development of technologies, published ▪ Technical reports on adaptation of technologies, decision-making and tool ▪ Annual reports of the Kellogg-CAIS-IPRA/CIAT project	

Narrative Summary	Indicators	Means of Verification	Important Assumptions
	▪ CIAT technologies, decision-making and tools adapted to the context of the Centers for Learning and Exchange of Knowledge (CAIS) in the second semester of 2007 ▪ Proposal for adjusting policies and/or regulations in a National System of Agriculture and Livestock Technological Innovation ready for presentation to stakeholders ▪ From 30-50% of the women in the communities exposed to the participatory methods and tools leading groups of farmers in technological innovation processes	▪ Document of proposal for adjusting to SIBTA regulations presented to the system's authorities	
Output 3 The resource-to-consumption (ERI) framework developed, tested and applied to strengthen farmer organizations and rural women's capacity to make a transition from semisubsistence to competitive, market-oriented production in Africa	▪ Five projects and programs applying the set of R-to-C tools (ERI) by the end of 2007 ▪ At least 30% of the producer groups exposed to new approaches for integrating participatory decision-making will have adopted mixed production schemes (subsistence and commercialization of surpluses) by the end of the third year of the project (2007) ▪ As a result of applying new approaches for local agricultural innovation, at least 30% of the producer groups will have changed their subsistence systems for subsistence and commercialization schemes in the Project's pilot zones in Africa and LA by the end of 2007 ▪ From 20-50% of the women will be participating in the farmer groups and holding positions of leadership ▪ Degree to which men, women and marginal groups are deriving socioeconomic benefits from applying participatory approaches ▪ Degree to which the participatory approaches developed by IPRA have changed gender relations in communities and families: women decision-makers in the communities	▪ Project progress reports ▪ Set of manuals for orienting the ERI, published and disseminated widely ▪ Two articles accepted for publication in journals	Institutions willing to prepare and support facilitators; funding available
Output 4 Methodologies for establishing community-managed participatory monitoring and evaluation systems (PM&E) tested, applied and widely disseminated	▪ PM&E systems functioning in at least 10 rural communities in countries of Africa and LA ▪ At least 6 private or public organizations will have incorporated this form of decision-making in their official R&D plans by the end of the third year of the Project. ▪ At least 10 grassroots organizations in Africa and LA have adapted and adopted their own versions of the PM&E system by the end of 2006. ▪ At least three teams of facilitators of participatory methods formed in Africa and LA by the end of 2007. ▪ Methodology for establishing and implementing PM&E processes at the grassroots community group level, validated and disseminated	▪ Reports on establishment of PM&E in Africa and LA ▪ Databases in which information of the established systems is recorded ▪ PM&E case studies, project reports ▪ Reports of the events held by the facilitators ▪ M&E reports and databases, impact studies ▪ Manual on PM&E available	Staff has time, suitable methodologies, and sufficient funds available.

Narrative Summary	Indicators	Means of Verification	Important Assumptions
Output 5 Institutional and organizational capacity of R&D partners to develop and adapt community-managed participatory research methodologies in R&D organizations effectively, strengthened	▪ Number of publications increased 50% for each of the three years in this planning period (2005-2007) ▪ A 50% increase in the number of entities trained to incorporate participatory processes in their plans and programs ▪ At least three new initiatives that integrate the three RII projects, terminated ▪ Andean users' network of participatory decision-making, managing tools and procedures generated by SN-3 ▪ Number of training events ▪ Second-order organizations qualified for providing support services to local development ▪ SN-3 information, follow-up and evaluation system, which supports the processes of technological innovation effectively, designed and tested at the end of 2006	▪ Project reports ▪ Publications of internal projects and other institutions ▪ Training manuals developed ▪ Andean network operating actively ▪ Reports of training activities ▪ Agreements made among second-order organizations and public and/or private entities ▪ Web page, databases, virtual work spaces, internal PM&E and publications	

Project Inputs

IPRA Staff List

Name	Position	Location
Latin America		
Carlos Arturo Quirós	Acting Project Manager	Palmira, Colombia
Boru Douthwaite	Senior Staff	Palmira, Colombia
Vicente Zapata	Senior Research Fellow	Palmira, Colombia
Luis Alfredo Hernández	Research Associate I	Palmira, Colombia
Andrea Carvajal	Communication Assistant	Palmira, Colombia
Elias Claros	Research Assistant	Palmira, Colombia
Viviana Sandoval	Research Assistant	Palmira, Colombia
Freddy Escobar	Technician	Palmira, Colombia
Jorge Cabrera	Technician	Palmira, Colombia
Luisa Fernanda Lozano	Secretary	Palmira, Colombia
Sophie Alvarez	Consultant	Palmira, Colombia
José Ignacio Roa	Professional Specialist	Palmira, Colombia
Edson Gandarillas	Researcher	Cochabamba, Bolivia
Juan Fernández	Researcher	Cochabamba, Bolivia
Vivian Polar	Researcher	Cochabamba, Bolivia
Gabriela Silva	Researcher	Cochabamba, Bolivia
Walter Fuentes	Technician	Cochabamba, Bolivia
Africa		
Susan Kaaria	Senior Scientist	Kampala, Uganda
Pascal Sanginga	Senior Scientist	Kampala, Uganda
Jemimah Njuki	Senior Research Fellow	Kampala, Uganda
Annet Abenakyo	Research Associate	Kampala, Uganda
Peace Kankwatse	Research Associate	Kampala, Uganda
Students	***Level***	***Students***
Elisabeth Gotschi	PhD	Austria
José Luis García	Undergraduate	Colombia
Andrea Carvajal T.	MSc - ongoing	Colombia
Juliana María Medina	MSc - ongoing	Colombia
José Sélimo Muñoz	Undergraduate	Colombia
Peterson Mwangi	PhD	Kenya
Alsen Oduwo	MSc	Kenya
Kibiby Mtenga	PhD	Malawi
Wouter Ton	MSc (graduated)	The Netherlands
Jackson Tumwine	PhD	Uganda
Pamela Pali	PhD	Uganda
Lule Ali	MSc - graduated	Uganda
Rick Kamugisha	MSc	Uganda
Robert Muzira	PhD	Uganda
Birungi, Pauline	MA	Uganda
Sophie Alvarez	MSc - completed	USA
James Barham	PhD	USA

Budget

Special Project Funding

The following donors provided special project funding for the IPRA during 2005:

- Maendeleo Agricultural Trust Fund (MATF) of Farm Africa
- The International Development Research Centre, IDRC
- Federal Public Service Foreign Affairs, Foreign Trade and Development Co-operation, Belgian
- Department for International Development, DFID
- Cauca Valley Government
- Kellogg Foundation
- Donors who fund the CPWF
- USAID
- SGRP

Actual expenditures 2005

Source	Amount (US$)	Proportion (%)
Unrestricted Core	430,611	29%
Restricted Core		0%
Sub-total	**430,611**	**29%**
Special Projects	1,008,008	68%
Water and Food CP	33,993	2%
Total Project	**1,472,612**	**100%**

IPRA Highlights

Output 1: Mechanisms, Approaches and Methodologies Developed and Disseminated for Strengthening Farmers' Organizations and Rural Innovation Systems to Accelerate and Institutionalize Demand-driven Innovation in Production Systems

Strengthening Rural Innovation Systems through Network Analysis

Our theoretical framework in this output is Complex Adaptive Systems (CAS)[1]. Rural innovation systems are complex adaptive systems because they contain agents and strategies that interact and adapt to each other. CAS theory states that innovative performance is mediated by the nature of patterned interactions between agents (e.g., organizations, individuals). We are applying Social Network Analysis plus the Innovation History method to analyze this interaction.

This output is testing two hypotheses:

1. The performance of a rural innovation system can be predicted by the structure of its networks;
2. Planning and evaluation methods based on network models can improve innovative performance.

The research task is therefore: 1) to identify and analyze key interaction patterns between agents in different innovation systems; and, 2) assign performance measures to the innovation systems being studies. In 2005 we mapped and analyzed the innovation systems associated and two farmer research groups in Cauca, Colombia (with support from PRGA). We developed a prototype method for participatory network analysis, planning and monitoring and evaluation. We also used the innovation history method to map and analyze with the successful development of four bean varieties in East Africa (with support from PABRA). We also received funding for an impact assessment project that will allow us to map the networks of 18 CPWF projects in Africa and Asia. While the work in Cauca enables us to study the structure of individual farmer groups, the PABRA and CPWF work allows us to investigate the position of farmer groups in research and development networks. Comparative network analysis will begin in 2006, however early results from Cauca show that there are clear network differences between a well-established and active CIAL and a newer, less dynamic one.

Application of a modified version of the Innovation History method, that included network analysis, allowed us to derive and publish policy lessons based on the analysis of four NRM projects in India in November 2005. We drafted a journal article that compares and contrasts the networks that have promulgated CIALs in Colombia and Honduras.

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Output 2: Conceptual and Methodological Frameworks for Building Institutional and Local Capacity of Resource-poor Communities, Developed on the Basis of an Analysis of Experiences in Co-development in LAC, with Emphasis on Gender and Equity Issues; Disseminated

FIT 8: Pro-poor knowledge-sharing methodologies

Research in 2006 was carried out to explore the potential of a participatory knowledge management approach which conveys changes in the structure of technical assistance and in the behaviour of those responsible for knowledge sharing.

Key research questions for this study were:

- What are facilitating and inhibiting factors regarding the introduction, adaptation and dissemination o new farmer-professional interaction in the technical assistance context?
- What is the perception of the different actors in the innovation system regarding new approaches to participatory knowledge sharing? What are the effects of perceptions on the adoption of these new approaches?
- What are some of the successful methodological arrangements tested on farm which can be scaled out and disseminated across the decision-making ladder?

Results showed that (a) adoption of new structure and the development of new attitudes regarding the farmer-professional relationship, on the part of the so called "knowledge managers", is possible and (b) greater satisfaction and technology appropriation on the part of producers is reported. This has made possible to set a model in place, in the four agro ecological regions of Bolivia, to make a turn in regards to the traditional top-down, delivery-oriented methods to facilitate agricultural innovations.

The knowledge management research project has been developed within the context of the objectives for reducing poverty, empowering poor farmers to utilize technological knowledge and strengthening the conditions for guaranteeing food security within the framework of SIBTA, the FDTAs and the enterprises supplying technical assistance services.

In order to comply with the foregoing, the FIT 8 project has brought together foundations, suppliers and demanders of technological innovations around "learning alliances," in which different versions of an approach we have called "knowledge management," have been experimented with. This participatory approach for sharing knowledge brings together the local know-how with the technical know-how and they are submitted to validation on farmers fields as the local capacity for adopting the technologies is strengthened in the producers through the strategy we refer to as "development of competencies in the field": (a) Induction of the project among members and users; (b) implementation of the project's activities with the participating actors, including training, formulation of action plans for applying the approach, preparation of working documents, socialization of outcomes; and (c) M&E of the action plans.

Some of the outstanding results of this study which help make a turn in technology dissemination within the SIBTA system are:

- Creation of a favorable environment for applying a nontraditional approach for communicating technological innovations, incorporating the local know-how and the active participation of the producers
- Consciousness-raising of an important group of technicians whose organizations operate in the four ecoregions framework in order to incorporate the management approach when developing the projects of technological innovation
- Evidence (testimonies and evaluations) of the acceptance of the methodological approach among foundations, technicians, suppliers and producers
- Evidence of the complimentarily between CIAL and ECAS methodologies, using the knowledge management approach in a case in Sucre (FDTA-Valleys and UNEC-Agro-central).
- Evidence of the applicability of the methodological approach in ten different types of agricultural, livestock and beekeeping activities (see Poster).
- FDTA-Chaco provided a first training round to all new recipients of PITAS 2006-2007 indicating its willingness to incorporate the knowledge management approach to the implementation of agricultural innovation projects
- Proposal for a diploma program in knowledge management, being studied by three universities in Bolivia
- Development of a module on knowledge management that will be incorporated in the distance-learning program on management of innovations, financed by IFAD and to be offered in 2006 for students of the University of Florida, East African and LA countries.
- Products: A CD with all the material of the project, a manual for forming knowledge managers and a video that shows the essentials components of the methodologies.

Institutional strengthening of local innovation processes: This study has been designed to provide responses to the question "how can pro-poor local innovation processes be strengthened so that there is faster access to new relevant knowledge, technologies and markets by the poor?

The setting for this study is a large group of Centers for Learning and Knowledge Interchange (CAIS, for its Sp.Ac.)[2] dispersed throughout Latin America ands the Caribbean. Our hypothesis is that institutions such as these, engaged in the development and dissemination of rural innovations, need to develop capacities to conduct "co-development"[3] efforts. To be effective co-developers of pro-poor innovations local institutions will have the abilities and skills that enable them to draw down successfully, resources from extra-local innovation systems and then adapt these locally.

The research task is therefore, to identify the processes, capabilities and ways of organizing that are needed to strengthen co-development, and to incorporate these into approaches and methodologies that can be applied by local institutions to (a) identify local opportunity for innovation (b) network effectively with local and non-local sources of knowledge, technology and market opportunity to acquire promising innovations (c) interact with non-local providers to test and adapt these innovations to local conditions (d) accelerate their own learning processes.

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2. CAIS: Centros de Aprendizaje e Intercambio de Saberes.
3. By co-development we mean a process in which farmer organizations and their service providers engage as active partners in the learning and decisions involved in selecting and adapting potential innovations for local use.

Participatory action-research activities are conducted with our partners to include:

(a) Co-development of methods and technologies. This requires merging CAIS knowledge and experience with external knowledge (CIAT's among others) through collaborative learning encounters and on site problem-solving and lesson-learning.
(b) Strategic planning geared to sustainability of CAIS to ensure, in the long run, the co-development process continues to develop within CAIS communities and organized groups of stakeholders. Strategic planning is supported by tools such as social network analysis, participatory monitoring and evaluation and most significant change tools.

Early results of this research in 2005 have shed light on interaction approaches to conduct knowledge merging that result in co-developed technologies. CIAT and CAIS have jointly prepared action plans for every one of these Centers, which will be the basis for monitoring of co-development efforts, lesson learning and reflection regarding the facilitation of agricultural innovation. Researchers are concerned to use efficient methods to incorporate local knowledge into the co-development of technologies, both those that have been tested so far in the CAIS' environments, and those resulting from the interaction between CIAT and the CAIS themselves.

Thus far the principal outcomes of the project are:

- Capacities of thirty-five professionals from twenty two Centers in nine LA countries all of them CAIS members who have participated in the study so far have been strengthened. Enhancing their capacities has facilitated the strategic planning process out of which the Action Plans are key instruments to guide co-development efforts at the institutional an local levels of action .
- CIAT has shared with the Centers some of the leading technologies CIAT has developed in recent years such as Rural Agro-enterprise development, Local Research Committees (CIALs), geographic information systems (GIS) including easy-access technologies for three dimensional mapping and , information and communication technologies (TICs)

Output 3: The Resource-to-consumption (ERI) Framework Developed, Tested and Applied to Strengthen Farmer Organizations and Rural Women's Capacity to Make a Transition from Semi Subsistence to Competitive, Market-oriented Production in Africa

ERI approaches

Research was conducted to examine the market-led hypothesis that linking farmers to better market opportunities provides incentives for adoption and re-investment in NRM innovations, using empirical data from cross-sectional household surveys and action research on linking farmers to markets in selected sites in Malawi, Uganda and Tanzania. Analysis revealed mixed results, with significant differences based on gender, wealth categories, crops and survey areas. There is evidence that better access to markets and increased income led to increased investments farm inputs (including inorganic fertilizer) and the application of soil conservation measures. However, for the majority of women and poor farmers in Uganda, re-investing in ISFM was not among the first three priorities.

Investment on other livelihood needs (buying or renting more farmland, livestock, paying school fees and buying clothes) seem to receive higher priority.

Results of an external evaluation conducted in Malawi sites revealed that gender and equity issues have been well addressed in ERI: Alternative enterprise options, to diversify income generating opportunities and satisfy the needs of different categories of farmers (men and women) have been identified by communities in pilot learning sites. At community level women are able to speak in a group, participate in project activities either as mere project participants or as committee members serving in different capacities. With cash earned through sale of bean seed, the communities are able to diversify their diets, purchasing fish, meat, beans, chicken, fresh vegetables, etc. Several poor farmers are now able to send pocket money to their children in secondary schools, pay school fees, buy school uniform, notebooks, clothes, etc. Other benefits from the project have been assessed in terms of generation and utilization of cash income from sale of bean seed, improvements in nutrition (dietary diversification) and children' perceptions about project impact. Two graduate research theses are being conducted to further assess the distributional impacts of community-based agroenterprises,etc, with focus on intra-household gender dynamics and poverty.

Scientists from IPRA in Africa successfully develop a project for strengthening research for development capacities in innovative participatory research approaches for integrated soil fertility management in Africa, in collaboration with the African Soil Fertility Network of the Tropical Soil Biology Institute. IPRA scientists have also actively participated in the inception phase of the Lake Kivu Pilot Learning Site of the Sub-Saharan Africa Challenge Programme.

Social capital

An important research focus has been on understanding the various dimensions of social capital as a strategy for strengthening the decision-making capacity of communities. A diagnosis of social capital in Uganda has generated understanding on the different dimensions, levels and types of social capital; strength of social capital and potential for joint community action; forms of inter- and intra-household support, village-level interactions and wider scale linkages; gender roles, responsibilities and resource access; patterns of participation and interest in NRM initiatives and local bylaws formulated by different stakeholder groups; and constraints to their adoption and/or compliance with them by different groups, particularly women, the elderly and the poor.

Output 4: Methodologies for Establishing Community-managed Participatory Monitoring and Evaluation Systems (PM&E) Tested, Applied and Widely Disseminated

Community Driven Participatory monitoring and evaluation (CD-PM&E) is an important tool for community learning and empowerment. Action research was conducted in Africa (Kenya, Malawi and Uganda) and Latin America (Colombia and Bolivia) to evaluate develop methods and tools for building capacity of communities to establish PM&E, identification of community indicators, data collection, analysis and use of information for decision-making. Research analyzed lessons and experiences from applying a novel monitoring and evaluation approach developed analyzed the role that CD-PM&E plays in various areas: a) Identifying and sharing different perspectives and improving mutual understanding amongst

stakeholder groups within communities; b) tracking progress and improving the implementation of community projects c) enhancing community learning and empowerment d) increasing accountability of R&D institutions to communities. Results demonstrate that community-driven PM&E systems can be a powerful tool in enabling local people to articulate their objectives for projects and activities, take control of these initiatives, and evaluate the relevance of services and products offered. Our results demonstrate that involving local communities in the PM&E process can: (i) Strengthen capacity of local stakeholders to articulate their objectives for R&D services and make effective demand for these services; (ii) Ensure that community perspectives are integrated into the R&D agendas, and; (iii) Make these institutions more relevant and responsive to community priorities. However, for this occur the skills and knowledge of R&D organizations in facilitating and supporting PM&E systems had to strengthened. Our experiences have shown that when local people are involved in all stages of the M&E process, including the development of objectives and activities, indicators that will be monitored, the type of data and tools for collection, and analysis, it leads to more relevant R&D projects.

Output 5: Institutional and Organizational Capacity of R&D Partners to Develop and Adapt Community-managed Participatory Research Methodologies in R&D Organizations Effectively, Strengthened

Research was conducted in eastern and southern Africa to identify the key elements of, and the challenges to, building and sustaining multi-stakeholder research for development partnerships under the Enabling Rural Innovation (ERI) initiative. This multi-stakeholder partnership involves agricultural research centres, non-governmental organizations, government extension services, the private sector working together with farmers' organizations in eastern and southern Africa. Results, based on after action review (AAR) and peer assist, two participatory techniques for facilitating collective reflection and critical learning, highlight the dynamic process of partnership formation and the key elements that contribute to their success. These include: (i) shared vision and complementarity, (ii) consistent support from senior leadership; (iii) evidence of institutional and individual benefits; (iv) investments in human and social capital; (v) and joint resources mobilization and sharing. However, institutionalizing partnerships requires creative strategies for coping with high staff turnover and over-commitment, conflicting personalities and institutional differences, and transaction costs. Sustaining partnerships with the private sector still remains an important challenge.

Problems Encountered and their Solutions

- Once again, one of the great difficulties that we have had in several LA countries is the lack of continuity and in some cases, a low level of commitment of the personnel that work in GOs. This causes constant inconformity in the communities, affecting the results significantly on some occasions. Thus we have been trying to establish commitments with the directors of the institutions based on the institution's priority needs and how the activities will impact; e.g., improving the group's effectiveness and efficiency.
- In Bolivia, 2004-2005 was a highly conflictive period, during which the changes in government and the social protests affected the work pace in general. Our project, as in earlier years, had to overcome the resulting setbacks and delays in the activities. It is expected that with the possession of the new Head of State, a community leader, the

country can return to the desired course and the normal development of our project's activities.

