

PROJECT SN-1

RURAL AGRO-ENTERPRISE DEVELOPMENT PROJECT

ANNUAL REPORT 2002



International Center for Tropical Agriculture

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PREFACE

During 2002, CIAT adopted its Strategic Plan for the decade. Sustainable rural livelihoods constitute the core of CIAT's vision for the future. Improved livelihoods for the poor come through the deployment of their diverse assets in different sectors, and for rural people this means non-farm as well as farm activities. While improvements in agriculture alone cannot achieve sustainable livelihoods for the rural poor, agriculture is central to the livelihoods of most of the world's rural poor, and most of the world's poor are rural. CIAT's niche in achieving sustainable rural livelihoods consists of helping attain three critical conditions: (1) Competitive Agriculture, (2) Agro-ecosystem Health, and (3) Rural Capacity to Innovate.

Within this new vision and sought-after contribution of CIAT to achieving sustainable rural livelihoods, the Rural Agro-enterprise Development Project (RAeD) has been grouped with two other CIAT projects—Participatory Research, and Information and Communication for Development—as being core to CIAT's initiative on developing the innovative capacity of rural communities. The capacity of rural communities, together with their support institutions, to be able to identify and develop economic activities that diversify and add value to smallholder production, is considered a critical component of a strategy for achieving rural livelihoods that are economically, socially, and environmentally sustainable. The project's Goal and Purpose have been adjusted to take these changes into account, without any substantial changes in the project's outputs. Modifications to the logframe are likely to occur as the integration around the concept of rural innovation takes place in the following months.

The project continues to integrate its work and strengthen its relations with the activities of CIAT projects on Overcoming Soil Degradation (PE-2), Communities and Watersheds (PE-3), Participatory Research (SN-3), and Information and Communications for Rural Communities (SN-4). These projects provide input to the project on participatory techniques, agronomic evaluation of market opportunities, and in the use of appropriate information and communication techniques for use with rural communities. In turn, the RAeD provides information on commodity alternatives for the design of sustainable production systems, and supports the projects in enterprise-related issues. Collaboration with the CIAT project Land Use in Latin America (PE-4) seeks to harness the use of geographic information systems (GIS) tools for optimizing the localization of rural agro-enterprises. Joint projects are undertaken and being developed with the CIAT projects Tropical Grasses and Legumes (IP-5), Bean Improvement for the Tropics (IP-1), the new Tropical Fruits Project (IP-6), Improved Cassava for the Developing World (IP-3), and the Consorcio Latinoamericano y del Caribe de Apoyo a la Investigación y Desarrollo de la Yuca (CLAYUCA) in activities related to postharvest processing, marketing, and enterprise development of these commodities. These interactions take place principally at reference sites in Honduras, Nicaragua, Colombia, Peru, Uganda, Tanzania, and Malawi, where CIAT is a member of consortia of local institutions in selected "reference" or field sites.

The project has established alliances for collaborative activities with CIRAD¹, IDRC, CARE-Nicaragua, CRS-East African Regional Office, CONDESAN, and the Cooperative Program for Rural Agro-industrial Development in Latin America and the Caribbean (PRODAR). In Asia,

¹ For ease of reading, acronyms are not always spelt out in full in the text, but can be found in the list on page 100.

activities are undertaken in collaboration with SEARCA and CIP-UPWARD. In January 2002, the project out-posted a team member to East Africa, where, in collaboration with ASARECA's Foodnet, coordinated by IITA, methods and tools developed by the project are being tested and adapted to African conditions.

In December 2001, Miguel Angel Méndez, who led our activities in Honduras, left the project and was replaced by Marco Antonio Vásquez. Christopher Wheatley, an ex-member of our team who now lives in New Zealand, continues to represent the project and conduct activities in Asia on our behalf. As mentioned above, Rupert Best transferred to Uganda in January 2002 as part of the project's strategy of decentralization that was reported last year. Carlos F Ostertag takes responsibility for coordinating our activities in the Andean Region, and Mark Lundy plays a similar role for Central America and the Caribbean. Veronica Gottret, who is undertaking her PhD research at the Institute of Social Studies (ISS), The Hague, was reintegrated into the team in September as a Visiting Researcher (a joint position with Impact Assessment) to carry out her fieldwork. Angela Arenas, a communications expert, joined the team to help us with our communications strategy. We have been fortunate to be able to enlist the support of dedicated thesis students to complement our research capacity. A full list of team members is shown on page 99.