- Although individual case studies show promising signs of success and robust results at the community level, the greatest challenge lies in linking micro-level community processes to higher macro-level processes, where market opportunities and institutional conditions may offer better opportunities for small-scale farmers. The challenge is creating conditions under which national market initiatives can support and benefit small-scale poor farmers in marginal conditions. These include promoting efficient institutional market innovations and support services such as microfinancing, market information systems, business support services, pricing policies, marketing inputs, extension advice and rural infrastructure.
- The success of PMR is highly dependent upon the development of effective quality partnerships with research and extension systems, NGOs, business support services and farmer communities. However, considerable efforts are still needed to forge effective partnerships with the private sector, business services and high-level policy and government institutions.
- Given the diversity of activities involved in ERI, the success of this work is highly dependent on developing effective quality partnerships with research and extension systems, business support services, private-public partnerships, NGOs and farmer communities. The lessons learned suggest that it is important to build a critical amount of human and social capital to create institutional commitments and clarity in understanding the roles, responsibilities and expectations of the different partners. It is also critical to develop a simple and functional PM&E early on in the project in order to build in regular reflection activities with communities and partners, to ensure that lessons are documented, and to enable adjustments to be made to the project in a timely manner. However, considerable efforts are still needed to forge effective partnerships with the private sector and high-level policy and government institutions and initiatives in marketing. These are key for the sustainability of rural agroenterprises and for scaling up, linking community micro-initiatives to high-level macro economic policies. There are some important challenges of linking farmers to markets. These are related to improving market institutions and market behavior for small-scale farmers. Market institutions are indeed critical to the expansion of production possibilities and to improving of the performance of small-scale agriculture.
- ***Does market orientation benefit women and the poor?*** When promoting market-oriented production, there is need for a better understanding of intra-household and community dynamics to assess the differential and distributional effects of market-oriented production on different categories of farmers. Rather than focusing only on women as is the case in many gender-oriented strategies, our strategy has been to encourage and sustain active participation and cooperation of both men and women in the project activities and creating gender awareness at the community level through the use of interactive adult education methods.
- Job turnover continues to be a serious problem in many government institutions and especially in the NGOs in LA, above all in Bolivia. These organizations contract their personal for specific periods of time, generally no longer than 18 months. This type of contracting restricts their participation in new initiatives because work plans are set by the project directors so it is very difficult to include new activities or to make changes in them. A possible solution to this problem would be to get outstanding results, followed by a strong diffusion to the decision-makers at the level of SIBTA in order to convince them of the benefits that these methodologies could have and adopt them as part of the evaluation parameters from the standpoint of the end-user or

requester. When contracted, the technicians should initially be trained before working with the different groups of requesters.

- The present situation of competition for limited resources has resulted in a greater detraction from our time as researchers to become searchers of resources, which has affected the quality and quantity of research. Moreover, a large part of the resources are available mostly for projects where the technologies developed by our projects are required in development programs for their immediate implementation. Thus it would be convenient to create teams within each project or institution that can support these initiatives, providing sufficient inputs so that said people can write and negotiate the proposals with the partners and/or donors. Similarly, these projects for developing capacities without much commitment to research could eventually finance other scientific initiatives for generating new approaches or methodologies.

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Based on these publications, we made a calendar and a document with summarized information about PM&E.

Indicators: Training List

Scientific meeting presentations & proceedings

Presentations given by IPRA members in workshops and/or seminars at the local or international levels.

Date	Place	Topic	Presentations	Person
Oct. 1, 2004	Universidad Autónoma de México, San Cristóbal de las Casas, Mexico	Seminar about valuation of local resources	Valuation of local resources: bitter starch cassava case in Cauca, Colombia	Viviana Sandoval
Feb. 22-24, 2005	Barquisimeto, Venezuela	Polar Foundation Projects	Use of participatory tools and methods in development projects	Carlos Quirós
Mar.16-17, 2005	Managua, Nicaragua	Research on Tropical Forages	Participatory research on to generate technologies for tropical forages	Carlos Quirós
Mar. 21-22, 2005	White Horse Inn, Kabale	Improved access to information for Development. ACACIA II. Africa Highlands Initiative	Managers Stakeholder Meeting	Elly Kaganzi
Feb. 2005	Washington, USA	Outcomes from interaction between China and Andean Zone	Internal Seminar BID	Carlos Quirós
June 3, 2005	Kawanda Agricultural Research Institute	Enabling Rural Innovation in Africa: Science and Research Update	CIAT Board Meetings	Pascal Sanginga
July, 2005	CIAT, Cali-Colombia	Meeting of experimenters farmers	Fast study of market for small producers	José Ignacio Roa Viviana Sandoval
Nov. 15-17, 2005	Casa San Bernardo, Via Laurentina 289, Rome, Italy	Developing Innovative Partnerships for Effective Research for Development Initiatives: A case study of Enabling Rural Innovation (ERI) in Africa	IFAD Workshop: What are the Innovation Challenges for Rural Development?	Susan Kaaria and Robert Delve

Strengthening NARS

Training courses: Participation in training events related to PR with 152 institutions.

Date	City & Country	Event	Participating Institutions	No. of Participants
Nov. 8-17, 2004	Cali, Colombia	Third Meeting of CAIS (Centros de Aprendizaje e Intercambio de saberes)	26 support institutions CAIS	37
Feb. 2-3, 2005	Trinidad, Bolivia	Workshop on PM&E analysis	Suppliers from FDTA- Humid Tropics	26
Feb. 3-4, 2005	Yacuiba, Bolivia	Training workshop about PM&E	Suppliers from FDTA-Chaco	18
Feb. 12, 2005	Padilla, Chuquisaca, Bolivia	PM&E training workshop	*Sindicato* from La Ciénega Grassroots organizations	25
Feb. 16, 2005	Padilla, Chuquisaca, Bolivia	PM&E training workshop	*Sindicato* from Sillani, Grassroots organizations	11
Feb. 23, 2005	Santa Cruz, Bolivia	PM&E training workshop	Center for Rural Women (CEMUR)	14
Feb. 23, 2005	Candelaria, Bolivia	PM&E training workshop	Association of Andean producers of tubers (APROTAC)	15
Mar. 3, 2005	Moro Moro, Valle Grande, Bolivia	PM&E training workshop	Association of Fruit Growers from Moro Moro (AFRUMO)	16
Mar. 12, 2005	Colomi, Bolivia	PM&E training workshop	Pucara *sindicato* – CIAL- Pucara	32
Mar. 14-18, 2005	Nairobi, Kenya	Strengthening capacity of National Bean Program participants in establishing and facilitating PM&E; initiating partnership-based PM&E	National bean programs from national Agriculture Research Institutes in Malawi, Kenya, Uganda, Tanzania; NGOs: Harvest Plus, Zambia; World Vision, Southern Democratic Republic of Congo; Representatives from the DFID/IPDM projects in Eastern and southern Africa	35

Date	City & Country	Event	Participating Institutions	No. of Participants
Mar. 18, 2005	Santa Cruz, Bolivia	PM&E training workshop	Center for Rural Women (CEMUR)	40
Mar. 21, 2005	Yacuiba, Bolivia	PM&E training workshop	Demanders from FDTA-Chaco	15
April 25-30, 2005	Nairobi, Kenya	PM&E Training for	Maendeleo Agricultural Trust Fund, Kenya	16
June 14-17, 2005	Moshi, Tanzania	Agroe-enterprise Capacity Building	Traditional Irrigation Environment Development Program (TIP)	14
June 20-24, 2005	Estelí, Nicaragua	CIAL Methodology	APRODER, POLDES, UNAG, FIDER, MOPAFMA, ADEPROD, CARE, APRODESA, ADEL, FUNJIDES, CUCULMECA, UNICAFE, FUNDESER, FORESTAN, CENADE, INGES, COOPAAD, CATIE	24
June 26, 2005	Municipality of V. V. Guzman, Chuquisaca, Bolivia	PM&E workshop with members of the Association of Women Producers from Muyupampa (AMPROM)		30
July 19-20, 2005	Kigali, Rwanda	Needs Assessment Workshops	ERI & The Rural Sector Support Project (RSSP) in Rwanda	52
July 20-22, 2005	Estelí, Nicaragua	Participatory diagnosis	Members of POSAF Project (Proyecto de seguridad alimentaria y foresteria) of MARENA (Ministerios de recursos Naturales), Nicaragua	24

Date	City & Country	Event	Participating Institutions	No. of Participants
July 25-Aug 3, 2005	Kampala, Uganda	PM&E training for Research Associates (CIAT and partners)	CIAT, Africa 2000 Network; Uganda Environmental Action Foundation (UEEF); Africare; National Agriculture Research Organization (NARO)	12
July 27-29, 2005	Sucre, Bolivia	CIAL methodology	Offering institutions from Bolivian System of Technology Agropecuaria, SIBTA	15
Jul 29-31, 2005	Tarija, Bolivia	Workshop to systematize experiences and evaluate diploma program	Technicians from offering institutions of SIBTA	48
Aug. 8-13, 2005	Mtwapa, Kenya	Integrating PM&E into the Farmer Field School approach in Kenya	Kenya Agricultural Research Institute FAO Farmer Field School Program Ministry of Agriculture Kenya Ministry of Livestock Development Kenya	19
Aug. 15-19, 2005	Arusha, Tanzania	Agroenterprise Capacity Building	TIP, through AMDP and 14 partner agencies	35
Aug. 25-26, 2005	Cochabamba, Bolivia	Workshop on participatory methodologies for a productive municipality	Technicians and representatives from municipalities	60
Aug. 29, 2005	Santa Cruz	Workshop on participatory methodologies for suppliers	Staff from the FDTAs -Chaco & Humid Tropics	22
Sept. 8-9, 2005	La Paz, Bolivia	Workshop on participatory methodologies within the SIBTA framework for suppliers & institutions linked to the FDTA-Highlands	Vivian Polar	14
Sept. 12, 2005	Entre Rios, Tarija, Bolivia	PM&E workshop	Members from the APG Amer-Indian region of Itika Guazu	29

Date	City & Country	Event	Participating Institutions	No. of Participants
Sept. 15-16, 2005	Cochabamba, Bolivia	Workshop on participatory methodologies within the SIBTA framework	Suppliers, collaborating institutions & staff from FDTA-Valleys	27
Sept. 19-30, 2005	Nairobi, Kenya	Participatory approaches and scaling up: linking ISFM to markets	Network of Africa Soil scientists along with TSBF	30
Oct. 19-20, 2005	Cochabamba, Bolivia	Workshop on participatory methodologies within the SIBTA framework, for UMSS teachers & staff	UMSS (Universidad Mayor de San Simón) teachers & staff	25
Oct. 21, 2005	Municipality of Bermejo, Tarija, Bolivia	PM&E workshop with producers from the OTB, San Luis El Anta	OTB Territorial Grasssroot s Organization	25
Nov. 1-12, 2005	CIAT, Colombia	Strengthening of CAIS (Centros de Aprendizaje e Intercambio de Saberes)	Local Committees of Agricultural Research	28
Nov. 14-17, 2005	Esteli, Nicaragua	Technological evaluation done by agricultures		24
Nov. - Dec., 2005	CMDRs from municipalities of Valley, Colombia	PM&E workshop for the project on strengthening the CMDRs in the Cauca Valley	Elías Claros	100
Total		**30**		**957**

Performance indicators

- Technologies, methods & tools
- Methodologies for community visioning and participatory diagnosis
- Methodologies for establishing PM&E systems at both community and program levels
- Framework for integrating farmer PR to participatory market research processes
- Approach for linking farmers to markets
- Training guides:
  - Community facilitators' guide for establishing community-based PM&E evaluation systems
  - The power of visioning: Participatory diagnoses and community planning; building on assets and opportunities
  - Managing social processes and group dynamics in PR
  - Farmer experimentation processes
- A community-based PM&E system designed and adjusted to a wide range of LA situations
- A strategy for practical application of M&E systems adjusted to Bolivian PITAs

Indicators: Resource mobilization

Project Proposals presented to donors

Title	Donor	Amount (US$)
Applying participatory monitoring and evaluation to assess project impacts promote learning and enhance performance of community development projects. Concept Note submitted to the May 2005. Funds to CIAT for 2 years	Maendeleo Agricultural Trust Fund (MATF) of Farm Africa	USD 95,000
Strengthening the Capacity for Research and Development to Enhance Natural Resources Management and Improve Rural Livelihoods in sub-Saharan Africa. Proposal Submitted by TSBF and ERI: for 3 years	The International Development Research Centre (IDRC)	CAN $ 950,000
Empowering Communities to Improve their Livelihoods. A proposal submitted to Rwanda Rural Sector Support Project. for 18 months		USD 422,700
Strengthening Capacity for Collaborative Management of Rural Innovation in sub-Saharan Africa: Exploring new tools and partnerships	IFAD.	USD 200,000
Tracking social capital outcomes and sustainability of local policy initiatives, (5months)	NRSP-DFID	GBP 30,600
Rural integrated development in poor hillsides communities in Cauca Valley	Cauca Valley Government	15,000
Proposal to strength the Municipal Advise of Rural Development (CMDR, acronym in spanish) in Cauca Valley	Cauca Valley Government	18,000
Participatory Monitoring and Evaluation (PM&E) for National Agricultural Innovation Systems: Recommendations for Institutionalization from the Bolivian Experience	DFID	240,000
Food security: Agricultural production plots in the municipality of Silvia, Indigenous Reservations of Quisgo, Guambia, Jambalo, Pitayo, Quilcalla and Tumburao in Cauca Province, Colombia	British Embassy, Bogotá	£29,900
Strengthening underutilized crop-supply chains for the poor through participatory inquiry and action. Concept note for SDC, IDRC, etc.	SDC, IDRC	USD 500,000
How SGRP (System-wide Genetic Resources) can support CG Centers in implementing the system priorities related to underutilized and high-value plant species to increase income and food security of the poor	SGRP	USD 24,000
Total		**USD 1'514,000** **CAN 950,000** **£ 29,900**

Project Proposals funded by donors

Title	Donor	Amount
Improving knowledge management for participatory development of agro enterprises in rural areas	Kellogg Foundation	USD 293,500
Participatory research is leading food security process, markets and natural resource conservation, in nine municipalities in Cauca, Colombia	Cauca Valley Government	USD 40,000
Institutional strengthening for CAIS: an alliance for local co development	Fundación Kellogg	USD 856,700
Learning to Innovate	CIAT – Budget CORE	USD 16,000
Learning and Institutional Change	CIAT – Budget CORE	USD 15,000
Developing capacity in CIAT to carry out social network analysis	USAID Linkage Funds	USD 11,000
Innovation histories of the adoption of four bean varieties in East Africa	PABRA	USD 20,000
Strengthening rural innovation ecologies: Participatory development of a methodology for strengthening social networks	PRGA	USD 5,000
Impact assessment of research in the Challenge Program on Water and Food (CPWF): Phase 1: Volta, Mekong and Karkheh basins. CPWF [The CPWF Board has agreed in principle that this project will be carried out in all 9 CPWF basins with a budget of $900,000.]	Donors who fund the CPWF	USD 294,149
National Agricultural Innovation Systems that work for the Poor: Building on the Bolivian experience	DFID	£126,039
How the SGRP can support CG centers in implementing system priorities related to underutilized and high-value plant species to increase income and food security of the poor	SGRP	USD 24,000
Total		**USD 1'575,349** **£126,039**

Number of higher degree students supervised

- PhD, 8
- MSc, 11
- BSc, 8

Proposed Future Plans

Mechanisms for PM&E

- Continue research in the pilot zones, where there are still ongoing applications in the PM&E method that require recording information in order to do a partial analysis in their PITAs.
- Adjust the PM&E database to the conditions of the local partners, the FDTAs, so that it contributes information coming from the farmers to the national information and communication system
- Continue with the analyses and documentation of experiences related to the methodologies for the participatory adjustment of proposals, mid-term and final evaluations of development projects as a contribution to the new SIBTA
- Prepare and present the new phase of the project: in Bolivia, which is being concerted with CIP (International Potato Center), DfID-Andes and IPRA at CIAT for research on a model for development that permits the national research centers to make decisions with respect to the generation of policies related to the agricultural and livestock area
- Continue to strengthen the communities' capacity to apply PM&E information for self-reflection and learning. This will also involve continuous capacity development at the community level and the design of simple tools for data collection and analyses that can be applied easily in the field by communities and project staff.
- Develop tools for analyzing and synthesizing data gathered from the learning sites and design an interactive, user-friendly database system to manage the data.
- Design a simple PM&E reporting system for linking the different PM&E systems to allow the agile flow of information and feedback between rural communities and R&D systems (communities – projects - centers - institutional). This will include simple tools for aggregating and reporting the micro-level data collected by PM&E processes to facilitate their use for decision-making at different levels and to provide feedback and learning.
- Conduct a systematic evaluation and review of PM&E processes in place to document lessons and experiences. This will involve an analysis of achievements to date, identification of methodological aspects that are effective, areas for further research and specific areas that need to be adapted and modified. Lessons and experiences will be documented and disseminated through feedback and review meetings with key stakeholders and policymakers in KARI, presentations at meetings and seminars, and different types of publications.

CAIS project

- Initiate the processes of co-development in the CAIS, where we will participate in the application and adjustment of diverse technologies and methodologies that should generate technology with the active participation of the farmers from the initial research phases. Likewise, the project should study what would be the ideal model of co-development in which the participation of the different actors is clearly established. This experience will be carried out in 9 LA countries.

CIP project

- In a process of knowledge management, PR and studies to strengthen the rural agroenterprises, the strengthening of the integrated sets of projects will begin in the Andean zone of Peru and Bolivia
- Finalize the establishment of PM&E processes at remaining learning sites (Kakamega and Embu), including capacity-building workshops as well as practical training activities
- Continue to strengthen the communities' capacity to apply PM&E information for self-reflection and learning, including continuous capacity development at the community level and the design of simple tools for data collection and analysis that can be applied easily in the field by communities and project staff
- Develop tools for analyzing and synthesizing data gathered from the learning sites and design an interactive user-friendly database system to manage the data
- Design a simple PM&E reporting system for linking the different PM&E systems to allow the agile flow of information and feedback between rural communities and R&D systems (communities – projects - centers - institutional), including simple tools for aggregating and reporting the micro-level data collected by PM&E processes to facilitate their use for decision-making at different levels and to provide feedback and learning
- Conduct a systematic evaluation and review of PM&E processes in place to document lessons and experiences, which entails analyses of achievements to date, identification of methodological aspects that are effective, areas for further research, and specific areas that need adaptation and modifications
- Document lessons and experiences and disseminated them through feedback and review meetings with key stakeholders and policymakers in KARI, presentations at meetings and seminars, and different types of publications.

Enabling rural innovation

Consolidate lessons and scaling up the ERI framework, including the following strategies:

- ERI will scale up to several other countries including Kenya, Ethiopia, Rwanda and DRC. To support this scaling-up process, the ERI team will also support partners to mobilize funds to support this process.
- Gender and equity dimensions of ERI will be strengthened, including the development of a strategy and research on HIV/AIDS and impact of agricultural technology choice, and how linkage to markets can support people living with HIV/AIDS, especially women who are the most vulnerable.
- ERI will focus on ensuring that community enterprise projects are functional and document the lessons and experiences from this process.
- Enhance the focus on strengthening our partnerships and creating new ones.
- Scaling up at different levels will be implemented within the community, across to other communities, within the district, within the country (nationally) and across countries (internationally).

PM&E project activities

- Continue supporting the implementation of PM&E systems and CIALs in the project pilot zones

- Follow up the technical personnel trained in participatory methods in the expansion areas of the project
- Strengthen linkages with FDTAs and SIBTA
- Continue adjusting the database that will feed into the database of the Bolivian foundations so that the information of the farmers' groups on the execution of their projects will be incorporated in their current evaluation systems
- Strengthen the contribution of PR methods to the improvement of SIBTA
- Identify farmer organizations to initiate joint activities and evaluate the contribution of participatory methods in the articulation of their demands within SIBTA.

Innovation histories

- Complete histories of the adoption of four bean varieties in East Africa and share the findings with the stakeholders involved through an institutional learning and change process
- Complete CIAL and CLAYUCA cassava-processing innovation histories
- Present the approach at the American Evaluation Association Conference in Atlanta, Georgia

Interaction with the Kellogg Foundation projects

Support the Kellogg Foundation's integrated project sets, CIP and the CAIS in Latin America in the incorporation and adaptation of participatory methodologies in their projects. Emphasis is on creating a capacity in the different regions to implement M&E to analyze the lessons learned for similar institutionalization processes.

Use of SNA to strengthen rural innovation ecologies

- Complete and analyze CIAT's research collaboration networks
- Develop SNA tools that are appropriate and useful for community-based organizations

FIT 8: Pro-poor knowledge-sharing methodologies

- Prepare a proposal or integrate it within a larger proposal, the initiative of creating with the users of the methodological approach (technicians and producers) four teams of multipliers that replicate the training and application of the same in the four macro-ecoregions, providing ample coverage of the firms supplying technical assistance services under the supervision of the FDTAs
- Prepare a proposal for financing the development of a diploma program in knowledge management, targeted toward teachers from the universities and institutes of agrarian sciences interested in incorporating the methodology in their curriculum, especially the social and technology transfer components
- Incorporate a new proposal for disseminating international public goods, the component of knowledge management as a useful methodology for improving the technology transfer systems in the Andean systems of agricultural and livestock technological development

Project SN-4

Information and Communications (InforCom)

Information and Communications for Rural Innovation: A Guide to Strengthening Local Capacity

Introduction

For some readers it may come as a surprise to see a document like this from a center of the Consultative Group on International Agricultural Research (CGIAR). Seldom have the centers supported by the CGIAR ventured into the field referred to as "communications for development." They have concentrated instead on the publication of scientific results, preparation of training materials, and on communications intended to maintain support for international agricultural research.

That choice makes sense to the extent that center research focuses on seed-based technologies of the sort that have driven the so-called Green Revolution in the developing world. With important exceptions, the products of that and related research were and still are disseminated in rural areas through what some call a "pipeline" model of technology transfer (Gurung and Menter 2004). Under this approach the results of international germplasm improvement programs are disseminated among national partners, who in turn may further refine them and then promote the final products among farmers through extension programs. A similar approach is often used with other types of technologies, including practices for integrated management of crop pests, postharvest handling of agricultural produce, and soil management.

The type of communications strategy implied by the pipeline model of technology transfer is relatively straightforward. Diverse media may be used to disseminate messages about the advantages of new agricultural technologies, with the aim of persuading farmers to adopt them. Though some of these technologies originate from CGIAR center research, they are generally refined and released by national organizations. So, in general, center scientists and communicators assume that massive dissemination of agricultural information at the local level—the logical companion of technology transfer—is also mainly the responsibility of national partners.

Revisiting the role of CGIAR centers in development communications

In the last 10 or 15 years, three things have happened that compel us to revisit the role of CGIAR centers in development communications.

First is the general weakening of agricultural extension systems, especially in much of Latin America, as a result of drastic reductions in public expenditures and changes in national development priorities and strategies. Nowadays, these systems are hard-pressed to provide adequate technical assistance through field visits, much less to take on additional responsibilities for massive information dissemination.