Project SN-1: Rural Agro-enterprise Development Project Overview

Objective: To develop methods and tools for use by local practitioners in the participatory design and execution of decentralized rural agro-enterprise development schemes aimed at diversifying and adding value to the production of smallholder farmers.

Outputs:

1. Methods for identifying viable market opportunities that incorporate small-scale farmer selection criteria.
2. Decision-making tools and institutional models for strengthening rural agro-enterprises and complementary support services.
3. Methods and tools for the development of local capacity for selecting and developing postharvest processing and handling technologies.
4. Options for integrating collective action with business organization for establishing sustainable enterprises
5. National personnel trained in the design and execution of agro-enterprise development projects.

Gains: The rural populations in Central America, the Andean Region, E and S Africa and SE Asia gain enhanced capacity to establish small-scale agroprocessing enterprises. Linkages improved between conservation, production, added-value processing, markets, and consumers. Sustainable production practices catalyzed and adopted more widely.

Milestones:

- 2002: Alliances and projects established in E and S Africa for the validation and adaptation of the methods and tools developed by the project in Latin America.
- 2003: Field guides and associated training materials for the design of Integrated Agro-enterprise Development Projects available.
Financial profitability model developed for evaluating production and processing enterprises.
Alliances and projects established in Asia for validation and adaptation of the methods and tools developed by the project in Latin America.
- 2004: Guidelines available for designing institutional support systems for rural agro-industry.

Users: Immediate beneficiaries are the technical personnel of government and nongovernment organizations in rural development, and rural policy makers. Ultimate beneficiaries are the inhabitants of rural areas, including female small-scale farmers, and entrepreneurs, who benefit from training and information on market opportunities, postharvest technologies, enterprise skills, and access to better support services.

Collaborators:

Development of methods and technology components: CIRAD, NRI, PRODAR (Lima), IDRC, CIP, IITA, SEARCA, UPWARD, CARE, CRS. *Execution of pilot projects:* CIPASLA (Colombia), CLODEST (Honduras), and CODESU (Peru), Africare, TIP, Concern Universal. *Training and networking:* PRODAR-IICA (Peru), Members of PhAction consortium (GTZ, NRI, JIRCAS, ACIAR, CIRAD, FAO, IITA, IFPRI, IRRI, ICFR).

CGIAR system linkages: Protecting the Environment (10%); Crop Production Systems (10%); Training (20%); Information (20%); Networks (10%); Organization and Management (30%). Participates in the Global Forum for Postharvest Research (PhAction)

Project SN-1: Rural Agro-enterprise Development Project – Work Breakdown Structure

Goal

Develop and apply knowledge, tools, technologies, skills, and organizational principles that contribute to improved land management

Purpose

To develop, in collaboration with our partners, methods, tools, and institutional models for the design and execution of successful rural agro-enterprise projects that integrate market opportunities and postharvest technologies with environmentally sound production and processing practices

<p>Output 1 Tools, methods, and information for identifying and developing market opportunities, as an input for the design of economically viable and sustainable rural agro-enterprises</p>	<p>Output 2 Tools, methods, and information for developing appropriate postharvest technologies for small-scale rural agro-enterprises</p>	<p>Output 3 Information, options, and recommendations for the design of efficient and effective organizational schemes for small-scale rural agro-enterprises and their support services</p>	<p>Output 4 Institutional models and policy options for establishing and strengthening rural agro-enterprises and their support systems at the microregional level</p>	<p>Output 5 Enhanced capacity to design and develop successful agro-enterprise projects, within CIAT and other institutions</p>
<p>Activity 1.1 Develop methods for identifying market opportunity at the ecosystem and microregional levels adapted to the needs of small agro-enterprises (Link with PE-3, PE-4, PE-5, and SN-3)</p> <p>Activity 1.2 Alternative Trade Information System (ATIS)</p>	<p>Activity 2.1 Develop inventories and systemized information for products and processes with market potential to define information and technology needs (Link with SN-2)</p> <p>Activity 2.2 Adapt and refine participatory methods for improving processing efficiency and product quality for existing and new rural agro-enterprises (Link with SN-3)</p> <p>Activity 2.3 Generate basic knowledge and adapt cutting-edge technology for adding value to selected products with novel market potential</p>	<p>Activity 3.1 Design options and recommendations for the organization and operation of rural agro-enterprises</p> <p>Activity 3.2 Design options and recommendations for enterprise linkages in the agribusiness chain</p>	<p>Activity 4.1 Design conceptual frameworks and methodological options for organizing and integrating production, processing, and marketing functions for the establishment and/or strengthening of rural agro-enterprises (Link with PE-3 and PE-5)</p> <p>Activity 4.2 Develop guidelines for the design of local support systems for promoting agro-enterprises that contribute to sustainable development at the microregional level (Link with PE-3, PE-4, and PE-5)</p>	<p>Activity 5.1 Train national personnel in the design and execution of rural enterprise development projects</p> <p>Activity 5.2 Enhance awareness of the potential of rural agro-enterprises to contribute to rural development (Link with BP-1)</p> <p>Activity 5.3 Consolidate and establish collaborative links and strategic alliances</p>