A second factor is the new emphasis on technologies whose adoption and use is more knowledge intensive than that of improved seeds. Often, these technologies take the form of participatory methods for better handling relatively complicated procedures in local research and development. Such methods were developed originally in response to the limitations of the conventional approach to transferring seed-based technologies, especially in diverse and remote, marginal zones for agricultural production. But later they were applied to more

complex tasks, such as community-based watershed management, rural agroenterprise development, and rural planning. Some such methods have resulted from the efforts of CIAT and other international centers to combat poverty more effectively and to improve the management of natural resources in fragile agroecosystems.

Knowledge-intensive technologies naturally involve a good deal of interaction between diverse actors. For that reason their effectiveness and large-scale diffusion depends heavily on improved handling of information and communications. But it is not at all clear how this can be accomplished, especially in view of weakened and fragmented extension systems, involving many organizations with different priorities and approaches.

Finally, there is the emergence of new information and communications technologies, or ICTs. Digital video and photography, e-mail, the World Wide Web, and so forth have generated keen interest worldwide, giving rise to a global movement focused on ICTs for development. A central aim of this movement is to extend the so-called "information society" or "knowledge economy" to marginal urban and rural sectors of developing country populations through initiatives aimed at overcoming the "digital divide" between ICT "haves" and "have-nots" (Morrow 2002). In fact, some organizations and governments have set as the goal of their ICT policies and initiatives the achievement of "universal access." This generally means affordable and convenient access to telecommunications services, such as a telephone and the Internet, for every household.

A new international information and communications initiative

Against that background CIAT management and staff proved receptive when center communicators proposed to embark on a research project dealing with rural community telecenters, which offer public access to new ICTs and orientation in their use. In this work, which was funded by Canada's International Development Research Centre (IDRC) and the Rockefeller Foundation in the USA, we explored questions such as the following. If rural people can conduct adaptive research and carry out other tasks using participatory methods, as social scientists have shown, can't they also be effective communicators? And won't improved use and sharing of information enhance the quality of their work, just as it tends to do in formal research and development organizations? Moreover, if rural people have access to new ICTs shouldn't this boost their communications capacity? In seeking answers to such questions, through our own research and the work of others, we have learned a great deal about both the limitations and possibilities of community telecenters in relation to rural innovation.

Several years ago CIAT established a project called InforCom—for Information and Communications—to build on the gains of our telecenter research. InforCom was incorporated into CIAT's Rural Innovation Institute, along with Center projects on agroenterprise development and participatory research methods. In thus proposing a new role for a CGIAR center in development communications, our idea was not that CIAT or other centers should assume responsibilities that properly belong to governments, universities, development organizations, and the private sector. Clearly, it is their job to develop telecenters and implement other information and communications initiatives involving the use of ICTs.

What CIAT can do, though, is conduct research on such interventions in collaboration with national partners. The results should give us a better idea what approaches are most

effective for enhancing the participation of researchers, rural development professionals, farmers, and other actors in technological and social innovation.

About this document

This document introduces the various products that have resulted so far from InforCom's collaborative research. As explained in Section 1 (Strengthening Information Networks in High-Value Agriculture), the central aim of this work is to find practical ways by which rural people and the organizations that serve them can make better use of information and communications to improve the production, processing, and marketing of agricultural products, especially those whose value exceeds that of basic staple crops. We believe the resulting improvement in local capacities will increase the pace and effectiveness of technological and social innovation in higher value agriculture, generating tangible benefits for rural people.

In each of the seven subsequent sections, we provide an overview of key concepts, methodologies, or approaches for strengthening local capacities, as follows:

Section 2: Social network analysis
Section 3: Community telecenters
Section 4: Rural information intermediaries
Section 5: Using market information
Section 6: Participatory research and development
Section 7: Knowledge sharing between organizations
Section 8: Scaling out

In each section we describe the thinking and research from which we derived the ideas presented in this publication. We also refer to various motivational and training materials, which we have prepared to help others apply, adapt, and improve those ideas.

Our intended audience consists mainly of development professionals with international and national NGOs; university professors and students; and scientists and technicians in national agricultural research and development organizations.

We hope this document proves useful to our colleagues in those organizations, and we welcome any feedback from their experience.

Section 1: Strengthening Information Networks in High-Value Agriculture

Anyone who has worked with rural people in the developing world is aware of the daunting challenges they face, as well as the numerous possibilities open to them, as they work to build more sustainable livelihoods. One appealing option for many of these people is to improve their communications capacity and put it to good use in various dimensions of their lives.

As we embark on communications initiatives with rural communities and organizations, we obviously have a wide array of topics to choose from—health, education,

economic development, human rights, sports, culture, and others. So, one of the first questions we must pose is: "communication about what?"

Naturally, the answer will vary from one individual, place, and project to another. For the purposes of communications research at CIAT, we made a strategic decision several years ago to focus our work mainly on the development of rural enterprises, particularly for the production, processing, and marketing of agricultural products whose value exceeds that of basic staple crops.

Even so, the ideas that have resulted from our work, though developed or tested mainly in connection with enterprise development, can be adapted and applied to other aspects of rural development as well. In fact, our experience suggests that rural people welcome a broader approach in communications, since they face many urgent problems in their lives and thus will not necessarily want to specialize in their use of information, as research organizations tend to do.

An entry point for development communications

Why, then, did we choose to focus our work in development communications on rural enterprise development? Or to put the question another way, why did we consider this topic a good entry point for initiatives in development communications?

The answer has much to do with the emerging global economy. Developing country governments, in trying to improve their competitive position within the new economic system, have made important policy changes, which have profound implications for the livelihoods of the rural poor, presenting them with both threats and opportunities.

On the one hand, decline of government support for grain production and the removal of tariffs on grain imports, in line with market liberalization policies, have made it increasingly difficult for small farmers to produce certain staple foods at a profit. At the same, though, rising demand for a wide variety of tropical products, in both domestic and export markets, has opened up new options for them to diversify their production and market ties. In recent years many rural people have seized the new market opportunities in the hopes of finding an exit from rural poverty. In doing so they have switched from almost total reliance on staples, like maize, potato, cassava, and beans, to mixed systems that include higher value products, such as horticultural crops and tropical fruits.

In Latin America, for example, trade in maize has remained essentially stagnant over the last two decades, while exports of non-staple foods, such as fruits and vegetables, have increased in Latin America generally and Central America specifically by 400 percent (Reardon 2005). This region, says Reardon, is "a clear winner from the produce market globalization."

Information and the small farmer

It comes as no surprise, though, that new agricultural market opportunities are being seized mainly by medium- and large-scale farmers, who occupy lands with favorable growing conditions, possess specific technical knowledge, and have direct links to buyers. Given the limited economies of scale associated with high-value crops, however, the doors are open for associations of small growers as well. So, an important challenge is to determine how best to

support these farmers, as they try to build profitable ties with growth markets, either by adding value to their traditional crops or by diversifying into new enterprises.

One measure that should help is to improve rural people's capacity to find, use, generate, and share information and knowledge. Their ability to analyze and act on information about topics such as price trends, production and processing technologies, and quality standards, for example, is critical for building sustainable and competitive rural enterprises strongly linked to dynamic markets.

In focusing on enterprise development, CIAT's InforCom Project thus hopes to demonstrate how improved communications can complement and reinforce a potentially powerful strategy for raising rural incomes. Many national and international development organizations in Africa, Asia, and Latin America have embraced this strategy in recent years. And CIAT supports those organizations by devising with them improved methodologies for strengthening the market links of farmers and other actors in rural areas.

As is to be expected, though, the new emphasis on linking small farmers to markets has its critics. Some argue that, since medium- and large-scale farmers are better prepared to seize market opportunities, any development strategy centering on rural enterprises and high-value crops will inevitably wind up benefiting mainly more affluent rural people and further marginalizing small farmers and others.

Certainly, that danger exists. All we can say is that the challenge for agricultural research and development organizations is to devise enterprise development strategies that specifically target the poor.

Agricultural supply chains

Well-conceived communications initiatives offer a means of broadening the participation of the rural poor in the technological and social innovation required for successful production and marketing of high-value crops. How can we best orient communications initiatives so as to accomplish that end?

Many projects centering on high-value crops are organized around the concept of "agricultural supply chains." This term refers to the series of actors and functions that lead from the production of a crop, through postharvest handling and processing, to marketing and consumption. The supply chain also includes all the support services (such as technical assistance, input supply, and credit) that contribute directly or indirectly to those functions. In general, small producers, because their resources are limited, occupy the least favorable position in agricultural supply chains. They are particularly handicapped by a lack of information and knowledge, which might enable them to capture more of the value added to their produce or shift to other, more lucrative supply chains or markets.

To help farmers and other supply chain actors overcome the disadvantages they face, CIAT has developed what we call a "territorial approach for rural enterprise development" (Lundy et al. 2002). The approach features four main components. The first involves the establishment of interest or working groups consisting of community leaders and local development professionals who are committed to enterprise development within a rural territory. In a second stage, group members identify and analyze market opportunities, resulting in a portfolio of high-potential options. Next, they conduct participatory analysis of

the supply chains for promising options. Based on the results, they then design strategies that enable small farmers to establish competitive advantages and stronger market links. Finally, the interest groups seek ways to strengthen the local network of business support services, such as credit, information, inputs, and technical assistance.

Recent experience in Honduras and Peru suggests that farmers using this approach can significantly boost their incomes. In Honduras, for example, a group of coffee farmers negotiated a 16 percent premium on their product. Though world prices have fallen since then, participating farmers still earn twice as much for a kilogram of coffee as what non-participants receive. In Peru producers of black pepper who applied the territorial approach ended up with price gains ranging from 20 to 100 percent over prices paid to other farmers.

The aim of CIAT's territorial approach to rural enterprise development and other, similar efforts is to make agricultural supply chains more fair and equitable, particularly for small farmers. With this aim in mind, one author (Bouma 2000) has proposed the notion of converting traditional supply chains into "value chains." The idea is that chain actors, rather than always seek profit at the expense of others, need to work more collaboratively toward the shared goal of providing a higher value product that generates greater benefits for all.

Rural information networks

To better express this vision of interdependent chain actors, we believe it is helpful to view agricultural supply chains essentially as information networks. If we expect to strengthen supply chains, we must, among other things, improve information flows and relationships between chain actors by helping them build communications capacity. Putting that capacity to use in favor of enterprise development is one of the various business support services that rural entrepreneurs require.

Promoting technological and social innovation within agricultural supply chains also involves improved handling of information and communications. After all, innovation is not just the product of individual genius or insight but rather involves a social process in which numerous people may play a role in putting an innovation to practical use (Douthwaite et al. 2002). This being the case, we expect that better communication between supply chain actors should strengthen the innovation process.

Suppose, then, we find that stronger information networks do contribute to innovation within agricultural supply chains, and, as a result, poor members of rural communities are able to improve their market links and raise their incomes. Will higher incomes translate into more sustainable rural livelihoods? Not necessarily, but raising incomes will at least provide a start by enabling rural people to better afford the luxury of investing in other aspects of their work and lives, including health, housing, education, and the management of natural resources on which their livelihoods depend.

Rural enterprise development should thus be viewed only as a good point of departure for efforts to improve communications in rural areas, but a particularly important one, which can open the door for advancement in many other spheres of rural development.

Section 2: Forming a Shared Vision of Rural Information Networks

Agricultural supply chains are complex information networks, involving numerous actors living and working at diverse locations. So, if improved communications are important for boosting innovation within such networks, as suggested in the preceding section, we need to decide where, with whom, and how to begin working toward this end.

Common sense suggests that any effort to enhance information flows within supply chains should focus on places where improved communications can complement ongoing technology development, farmer organization, or other efforts to strengthen supply chains. If such efforts are already under way, they can provide relevant content or messages, potential collaborators, and an overall framework for action.

For communications initiatives that will involve the use of new ICTs, which are still a novelty in most rural areas, it is especially important to gain a clear picture of who has or lacks information and what communications media are already available. Much of the literature on the "digital divide" points to the folly of introducing ICTs without an adequate knowledge of the local situation with respect to current patterns of information sharing (Girard 2003).

Social network analysis in agricultural supply chains

One promising methodology for helping groups of people gain a shared vision of themselves in relation to information flows is social network analysis (SNA). In this rapidly developing area of the social sciences, various applications have been created, covering a wide range of topics, such as health care, psychology, business organization, and immigration.

By focusing on the relationships between different actors in a particular social setting, SNA helps us understand how their position in a network (that is, the degree to which they are connected) influences their access to resources, such as information, goods, and capital. The methodology has been used to identify information blockages in networks and as a guide for tailoring information more closely to the needs of specific groups (Haythornthwaite 1996).

In addition to offering access to information, networks provide contacts with people who know how to use that information. Individuals can thus actively improve their networks by widening their contacts to capture more benefit from the information available (Burt 1992). Using networks to access information and other resources is an important strategy for building social capital, which Lin (2001) defines as "an investment in social relations with an expected return in the marketplace."

SNA can help us gain a better understanding of supply chains, particularly the relationships and information flows between actors. Classical economic theory explained these relationships in terms of markets or hierarchies (Williamson 1975). But especially since the advent of new ICTs, which have had a profound impact on the way individuals and organizations work (Castells 2000), it makes more sense to take a network approach in examining the interplay of vertical and horizontal relationships between actors in supply chains.

In agricultural supply chains of the industrialized world, the ability of small and medium-sized enterprises to compete and survive depends increasingly on their access to

information about changes in dynamic global markets. And this, in turn, depends on their success in building networks, based on relationships of trust with customers and suppliers.

That experience has clear implications for small farmers in the developing world, as they shift to higher value crops, build stronger market ties, and participate more in the global economy. These farmers will increasingly be exposed to risk from price fluctuations, changing weather conditions, and attacks by crops pests and diseases. To remain competitive under these circumstances, it will be critical for small farmers to become better connected within networks. This should help them access current, reliable, and inexpensive information as well as practical knowledge about market prices and tendencies, production and processing technologies, and a wide range of other topics.

From theory to practice

CIAT staff first employed SNA in a rudimentary form several years ago with producers and other actors in the supply chain for *panela* (unrefined sugar) in Colombia's southwestern Cauca Department. Our reasons for conducting this analysis were to give chain actors a more concrete idea of what networks are and help them form a shared vision of themselves as members of a network within the *panela* supply chain. This analysis formed part of our first effort to find practical ways of improving communications within agricultural supply chains.

In 2004 the InforCom Project gained an opportunity to explore the potential of SNA more deeply through a project funded by the UK's Department for International Development (DFID) through its Facilitating Innovative Technology (FIT) Program in Bolivia. The purpose of the program was to strengthen the Sistema Boliviano de Tecnología Agropecuaria, or SIBTA (Bolivian System for Agricultural Technology) and its four Fundaciones para el Desarrollo de Tecnología Agropecuaria, or FDTAs (Foundations for the Development of Agricultural Technology). The objective of the FIT project (called *RedCampo*, or "Rural Network") carried out by InforCom, was to design and implement effective approaches for using ICTs to enhance information networks involving small-scale production of high-value crops.

In preparation for designing a capacity-building program to accomplish this aim, InforCom carried out social network analysis with farmers, technicians, and other actors in three supply chains at as many locations in Bolivia: coffee at Caranavi, La Paz Department; chili at Monteagudo, Chuquisaca; and peach at Valle Grande, Santa Cruz. Our aim in using SNA was to avoid the technology-centered, information-diffusion approaches that characterize many ICT-related projects and to sharpen our focus on the people involved and their capacity to communicate with one another. SNA offered us a basic tool for creating maps of information flows in the supply chains, indicating key actors in the supply chains, the information flows between them, communication bottlenecks, and information needs.

Using social network analysis

When InforCom undertook SNA at the locations in Bolivia, there was no ready-made procedure for applying the methodology to agricultural supply chains. One had to be created essentially from scratch. Although the RedCampo Project accomplished much toward this end, the methodology is still to some degree a work in process. We continue to adjust and

adapt it, based on lessons learned from the RedCampo experience, so that it can yield more useful results.

Even so, the methodology is sufficiently refined that we can recommend it for widespread use in relation to agricultural supply chains. As an aid to potential users, we have prepared a practical guide entitled *Social Network Analysis: A Diagnostic Tool for Agricultural Supply Chains* (Clark, in press). This guide explains step-by-step how to carry out the analysis and provides samples of the various formats used in data collection and analysis and of the results obtained. For a detailed account of the research that gave rise to this methodology, see the *InforCom Annual Report for 2005* (CIAT 2006). Below we present only a brief description of the steps involved and results obtained with the methodology.

Field surveys: The first step in applying SNA is to plan a field survey. The challenge at this stage is to define exactly what information is required and what questions will best solicit this information. It is always a temptation to ask too many questions. Not only does this bore and confuse the informants (a particular problem in rural areas), but it generates far more data than can be realistically analyzed and without necessarily adding useful insights. This is a particular danger with SNA, since the literature offers little guidance on how to design surveys for this purpose.

A helpful way to reduce problems in survey design and data collection is to make preliminary visits to the survey sites and hold participatory workshops with supply chain actors. This enables the survey team to gain a better understanding of chain actors' perceptions, to build relationships of trust (both among actors and between them and the survey team), and to carry out a preliminary analysis of information demands.

The baseline survey we used in Bolivia was divided into three sections. The first was aimed at creating a catalog of different actors in the supply chains and gaining an understanding of their roles, influence, and use of information. Toward this end the questions were tailored to different actors—producers, association members, traders, and support service providers. The second section was designed to identify the position (or degree of "connectedness") within the network of all actors surveyed, regardless of their profile. The third section, also applied to all informants, centered on information demands. The format we used thus takes into account the fact that every actor in the supply chain is a potential information source, while also having specific information demands. With the data gathered in this fashion, we were able to analyze the flow of information between different actors in the supply chains.

Data analysis and results: Various software packages are available for analyzing data for SNA, including Inflow, Pajek, and Ucinet. Little information is available on the advantages and disadvantages of the different products for specific purposes. The InforCom team used Pajek to analyze data from the three Bolivian sites, and this gave good initial results. But more detailed analysis proved frustrating with this software, so the team examined other alternatives. Detailed analysis proved easier with Ucinet, which has an accompanying visualization software package called Netdraw. At present this is the software most commonly used for SNA.

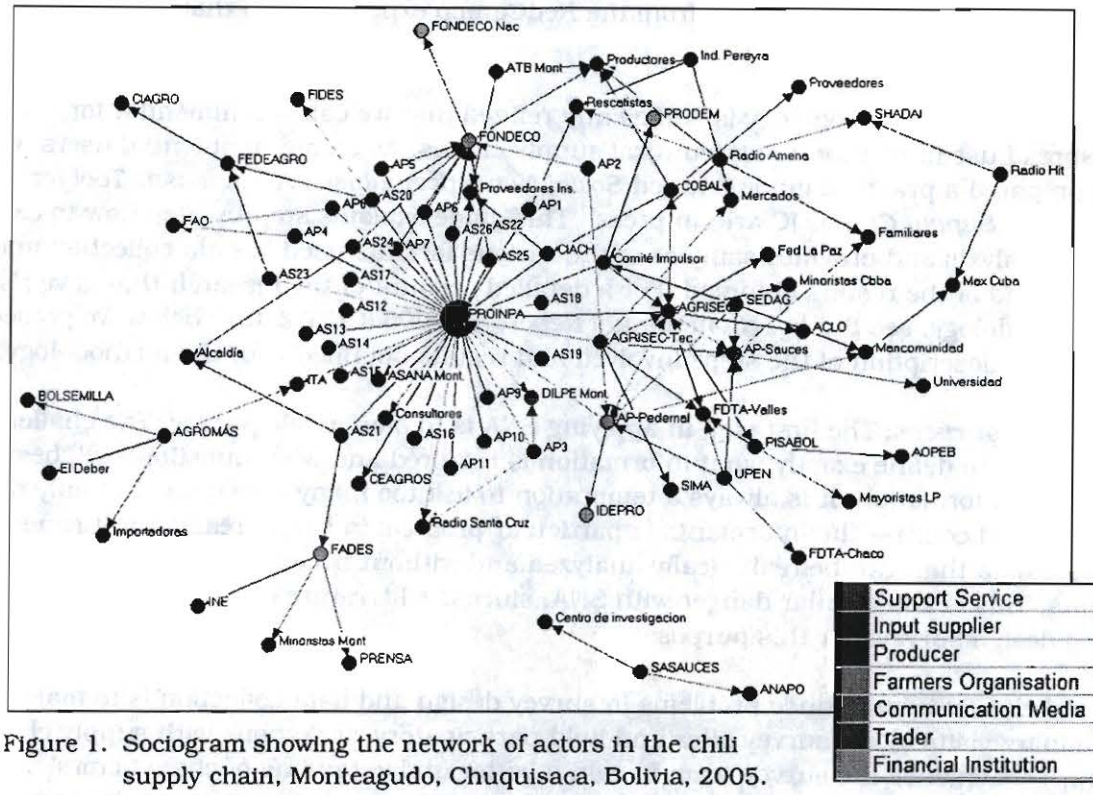

Figure 1. Sociogram showing the network of actors in the chili supply chain, Monteagudo, Chuquisaca, Bolivia, 2005.

Once the InforCom team began analyzing the data, the huge advantages of SNA over more traditional methods became quite clear. For each supply chain, the survey data were transferred to an Excel spreadsheet in about 2 hours, and this information was then fed into Pajek. The software instantly produced "sociograms" for each chain, giving a clear image of information flows between actors. As show in the accompanying figure, the network actors or nodes are shown as circles; the relationship between two or more nodes is represented by lines, whose color or thickness varies, depending on the strength of the relationship; and the direction or flow of the relationship is indicated by arrows.

Despite initial difficulties, the team found that SNA software is also versatile enough to produce images that clearly depict the information demands of supply chain actors.

Though the method requires further refinement, the InforCom Project has found it to be useful and effective as a diagnostic and planning tool for initiatives aimed at improving communications in agricultural supply chains. InforCom has also designed a methodology for more general use of SNA in rural development and has prepared a manual on this subject entitled *Social Network Analysis: A Diagnostic Tool for Rural Development Projects* (Clark 2005).

Section 3: Community Telecenters and Linking New ICTs with Rural Innovation

Over the last decade or so, many organizations and individuals around the world have come to see new ICTs as potentially powerful tools for helping achieve sustainable development in countries of the South. Initially, there was a tendency to see these technologies as a

panacea. Some believed that access to new ICTs would quickly produce a dramatic difference in the lives of the poor, offering them easier access to health services, educational opportunities, government agencies, and international markets for agricultural products and crafts, to cite some of the main applications. But making e-health, e-education, e-government, and e-business a reality for the poor has proved far more difficult than was originally envisioned.