SN-1 Logical Framework, 2001-2003

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
<p>Goal Develop and apply knowledge, tools, technologies, skills, and organizational principles that contribute to improved land management</p>	<ul style="list-style-type: none"> ▪ Use of CIAT NRM research outputs in at least three reference sites in 5 years related to changes in land management associated with increases in per capita income and food availability; improved soil-water-nutrient use efficiency; increased biodiversity in production systems; and stakeholder participation in land use planning ▪ Use of the CIAT NRM research outputs beyond the three reference sites in the three targeted agro-ecosystems (savannas, hillsides, forest margins) by stakeholders within 5 years ▪ CIAT NRM research outputs applied by at least three other institutions outside the LAC region by the end of the 5th year 	<p>Projects, plans, and reports of national public sector agencies, donors, NGOs, and community-based organizations in the three reference sites and mandated agro-ecosystems that refer to use of CIAT NRM research outputs</p>	
<p>Purpose To develop, in collaboration with our partners, methods, tools, and institutional models for the design and execution of successful rural agro-enterprise projects that integrate market opportunities and postharvest technologies with environmentally sound production and processing practices</p>	<p>By the end of year 2000, a set of methods, tools, and institutional models are being used by partner institutions in the reference sites in Latin America, and are being adapted by partners in Asia and Africa.</p>	<p>Reports and project documents of our partner institutions</p>	<p>Political and institutional support for sustainable rural and agricultural development at the reference sites and targeted countries is maintained. Natural disasters and civil strife do not impede progress toward contributing to the project's goal.</p>
<p>Output 1 Tools, methods, and information for identifying and developing market opportunities, as an input for the design of economically viable and sustainable rural agro-enterprises</p>	<p>By the end of the year 2000:</p> <ul style="list-style-type: none"> ▪ Training materials for market opportunity identification available and being used by partners in LA and Asia ▪ Market opportunities identified and in the process of being developed in the reference sites ▪ Information system on alternative trade available ▪ Training materials for the design of market plans and strategies for small agro-enterprises available 	<p>Manual published Annual reports and project proposals Project home page Training materials in draft</p>	<p>Collaborating institutions have adequate resources to use the materials and tools developed. Natural disasters or civil strife do not impede progress toward achieving the project's goal.</p>

Continued.

SN-1 Logical Framework, 2001-2003 (Continued).

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
<p>Output 2 Tools, methods, and information for developing appropriate postharvest technologies for small-scale rural agro-enterprises</p>	<ul style="list-style-type: none"> ▪ Information system on products and postharvest processes for cassava, selected fruits, and milk products available on the project's WWW home page ▪ Series of manuals on techniques for the participatory development of postharvest technology for improving the efficiency of existing rural agro-industry ▪ Manuals in preparation on techniques for the participatory development of new rural agro-industrial products and processes 	<p>Project home page</p> <p>Manuals published</p> <p>Annual reports and working documents</p>	
<p>Output 3 Information, options, and recommendations for the design of efficient and effective organizational schemes for small-scale rural agro-enterprise and their support services</p>	<ul style="list-style-type: none"> ▪ Case studies of small rural agro-enterprises, documenting best practices, key success factors, and lessons learned, completed for Latin America and Asia. ▪ Different options for the organization of enterprises, their links in the agrifood chain, and the organization of support services are being tested in the reference sites. 	<p>Case studies published</p> <p>Project proposals and annual reports</p>	
<p>Output 4 Institutional models and policy options for establishing and strengthening rural agro-enterprises and their support systems at the microregional level</p>	<ul style="list-style-type: none"> ▪ Two or more agro-enterprise projects being executed in each of the reference sites in Latin America. ▪ Manual on the identification and development of integrated R&D rural agro-enterprise projects completed ▪ Guidelines for the design of local support systems for promoting agro-enterprises at the microregional level 	<p>Project proposals and reports</p> <p>Manual in final draft</p> <p>Working document</p>	
<p>Output 5 Enhanced capacity to design and develop successful agro-enterprise projects within CIAT and other institutions.</p>	<ul style="list-style-type: none"> ▪ 50 trained NARS personnel in aspects related to agro-enterprise development in Latin America ▪ Case studies on the adoption and impact of agro-enterprise R&D completed ▪ Project WWW home page operational and updated periodically with project outputs ▪ Strategic alliances with research and development partners 	<p>Training documents, course evaluations, and annual reports</p> <p>Case studies published</p> <p>Project home page</p> <p>Letters of Understanding, project contracts, and inter-institutional agreements</p>	