Not nearly enough research has been carried out to measure the impact of new ICTs on the livelihoods of the poor, particularly in rural areas, where access to these tools is still limited. Even so, enough experiences have been documented—involving both failures and successes—that we now have a realistic idea of what to expect when ICTs are introduced in rural communities. We also have a reasonably good understanding of how this can be done successfully (Gómez et al. 2001; Gómez and Casadiego 2002).

Investing sensibly in ICTs

One of the main vehicles for introducing ICTs in rural areas, notably in Latin America, has been the community telecenter. Definitions of this term abound in the literature, but for the purposes of this document, we refer to them as public facilities, generally operated by local NGOs or other organizations, that offer access to new ICTs as well as training and orientation in their use for individual and community development. Thus, in contrast to privately run cybercafes and Internet access points, which have proliferated in developing country cities and towns, community telecenters have a mainly social purpose (Menou et al. 2004).

By placing this discussion right after the section on the use of social network analysis as an information diagnostic tool, we do not mean to imply that telecenters are the first or most important step toward enhancing communications in agricultural supply chains or in rural areas generally. Though rural community telecenters have much potential, as we explain below, there are pitfalls in establishing and operating them, and they have clear limitations in serving rural people.

Nonetheless, technology is an important tool for improving communications in agricultural supply chains, and it deserves significant emphasis and investment. The key is to know which is the most appropriate technology for a given purpose and to invest accordingly. Thus, we encourage project planners—rather than leap too hastily on the telecenter bandwagon—to examine first the kinds of information and communications services that most need strengthening and to then invest in the technologies that seem most suitable for delivering these services.

In going through this exercise, it is helpful to bear in mind the distinction that economist Nigel Poole (2003) draws between *market* and *marketing* information. The former consists mainly of commodity prices. As discussed later, government agencies in many developing countries disseminate price information as a public service, and much experience in Africa and Latin America has shown that radio is the most powerful communications medium for this purpose.

Some organizations are also using short message services (SMS) to deliver price information via cellular phone. But arguably the real potential of cellular phones, as Poole suggests, lies in facilitating the communication of marketing information, which consists of quite specific and valuable details, such as the product volumes and quality required by

particular buyers at particular places and times. This information is of a more private character than commodity prices, so a more personalized communications technology is needed to facilitate its exchange. The rapid spread of cellular phone service throughout the developing world promises to make a real difference in farmers' ability to gain timely access to marketing information.

Internet is arguably the tool of choice for enabling rural organizations, including farmer associations, to widen and strengthen their web of contacts with sources of support, opportunities, and new ideas beyond the rural community. Information intermediaries in organizations and communities can work toward this end by searching the World Wide Web for useful information and contacts, by following up on these via e-mail, and by projecting their strengths through Web publishing of content generated from their own experience and environment.

Rural enterprise information systems

One way of concentrating and channeling such efforts is through the construction of local, Web-based information systems for rural enterprise development, providing details about such topics as production and processing technologies, business organization, and the local contexts in which enterprises operate. Such systems have been developed in Colombia on a provincial basis (www.caucasider.org), in Peru for coastal irrigation districts (www.huaral.org), and in Bolivia for a nationwide association of organic crop producers (www.aopeb.org).

CIAT has gained valuable experience in determining how to promote the generation of market-related content at the regional and national levels as well. A notable example is our relationship with the African software developer Busylab. With this firm we have developed market information systems for Africa (www.tradenet.biz) and, more recently, Central America (www.agroemprendedor.org).

In order for technicians, farmers, and other supply chain actors to use and contribute to these systems, they must obviously have access to the Internet. Community telecenters are perhaps ideal for this purpose, because the organizations that administer them offer training in ICT use and encourage the use and creation of development-related content. But, as mentioned above, establishing effective and sustainable telecenters is a significant challenge.

Another option is to use privately run Internet access points in major towns. But these lack key features of community telecenters—namely their development orientation and personal touch—which appeal strongly to rural people.

A further possibility in some countries consists of government-sponsored Internet access points. In recent years some governments (for example, in Colombia, Honduras, Peru, and South Africa) have embarked on ambitious telecommunications programs that offer Internet access to remote rural locations on a quite large scale. Colombia's COMPARTEL Program, for example, has established Internet access points in hundreds of rural towns over the last 4 or 5 years.

The aim of such programs is purportedly to promote economic and social advancement. But they generally lack effective mechanisms for incorporating the use of ICTs into local

development. Rather, they tend to be technology-centered and based on the microbusiness model that characterizes privately run cybercafes, with the important difference that government-sponsored access centers are subsidized. Whether these have a strong social orientation depends a great deal on the profile of the person designated to operate them.

Despite their shortcomings, government connectivity programs are probably the best hope for most rural people to obtain convenient and cheap access to Internet and other ICTs any time soon. Through the efforts of local development organizations, it should be possible to link the use of these services to enterprise development and other such initiatives. Because of their presumably social aims, government Internet access points may lend themselves more to development application than privately run cybercafes. This alternative may also prove easier and less expensive than establishing rural community telecenters.

Barriers to telecenter use in rural communities

If rural organizations do opt to establish community telecenters or to link government-sponsored Internet access centers to rural development initiatives, what benefits can they reasonably expect to come from their efforts? Before answering this question, we should perhaps make clear what they should not expect.

CIAT's experience and that of others (Amariles et al. 2006; Parkinson 2005) suggests that it is unlikely for large numbers of individual farmers to visit telecenters on their own initiative. This is because of formidable geographical, economic, and cultural barriers, which prevent them from using the formal sources of information to which telecenters can provide access.

In the first instance, the majority of farmers live great distances from the small towns where telecenters have been established, and the normal hourly fees are generally prohibitive for them. Other barriers have to do with culture and content. In general, farmers obtain the information on which they base key decisions from people they know personally and trust, such as family, neighbors, and possibly agricultural extension agents. Only a small proportion of farmers obtain important information from documents, such as pamphlets and manuals, and much less from the Internet. Even when Colombian farmers availed themselves of telecenter services, we found they had difficulty finding information relevant to their specific concerns and local circumstances.

Who does use rural telecenters then? According to our results for two rural telecenters in Cauca, Colombia, early users tended to be fairly young and well educated; their average age was 28, and 97 percent had completed secondary education. Thus, telecenter users were not representative of the general population but rather constituted a relatively elite group fitting the typical profile of "early technology adopters." Thus, far from bridging the so-called "digital divide" in rural communities, telecenters seemed to created new inequities, which particularly affect small-farm families.

Telecenters and local organizations

While showing significant drawbacks, however, telecenters can generate considerable social value in rural areas, particularly if they are managed by socially committed local organizations with effective and imaginary leadership.

At Tunía, Cauca, in southwestern Colombia, for example, a quarter of the population in this town of 2,000 became users of a community telecenter within a few years after its establishment by a local NGO. When asked about their perceptions of the telecenter's impact, 83 percent of users said it had generated benefits.

Among the predominant telecenter uses at Tunía were helping children do homework assignments through Web searches and keeping in touch with friends and relatives via e-mail. These may seem superficial in terms of rural development. But they represent important gains for the townspeople, resulting in significant savings in time and money. Maintaining contact with relatives abroad is especially important for rural communities like Tunía, because they depend heavily on remittances sent home by migrant workers (Robinson 2003).

Apart from those gains, the telecenter appears to fulfill many people's desire to learn about and connect themselves with the wider world. The parents of young telecenter users in particular express high expectations that, by learning to use ICTs, their children will gain new opportunities for education and advancement.

The real power of community telecenters, however, lies in their ability to enhance the performance of rural organizations. In an impact study of two rural community telecenters, for example, we observed striking changes in the motivation and capacity of staff in the organizations hosting these telecenters. Both organizations incorporated the use of ICTs into their development programs—focusing on topics such as enterprise development, rural education, and human rights—and they raised new project funds to support these efforts. Individual staff found information on the Web that served them in their activities with rural communities, and they built virtual support and collaborative networks that translated into concrete opportunities for building new knowledge, capacities, and projects.

Presumably, more efficient and effective organizations do a better job of helping rural communities develop new sources of income and address other aspects of sustainable livelihoods. Thus, in their early years, community telecenters can have an indirect, though still significant, impact in fostering sustainable development.

An obvious question is whether rural organizations can derive such benefits from the use of telecenters, without necessarily assuming responsibility for operating them. Recent experience in Colombia's Cauca Department suggests they can.

Take, for example, the case of an association of flower producers at Tunía, which had received business support services from a local NGO called CorpoTunía. When this organization established a community telecenter, some of the flower producers obtained training in basic computer software, and they quickly identified useful applications. For example, to determine the requirements for entering flower export markets, they consulted the Web sites of other, larger associations, with guidance from a CorpoTunía agronomist. The group determined that, in order to export their flowers, they would need to improve their infrastructure, meet new demands in terms of product volume and quality, obtain credit, and so forth. Thus, access to information enabled the group to clarify its vision for the future and to identify specific needs. Of course, this does not guarantee the association will realize its vision, but having new information at least represents a step forward on the road toward change.

With the aim of encouraging and facilitating such developments, InforCom has devised a methodology for using ICTs to strengthen rural organizations. It draws mainly on our experience with local NGOs and grassroots organizations in southwestern Colombia. The methodology has been documented in a publication entitled *Conectese al Mundo y Hagalo Suyo: Una Guía para Fortalecer Pequeñas Organizaciones Mediante el Uso de las Nuevas Tecnologías de Información y Comunicación* (Connect Yourself to the World and Make it Yours: A Guide for Strengthening Small Organizations though the Use of New Information and Communications Technologies). This publication is a companion piece for a multimedia product developed by InforCom, which is entitled *Telecentros Comunitarios: Una Estrategia para Promover el Desarrollo Sostenible in Comunidades Rurales* (Community Telecenters: A Strategy for Promoting Sustainable Development in Rural Communities). Offering practical advice in an interesting and entertaining manner, this tool is useful as a guide to planning the establishment and development of telecenters, with the participation of rural organizations and communities.

Social, institutional, and financial sustainability

Another obvious question—perhaps *the* question—is whether rural community telecenters are sustainable, given the continued high costs and unreliability of connectivity in rural areas as well as other difficulties, such as maintenance and replacement of hardware and the high cost of commercial software.

This is not purely a financial issue, as our colleagues at Fundación Chasquinet have repeatedly stressed in their capacity as coordinators of Somos@Telecentros ("We are telecenters"), which is a virtual support network for telecenters in Latin America. Much experience in this and other regions of the developing world has shown that Internet access centers in rural towns can be operated at a modest profit.

But, as pointed out above, community telecenters do much more than simply provide access to Internet and other ICTs; they actively promote the use of these technologies for personal and community development. Our experience in Colombia as well as that of colleagues elsewhere in Latin America and in Africa suggests that telecenters do not generate sufficient financial returns to cover the full costs of this social function.

How then can rural communities achieve sustainability? The three telecenters established during 2000 in southwestern Colombia, with support from CIAT and a local university, are all still in operation, though they constantly struggle for survival. Why do the organizations that host these telecenters go to the trouble?

Primarily because they are driven by a deep social commitment, and their experience has demonstrated how telecenters can generate important social benefits in rural communities as well as stronger capacities that enable local organizations to offer rural people better social, technical, and other services. This, in turn, has prompted the organizations to divert funds from other sources into telecenter maintenance and to develop new ICT-related projects that bring further resources to bear on telecenter operations. Thus, a key to successful development of rural community telecenters is the willingness and ability of socially committed local organizations to incorporate telecenters into their development initiatives and to actively seek funds to support this work.

Section 4: Rural Information Intermediaries

Should, then, organizations supporting small farmers and rural entrepreneurs embark on community telecenter development? If they believe the kinds of social and organizational benefits described above justify the effort, then the answer might be yes.

But if these organizations seek to generate more direct benefits for rural people, then telecenter development will need to be accompanied by other interventions. These must be designed to create bridges between small farmers and rural entrepreneurs, on the one hand, and the information and knowledge sources to which telecenters can provide them easier access, on the other. As explained above, telecenters by themselves tend to widen rather than lessen the digital divide in rural communities. So, we must find other, complementary means by which rural people can participate in the global information society and knowledge economy. Specifically, we must seek ways of overcoming the cultural and other barriers that individual farmers and other rural people face in availing themselves of ICTs and formal information sources generally.

Communications development groups in Colombia

In search of ways to accomplish this, the InforCom Project began in 2002 to develop an approach centering on what we refer to generically as *sistemas de información para el desarrollo empresarial rural*, or SIDER (that is, "information systems for rural enterprise development"). This concept was developed through an action research initiative involving two parallel processes, one centering on groups of information intermediaries within an agricultural supply chain selected on a pilot basis and the other on the creation of a Web-based information system.

The parallel processes unfolded roughly as follows:

1. *Design*—This phase consisted of the following steps: (1) formation of working groups, (2) definition of strategic aims, (3) diagnosis of information and knowledge needs, (4) characterization of information and communications networks, and (5) designing a plan to improve local information dynamics.
2. *Implementation*—This involved (1) sharing the SIDER design in participating rural communities and (2) carrying out a plan for capacity strengthening, content development, establishment of alliances, and training of system users.
3. *Diffusion*—The aim of this phase was to promote the system with local organizations and community members through personal contact, agricultural or knowledge fairs, and a high-profile public event to launch the system.

The work with information intermediaries was intended to strengthen the network of individuals and organizations interested in information about a particular supply chain. For this purpose CIAT staff helped form three working groups in southwestern Colombia, referred to as *grupos gestores de comunicación* (communications development groups). All three were made up mainly of small-scale producers of *panela*, or unrefined sugar, though some agricultural technicians took part as well.

The groups received intensive communications training to enable them to develop relevant agricultural content with only modest assistance, drawing on local knowledge as well as information available from nearby research and development organizations or

through the World Wide Web. In developing local content, an important challenge for the *gestores*, which they met successfully, was to "translate" the terminology of formal organizations into a language that farmers can easily understand. They also learned to share the resulting content through communications strategies combining Internet use with a variety of conventional and alternative media, including radio, printed materials, and dramatizations.

The communications groups played a key role in developing the Web-based information system, which provided a means of making content centrally available for diffusion via the media mentioned above. The *gestores* indicated their information needs, the form in which they wanted to find information, and their preferences with respect to graphic design. The final product (www.caucasider.org) consists of four main components, as outlined below:

1. *Prices and markets*—This component of the system offers price information for more than 25 products that are important in Cauca's agricultural economy and for 13 cities in or around Cauca, whose markets influence prices in the area or represent a market opportunity for producers. These prices are supplied by the Colombia International Corporation (CCI), with which we established an agreement for obtaining weekly price information.
2. *Agricultural supply chains*—The purpose of this component was to provide information on various supply chains in Cauca Department that are considered to be of high priority by producers and traders in the local economic context. So far, the site contains only information about the *panela* supply chain. The information covers the steps involved in *panela* production and processing, the current status of this supply chain, and recent technological advances in the *panela* industry of Cauca and other regions of Colombia.
3. *Enterprise development*—This component includes seven sections: development of rural micro-enterprises, project development, financing and strengthening enterprise development, legal aspects, business support services, capacity strengthening and events, and a virtual library on enterprise development.
4. *Our network*—This section is dedicated to the municipalities in which the SIDER was developed and to the producers who took part in the process. Here they have the opportunity to share their social context with the rest of the world through the creation of content on culture, education, history, tourism, and local personalities. They compiled this information with the support of community members and organizations.

For a detailed report on our experience with the communications groups and Web-based information system, see Hurtado et al. (2006).

Information and communications promoters in Bolivia

In 2004 we gained an opportunity to further develop the SIDER methodology under a project funded by DFID in the UK through its Facilitating Innovative Technology (FIT) Program in Bolivia. In Bolivia, as in Colombia, we saw good opportunities for exploring the potential of information intermediaries to use new ICTs and other communications tools for rural enterprise development.

The central objective of the FIT3 Project (which we subsequently renamed *RedCampo*, for "Rural Network") was to design and implement effective approaches for using ICTs to

enhance supply-chain information networks involving small-scale production of high-value crops. More specifically, we wanted to learn what was entailed in adapting a method originally developed in Colombia to the more difficult conditions of rather remote locations in Bolivia.

Upon completion of social network analysis (SNA) at three locations in Bolivia, as described earlier, the results were shared with supply-chain actors who had participated in the analysis. At each of the three locations, a group of volunteers referred to as *promotores de información y comunicación* (information and communications promoters) was formed, with the aims of improving communications between the various chain actors identified through SNA and meeting the information needs determined. Each group, with 8 to 16 members, consisted mainly of small farmers belonging to associations, though at one site many members were students whose parents are small farmers. Group members tended to be young, and all were involved or had a particular interest in the supply chain for a specific high-value crop of considerable importance at their location: coffee at Caranavi, La Paz; chili at Monteagudo, Chuquisaca; and peach at Valle Grande, Santa Cruz. From August to November 2005, the groups participated in monthly training workshops, each covering 2 or 3 of a total of 11 communications training modules.

The methodology used to strengthen the capacity of information promoters is based on a participatory communications approach, which draws on insights from experience with adult education in rural areas. In applying the methodology with information promoters, trainers facilitate a process of active investigation, in which participants generate and apply knowledge themselves, drawing on their own experience as well as new ideas. Moreover, the knowledge they create is related to specific objectives for change in their behavior and attitudes, and each training module deals in a practical way with concrete problems or opportunities.

The methodology developed by RedCampo was implemented in collaboration with three project partners, FDTA-Valles (Valleys), FDTA-Trópico Húmedo (Humid Tropics), and the Asociación Boliviana de Organizaciones de Productores Ecológicos de Bolivia, or AOPEB (Bolivian Association of Organizations of Ecological Producers). Following are brief descriptions of the 11 communications training modules developed by the RedCampo Project and covered with information and communications promoters at three sites in Bolivia.

First workshop

1. *The agricultural supply chain*—Participants learn what a supply chain is, and they identify its various links as well as the actors who contribute to its functioning either directly or indirectly. They also consider why it is useful to analyze supply chains and how increased collaboration within chains can help strengthen them.
2. *Information and communications*—This module covers basic concepts of information and communications.
3. *Information networks*—Here the focus is on the functions and components of information networks, the benefits of being a part of such networks, and the role of promoters in strengthening them.

Second workshop

4. *Communications media*—The promoters gain an overview of communications media, including new ICTs, print media (such as pamphlets, posters, and bulletin boards), electronic media (e.g., megaphones, radio, etc.), and alternative media, such as sociodramas and puppet shows. They also learn how to select media, based on their suitability in terms of coverage, cost, and so forth to convey particular messages to a given audience.
5. *Community telecenters*—In this module promoters learn what a community telecenter is, what its services can be used for, what conditions are required to establish a telecenter and achieve financial and social sustainability.
6. *Using the Internet*—Participants learn the basics of handling computers and gain hands-on experience in using basic computer software, with emphasis on e-mail and searching the World Wide Web.

Third workshop

For the purposes of this capacity-building workshop, the promoters re-examine problems in the supply chain of interest, which they identified and prioritized in connection with the social network analysis. Then, each group of promoters collectively designs a communications campaign aimed at meeting an information need in relation to one or a few of those problems.

7. *Creating radio programs*—Promoters draft the script for a radio drama dealing with the problem(s) they have prioritized and determine how it can be produced and broadcast locally.
8. *Creating printed products*—Similarly, the promoters develop a preliminary design for a printed product and plan its production and distribution in connection with the information campaign.
9. *Using market information*—In this module promoters consider the importance of a specific type of local content and learn how it is disseminated and how farmers can be trained to make better use of it, using a methodology described below.

Fourth workshop

10. *Organizing information and communications initiatives*—Here the idea is for the promoters to imagine how they can work independently as a group to implement their communications campaign in collaboration with local organizations.
11. *Evaluating the capacity-building process*—In this last module, the promoters reflect on what they have learned over the 4-month period. They describe changes that have taken place in their attitudes and capabilities, recording impressions about the past, present, and future.

For details on the achievements of each group of promoters, see Ramírez et al. (2006). Suffice it to say here that all of the groups identified important information needs, developed messages that responded to these needs, and devised and implemented strategies for sharing these messages, using mainly radio and posters. In this work they received support from the RedCampo Project but also from local development organizations.

The results of the evaluation carried out in the final training session confirmed that the subject matter was novel and interesting for participants. Most gave evidence of important changes in their attitudes and capabilities. They felt confident about their ability to disseminate information relevant to their respective supply chains and to share their knowledge with other chain actors.

Viviana, an information and communications promoter at Caranavi, wrote as follows:

> Past: I used to be very timid. I wanted to get ahead, but in my organization they don't take women's opinions into account.
>
> Present: I have changed the way I handle myself. I have better relationships with organizations, and I have gotten closer to the leaders of my own organization.

Further evaluation of the capacity-building methodology presented here took place in March 2006, as the RedCampo Project came to a close. The results suggest that small-scale farmers and others consider the methodology to be interesting and relevant. Implementation of the methodology with groups working at diverse locations in different agricultural supply chains has shown that small farmers are fully capable of acquiring new information and communications skills in a remarkably short time. Applying those skills boosts farmers' confidence in their ability to share information, using diverse media, and to collaborate and communicate with other supply-chain actors.

The interest of international and national development organizations, local universities, and municipal authorities in the methodology is also noteworthy. Again, this tells us that the methodology is highly relevant to problems or issues that many colleagues are eager to address. What remains to be seen, of course, is what impacts are generated by changes in the attitudes and activities of the information and communications promoters. Are the benefits large enough to justify investing in the implementation of these methodologies? In seeking to detect such benefits, we envision two possibilities.

One is that the information disseminated by the information and communications promoters might influence farmers' decisions about crop production, postharvest handling, or marketing and thus have an economically significant effect. It would also be useful to determine whether farmers serving as promoters and facilitators have any particular advantage over agricultural technicians and other chain actors as sources of technical and market information.

A second possibility is that empowerment of the promoters will improve their position with respect to knowledge access and perhaps enable them to promote stronger relationships and communication within the supply chain. In other words the promoter groups might provide a mechanism for knowledge sharing between chain actors. One would then have to examine whether this has economically significant consequences for farmers and other actors who tend to occupy a weak position in supply chains.

Another critical issue, as in the case of community telecenters, is that of sustainability. Is the support of local organizations sufficient for enabling the promoters to function as a group? Do that support, plus enhanced self-confidence and social status, provide the promoters with sufficient incentives to continue? If the promoters do not continue working as a group, can they have an impact by applying their new skills individually? And whether

they work as a group or as individuals, can promoters offer their information and communications services on a business basis? In other words are markets for information in rural areas emerging, or could they, and could the promoters cater effectively to such markets and make a profit?

Based on the Colombian and Bolivian experiences summarized here, InforCom is documenting a methodology for strengthening the capacity of individuals and organizations to act as information intermediaries within supply chains. We hope this publication will encourage others to embark on further experiments that explore the potential of rural people to enhance their information networks and in this way open up new possibilities for improved livelihoods.

Section 5: Effective Use of Market Information

One of the most fundamental services that farmers require in order to strengthen their market and entrepreneurial orientation is access to reliable information about current prices for diverse agricultural products. Government agencies in many developing countries operate price information systems, largely as a public service, but their performance has been somewhat uneven. The main problem is that ministries of agriculture and related entities often simply do not have the capabilities or funds required to run a reliable price information system that gains and maintains farmers' confidence through consistent reporting of accurate price information.

Challenges for market information systems

Nonetheless, some countries have registered important gains. For example, the Colombia International Corporation (CCI), mentioned above, operates a quite comprehensive price information system, based on daily reports from wholesale produce markets in major towns and cities across the country. Similarly, FDTA-Valles in Bolivia (as mentioned above, one of the country's four Foundations for the Development of Agricultural Technology) has for several years operated the Servicio Informativo de Mercados Agropecuarios, or SIMA (Agricultural Markets Information System), on behalf of the country's Ministereo de Asuntos Campesinos and Agropecuarios, or MACA (Ministry of Peasant and Agricultural Affairs). Though the quality of the service is excellent, FDTA-Valles is highly concerned about its sustainability, given that it is currently supported with project funds from the US government.

Foodnet, a network of organizations dedicated to marketing research in Eastern and Central Africa, has tried to address this issue in its support for national price information systems in Uganda and other countries. Though it has made progress in this regard, proposing a series of measures for generating income and support, sustainability remains a major concern for national and regional agricultural price information systems in the region.

Another key concern is about the extent to which farmers are capable of using price information effectively to make better decisions about marketing of agricultural products. Common sense would suggest that, if farmers have information indicating they can sell under more favorable terms at one time and one place than another, they will act accordingly. But the matter is hardly that simple. Circumstances beyond their control may dictate that they sell at a loss. Moreover, price information alone does not provide a sufficient basis for decision-making. Farmers must also know their production costs with

some accuracy, but many small-scale growers are not in the habit of making such calculations.

Other barriers have to do with the massive dissemination of price information on a national scale. The logical approach for accomplishing this is through the use of radio. In developing countries no other communications medium has such wide coverage, is as readily accessible, or is as well regarded by farmers and other rural people. One reason for this has to do with the high value assigned to oral communication in the largely traditional societies of rural areas.

Despite those advantages, though, it is probably a mistake to assume that massive dissemination of price information via radio results in nearly perfect communication. We simply cannot take for granted that farmers and others have received and understood the information and know how to act upon it.

An improved methodology for capacity strengthening

Based on such concerns, FDTA-Valles established several years ago a small program for training farmers and others to use the price information generated and disseminated by SIMA. Foundation management see this program as essential for ensuring that their sizable investment in SIMA generates high returns through increased rural incomes from more adept marketing of agricultural products. Thus, when the above-mentioned RedCampo Project was being designed in early 2004, FDTA-Valles saw it as an opportunity to develop collaboratively a more effective training methodology.

The training program of FDTA-Valles was originally directed mainly at farmers, focused heavily on simply promoting SIMA, and employed fairly conventional training methods. To increase the scope and boost the effectiveness of the program, RedCampo proposed changes in its orientation and methodology.

First, the project proposed to orient the training to potential information intermediaries (agricultural technicians, development professionals, farmer leaders, and others), who in turn could help large numbers of farmers strengthen their capacity to use market information effectively.

Moreover, the project devised a methodology, which, like the information promoters methodology described above, is based on a participatory approach to communications. Such an approach assumes that learning by doing in an informal setting is more effective than conventional classroom lectures for preparing adults to better manage real-life situations.

Early in 2005 the RedCampo Project developed a proposal for strengthening the training efforts of FDTA-Valles in the use of market information disseminated through SIMA. The proposal has four main components.

The first involves improvements in the diffusion of SIMA price information via radio. This can be accomplished through analysis of the use of price information by farmers and organizations, continuous updating of information on radio stations and their coverage, and workshops with radio station staff aimed at improving their presentation of the price information.

The second component of the proposal—its centerpiece really—is a methodology based, as mentioned above, on a participatory communications approach to adult education. Using this participatory tool, information intermediaries (referred to in this case as SIMA facilitators) can multiply local capacity to use market information by offering the training to farmers.

The capacity-building methodology is designed to be implemented through a one-day workshop involving about 20 farmers. The event is divided into 10 segments, each with a specific purpose, as follows:

1. Create a mood of confidence and explain the content of the workshop.
2. Reach an understanding of the concept of agricultural supply chains, based on farmers' experience.
3. Prompt farmers to reflect on their current knowledge and practices with respect to the sale of agricultural products.
4. Introduce the concept of negotiating prices.
5. Help farmers improve their ability to calculate the production costs of their crops.
6. Describe what SIMA does and how it works.
7. Help farmers improve their ability to listen to and note down price information disseminated by SIMA.
8. Analyze, interpret, and calculate sale prices for agricultural products.
9. Identify barriers to effective price negotiation and alternatives for overcoming these.
10. Evaluate the workshop in a participatory manner.

As explained earlier, the idea is that the SIMA facilitators, rather than simply instruct farmers in the conventional way, will facilitate workshops, helping farmers reflect on their experiences with price information and strengthen their knowledge through practical application of new ideas.

For this purpose RedCampo has developed four products for use by potential SIMA facilitators. These include a set of ten posters, each corresponding to one of the 10 segments described above; a brief guide to the use of the posters, which describes participatory techniques for interacting with farmers; a more detailed manual explaining the methodology and the thinking behind it; and a sociodrama developed for radio and recorded on cassette, called *Para Ganar, Hay Que Saber Negociar* (To Make a Profit, You Have to Know How to Bargain). The dramatization is useful for prompting farmers to reflect on and discuss issues related to the use of price information.

The third and fourth components of the proposal for strengthening SIMA's training program involve the creation of alliances with development organizations, local governments and schools, and the mass media for large-scale implementation of the new training methodology.

The proposal was finalized and discussed with FDTA leaders and staff during April-May 2005, and implementation was begun in July. In collaboration with the NGO Food for the Hungry International (FHI), the methodology was tested at Sucre, Chuquisaca, with a group of technicians. Under a more formal agreement with FHI and other organizations, the methodology was further refined, and the training materials described above were developed and tested. Through this agreement we were able to test on a pilot basis the potential of

alliances with local organizations for massively scaling out training for farmers in the use of market information.

Section 6: From Information to Knowledge—Participatory Research and Development

Enhancing the flow of information within agricultural supply chains and in rural communities generally through the kinds of measures described in foregoing sections is important for promoting rural innovation. Even so, this alone provides no guarantee that farmers and other rural people will be able to translate relevant information into practical knowledge and on that basis act effectively to solve problems or seize new opportunities.

For that reason creating national or local information systems may not make much difference, if all they do is passively disseminate information. Even if these systems are designed creatively, using diverse locally available media, they may still fall short of expectations. Further measures are required to promote genuine communication between actors in agricultural supply chains and other rural settings—that is, dialog based on trust and shared interests. Our experience in Colombia and Bolivia underscores three points in this regard.

First, we have observed that providing potential information intermediaries with intensive communications training, together with opportunities to put new skills into practice, can bring about a remarkable transformation of groups and individuals. Within a relatively short time, they begin to show greater confidence in their dealings with others, including actors in formal sector organizations. These kinds of attitudinal changes are highly conducive to improved communications, which we understand as ongoing dialog directed at building confidence, enhancing participation in key decisions, and forming shared visions and action plans.

Second, the participatory communications approaches outlined in preceding sections—specifically those aimed at strengthening the capacity of information intermediaries—appear to be effective at generating knowledge through a collective process. And this process can lead directly to collaborative action, such as the design and implementation of communications strategies and improved use of market information.

Third, participatory approaches to communications seem to be more effective when linked to the adoption of other kinds of participatory methodologies.

An expanding array of participatory methods

Since the late 1980s, CIAT and other organizations have developed and promoted a wide variety of methodologies for participatory research and development. As explained in the introduction, these emerged in response to limitations of the conventional pipeline model of technology transfer and in an effort to take up new challenges for agricultural research, specifically poverty reduction and improvement in the management of natural resources.

Among the first products of this work was a method centering on Comités de Investigación Agrícola Local, or CIALs (Local Agricultural Research Committees). These are small groups of farmers interested in experimentation, who volunteer to conduct local

adaptive research on behalf of their communities. They are trained for this purpose by local NGOs or grassroots organizations and receive follow-up support from them. The CIALs have proved especially effective for testing, selecting, conserving, and promoting superior local or introduced germplasm of staple crops. But the methodology has also been employed for other kinds of local research. There is a marked tendency among CIALs, once they have identified useful technologies, to transform themselves into small rural enterprises centering on the application of those technologies.

Currently, about 300 CIALs are operating in eight Latin American countries. Moreover, CIAT researchers working in other regions have developed participatory research methods inspired by the CIALs, and they have actively promoted these, with culturally suitable modifications, in Southeast Asia and in Eastern and Southern Africa. During recent years further research centering on the CIAL methodology has produced important insights into the creation of so-called "second-order associations" to support CIAL members as well as an effective methodology for participatory monitoring and evaluation of the research and development activities of these and other farmer groups.

As the CIAL movement gained momentum in the early 1990s, CIAT embarked on the development of other participatory methodologies. A particularly ambitious approach involves the formation of community-based watershed management associations in hillside areas that face serious threats to biodiversity, soil, and water. The central aim of these consortia is to reach negotiated solutions to conflicts over the management of threatened natural resources. Under a typical arrangement, local organizations act in a coordinated fashion to offer small farmers new opportunities for enhancing production and incomes in exchange for their commitment to measures designed to protect natural resources. Developed originally in southwestern Colombia, this approach was subsequently tried in Honduras and Nicaragua, with favorable results.

At about the same time, CIAT researchers began developing the territorial approach for rural enterprise development described in Section 1. Based on action research carried out in Colombia, Honduras, and Peru, the approach is now being widely applied in Central America and Eastern and Southern Africa through collaborative arrangements with several major international NGOs. More recently, Center land use specialists have devised participatory methodologies for rural planning at the municipal level, in which a wide cross-section of stakeholders play active roles in planning, monitoring, and evaluating local research and development initiatives.

In trying to reflect the variety of participatory methodologies, we have emphasized those developed by CIAT, because they are the ones with which we are most familiar. But many other organizations have been active in this field as well. Particularly noteworthy is the Farmer Field School approach developed by the United Nations Food and Agriculture Organization (FAO), which is widely promoted and practiced throughout the developing world. The point here is simply that a wide array of participatory methodologies are available to rural communities and the organizations that serve them.

Constructing knowledge collectively

One notable characteristic of the methodologies described above is that they promote the fusion of knowledge based on local experience and experimentation with that resulting from

the work of formal research and development organizations. The result should be technologies and other solutions that are at once scientifically sound and locally relevant.

Not until quite recently, though, have CIAT researchers working on participatory methodologies described them explicitly as tools for generating new knowledge and for ensuring local appropriation of this knowledge. Under the above-mentioned FIT Program in Bolivia, CIAT's Participatory Approaches Project undertook a 2-year initiative called Pro-Poor Methodologies for Knowledge Generation. The central outcome of this project was a methodology whereby agricultural technicians and development professionals can construct knowledge about technology options collectively with farmers, building on methods such as the CIALs, Farmer Field Schools, and so forth. It is based on a constructivist philosophy of education, which proposes that, rather than simply receive knowledge, individuals actively construct it by means of experience and interaction with others in changing contexts.

This methodology represents a radical departure from the conventional model of technology transfer in agriculture. The latter mainly involves vertical communication from technicians "down" to farmers, and the messages communicated deal mainly with technologies generated by formal organizations, often without taking local knowledge into account. It is assumed that technicians possess knowledge, which farmers lack, and that the role of technicians is principally to transfer this knowledge (which they, in turn, have received from researchers) to farmers through presentations and demonstrations.

With the knowledge generation methodology, in contrast, local knowledge is the point of departure for a dialog between technicians and farmers. Through this dialog the two groups first arrive at a shared understanding of what farmers know and what gaps may exist in their knowledge, which could be filled by knowledge based on formal research. The role of technicians in this process is thus not to transfer knowledge but rather to facilitate a process whereby knowledge is constructed collectively. And the techniques employed are not presentations and demonstrations but rather *encuentros*, or "encounters." These are meetings essentially, in which technicians can employ diverse techniques to elicit local knowledge, gain farmers' perceptions of the knowledge shared by technicians, and document the results of this collective process, using posters, other types of documents, photographs, and/or video.

Another key feature of this methodology is its emphasis on farmers' appropriation of the knowledge they have constructed collectively with technicians. The idea is that, rather than merely acquire new knowledge, farmers should also receive appropriate support in determining how they can transform it into action. This is accomplished through a series of capacity-building exercises carried out in the field.

The theory underlying this methodology, together with an explanation of how to put it into practice, is presented in a publication entitled *Manual para la Formación de Gestores de Conocimiento*, or "Training Manual for Knowledge Generation" (Zapata et al. 2006). The manual is accompanied by a video based on experience with the methodology at 10 locations in Bolivia.

Toward knowledge networks in rural areas

From the outset of CIAT's work on communications for development, we have conceived of this as complementing the use of participatory methodologies of the sort described above.

Preliminary experience in southwestern Colombia suggests that, if applied in an integrated fashion, participatory communications and other participatory research and development methodologies can reinforce one another in important ways.

From the communications perspective, two advantages in particular are worth noting. First, by linking communications initiatives with enterprise development, participatory research, or rural planning, for example, we ensure that the former will have a clear thematic focus. That is, such initiatives will not just be about communications for its own sake but rather will deal with relevant content. Second, we also ensure that the investment in local communications capacity will be aimed at particularly receptive candidates—that is, rural people who are actively engaged in the construction of new knowledge and who therefore are motivated and well placed to seek, use, and share information.

For participatory research the link to well-conceived participatory communications initiatives offers one key advantage. It helps keep participating farmers and other rural people from going about their research and development activities in isolation, and it helps ensure that the construction and use of new knowledge are not confined to the relationship between a specific group of farmers and the technicians who happen to be on hand to support them. A community telecenter, for example, can enable participants in such processes to tap a much wider world of contacts and sources of information and opportunities. Moreover, the activities of well-trained information and communications promoters can help broaden participation in the research and development process and ensure that a much larger rural audience is aware of the new knowledge being generated through such processes.

In Section 1 of this document, we made the case that strengthening rural information networks is important for promoting technological and social innovation within agricultural supply chains and other rural contexts. Here we suggest that, by incorporating work on information and communications into participatory research and development, we can perhaps accomplish something far more beneficial. We can build rural knowledge networks that, beyond simply keeping rural people informed, better enable them to act on new opportunities for improving their livelihoods.

Section 7: Knowledge Sharing to Enhance Collaboration between Organizations

Another possible use of strengthened information or knowledge networks in rural areas is to create new and more effective channels for getting feedback from farmers and other rural people to research and development organizations. The true value of this feedback will depend a great deal on the institutional cultures of those organizations. If they are open to new knowledge—even that which may contradict the status quo, threaten vested interests, and imply costly or difficult changes—then feedback from the field should contribute to a learning process that results in more efficient and effective research and development. It also helps if organizations are inclined to share new knowledge with others, so that it can have the widest possible effect, leading to more coordinated and coherent efforts. This latter point is especially important given the diversity and fragmentation of technical and other support in many rural areas.

Unfortunately, however, those are not the attitudes that generally prevail in agricultural research and development organizations. It is more typical for them to react defensively in the face of new knowledge that calls into question current views and practices. And they are frequently reluctant to share knowledge—such as improved research and development methodologies or insights into the attitudes and circumstances of rural people—because they fear this may put them at a disadvantage compared to other organizations, with which they compete for resources and even access to rural communities.

The persistence of such attitudes poses a serious hindrance to any effort to enhance communications in the rural sector. For how can organizations promote a new culture of information and knowledge sharing in rural communities if they do not even practice it themselves?

Knowledge sharing solutions in the CGIAR

Partly out of concern about the irony of that predicament, CIAT recently undertook the coordination of a project on knowledge sharing, or KS, supported by the World Bank through the Information and Communications Technology—Knowledge Management (ICT-KM) Program of the CGIAR.

This work was carried out during 2004-2005 in collaboration with three other CGIAR centers: the Center for International Forestry Research (CIFOR), International Maize and Wheat Improvement Center (CIMMYT), and International Water Management Institute (IWMI). All four centers received strong support from the Bellanet International Secretariat in Canada. The project's central objective was to:

> Create opportunities for CGIAR center management and staff to experiment with KS approaches and thus demonstrate the value of those approaches as means of facilitating organizational change and research collaboration.

Toward this end the project undertook four pilot initiatives, one in each center, aimed at examining the potential of major meetings for stimulating knowledge sharing among staff. These experiences largely bore out the project's hypothesis that major events are an effective entry point for KS, permitting large numbers of staff to gain experience and capacity in the use of KS techniques and creating positive attitudes toward KS on the part of both staff and leadership. A case study reporting partial results of the pilot initiatives appeared in the second issue of the *KM4Dev Journal*, which was guest edited by the "core team" of the KS Project (Staiger-Rivas et al. 2005).

Listed below are brief definitions of the main KS techniques employed in the pilot initiatives:

- *Open space*—This is a highly democratic method of group agenda setting, followed by small-group discussion, reporting, and preparation of action plans.
- *Peer assist*—This technique brings together a small group of individuals to share their experiences, insights, and knowledge to help one person solve a specific problem.
- *Knowledge fair*—This is an exhibition on a given theme, which gives participants great flexibility as to how they will present and gather knowledge and experience.

- *Chat show*—An alternative to conventional presentations, this technique involves a panel of experts on a given topic, who answer questions (the more provocative and controversial, the better) posed by a host. In their replies panel members may use items such as publications, photographs, and videos.
- *Speed dating*—Commonly used as an "ice breaker" at the outset of meetings, this technique gives participants 10 minutes to talk to as many others as possible about a specific question or topic.
- *Collaborative software*—A wide array of software products are now available that facilitate more transparent e-mail communication, joint planning, the sharing of documents and other resources, and other kinds of exchanges. Much experience has demonstrated the need for a concerted effort to enhance KS attitudes and habits before and during the adoption of such products.

The pilot initiatives were complemented by other activities, including workshops on the facilitation of group decision-making, and the creation of an online KS toolbox (http://www.ks-cgiar.org/toolbox/). These activities, together with the KS pilot initiatives, were presented at the CGIAR's 2005 Annual General Meeting and are reported in a publication entitled *Knowledge Sharing Solutions for a CGIAR without Boundaries* (Russell and Staiger-Rivas 2005).

Knowledge sharing in research and development partnerships

The KS Project represents a good start toward introducing techniques and fostering attitudes in the CGIAR that are conducive to improved teamwork and broader participation in decision-making. But it remains to be seen whether enhanced KS will actually lead to those outcomes and whether more collaborative and participatory patterns of work will contribute to better performance, learning, and innovation.

In order to explore those questions, it is important for the CGIAR and the centers it supports to expand their work on KS beyond internal processes. Failure to do so will expose the CGIAR to a risk noted by King and McGrath (2004): "There is a serious danger that knowledge sharing will be seen as an irrelevant luxury if it is not more visibly and genuinely addressed to Southern knowledge needs and challenges."

To avoid that danger, the CGIAR needs to begin applying KS approaches in a wide sampling of its increasingly complex partnerships with national, international, and local partners. The most important impacts of KS are likely to come from its beneficial effects on such arrangements. Recent experience at IWMI and CIAT in sharing KS approaches with research partners is quite promising.

As center staff and partners realize the potential of those approaches in facilitating research and development collaboration, we believe they will become more committed to incorporating KS into their day-to-day activities. Once the approaches become normal practice in our organizations, KS could have a profound effect on the way we work, reinforcing a more demand-driven, interactive approach, in which knowledge-intensive methods and tools are devised collaboratively through a shared learning process. If we manage to bring about such changes, then our organizations will be far better positioned to foment information and knowledge sharing in agricultural supply chains and other spheres of rural life.

Section 8: Scaling Out Information and Communications Initiatives

Over the last decade or more, as developing country governments have reduced public spending and shifted development priorities, one result has been a radical downsizing of national agricultural research and extension services. And this has sharply reduced the availability of technical support, precisely when many farmers needed it to confront a host of agronomic and disease and pest management problems in their more diverse and market-oriented farming systems. In many cases technical support has been decentralized to municipal governments. But in general they have been handed new responsibilities without sufficient resources or capacity to respond to new demands.

Compounding this problem is the lack of other support services, including the ability to find, use, generate, and share information and knowledge on a wide range of topics.

Against this background of weakening support from government agencies, the participatory methodologies described in this document offer rural people a potentially powerful means of assuming collectively at least some of the responsibility for diverse tasks that are important to them—tasks that otherwise will remain undone. The use of these methodologies—for conducting local adaptive research, managing natural resources, identifying market opportunities, strengthening information and knowledge networks, and so forth—puts a heavy burden on farmers and other rural people. But it also widens their range of choices and opportunities, and that is the essence of any effort aimed at improving rural livelihoods.