Research Highlights in 2002

The following major advances are highlighted this year:

Output 1. Tools, methods, and information for identifying and developing market opportunity, as an input for the design of economically viable and sustainable rural agro-enterprises

The starting point for successful rural agro-enterprise development is the identification and evaluation of market opportunities. Since its inception, CIAT's RAeD has worked on the generation and adaptation of appropriate methods and tools for undertaking this task. Initially, the target audiences for the use of these methods and tools were the government and nongovernment institutions whose personnel are active in supporting local communities in the creation and strengthening of agro-enterprises. The use of the methods and tools produced required a certain level of training and education for their successful application. Through the process of validation of the materials generated, and numerous training exercises with potential users, it became apparent that there is a need to complement the materials with others whose application can be undertaken by persons, including farmers and processors, with a lower degree of formal education.

With this objective, and maintaining the principles embodied in the original market opportunity and evaluation concept, simpler methods and tools are being developed. In pilot sites in Tanzania, Uganda, and Malawi, and with the collaboration of other CIAT projects and local nongovernmental organization (NGO) partners, the market opportunity identification and evaluation process has been scaled down for use at community level, with active participation of farmers in all stages of the process. This has had the immediate and positive effect of motivating farmers through their participation in market and enterprise visits, and the use of the information gathered during these visits to take decisions as to the most attractive income-generating options for their communities.

While positive in providing a further means of empowering communities and facilitating their decision-making processes, this community-oriented experience has also highlighted the need for complementary approaches to market opportunity identification. Formal market opportunity identification exercises have the advantage of being able to detect really novel options for farmers, ones that may never occur in a strictly "bottom-up" process, and provide a much more rigorous evaluation of their real market, economic, and production feasibility. However, formal studies can suffer from a lack of ownership of the results, and are relatively costly to undertake. In any situation, a cost-effective means must be found of combining the two approaches, which presents a continuing challenge for the RAeD and those responsible for local agro-enterprise development.

Output 2. Tools, methods and information for the development of appropriate postharvest technologies for small-scale rural agro-enterprises

The rural enterprise development processes underway in the project's reference sites in Colombia and Honduras have successfully reached the stage of prioritizing a set of product options that are now subject to interventions to improve the competitiveness of the respective supply or value chains. In the case of Cauca, Colombia, and in support of these interventions, the local agro-enterprise committee is committed to strengthening the access of farmers and small-scale entrepreneurs to information that will help them take appropriate decisions with regard to improving the efficiency and effectiveness of their businesses. In collaboration with CIAT's Information and Communication for Development Project, the RAeD has been guiding the actions of the local telecenter in its aim of providing an information service to rural producers.

The ongoing telecenter pilot project in Cauca aims initially to support those enterprises that were prioritized by the local agro-enterprise committee, and include: plantain, blackberry, dairy products, anthuriums, and *panela* (raw unrefined sugar). *Panela* is being used as the model product on which the other information services subsequently will be based. Two consecutive processes are underway: (1) The development of the electronic information product, and (2) the establishment of communications network among potential users. The former includes not only the capture and preparation of the content (including markets, prices, technology, service providers, etc.), but also the selection and adaptation of suitable software for use by the telecenter, which will allow economic and decentralized updating of information. The communications network is being set up through the involvement of the local *panela* producers' association and groups of farmers and processors that make up local agro-industrial research groups.

The access of communities to modern Information and Communication Technologies (ICTs) is expanding, even in Africa. One of the opportunities for rural producers, small-scale farmers, and processors to penetrate markets and maintain their competitiveness is through access to appropriate information. This exploratory action research will provide us with details on content, means of diffusion, and appropriate approaches to capacity building on which to base the development of further interventions. The project is being supported by, and is building on, the experience of the Corporación Colombia Internacional (CCI) and a communications project financed by the Department for International Development (DFID) in Colombia. These partners view this experience as a model that can be replicated in their own work with local communities.