What can we do to provide rural people with adequate support as they implement those methodologies, specifically the ones having to do with information and communications for rural innovation? What organizations can assume the responsibility for helping strengthen local capacities on a significant scale, and how can CIAT and other international organizations support them?

CIAT's experience with communications for development suggests that three types of organizations can play especially important roles and make valuable contributions in this field: local and international NGOs, municipal governments, and universities.

Learning alliances

For reasons we explained in Section 3 of this document, the social commitment of local NGOs has proved vital for enabling rural community telecenters to achieve financial, social, and institutional sustainability in Colombia. These organizations have also shown much potential for acting as information intermediaries. For CIAT local NGOs have proved to be key partners in the development of methodologies for performing those functions more effectively.

A key question is how such methodologies can be implemented through local NGOs on a large enough scale to have significant impact in rural areas. One option consists of a collaborative model called "learning alliances," which have been designed and implemented in recent years by the Agroenterprise Development Project of CIAT's Rural Innovation Institute (Lundy 2004).

Learning alliances are coalitions of research organizations, donor and development agencies, and other partners, such as policy makers and private companies. International NGOs, such as CARE International and Catholic Relief Services (CRS), are playing especially prominent roles in these collaborative arrangements, and they, in turn, operate through dozens of local NGOs. Together, alliance members identify, share, adapt, and implement the best available development approaches in a territory of mutual interest, with a strong emphasis on capacity building and joint learning. In the process they reflect collectively on what is working and what is not and then put the lessons into practice, leading to new cycles of learning.

The power of this approach lies, at least partly, in its focus on cumulative, shared learning about effective practices across organizational and geographical boundaries. The resulting synergies between diverse actors should lead to more rapid processes of social and technological innovation, a sharper focus in research on the problems that really matter to rural people, and new insights for shaping policies that are more conducive to rural development.

Another obvious advantage of the learning alliances is that they allow promising innovations to be implemented on a quite large scale, given the large number of partners involved and the wide swathes of territory in which they work. During recent years learning alliances involving CIAT and various development partners and centering on the territorial approach for rural agroenterprise development have been created in Central America and Eastern Africa. An alliance for the Andean Region of South America is now taking shape as well.

Starting in 2005, partners in the Central American learning alliance have expressed keen interest in CIAT's work on information systems for rural enterprise development, or SIDERs. Center staff have organized workshops on this topic for them in Honduras and Nicaragua. So, at least the first steps have been taken toward implementing and adapting the SIDER concept on a sizable scale in the region.

Development planning in rural municipalities

To the task of building sustainable rural livelihoods, local and international NGOs bring a strong social commitment, significant resources, and valuable knowledge and capabilities. What they often lack, however, is continuity and permanence, and this is a serious drawback, since rural innovation is an ongoing process, not something that can be accomplished easily within limited project time frames.

Local governments, in contrast, may often be corrupt, inept, and weak. But they are ever present, and they are growing in importance, as national governments in many developing countries decentralize decision-making power, services, and resources. So, it is important to find ways of helping local governments become more effective and transparent in fomenting rural development. Our experience with information systems for enterprise development in southwestern Colombia and several parts of Bolivia suggests that rural municipalities are a useful focal point for local content development and that municipal authorities are central in securing institutional support for information and communications promoters.

An important question is how such activities can be incorporated more thoroughly into rural development planning at the municipal level. A group of CIAT land use specialists, who became part of the InforCom Project several years ago, have gained significant experience in using participatory planning methods with municipal authorities and other stakeholders in local development. So, the group is now well positioned to explore ways in which information and communications initiatives can support and enhance rural planning. If the results are positive, then this will perhaps indicate that rural planning is a potentially important mechanism for scaling out efforts to strengthen local information and communications capacity.

Universities and e-learning

Universities are another critical actor with much potential for contributing even more than they already do to development communications. In both Colombia and Bolivia, local universities have proved to be strong partners in CIAT-coordinated projects dealing with community telecenters and information intermediaries. Likewise, universities in both countries have welcomed CIAT participation in projects they have initiated on communications or ICTs for development. Among the strengths of universities in these areas are their research capabilities, their wealth of content on many development-related themes, and their communications and information technology departments, which can bring the talents and energies of professors and students to bear on initiatives in development communications.

Another potentially important contribution of universities to development communications involves e-learning (that is, computer-supported collaborative learning). Many are already heavily involved in offering distance courses on a variety of rural development-related topics.

During recent years CIAT has become involved in this area and has just completed a thorough evaluation of its first e-learning venture. It focused on ex situ conservation of plant genetic resources and was completed in January 2005 (Hesse 2006). Building on this successful first effort, CIAT's Information and Capacity Strengthening (InforCap) Unit has entered into an e-learning partnership with the University of Florida (UF) in the USA. In collaboration with two eastern African universities, CIAT researchers based in the region will provide on-site coaching and mentoring for local students enrolled in UF's distance education program, and they will serve on the students' thesis advisory committees (for further details, see www.ciat.cgiar.org/inforcap/strengthening.htm).

In addition, InforCom staff are working with the International Fund for Agricultural Development (IFAD) and numerous partner organizations to develop projects for developing and offering an e-learning course entitled "Managing Innovation," accompanied by face-to-face training and support for field implementation of concepts and methodologies presented in the course. One of the course modules will deal with knowledge generation and communications in rural communities. It will be interesting to see whether e-learning, as a complement to other learning approaches, will prove effective for strengthening local capacity to enhance information and knowledge networks.

Commitment to professionalism in communications

How vigorously CIAT and its partners pursue the options described above for further refining and scaling out approaches to strengthen local communications capacities will depend on various factors, including the availability of funds and decisions about priorities in research for development. But the progress of this endeavor will also depend on their commitment to professionalism in communications.

One of the things that distinguishes this field from others is that it deals with an activity in which literally every human being participates with remarkable proficiency every single day. This is one of the reasons why communications-for-development initiatives offer such wide scope for strengthening local capacities. Every member of a rural community has potential for improving communications, whereas relatively few will come forward to conduct local adaptive research or lead the way in fomenting agroenterprise development.

But precisely because so many people show strong potential as communicators, it is all too easy for the managers of research and development projects to accept current levels of communications capacity as good enough or even to dismiss the issue as irrelevant. And as a result, they miss important opportunities to involve communications professionals, as members of multi-disciplinary teams, in developing the huge potential of rural people to find a path toward sustainable livelihoods.

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PRGA Program

Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation

A CGIAR Systemwide Program

PRGA Program—Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation
A CGIAR Systemwide Program

Project Description and Logical Framework

Introduction

The Program's goals for phase two (2003–2007) have been considerably modified in the light of lessons learned from, and experiences in, phase one (1997–2002). These lessons can be broadly summarized as:

- An absence of a critical mass of participatory research and gender-analysis practitioners in agricultural research, particularly in the CG System;
- Little or no focus on gender analysis;
- An unmet demand for capacity development in gender-analysis and participatory research methods;
- While learning and change through methods development is widespread, it does not extend beyond the project life and into the organization.

Clearly, these lessons necessitate renewed focus on gender analysis with its inextricable linkage to participatory research. This calls for continued focus on building capacity for the use of participatory research, gender-analysis and impact-assessment methods, and demonstration of the impacts of using such methods. Additionally, and in order to sustain, enhance and extend learning and change to the level of the organization, it is necessary to focus on developing capacity for mainstreaming such approaches, combined with action research to document "best practices" for organizational learning and change.

Project objective

Mainstreaming gender analysis and equitable participatory research to promote learning and change in CG Centers and NARS, so that they can better target the demands of beneficiary groups, particularly poor rural women.

Mainstreaming refers to the following activities: (a) capacity development for gender analysis, participatory research, impact assessment and organizational development; (b) establishing a cadre of change agents versed in gender analysis, participatory research, impact assessment and organizational development skills, who are networked for support and exchange of experiences; (c) establishing internal working groups to facilitate adaptation of organizational structures and practices to initiate a demand-driven agenda within their organizations; (d) access to a high-level external support group that represents the interests of clients, particularly poor rural women, and functions as a body to ensure accountability for instituting the demand-driven agenda in participating institutions.

Outputs

1. Capacity developed for mainstreaming gender analysis and participatory research in selected CG Centers and NARS.
   Project heading: Project on Mainstreaming and Support to Partners.
2. Evidence of impact of gender-analysis and participatory research methods assessed, and methods developed to permit impact-assessment results to be effectively integrated into research and development decision-making.
   Project heading: Project on Impact Assessment.
3. Established communication strategies for learning and change with partners.
   Project heading: Project on Communication and Publications.

Gains

Accelerated learning and change from the generation of new, widely applicable methodologies for enhanced gender analysis, participatory research, impact assessment for institutional learning and change, and organizational development for mainstreaming these approaches in the practices, structures and processes of organizations. Considerable savings for, and increased impact of, participating CGIAR Centers and NARIs through increased and efficient use of these methods. Capacity for these methods will be strengthened and disseminated through an established network of trained trainers from these participating institutions. Poor rural women will be important participants in, and beneficiaries of, research. The development and adoption of diverse germplasm will be greatly accelerated in major food crops.

Milestones

- At least 12 partner institutions (2 CGIAR Centers and 10 NARIs) incorporate gender analysis and participatory research into core (mainstream) plant-breeding or natural-resource management research. Action research undertaken and tools developed for enabling scientists to capture product and process impact, and to integrate learning from impact assessment into research planning and adaptation.
- A core capacity in the partner institutions (at least 2 CGIAR Centers and 10 NARIs) has been institutionalized in terms of people trained in the methods, changes implemented in research organizations, multi-year funding committed, and institutional policies adopted, such that the scientific use of gender analysis and participatory research is an organic part of research, project design, staff recruitment, and capacity building in the participating institutions.
- Capacity of IARC and NARS scientists to use good-practice gender-analysis, participatory research, impact-assessment and organizational-development methods is considered strengthened through training of trainers.

Assumptions

- CGIAR Centers and partner institutions are willing to become involved in learning and change by committing staff and budget to using PR&GA methods, contributing to capacity development of their members, and making the necessary organizational adjustments for integrating such approaches into their organizations.
- Donor commitment to the PRGA Program is constant over the period.

- IARCs and other institutions collaborating with the PRGA Program are able to include results in their institutional reports and annual reviews.
- Stakeholders are willing to contribute actively to PRGA Program planning and evaluation.

Users

Poor rural women farmers, poor farmers in general, CGIAR Centers, NARIs, NGOs and rural grassroots organizations.

Collaboration

The collaboration of the PRGA Program with its partners (IARCs, NARS, NGOs, universities, grassroots organizations) has been through the provision of small grants, workshop costs and in-kind contribution of senior staff for joint proposal development and studies. The collaborative arrangements are detailed below.

CGIAR System links

- CIP (International Potato Center), Peru: Has been allocated a small grant for mainstreaming.
- ICARDA (International Center for Agricultural Research in the Dry Areas), Syria: A small grant allocation for mainstreaming and contribution of senior staff time for impact-assessment studies and capacity-development support for the Water Challenge Program.
- CIMMYT (International Maize and Wheat Improvement Center), Mexico: Contribution of senior staff time for a joint impact-assessment study.
- CIAT (International Center for Tropical Agriculture), Colombia: CIALs studies; cassava in Asia study; TSBF–AfNet training.
- ILRI (International Livestock Research Institute), Kenya: Funds have been made available for a joint PRGA–ILRI position for a senior staff member.
- ICRAF (World Agroforesty Centre), Kenya: Institutional review of PR and GA.

NARS

- ASARECA (Association for Strengthening Agricultural Research in Eastern and Central Africa), Uganda: Small grants, workshop funds, and senior staff time for capacity development of 10 NARIs in the Eastern, Central and Southern Africa.

NGOs

- CARE/Laos (International Relief and Development Agency): Small grant for assessing the lessons of gender mainstreaming.
- Eastern Himalayan Network, Nepal: Institutionalizing gender-responsive R&D through women's networks.

Universities

- Laos University: Small grant for a study documenting the development and implementation of a participatory monitoring and evaluation process with the national agricultural extension services.
- China Agricultural University: Small grant for designing and implementing a study to assess the mainstreaming of participatory research approaches with its various stakeholders.
- University of Maine, USA.

Program Logical Framework (2003–2005)

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
Goal Mainstream gender analysis and equitable participatory research to promote learning and change through partnerships with CG Centers, NARS, and civil society groups, so that they can better target the demands of beneficiary groups, particularly poor rural women.	▪ By the end of 5 years, participating institutions in the CG System and NARS have an increased capacity to use GA & PR methods and mainstream them in their own organizations. ▪ The CG and NARS organizations who have made an attempt to mainstream gender analysis and participatory approaches have been able to better target the demands of beneficiary groups, particularly poor rural women. ▪ A team of trainers, networked to support each other and provide training to others, is established. ▪ Process of incorporating GA & PR into organizational policies and practices well underway in participating CG Centers and partner institutions.	▪ Monitoring and evaluation system indicators for assessing capacity in GA & PR and organizational change. ▪ Impact-assessment studies. ▪ External review reports. ▪ Reports of collaborating institutions.	▪ CGIAR Centers and partner institutions willing to become involved in learning and change by committing staff and budget to using GA & PR methods, contributing to capacity development of their members, and making the necessary organizational adjustments for integrating such approaches into their organizations.
Project purpose Improve the competencies of the CG System and collaborating institutions to mainstream the use of gender-sensitive participatory approaches in plant breeding, and natural-resource management research.	▪ Effective approaches developed and disseminated for mainstreaming GA & PR methods; methods recognized and understood by relevant senior management and staff; and being applied appropriately by at least 70% of institutions supported by PRGA Program research and capacity building at the end of 5 years. ▪ Impact of mainstreaming GA & PR approaches documented in multiple studies.	▪ Monitoring and evaluation system indicators for assessing capacity in GA & PR and organizational change. ▪ PRGA Program publications; IARC annual reviews, reports and publications. ▪ Published results of PRGA Program's impact studies. ▪ Results of PRGA Program partnerships. ▪ External review reports. ▪ Reports of collaborating institutions.	▪ Donor commitment to the PRGA Program constant over the 5-year period. ▪ IARCs and other institutions collaborating with the PRGA Program able to include results in their institution's reports and annual reviews. ▪ Stakeholders willing to contribute actively to PRGA Program planning and evaluation.

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
Output 1 Capacity developed for mainstreaming gender analysis and equitable participatory research in selected CG Centers and NARS ***Specific outputs:*** 1. Strategic partnerships formed with organizations that enable the PRGA Program to have a major impact on: (a) integrating GA & PR into agricultural and NRM research practice, and (b) enhancing methods and approaches that help improve the livelihoods of the very poor, particularly rural women.	▪ At least 12 robust partnerships are formed with regional networks, prominent national partners, Challenge Programs that have (or have the potential to have) considerable impact on the rural poor by 2005. ▪ The nature of collaboration takes the form of (1) exploiting synergies in objectives, (2) taking opportunities to considerably expand the integration, or improve the quality of, the GA & PR practiced, or (3) incorporating GA & PR approaches where they would otherwise be absent or weakly applied. ▪ GA, PPB and PNRM Working Groups are engaged in the partnership process, as reflected in their work plans by 2005.	▪ Monitoring and evaluation by the PRGA Program. ▪ Collaborators' reports. ▪ PRGA Program's Annual Report and website.	▪ Potential partner institutions are willing and interested to collaborate with the PRGA Program. ▪ With support from the PRGA Program, working groups are willing and interested to collaborate with different partners. ▪ Funding partners interested in supporting fruitful engagement with partners.
2. Development of effective methods and capacity for using GA & PR; organizational development (OD) concepts and skills for mainstreaming these approaches, and impact assessment (IA) of institutional learning and change (ILAC).	▪ Field training manual for GA & PR, IA of ILAC, and OD developed and widely disseminated. This document should also provide a brief review of existing GA & PR, IA, and OD methods, and draw on best practices in developing guidelines by 2005. ▪ At least 3 methods workshops held for GA, PR, IA of ILAC, and OD, training a minimum of 40 participants in a variety of "best practice" approaches; and follow-up support extended to participants to enable them to continue change process in their respective institutions between 2004 and 2005.	▪ Published field manual. ▪ Training reports. ▪ Collaborators' reports. ▪ PRGA Program's Annual Report and website. ▪ PRGA Program publications. ▪ Workshop proceedings.	▪ Potential partner institutions are willing and interested to collaborate with the PRGA Program. ▪ Funding partners interested in supporting capacity building. ▪ IARCs and partner institutions willing to commit budget and human resources for internal capacity development.
3. Capacity of IARC and NARS scientists to use "best practice" for GA, PR, and IA of ILAC, and OD methods is considerably strengthened through training of trainers.	▪ One training-of-trainers workshop held for GA, PR, and IA of ILAC, training a minimum of 8 trainers in a variety of "best practice" approaches; and follow-up support extended to trainers to enable them to provide training and technical support to scientists in their institutes in 2006. ▪ At least 2 manuals produced on "best practice" in GA, PR, IA of ILAC, and OD, based on workshop outcomes. One in 2004 and another in 2005.	▪ Workshop proceedings. ▪ Manuals produced from workshop outcomes. ▪ PRGA Program's Annual Report and website. ▪ Collaborators' reports.	▪ CG Centers and NARS interested in, and contributing budget and human resources to, participating in workshops and host local follow-up training.

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
4. Evaluation studies are conducted to assess opportunities and constraints for mainstreaming GA & PR, and a plan of action for implementation is developed.	▪ At least 10 collaborative action-research activities undertaken through strategic partnerships between 2005 and 2006. ▪ Institutional analysis conducted with 10 partner institutions, and "best practices" analyzed and disseminated through publications by 2005. ▪ An internal working group is formed to spearhead organizational change and mainstream GA & PR in each participating institution between 2005 and 2006. ▪ Mentoring and capacity building provided to partner institutions to guide and lend support to the mainstreaming process between 2004 and 2007.	▪ PRGA Program publications. ▪ PhD dissertation. ▪ PRGA Program website. ▪ PRGA Program Annual Reports. ▪ Collaborators' reports. ▪ Mentor's reports.	▪ CG Centers and NARS interested in, and contributing budget and human resources to, participating in workshops, and to learning and change process.
5. Assessment of effects of mainstreaming of GA & PR approaches through organizational change.	▪ Research results published and disseminated on the process of institutionalization through organizational change between 2005 and 2007.	▪ Workshop proceedings. ▪ Manuals produced from workshop output. ▪ PRGA Program's Annual Report and website. ▪ Collaborators' reports.	▪ CG Centers and NARS interested in, and contributing budget and human resources to, participating in workshops, and to host local follow-up training.
Output 2 Evidence of the impact of participatory research (PR) and gender analysis (GA) methods assessed, and methods developed to permit impact assessment (IA) results to be effectively integrated into research-for-development decision-making ***Specific outputs:*** 1. Empirical studies on PR methods in PB and NRM assessed.	▪ At least 3 collaborative impact studies are conducted, including an analysis of impact of different PR approaches under contrasting conditions—biophysical, institutional, and policy environments. Results are published as working documents and in professional journals between 2004 and 2007. ▪ Published results of 3 collaborative studies and impact of PR & GA methods disseminated to CGIAR liaison contacts, PNRM and PPB Working Groups, CGIAR libraries, and donor community by 2007. ▪ Three research briefs and PowerPoint presentations are prepared to highlight the recent evidence on IA of GA & PR in general, and they are widely disseminated to IARCs, NARS, and NGOs between 2005 and 2007. ▪ Two international workshops are conducted to disseminate results of empirical impact studies in 2005 and in 2007.	▪ IA studies and methods published as PRGA working documents. ▪ PRGA Program's publications, briefs, presentations, peer-reviewed journal articles, books, website. ▪ PRGA Annual Reports, workshop proceedings.	▪ IARCs and partner institutions willing to collaborate in IA. ▪ Funds available to conduct empirical studies.

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
2. Tools and methods developed and disseminated to enable scientists to capture impact of products (i.e. crop technologies and management practices) and innovation processes, and integrate learning from IA into research planning and research priority-setting.	▪ Collaborative action research conducted with at least 4 CG and NARS partners to develop, test, and assess methods for improving information resulting from IA (product and process impacts), and assessing the contribution of IA to ILAC by 2007. ▪ Discussion paper on IA for ILAC is developed and made available to IARCs, NARS, and NGOs by 2007. ▪ Two IA capacity-development training and methods learning workshops are organized in 2005 and in 2006.	▪ Published studies (PRGA working documents) on IA tools and methods, and assessments of their effectiveness in improving the usefulness of IA and stimulating organizational learning and change. ▪ PRGA Program's Annual Reports and website. ▪ Collaborators' reports.	▪ Partner institutions interested and willing to participate in action research. ▪ Funding partners interested in supporting these initiatives.
Output 3 Communication strategies for learning and change with partners ***Specific outputs:*** 1. PRGA Program's interactive website launched and attracts a large and diverse range of users who not only read, but also contribute to the site's contents.	▪ Site developed that is friendly and accessible to users in developing countries with slow modem connections between 2004 and 2005. ▪ Site contains a rich set of research findings and resources that are relevant to users, and is regularly updated between 2004 and 2007.	▪ Monthly website statistics: number of hits, visitor sessions, and downloads. ▪ Monitoring and evaluation system of the PRGA Program.	▪ Users have the interest and time to contribute to website content. ▪ A qualified individual (communications officer) is identified to manage and update the site's contents. ▪ Donors interested in providing support for the technical development of the new site and the PRGA Program's capacity for communications.
2. Awareness of PRGA research results and other publications is considerably heightened, particularly among agricultural scientists.	▪ Systems in place to regularly publicize new GA & PR research results through PRGA-Info Listserver, website, and printed copies to authors, donors, and CGIAR libraries by 2004, and updated continuously till 2007. ▪ PRGA Program's liaison contacts regularly forward publicity on PRGA to their Center scientists between 2004 and 2007. ▪ New sources of distribution are identified by 2005. ▪ Membership of PRGA Info listserv doubles to 800 members between 2005 and 2007.	▪ PRGA Info listserv membership (number and profession). ▪ Monthly website statistics, particularly downloaded publications. ▪ Monitoring and evaluation system of the PRGA Program.	▪ PRGA Program has the capacity to strengthen relationships with its liaison contacts and ensure their commitment to disseminating information on GA & PR. ▪ A qualified individual (communications officer) is identified to promote awareness. ▪ Donors are interested in supporting the PRGA Program's capacity for communications.