Output 3. Information, options, and recommendations for the design of efficient and effective organizational schemes for small-scale rural agro-enterprises and their support service

Our experience has indicated that very few enterprises have a clear idea of the cost structure of their business. Furthermore, many development organizations and small farmer organizations lack the necessary training to estimate profitability parameters for production projects. We therefore continued to improve a user-friendly software package, called RentAgro, for calculating the financial profitability of crop production and postharvest transformation processes.

RentAgro, an interactive computer program, has been designed to help users without a financial background prepare financial profitability models for agricultural and agro-industrial projects and enterprises. The software is a user-friendly interphase (in Visual Basic) between the user and the Excel electronic worksheet, and includes a Help tool. The complete software product includes a CD-ROM with a pamphlet, a 160-page illustrated user's manual, and a technical systems manual.

The software features a step-by-step procedure to financial modeling, including subroutines for calculating working capital, investment, interest expenses, and residual asset values. Among the main components are: Investment and working capital, sales volume, conversion factors, variable costs, fixed costs, interest and tax expenses, etc. The software will calculate numerous financial parameters, such as internal rate of return (IRR), net present value (NPV), gross margin, net margin, break-even point, and ratios, such as sales per labor costs, etc.

The software is flexible, and can be used for any crop or forest product alternative. A multidisciplinary team including a business expert, an agro-industrial engineer, a computer programmer, a graphic designer, a lawyer, and an editor have been involved in its development.

Currently, the software is being pilot-tested, the name RentAgro is being registered, other legal permits are being obtained, and a marketing plan is being prepared. It is anticipated that RentAgro will be ready for market introduction in mid-2003.

Output 4. Institutional models and policy options for the establishing and strengthening rural agro-enterprises and their support systems at the microregional level

The comparative strength of the CIAT approach to rural business development lies in the sum of its parts. Many organizations, both research and development, are working on specific areas, such as markets, subsector analysis, or the provision of business development services (BDS), but few have developed a clear idea about how these areas link together in a given geographic area. This year, a 3-year project in support of the development of institutional models for the establishment and strengthening of rural agro-enterprises was concluded. The project, financed by DFID and the International Development Research Centre (IDRC), has had the following principal outcomes.

In CIAT's reference sites in Colombia, Honduras, and Peru, agro-enterprise interest groups were formed or strengthened, portfolios of promising market options were identified, characterized, and evaluated for their preference among farmers, and nine Integrated Agro-enterprise development Projects (IAPs) were developed. Local committees have been established with the objective of promoting rural agro-enterprise development, as well as identifying and strengthening the required support services. Initial results indicate that this process can generate short-term increases in farmer incomes, and facilitates an entrepreneurial vision for future development of the product value chain. Field guides for IAPs and the formation of local interest groups for rural enterprise development are in the process of being published in Spanish and English.

One local partner, the Corporación para el desarrollo de Tunia (CORPOTUNIA), in Cauca, Colombia has promoted the use of the value chain analysis methodology developed by RAeD for the design of four IAPs at the Departmental level.

Based on the work carried out over a period of 6 years, a conceptual framework for rural enterprise development in a territorial context has been developed, presented internationally, and used for the establishment of collaborative research and development projects with development partners in Africa and Latin America (see Output 5 below).

Output 5. Enhanced capacity to design and develop successful agro-enterprise projects, within CIAT and other institutions

Traditionally, the links between agricultural research and development institutions associated with the small farm sector have been weak, with a poor record of adoption of innovations in terms of either technologies or methods, coupled with non-existent means by which the results of successes or failures can be fed back to the research process.

The project is putting into practice a new model of mutual learning between research and development (R&D) institutions (termed “learning alliance”), with a view to enhancing the rate of uptake of innovative concepts, methods, and technologies that are aimed at improving the competitiveness of smallholder production. The model is based on (a) the identification of a specific development need or demand, and (b) the definition, and subsequent implementation, of a set of activities over time that involve a process of learning, putting into practice what has been learnt, reflection and feedback on what has worked and what has not worked, followed by a further cycle of learning, practice, reflection and feedback, etc. This approach differs substantially from the common practice of attempting to “train” development practitioners in new methods and tools in one-off training courses of short duration.