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
3. Research results published in media favored by non-academic audiences and researchers not well acquainted with the PRGA field.	▪ Packaging of research results in 1- to 2-page brief forms, disseminated both as hard copy and electronic form between 2004 and 2007. ▪ Mailing list built to include IARC and NARS scientists, NGO practitioners, civil society organizations, and policy-makers, between 2004 and 2007.	▪ Mailing list membership for briefs (numbers and professions).	▪ Donors interested in supporting the PRGA Program's capacity for communications and mailing costs. ▪ A qualified individual (communications officer) is identified to prepare briefs from PRGA Program's research publications.

Output Targets Report for 2005 Science Council Performance Measurement System

Output	Output Target 2005	Category[1]	Achieved (yes or no)
Output 1 Capacity developed for mainstreaming gender analysis (GA) and equitable participatory research (PR) in selected CG Centers and NARS	• At least 12 robust partnerships are formed with regional networks, prominent national partners, Challenge Programs that have (or have the potential to have) considerable impact on the rural poor.	Practices	Yes
1. Strategic partnerships formed with organizations that enable the PRGA Program to have a major impact on: (a) integrating PR and GA into agricultural and natural-resources management (NRM) research practice, and (b) enhancing methods and approaches that help improve the livelihoods of the very poor, particularly rural women	• GA, Participatory Plant Breeding (PPB) and Participatory NRM (PNRM) Working Groups (WGs) are engaged in the partnership process, as reflected in their work plans.	Practices	No *—the Program has been rethinking the role of the WG Facilitators, and has been instructed by its Advisory Board to develop a new strategy for WGs in 2006*
2. Development of effective methods and capacity for using PR and GA; organizational development (OD) concepts and skills for mainstreaming these approaches, and impact assessment (IA) of institutional learning and change (ILAC)	• Field training manual for PR and GA, IA of ILAC, and OD developed and widely disseminated. This document should also provide a brief review of existing PR and GA, IA, and OD methods, and draw on best practices in developing guidelines.	Materials	No *—postponed to 2007, because lessons from final workshop (June 2006) will feed into the Manual*
	• At least three methods workshops held for GA, PR, IA of ILAC, and OD, training a minimum of 40 participants in a variety of "best practice" approaches; and follow-up support extended to participants to enable them to continue change process in their respective institutions.	Capacity	Yes

1. Categories of output targets to be used are: Materials, Policy strategies, Practices, Capacity, and other kinds of knowledge.

Output	Output Target 2005	Category[1]	Achieved (yes or no)
3. Capacity of IARC and NARS scientists to use "best practice" for GA, PR, IA of ILAC, and OD methods is considerably strengthened through training of trainers	• At least 2 manuals produced on "best practice" in PR and GA, IA of ILAC, and OD, based on workshop outcomes.	Materials	No *—postponed to 2007, because lessons from final workshop (June 2006) will feed into the Manuals*
4. Evaluation studies are conducted to assess opportunities and constraints for mainstreaming PR and GA, and a plan of action for implementation is developed	• Institutional analysis conducted with 10 partner institutions, and "best practices" analyzed and disseminated through publications.	Materials/ other kind of knowledge	No *—6 analyses complete; 2 published*
	• Mentoring and capacity-building provided to 8 partner institutions to guide and lend support to the mainstreaming process.	Capacity	Yes
5. Assessment of effects of mainstreaming of PR and GA approaches through organizational change	• Research results published and disseminated on the process of institutionalization through organizational change between 2005 and 2007.	Materials	No *—on schedule for 2007*
Output 2 Evidence of the impact of PR and GA methods assessed, and methods developed to permit IA results to be effectively integrated into research-for-development decision-making 1. Empirical studies on PR methods in PB and NRM assessed	• At least 3 collaborative impact studies are conducted, including an analysis of impact of different PR approaches under contrasting conditions—biophysical, institutional, and policy environments. Results are published as working documents and in professional journals between 2004 and 2007.	Materials	Yes *—in fact, 5 studies conducted and published as working documents*
	• Published results of 3 collaborative studies and impact of PR and GA methods disseminated to CGIAR liaison contacts, PNRM- and PPB-WG, CGIAR libraries, and donor community by 2007.	Materials	Yes *—in fact, 4*
	• International workshops conducted to disseminate results of empirical impact studies.	Capacity/ other kinds of knowledge	Yes

Output	Output Target 2005	Category[1]	Achieved (yes or no)
2. Tools and methods developed and disseminated to enable scientists to capture impact of products (i.e. crop technologies and management practices) and innovation processes, and integrate learning from IA into research planning and research priority-setting	• IA capacity-development training and methods learning workshop organized.	Capacity	Yes
Output 3 Communication strategies for learning and change with partners	• Site developed that is friendly and accessible to users in developing countries with slow modem connections.	Other kinds of knowledge	Yes
1. PRGA Program's interactive website launched and attracts a large and diverse range of users who not only read, but also contribute to the site's contents	• Site regularly updated with research findings and resources that are relevant to users, as these become available. (Maximum availability of PRGA and partner publications and gray literature.)	Practices	Yes
2. Awareness of PRGA research results and other publications is considerably heightened, particularly among agricultural scientists	• Systems in place to regularly publicize new PR and GA research results through PRGA Info Listserver, web, and printed copies to authors, donors and CGIAR libraries.	Practices	Yes
	• New sources of distribution are identified.	Practices	Yes
3. Research results published in media favored by non-academic audiences and researchers not well acquainted with the PR and GA field	• Packaging of research results in 1- to 2-page brief forms, disseminated both as hard copy and electronic form between 2004 and 2007.	Materials	No *—Output expected in 2007*
	• Mailing list built to include IARC and NARS scientists, NGO practitioners, civil society organizations, and policy-makers, between 2004 and 2007.	Practices	Yes

Research Highlights in 2004–2005

Output 1: Capacity Developed for Mainstreaming Gender Analysis and Equitable Participatory Research in Selected CG Centers and NARS

Output Targets 2005

- At least 12 robust partnerships are formed with regional networks, prominent national partners, Challenge Programs that have (or have the potential to have) considerable impact on the rural poor.
- GA, Participatory Plant Breeding (PPB) and Participatory NRM (PNRM) Working Groups (WGs) are engaged in the partnership process, as reflected in their work plans.
- Field training manual for PR and GA, IA of ILAC, and OD developed and widely disseminated. This document should also provide a brief review of existing PR and GA, IA, and OD methods, and draw on best practices in developing guidelines.
- At least three methods workshops held for GA, PR, IA of ILAC, and OD, training a minimum of 40 participants in a variety of "best practice" approaches; and follow-up support extended to participants to enable them to continue change process in their respective institutions.
- At least 2 manuals produced on "best practice" in PR and GA, IA of ILAC, and OD, based on workshop outcomes.
- Institutional analysis conducted with 10 partner institutions, and "best practices" analyzed and disseminated through publications.
- Mentoring and capacity-building provided to 8 partner institutions to guide and lend support to the mainstreaming process.
- Research results published and disseminated on the process of institutionalization through organizational change between 2005 and 2007.

Training

- *CIAT/Africa training on participatory research and gender analysis of AfNet:* Workshop in collaboration with Tropical Soil Biology and Fertility Institute (CIAT/TSBF) to develop skills and knowledge of scientists belonging to the African Network for Soil Biology and Fertility (AfNet) in farmer-participatory research and scaling-up. (*See also* Courses and seminars.)
- *ASARECA workshop on strategic planning for gender analysis and organization change:* Second workshop (of three) for change-agents involved in mainstreaming gender analysis in eight NARS. Comprised assessment of gaps in ongoing research; design of strategies for gender analysis, and organizational development for mainstreaming; development of monitoring and evaluation indicators for mainstreaming; and development of action plans for implementing organizational development. (*See also* Courses and seminars.)
- *Participatory plant breeding book:* The Participatory Plant Breeding Working Group planned to publish a book on plant breeding with emphasis on participatory methodology, as recommended in 2002. A draft outline was circulated and 18 of a projected 27 contributions had been received by the end of 2005. The book will be (co-) published by (with) FAO.

- *Participatory plant breeding:* Various lectures and courses held in Eritrea, Italy, Jordan and Mexico (*see* Workshop and conference papers, presentations and posters, proceedings)
- *Raising awareness of participatory plant breeding:* Presentations made in Syria and Iran (*see* Workshop and conference papers, presentations and posters, proceedings).

Collaborative action research

CGIAR

- *Institutional analysis to identify opportunities and constraints for mainstreaming gender analysis in ILRI:* Research Theme representatives met in March 2005 to reflect on the role of PR and GA within ILRI, and to learn about mainstreaming methods. An e-mail discussion among key scientists and PRGA focused on strategies for institutional assessment of PR and GA. One or two ILRI staff will implement the institutional analysis, while ensuring engagement of a wide ILRI audience. A protocol for a gender audit and an action plan for mainstreaming were designed, and a Memorandum of Understanding (MoU) signed between ILRI and PRGA.
- *Quality of participatory research and gender analysis at ICRAF:* Without formal policy, strategy or conceptual model, participatory research has become integral to ICRAF's work, reflecting a diversity of methods, quality and outputs (mainly a result of ICRAF's decentralized working mode and rather weak internal learning and exchange mechanisms). ICRAF emphasizes work with and through partners to ensure impact and sustainability, while focusing on its strengths as an international organization. Meanwhile, gender issues are more variably integrated into the Center's work. A number of areas have been highlighted where improvements could be made in all these areas.
- *Mainstreaming gender analysis in the research process of CIP:* Workshop on "Women feeding cities: Gender mainstreaming in urban agriculture and urban food security," co-organized by CIP's Urban Harvest program and RUAF in September 2004 (part-funded by PRGA). Strategy for gender mainstreaming (developed by Urban Harvest under 2004 PRGA grant) will be pilot-tested. CIP has committed itself to gender mainstreaming. Activities involving PRGA, Urban Harvest, CIP and at least one East African NARI will feed into the development of a framework for the application of gender analysis throughout CIP's research agenda.
- *Assessment of capacity development for participatory and gender analysis among ICARDA and its partner institutions:* The dominant view of PR and GA among ICARDA and partner researchers is that of functionality—improving the efficiency, effectiveness and impact of research; and primarily based on researcher-generated technologies. Within ICARDA, researchers are divided between those who favor a multidisciplinary approach (handling research from a variety of disciplinary perspectives, which tends to assign PR responsibility to social scientists on the team) and those who favor an interdisciplinary approach (integrating concepts and methodologies from various disciplines and perspectives into a common framework, which tends to result in shared responsibility for PR). Concerns raised included the following: institutional—more support needed from management; methodological—lack of clear methods, especially for data collection and analysis; integration—would like to see integration across disciplines, projects and with

other actors (e.g. NARS, NGOs, private sector); capacity—insufficient in-house expertise in PR and GA, too few women researchers; and capacity development. ICARDA uses diverse approaches for capacity development (e.g. workshops, fieldwork, on-the-job training), which is aimed primarily at NARS researchers and research assistants—ICARDA has a large formal training program (320 people trained in 2005). Lessons have been learned, but there is room for improvement (the assessment made recommendations).

Regional networks, NARS, NGOs and universities

- *Mapping gender mainstreaming at CARE Laos:* An 8-month study documented organizational "best practices" for mainstreaming gender; identified opportunities and constraints for mainstreaming; and identified key areas for further input. CARE Laos has come a long way in a short time (less than 3 years). The study made 10 recommendations for the next steps in the gender-mainstreaming process.
- *Assessing participatory learning and action in China (China Agricultural University):* The final Learning Workshop was postponed to February 2006, which will lead to a comprehensive assessment of outcomes and an action plan.
- *Institutionalizing gender-responsive research and development in agriculture and natural-resource management research through women's networks (Eastern Himalayas Network):* A comprehensive planning workshop was held in October 2005, and a second workshop was scheduled for February 2006.

Output 2: Evidence of the Impact of Participatory Research and Gender Analysis Methods Assessed, and Methods Developed to Permit Impact-assessment Results to Be Effectively Integrated into Research-for-development Decision-making

Output Targets 2005

- At least 3 collaborative impact studies are conducted, including an analysis of impact of different PR approaches under contrasting conditions—biophysical, institutional, and policy environments. Results are published as working documents and in professional journals between 2004 and 2007.
- Published results of 3 collaborative studies and impact of PR & GA methods disseminated to CGIAR liaison contacts, PNRM and PPB Working Groups, CGIAR libraries, and donor community by 2007.
- Three research briefs and PowerPoint presentations are prepared to highlight the recent evidence on IA of GA and PR in general, and they are widely disseminated to IARCs, NARS, and NGOs between 2005 and 2007.
- Two international workshops are conducted to disseminate results of empirical impact studies in 2005 and in 2007.
- Collaborative action research conducted with at least 4 CG and NARS partners to develop, test, and assess methods for improving information resulting from IA (product and process impacts), and assessing the contribution of IA to ILAC by 2007.
- Discussion paper on IA for ILAC is developed and made available to IARCs, NARS, and NGOs by 2007.
- Two IA capacity-development training and methods learning workshops are organized in 2005 and in 2006.

Empirical studies

- *Participatory research projects at CIMMYT:* Eighteen CIMMYT scientists reported on 19 self-defined PR projects. The most common goal is increasing productivity, and the main motivation for using PR is to understand farmers' preferences better; primary beneficiaries are marginal farmers, but these are not generally disaggregated by gender. An "average" CIMMYT PR project lasts for less than 5 years, has an annual budget less than US$100,000, works in either Africa or Asia, and has six project sites, involving 400 farmers and 8 scientists (this "average" masks a great deal of variation). The majority use functional types of PR—divided between increased relevance through knowledge of farmers' preferences and constraints, and improved dissemination. However, interaction among PR projects is limited, as is experience-sharing—areas that are highlighted for potential investment, especially given CIMMYT's dedication of about US$9 million per year to projects with PR components. The report lays the groundwork for further advances at CIMMYT.
- *Assessing impacts of farmer participatory research approaches—A case study of local agricultural research committees (CIALs) in Colombia:* Preliminary results show significant social and human capital benefits for CIAL members, who learned more about agriculture, experimented with new technology, and were seen as experts and advisors in their communities. They had improved communication and leadership skills, and increased relationships with neighbors and outside institutions. They experimented more with new crops, learned new skills, and had higher levels of commitment to their communities, which in turn led to increased community participation. Where CIALs had identified new technology and converted into commercial seed producers, communities benefited from easy access.
- *Participatory cassava breeding in northeast Brazil:* Four communities involved in an 8-year cassava-breeding project were surveyed in 2002. Project participants proved to be representative of their communities in most characteristics (except for area planted to maize, income from processed cassava and income from non-cassava crop sales), despite representivity not being an original selection criterion. However, women were overlooked by the project, whose contribution in selecting varieties for dumpling production was therefore missed. Adoption rates were high after 4 years, although some farmers had tried and rejected experimental varieties. Some 44% of farmers were willing to pay for planting material, although this is not common practice. However, no large increases in yield or revenue were reported—but this should be viewed in the context of declining cassava yields, whereby adoption had stabilized yields. Reports of increased time devoted to cassava production are likely to be a direct result of increased area, since no labor-saving technologies were introduced by the project.
- *Impact of participatory natural-resource management research in cassava-based cropping systems in Vietnam and Thailand:* Data were collected from 800 farm households from 16 villages: 4 that participated in a 10-year farmer participatory research project and 4 that did not from each country. The cassava technologies themselves (conservation techniques, management options and varieties) and farmer knowledge (measured by project participation) significantly affected adoption and productivity. Whereas 100% of project farmers adopted technologies in Thailand, only about 50% of project farmers in Vietnam did. The differences between participant and non-participant farmers were smaller in Thailand. The impact assessment was hampered by lack of a baseline survey, which also restricted rate of return analysis to financial analysis.

- *Institutional impacts of the cassava participatory research and extension project in Thailand and Vietnam 1993–2004:* Five focus-group discussions were conducted in 2004, comprising two disciplinary groups (research and extension) in Thailand and three geographical groups in Vietnam, to identify positive project impacts and hindrances to greater success. The impacts (benefits) and hindrances (constraints) were then ranked by each group.
  - *Benefits, Thailand:* Both researchers (28%) and extension workers (22%) appreciated improved work management; extension workers perceived 62% of benefits from a combination of improved efficiency and motivation, while scientists felt that 55% of benefits arose from increased scientific and professional knowledge and understanding of farmers and their environments combined.
  - *Benefits, Vietnam:* All three groups highlighted improved scientific and professional knowledge (25–30%), and improved management (14–23%); two groups allocated 18–28% to each of efficiency and understanding of farmers and their environments, while the third group allocated 37% and 8%, respectively, to these benefits; all three groups allocated less than 8% to improved motivation.
  - *Constraints, Thailand:* Both researchers (35%) and extension workers (49%) saw internal management issues as the single most important institutional constraint to greater success; both groups perceived similar, relatively low, level of constraint coming from external economic and market conditions or lack of knowledge; divergence was shown in operating budgets (31% extension v. 2% research) and government policies (18% extension v. 29% research).
  - *Constraints, Vietnam:* The two groups that included universities saw knowledge and information as the major constraint (33% and 48%), while the remaining group highlighted operating budget (23%, cf. less than 8% in the university-inclusive groups); two groups highlighted external economic and market conditions second (30% and 35%), while the third group considered this of no significance.

Development and dissemination of tools and methods, capacity-building

- *Impact Assessment Workshop, website and electronic discussion group for impact-assessors:* The workshop, co-organized with CIMMYT in October 2005, provided 25 empirical impact-assessment studies, which used a variety of approaches and methods. These studies, together with summaries of discussions, are available via the PRGA website in the form of draft papers and presentations. Particular highlights were:
  - the need to "build on the positive"—learning from the positive experiences of others (rather than dissecting "what went wrong" all the time);
  - the realization that there is no "one way" of doing impact assessment of participatory R&D, and that principles are more easily transferable than methods in many cases;
  - that it is profitable to include all types of stakeholders (especially end-users and donors) in planning for and conducting impact assessment;
  - that impact-assessors need time to reflect on their results;
  - that effective communication of results is vital.

  As a direct spin-off from the workshop, we established an electronic discussion forum for continued sharing and institutional learning.

- *Annotated bibliography of participatory research and gender analysis in agricultural and natural-resource management research:* The draft bibliography (including abstracts) comprises 97 refereed journal articles covering impact (empirical results), practice (how projects were implemented) and (assessments of) methodologies. Publication is scheduled for the first half of 2006.
- *Participatory development of a methodology for strengthening social networks:* CIAT worked with two CIALs to develop a participatory methodology to help make rural innovation ecologies visible, help identify interventions for strengthening social networks, and help monitor and evaluate subsequent interventions. The nature and importance of social networks were explored with participating groups; a social-network questionnaire was designed; the networks were subjected to mapping and participatory analysis; and a strategic plan was designed on the basis of the analysis. The two CIALs are currently implementing their strategic plans. It remains to be seen whether the prototype can be applied to non-CIAL groups that do not have prior interest in PR. Meanwhile, the maps generated are being used as communication and find-raising tools by the groups.
- *Generations Challenge Program (GCP):* GCP aims to capitalize on the genomic revolution to benefit the world's poorest farmers. It needs to ensure that its research products are adopted, adapted and applied for the ultimate benefit of resource-poor farmers. A PRGA representative attended a meeting of one of the subprograms of the GCP, providing input into the GCP's delivery strategy document.
- *Water Challenge Program:* A project on the water productivity of crops in the Atbara basin of Eritrea was initiated in May 2004. PRGA is providing social-science backstopping to support the NARS, especially in setting up an impact-assessment plan and implementing it over the next 5 years.

Output 3: Communication Strategies for Learning and Change with Partners

Output Targets 2005

- Website developed that is friendly and accessible to users in developing countries with slow modem connections.
- Website regularly updated with research findings and resources that are relevant to users, as these become available. (Maximum availability of PRGA and partner publications and gray literature.)
- Systems in place to regularly publicize new PR and GA research results through PRGA Info Listserver, web, and printed copies to authors, donors and CGIAR libraries.
- New sources of distribution are identified.
- Packaging of research results in 1- to 2-page brief forms, disseminated both as hard copy and electronic form between 2004 and 2007.
- Mailing list built to include IARC and NARS scientists, NGO practitioners, civil society organizations, and policy-makers, between 2004 and 2007.

Website

- Spot-checking showed 158 users accessing website at one time in November 2005; however, users' contributions remain few.

- A sub-website for outcomes of the Impact Assessment Workshop was launched in October 2005, containing draft papers, presentations, abstracts and notes of discussions held at the workshop.
- The resource base is frequently added to, including a drive to have all PRGA Program and staff publications available for download.

Dissemination of research results to peers

- PRGA Newsletter was relaunched in September 2005, carrying notices of publications, web-based resources, meetings, etc. It is currently in electronic format only and sent out on PRGA Info listserv.
- A draft communications strategy proposes that PDF versions of publications be made available on CD-ROM to those with slow Internet access.
- A drive to rationalize the Program's listservs, so that PRGA Info acts as primary mailing list and others remain as discussion forums met with some problems; namely, that some users chose to end their subscriptions, and the most animated discussion of the year took place on PRGA Info. PRGA Info ended the year with 600 members.
- Various presentations were given at scientific forums (*see* Workshop and conference papers, presentations and posters, proceedings).
- An article on participatory plant breeding was published in the electronic newsletter, *Plant Breeding News*.

Dissemination of research results to non-specialist audiences

- A 4-page summary of the Impact Assessment Workshop, and a half-page piece on the Program's role in mainstreaming participatory research and gender analysis were prepared for the CGIAR Annual General Meeting.
- Updating of PRGA-Info subscribers' information is in progress.

Indicators (Publications)

Refereed journal articles

Mangione D; Senni S; Puccioni M; Grando S; Ceccarelli S, *in press*. The cost of participatory barley breeding. *Euphytica, in press*.

Westermann O; Ashby JA; Pretty J, 2005. Gender and social capital: The importance of gender differences for the maturity and effectiveness of natural resource management groups. *World Development* 33(11): 1783–1799.