During 2002, alliances were established with CARE- Nicaragua, the Catholic Relief Service (CRS) East Africa Regional Office (EARO) involving six countries, and partners of CIAT’s Participatory Research in Agriculture (IPRA) Project. In all cases, the learning alliances are under way, and the participants in the process have manifested a high degree of satisfaction. The learning alliance model will hopefully prove to be an important mechanism for achieving wider socioeconomic impact, and for providing useful feedback for setting project research priorities in the future.

The project’s decentralization strategy, with individual responsibilities for regional coordination established among team members, has started to show pay-off in terms of establishing more effective alliances with partners and the generation of resources for R&D. A 4-year US\$2.6 million project for agro-enterprise development in Lao PDR and Vietnam has been approved for financing by the Swiss. Cost recovery and income-generating activities have been established in both the Andean and Central American regions. These results indicate a high demand for the project’s outputs, and an appreciation of the skills of its team members.

Output 1

Tools, methods, and information for identifying and developing market opportunities, as an input for the design of economically viable and sustainable rural agro-enterprises

The purpose of Output 1 is to generate market-oriented methods and information for the small-scale farmer economy and rural agro-enterprises to facilitate their sustainable linkage with growth markets.

Activity 1.1 refers to participatory methodologies for market intelligence and market research to select agricultural, animal, and forestry products, in fresh or processed form, with market potential as an input for the design of economically viable and sustainable production systems for small-scale farmers. A methodology was successfully applied in three reference sites representing fragile hillsides and tropical lowland ecosystems in Latin America. Other methodological options for market intelligence have been conceptualized, and are being developed.

Activity 1.2 refers to a user-friendly, Internet-based information system on alternative trade, encompassing segments such as fair trade, ethical trade, and conservation. Special emphasis is placed on the booming organic market. This information system is client-oriented, and includes a directory of contacts in the alternative trade chain, information on global market trends, and guidelines related to alternative trade.

Highlights

- The marketing opportunity identification (MOI) manual is being improved, emphasizing participatory approaches, rural agro-industry, and new product development.
- Several alternative MOI tools are being proposed that are simpler and shorter, and will reduce the need for facilitators, consultants, or coaches to guide small-scale farmers throughout the process. These tools are being tested and validated in Colombia, and East and South Africa.
- The Alternative Trade Information System (ATIS) was launched successfully this year.

Activity 1.1. Develop methods for identifying market opportunity at the ecosystem and microregional levels, adapted to the needs of small agro-enterprises

1.1.1. Improvement and translation of manual on market opportunity identification

Contributor: Carlos F Ostertag

Collaborators: Miguel A Valdivieso (Centro Regional de Servicios Empresariales [CRESE]); Vicente Zapata (PE-3); Rupert Best, Juan F Barona

The text of the MOI manual, or Guide no. 7, will be modified before the end of the year and published and translated into English during the first semester of 2003. The MOI manual is a relatively sophisticated tool that requires certain business expertise for its implementation, and

one that small-scale farmers should not try to use without adequate accompaniment and coaching. The manual will have the following modifications:

- The first section, on the regional profile, will be eliminated and transferred to form part of the new first module of the RAeD's "Territorial approach to rural business development" (TA-RBD).
- The manual's participatory approach will be strengthened by suggesting practical ways of including actors, such as small-scale farmers, intermediaries, processors, etc., in the planning and execution of the rapid market study and the characterization of market options.
- Greater emphasis will be placed on processed and transformed (agro-industrial) products throughout the manual.
- The last section, focusing on the design of IAPs, will also be transferred to form part of the last section of the RAeD's TA-RBD.
- The manual will explain the implications of new product development to small-scale farmers, in terms of risk and demand for management and/or marketing expertise.
- Other miscellaneous changes will be made according to feedback received after almost 300 people have been trained worldwide.

Additionally, a summary of the MOI manual will be adapted, ending 2002, into a multi media format, ToolBook, to enhance its diffusion.

1.1.2. Adaptation of market opportunity identification methodology for use by farming communities in E and S Africa

Contributor: Rupert Best

Collaborators: Colletah Chitsike (CIAT-Africa), Charles Musoke and Michael Besige (Africare, Uganda), Samuel Saigurani and Harold Lema (Traditional Irrigation Programme [TIP], Tanzania), Noel Sangole and Macdonald Njovo (Concern Universal, Malawi)

The market opportunity identification methodology developed by RAeD team member Carlos F. Ostertag, and reported in earlier Annual Reports² has provided the principles on which to develop, with NGO partners and farmers, a means by which communities can identify viable and sustainable enterprise options to complement their food production activities.

This work is part of a larger and more integrative initiative called "Beyond Agricultural Production to Poverty Alleviation" (BAPPA), which involves CIAT and three NGOs in East and southern Africa. The project aims to develop and test methodologies, approaches, and processes to empower rural communities to improve their own livelihoods. An innovative approach is used that is different from the two approaches that most organizations have used: Projects generally have focused either on a limited range of interventions or used an integrated approach among several complementary projects. BAPPA aims at providing an enabling environment for integrated activities in one project, combining and integrating research with development.

² Ostertag, G.C.F. 1999. Identification and evaluation of market opportunities for small rural producers. Guide 7. Methodological Tools for Decision-Making in Natural Resource Management. CIAT, Inter-American Development Bank (IDB), Swiss Development Cooperation (SDC), Danish International Development Agency (DANIDA). CIAT, Cali, CO. 191 p.

As its title suggests, BAPPA recognizes the importance of transforming communities, and demands a radical process similar to Freire’s method of conscientization, which educates all stakeholders involved through dialogue. Changing social situations in the respective communities is not an easy task, and requires a blend of external and internal processes for social change. BAPPA advocates for communities to define who they are, what they want, and how they can get it with the resources available. The aims are to foster positive social change in communities and improve people’s quality of life as they themselves define it. Activities are focusing initially on selected villages that are economically marginalized, with special recognition that women constitute the majority of the poor (Table 1).

Table 1. Description of Beyond Agricultural Production to Poverty Alleviation (BAPPA) sites.^a

Characteristic	Mugandu/ Buramba, Kabale, Uganda	Shashui, Lushoto, Tanzania	Lithipe, EPA ^b , Dedza, Malawi
Absolute poverty level of population	Moderate	Moderate	High
Major causes of poverty	Land scarcity, soil infertility, environmental degradation, low agricultural prices	Low agricultural prices, poor market organization in the communities	Soil infertility, low productivity, drought
Market orientation	Moderate	Moderate	Low
Access to roads	Good	Average	Good
Main crops/livestock	Potato, beans, sorghum, cabbage	Beans, maize, horticulture	Maize, beans, goats
Rainfall pattern	Bimodal	Bimodal	Unimodal
NGO ^c partner	Africare	Traditional Irrigation Programme	Concern Universal

a. All sites have high population density and are located at between 1600-1800 m elevation.

b. EPA, Extension Planning Area.

b. NGO, nongovernmental organization.

One of the components farmers identified for improving their livelihoods is “enterprise development”, or economic activities that generate income, as opposed to those that the farmers and their families undertake to provide their food.

In each of the participating communities, a similar process is underway to identify the most attractive income-generating options for farmers. This process is described below as it appears in a flier prepared for CIAT’s Agro-ecology Highlights Series that makes available to CIAT’s clients information on our research.

Farmer participation in market research to identify income-generating activities³

Farmers are increasingly finding the need not only to provide for their household food needs, but also to generate cash income to cover other basic family necessities such as clothing, school fees, and medicines. The surplus of the basic food crops that they are accustomed to growing often fetches very low prices in the market, especially in the harvest period when there is oversupply.

³ Taken from: Best, R. 2002. Farmer participation in market research to identify income-generating options. Agro-ecology Highlights. CIAT, Kampala, UG.

An alternative strategy for these farmers is to identify opportunities for either:

- (1) Diversifying their production, with the incorporation of higher value crops or livestock into their farming system, or
- (2) Adding value to the crop or livestock products that they are already producing through improvements in quality and presentation, or through transformation into products more attractive to consumers.

Producing for the market is inherently more risky than producing crops and raising livestock for one's own consumption. The selection of options for generating income requires the collection of information that will help farmers make decisions appropriate to their situations. It is here that a "market facilitator" – a technician from government organizations (GOs) or NGOs – plays a vital role. He or she can guide a group of farmers through a process of market opportunity identification and evaluation (see Figure 1) that will reduce the risk of taking inappropriate decisions that will prove costly in the medium run.