Book chapters and books

Averill D; Lilja N; Manners G, in prep. Participatory Research and Gender Analysis in Agricultural and Natural Resource Management Research: An Annotated Bibliography of Selected Literature. PRGA Program, Cali, Colombia, in prep.

Braun AR, 2005. Beyond the problem-solving approach to sustainable rural development. In: Gonsalves J; Becker T; Braun A; Campilan D; De Chavez H; Fajber E; Kapiriri M; Rivaca-Caminade J; Vernooy R (ed.) Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 1: Understanding Participatory Research and Development. International Potato Center – Users' Perspectives With Agricultural Research and Development (CIP-UPWARD), Laguna, The Philippines and International Development Research Centre (IDRC), Ottawa, Canada. Pp. 129–134.

Ceccarelli S; Grando S, 2005. Decentralized participatory plant breeding: A case from Syria. In: Gonsalves J; Becker T; Braun A; Campilan D; De Chavez H; Fajber E; Kapiriri M; Rivaca-Caminade J; Vernooy R (ed.) Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 1: Understanding Participatory Research and Development. International Potato Center – Users' Perspectives With Agricultural Research and Development (CIP-UPWARD), Laguna, The Philippines and International Development Research Centre (IDRC), Ottawa, Canada. Pp. 193–199.

Dalton T; Lilja N; Johnson N; Howeler R, in press. Impact of participatory natural resource management research in cassava-based cropping systems in Vietnam and Thailand. In: Zilberman D; Waibel H (ed.) The Impact of Natural Resource Management Research in the CGIAR. CAB International, Wallingford, UK. In press.

Gonsalves J; Becker T; Braun A; Campilan D; De Chavez H; Fajber E; Kapiriri M; Rivaca-Caminade J; Vernooy R (ed.), 2005. Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 1: Understanding Participatory Research and Development. Volume 2: Enabling Participatory Research and Development. Volume 3: Doing Participatory Research and Development. International Potato Center – Users' Perspectives With Agricultural Research and Development (CIP-UPWARD), Laguna, The Philippines and International Development Research Centre (IDRC), Ottawa, Canada.

Gurung B, 2005. Organizational implications for mainstreaming participatory research and gender analysis. In: Gonsalves J; Becker T; Braun A; Campilan D; De Chavez H; Fajber E; Kapiriri M; Rivaca-Caminade J; Vernooy R (ed.), 2005. Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 2: Enabling Participatory Research and Development. International Potato Center – Users' Perspectives With Agricultural Research and Development (CIP-UPWARD), Laguna, The Philippines and International Development Research Centre (IDRC), Ottawa, Canada. Pp. 133–138.

Roothaert R; Kerridge P, 2005. Adoption and scaling out – experiences of the Forages for Smallholders Project in South-east Asia. In: C. Conroy (ed.) Participatory Livestock Research: A Guide. Intermediate Technology Development Group (ITDG), Warwickshire, UK. Pp. 225–236.

Roothaert R; Kaaria S, 2004. Issues and strategies for going to scale: A case study of the forages for smallholders project in the Philippines. In: D. Pachico (ed.) Scaling Up and Out: Achieving Widespread Impact Through Agricultural Research. CIAT, Cali, Colombia.

Thiele G; Braun A; Edson Gandarillas E, 2005. Farmer field schools and local agricultural research committees as complementary platforms: New challenges and opportunities. In: Gonsalves J; Becker T; Braun A; Campilan D; De Chavez H; Fajber E; Kapiriri M; Rivaca-Caminade J; Vernooy R (ed.) Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 3: Doing Participatory Research and Development. International Potato Center – Users' Perspectives With Agricultural Research and Development (CIP-UPWARD), Laguna, The Philippines and International Development Research Centre (IDRC), Ottawa, Canada. Pp. 142–152.

Van Mele P; Braun AR, 2005. Importance of Methodological Diversity in Research and Development Innovation Systems. In: Gonsalves J; Becker T; Braun A; Campilan D; De Chavez H; Fajber E; Kapiriri M; Rivaca-Caminade J; Vernooy R (ed.) Participatory Research and Development for Sustainable Agriculture and Natural Resource Management: A Sourcebook. Volume 1: Understanding Participatory Research and Development. International Potato Center – Users' Perspectives With Agricultural Research and Development (CIP-UPWARD), Laguna, The Philippines and International Development Research Centre (IDRC), Ottawa, Canada. Pp. 151–156.

Workshop and conference papers, presentations and posters, proceedings

Amede T; Mengistu S; Roothaert R. Intensification of livestock feed production in Ethiopian highlands: Potential and experiences of the African Highlands Initiative. Paper presented at the 19th Ethiopian Veterinary Association Annual conference, June 8, 2005, Economic Commission for Africa, Addis Ababa, Ethiopia.

Aw-Hassan A. Participatory research. Lecture at the Consultative Workshop on Participatory Plant Breeding (CONPAB) a Specific Support Action funded by the European Commission (Contract no. INCO-CT-2003-502444), April–May 2005, Aleppo, Syria.

Ceccarelli S. Participatory plant breeding. Lecture presented at the Workshop on "Barley research in Iran: Priorities and strategies," July 2005, Seed and Plant Improvement Institute (SPII), Karaj, Iran.

Ceccarelli S. Participatory plant breeding. Lecture at the Changes Agent in Rural Development training course, August 2005, C. Obregón, Sonora, Mexico.

Ceccarelli S. Participatory plant breeding and drought resistance. Seminar presented at Cornell University, USA, November 2005.

Ceccarelli S. Participatory plant breeding—An example of demand-driven research. Lecture at the European Seminar on "Seeds Liberate Diversity," November 24–25, 2005, Poitiers, France.

Ceccarelli S; Grando S. Participatory plant breeding. Lectures at the Consultative Workshop on Participatory Plant Breeding (CONPAB) a Specific Support Action funded by the European Commission (Contract no. INCO-CT-2003-502444), April–May 2005, Aleppo, Syria.

Ceccarelli S; Grando S. Workshop on "Recognition, Access, and Benefit Sharing in Participatory Plant Breeding," August 2005, Amman, Jordan. (Supported by IDRC.)

Ceccarelli S; Grando S, 2005. Decentralized-participatory plant breeding. In: Tuberosa R; Phillips RL; Gale M (ed.) *Proceedings of the International Congress "In the Wake of the Double Helix: From the Green Revolution to the Gene Revolution,"* May 27–31, 2003, Bologna, Italy. Avenue Media, Bologna. Pp. 145–156.

Ceccarelli S; Grando S. Participatory plant breeding: A fast track to variety development. Paper presented at the American Society of Agronomy (ASA) Meeting, November 2005, Salt Lake City, Utah, USA.

Ceccarelli S; Grando S; Baum M. Participatory plant breeding in water-limited environments. Paper presented at the 2nd International Conference on Integrated Approaches to Sustain and Improve Plant Production under Drought Stress (INTERDROUGHT II), September 24–28, 2005, Rome, Italy.

Dalton T; Lilja N; Johnson N; Howeler R. Impact of participatory natural resource management research in cassava-based cropping systems in Vietnam and Thailand. Paper presented at the joint meeting of the Integrated Natural Resource Management Group (INRM) and CGIAR Standing Panel on Impact Assessment (SPIA), June 13–19, 2005, International Rice Research Institute (IRRI), Los Baños, The Philippines.

Dalton T; Lilja N; Johnson N; Howeler R. Human capital accumulation and productivity improvements in Asian cassava systems: Are participatory research approaches beneficial? Paper presented at the American Agricultural Economics Association meeting, July 24–27, 2005, Providence, Rhode Island, USA.

Dalton T; Lilja N; Johnson N; Howeler R. Impact of participatory natural resource management research in cassava-based cropping systems in Vietnam and Thailand. Paper presented at CIAT, Cali, Colombia, November 16, 2005.

Delve J; Roothaert R. How can smallholder farmer–market linkages enhance improved technology options and natural resource management strategies? Paper presented at NARO conference, September 2004, Kampala, Uganda.

Feldstein HS. Gender differences in production and supply elasticities. Paper presented at the IFPRI Gender Impact Seminar, November 2–3, 2004, IFPRI, Washington, DC, USA.

Joachim V; Gurung B. Escaping the rural poverty trap: What do private sector and gender have to do with it? The contributions of gender-based approaches and private-public partnerships in rural enterprises to reduce poverty. Paper presented at the Canadian International Development Agency (CIDA), Canada, September 14, 2005.

Kaaria S; Lilja N; Sandoval V; Garcia J; Hincapié F. Assessing impacts of farmer participatory research approaches: A case study of local agricultural research committees in Colombia. Paper presented at Impact Assessment Workshop, October 19–21, 2005, CIMMYT, Mexico, DF.

Lilja N. Reframing impact assessment and evaluation. Keynote presentation at Impact Assessment Workshop, October 19–21, 2005, CIMMYT, Mexico, DF.

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Mustafa Y; Grando S; Ceccarelli S. Benefit–cost analysis of a participatory breeding program in Syria. Paper presented at Impact Assessment Workshop, October 19–21, 2005, CIMMYT, Mexico, DF.

Roothaert R. Forage utilisation in smallholder systems – African and S.E. Asian perspectives. Paper presented at a Workshop on strategies for ensuring clean germplasm for distribution and use, October 3, 2005, ILRI, Addis Ababa, Ethiopia.

Roothaert R; Binh L; Magboo E; Yen V; Saguinhon J, 2005. Participatory forage technology development in Southeast Asia. In: Yimegnuhal A; Degefa T (ed.) *Participatory Innovation and Research: Lessons for Livestock Development.* Proceedings of the 12th Annual conference of the Ethiopian Society of Animal Production (ESAP) held in Addis Ababa, Ethiopia, August 12–14, 2004, vol. 1: Plenary Session. Ethiopian Society of Animal Production, Addis Ababa. Pp. 21–30.

Working Documents

Dalton T; Lilja N; Johnson N; Howeler R, 2005. Impact of participatory natural resource management research in cassava-based cropping systems in Vietnam and Thailand. *Working Document* No. 23 (revised). PRGA Program, Cali, Colombia. 27p.

Gabriel J; Herbas J; Salazar M; Ruiz J; López J; Villarroel J; Cossio D, 2004. Participatory plant breeding: A new challenge in the generation and appropriation of potato varieties by farmers in Bolivia. *Working Document* No. 22. PRGA Program, Cali, Colombia. 22p.

Saad N; Lilja N; Fukuda W, *in press*. Participatory cassava breeding in Northeast Brazil: Who adopts the new varieties and why? *Working Document* No. 24. PRGA Program, Cali, Colombia. 27p. *In press.*

Reports

Braun A, 2005. Assessment of capacity development for participatory research and gender analysis among ICARDA and partner institutions. Report for PRGA Program by PAIDEIA Resources, Nelson, New Zealand. 63p.

Calkins P; Thao V, 2005. Institutional impacts of the Cassava Farmer Participatory Research and Extension Project in Thailand and Vietnam, 1993–2004. PRGA Program, Cali, Colombia. 66p.

Lilja N; Bellon M, *in press*. Participatory research projects at the International Maize and Wheat Improvement Center (CIMMYT). PRGA Program, Cali, Columbia, and CIMMYT, Mexico, DF. 43p. *In press.*

Special Projects

New proposals approved in 2005

- *Institutionalizing Social and Gender Analysis for Poverty Alleviation in Agricultural Research and Development in the Eastern Himalayas Region*, funded by IDRC, 2005–2008; total value US$162,710.

Ongoing special projects in 2005

- *Development of Participatory Research Methods at CIMMYT*, a collaborative study between PRGA Program and CIMMYT, funded by CIMMYT; total value US$30,000; amount available to PRGA in 2005 US$30,000.
- *New Partnership for Africa's Development (NEPAD) project, Eastern and Central Africa*, funded by CIDA; total value US$654,000; amount available to partners in 2005 US$161,455; amount available to PRGA in 2005 US$346,600.
- *Institutionalizing Social and Gender Analysis for Poverty Alleviation in Agricultural Research and Development in the Eastern Himalayas Region*, funded by IDRC; total value US$162,710; amount available to partners in 2005 US$60,360.

Capacity-building

*Courses and seminars**

Title/subject	Dates	Location	No. trainees/ participants
Technical aspects of participatory plant breeding	Feb–Apr	Eritrea	15
Consultative workshop on participatory plant breeding	Apr 24 to May 14	Aleppo, Syria	6 countries
Exploiting plant adaptation and biodiversity for higher and more stable yields—*contribution on participatory plant breeding*	June 21–22	Florence, Italy	9 participants from 4 countries
Participatory research and gender analysis (CIAT–AfNet)	(2 weeks)	Kenya	39
Strategic planning for gender analysis and organization change (ASARECA)	July 4–15	ILRI, Addis Ababa, Ethiopia	17
Recognition, access, and benefit sharing in participatory plant breeding	August	Amman, Jordan	109
Impact assessment workshop	October 19–21	CIMMYT, Texcoco, Mexico	34

* *See also* Workshop and conference papers, presentations and posters, proceedings.

Visiting NARS scientists

None.

Postgraduate students supervised

None.

Staff List

Senior staff

Barun Gurung, PhD Anthropology
Senior Scientist
Coordinator, PRGA Program (100% PRGA)
USA

Nina Lilja, PhD Agricultural Economics
Senior Scientist
Impact Assessment (100% PRGA)
USA

Ralph Roothaert, PhD Crop and Weed Ecology
Senior Scientist
Forages for Smallholders Project, Joint appointment PRGA and ILRI, Addis Ababa, Ethiopia (50% PRGA)
Ethiopia

Ann Braun,** PhD Ecology
Facilitator, PRGA Participatory Natural Resource Management Working Group (50% PRGA)
United Kingdom

Salvatore Ceccarelli, PhD Plant Breeding
Facilitator, PRGA Participatory Plant Breeding Working Group (50% PRGA)
Syria

Hilary Sims Feldstein, MPA
Facilitator, PRGA Gender Analysis Working Group (50% PRGA)
USA

Guy Manners,* BSc Zoology
Communications Consultant (50% PRGA)
Acting Facilitator, PRGA Participatory Natural Resource Management Working Group
United Kingdom

Administrative staff

Juliana Aristizábal,* Bachelor's in Social Communication and Journalism
PRGA Communications Assistant (100% PRGA)
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Claudia García, Bachelor's in Production Engineering
PRGA Administrative Assistant (100% PRGA)
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Jorge Mario Quiceno,** MBA
PRGA Communications Assistant (100% PRGA)
Colombia

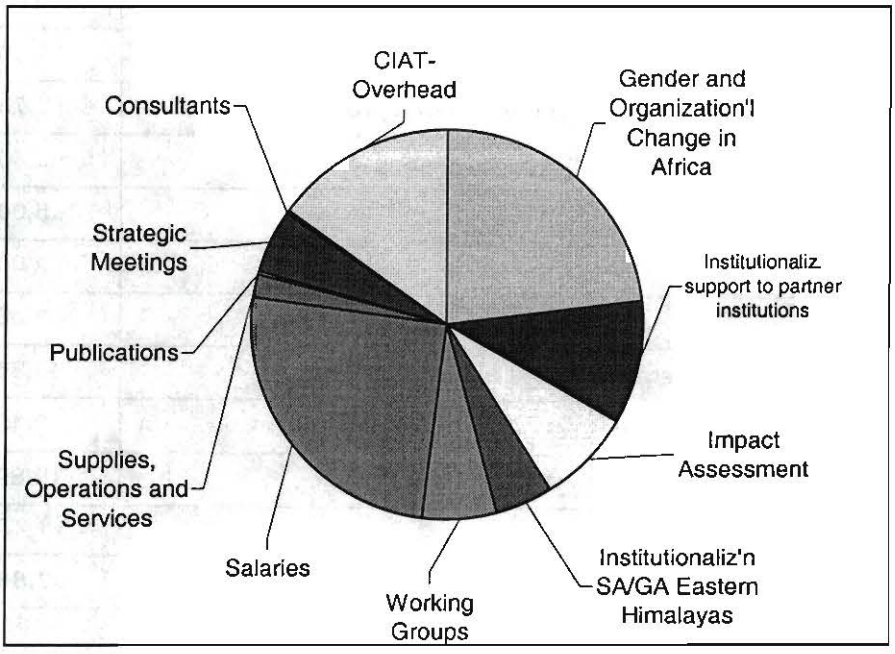
Note: * Staff joined PRGA in 2004–05;
** Staff left PRGA in 2004–05.

Budget for 2005

Contributions	**US$**
CIDA	338,300
IDRC	53,893
Italy	185,000
Netherlands	100,000
New Zealand	50,000
Norway	234,354
Switzerland	70,000
Others	501,862
Total	**1,533,409**

Expenditures	**US$**
CIDA	256,641
IDRC	44,101
Italy	185,000
Netherlands	100,000
New Zealand	0
Norway	234,354
Switzerland	70,000
Others	52,412
Total	**942,508**

2005 Funds Allocation



Allocation of Funds	US$
Main budget items	**490,724**
Gender and Organizational Change in Africa	216,841
Institutionalization, support to partner institutions	97,889
Impact Assessment	73,495
Institutionalization SA/GA Eastern Himalayas	44,101
Working Group Facilitators	58,399

Other budget items	**451,783**
Salaries	237,253
Supplies, Operations and Services	18,195
Publications	2,863
Strategic Meetings (AGM, CIAT Review, ABM, etc.)	48,786
Consultants	3,687
CIAT-Overhead	141,000

Total	**942,508**

** Carryover is already committed in 2005 for 2006 activities*	*590,901*

Breakdown of institutionalization support to partner institutions	
AfNet	10,000
CARE International in Laos	2,500
CIP – Mainstreaming GA in the research process	7,750
CIP – Women Feeding Cities Workshop	5,000
ICARDA	5,000
IFPRI	2,000
ILRI	7,000
Supporting ILRI staff – forages	43,353
Supporting IPRA staff	2,486
PROINPA	12,800

Total	**97,889**

Future Directions

Along with the rest of the CG System, the PRGA Program undertook a major revision of its Medium-Term Plan and logical framework (logframe) in 2005.

To complement the Program strategies for mainstreaming, gender analysis, impact assessment, capacity development, and participatory research, we drafted revised strategies for our communications and partnerships, both of which will be further developed in 2006.

The three-year gender-mainstreaming project in Africa will come to a fruition in 2006 as the impact of action plans in the national agricultural research programs will be assessed. The outcomes of the Impact Assessment Workshop have catalyzed a new set of innovative activities for our impact-assessment work in 2006. One such new focus will be on understanding impacts of social inclusion in agricultural research. In addition, several aspects of the Program's *modus operandi* were tabled for discussion at the January 2006 annual meeting of our Advisory Board.

Abbreviations and Acronyms

ABM	Advisory Board Meeting
AfNet	African Network for Soil Biology and Fertility
AGM	Annual General Meeting (*of the* CGIAR)
ASA	American Society of Agronomy
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
BSc	Bachelor of Science
C/o	care of
CARE	Cooperative for Assistance and Relief Everywhere, Inc., based in the USA
CD-ROM	compact disk – read-only memory
cf.	compare
CG	Consultative Group on International Agricultural Research
CGIAR	Consultative Group on International Agricultural Research
CIAL	Committee for Local Agricultural Research (*Comité de Investigación Agrícola Local*)
CIAT	International Center for Tropical Agriculture (*Centro Internacional de Agricultura Tropical*), based in Colombia
CIDA	Canadian International Development Agency
CIMMYT	International Maize and Wheat Improvement Center (*Centro Internacional para Mejoramiento de Maíz y Trigo*), based in Mexico
CIP	International Potato Center (*Centro Internacional de la Papa*), based in Peru
CONPAB	Consultative Workshop on Participatory Plant Breeding
DC	District of Columbia, USA
DR	Democratic Republic (in DR Congo)
ed.	editor(s)
e.g.	*exempli gratia*, for example
ESAP	Ethiopian Society of Animal Production
etc.	*etcetera*, and so on
FAO	Food and Agriculture Organization of the United Nations, based in Rome, Italy
GA	gender analysis
GCP	Generations Challenge Program (*of the* CGIAR)
IA	impact assessment
IARC	international agricultural research center
ICARDA	International Center for Agricultural Research in the Dry Areas, based in Syria
ICRAF	World Agroforestry Centre, based in Kenya
IDRC	International Development Research Centre, Canada
i.e.	*id est*, that is
IFPRI	International Food Policy Research Institute, based in the USA
ILAC	institutional learning and change
ILRI	International Livestock Research Institute, based in Kenya
Inc.	Incorporated (company)
INRM	integrated natural-resources management; Integrated Natural Resource Management Group
IRRI	International Rice Research Institute, based in the Philippines
ITDG	Intermediate Technology Development Group
MBA	Master in Business Administration (postgraduate degree)

MoU	Memorandum of Understanding
MPA	Master of Public Administration
NARI	national agricultural research institute
NARO	National Agricultural Research Organization, Uganda
NARS	national agricultural research system(s)
NEPAD	New Partnership for Africa's Development
NGO	non-governmental organization
No.	number
NRM	natural-resource(s) management
OD	organizational development
p.	page(s)
PB	plant breeding
PDF	Portable Document Format (Adobe)
PhD	Doctor of Philosophy (doctorate degree)
PNRM	participatory natural-resource management; listserv of PNRM-WG
PNRM-WG	Participatory Natural Resource Management Working Group (*of the* PRGA Program)
Pp./pp.	pages
PPB	participatory plant breeding
PPB-WG	Participatory Plant Breeding Working Group (*of the* PRGA Program)
PR	participatory research
prep.	preparation
PRGA, PRGA Program	CGIAR Systemwide Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation
PROINPA	*Fundación PROINPA "Promoción e Investigación de Productos Andinos,"* Bolivia
R&D	research and development
RUAF	Resource Centres on Urban Agriculture and Food Security
SA	social analysis
SPIA	Standing Panel on Impact Assessment (*of the* CGIAR)
SPII	Seed and Plant Improvement Institute, Iran
TSBF	Tropical Soil Biology and Fertility Institute (*of* CIAT)
UPWARD	Users' Perspectives with Agricultural Research and Development (*of* CIP)
UK	United Kingdom
US	United States (of America)
USA	United States of America
v.	versus
vol.	volume
WG	Working Group (*of the* PRGA Program)