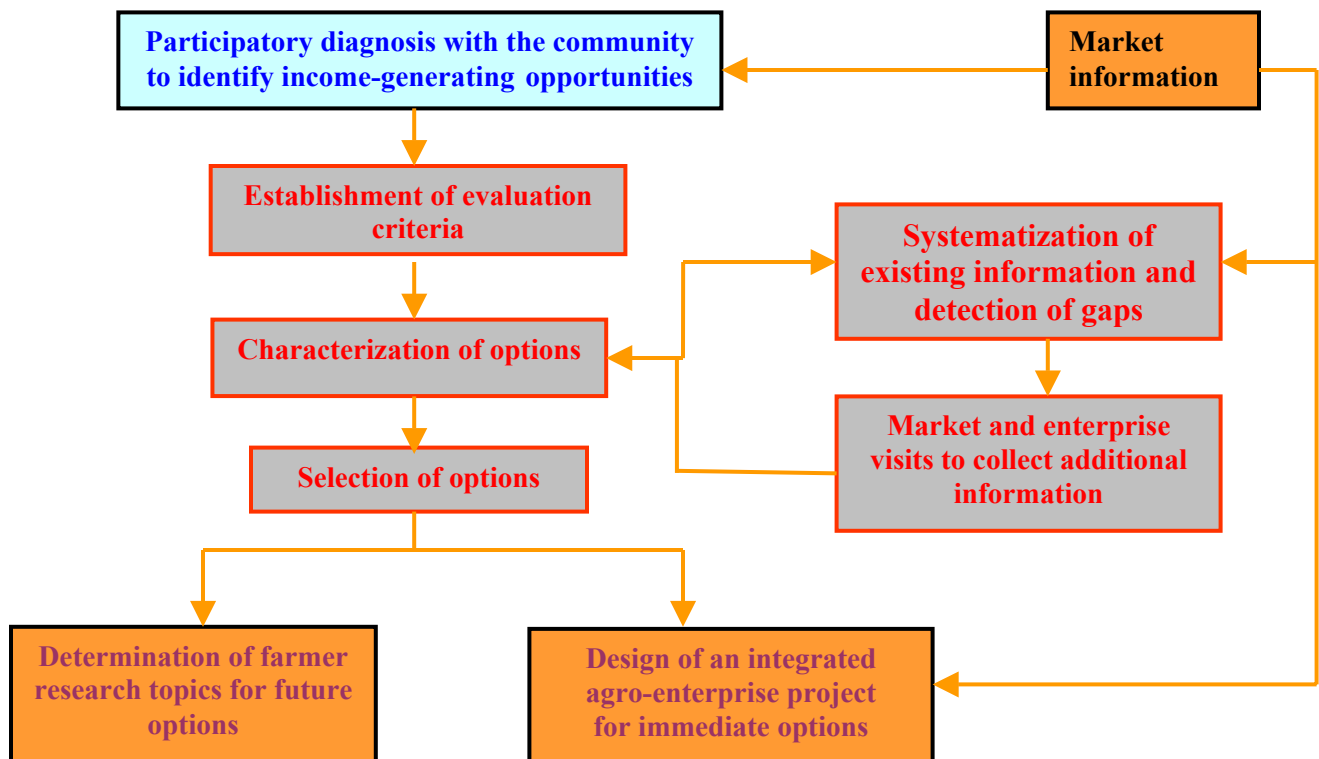


Figure 1. Procedure for farmer participation in market opportunity evaluation.

A procedure for identifying and evaluating market options with farmers

Participatory diagnosis. The procedure starts with a participatory diagnosis involving as many members of the community as possible. In this meeting, it is important to find out what crops, livestock, and other products the community is producing both for household food consumption, and for sale. Differences in perception as to relative importance by different groups within the community (e.g., farmers that are more or less commercially oriented, or women) should be

recorded. Products, both fresh and processed, and also non-food items that are typical of their region and whose production is particularly favored or sought after, should also be noted down.

And finally, the farmers should discuss and suggest the types of crops they would like to grow, or animals they would like to keep, based on their interaction with traders, fellow farmers, and extension personnel. From this set of ideas, a consensus is arrived at as to the products or groups of products that should be investigated further for their income-generating potential. The meeting concludes with the community electing a group of farmers that will represent them in the evaluation of the different options proposed.

Evaluation criteria. Following the diagnosis, the selected farmers, often known as the “income group” or the “market research group”, meet to define the criteria that they will use to elect among different options. Some of these criteria are basic, such as the level of market demand, and ability to be produced profitably. Other criteria may be more specific, such as the potential numbers of farmers that might be involved in an enterprise, the role of women, and any negative effects that producing the products might have on the environment.

Systematization of information. With support from the market facilitator, the farmers gather together, and order the information that they need for the evaluation of each of the options that have been prioritized. At this stage, it is almost inevitable that there will be information missing, both on details of the market, and on how best to produce the different crop or livestock options. The market facilitator now needs to identify appropriate markets and enterprises to visit with the farmer market research group.

Market and enterprise visits. The markets are usually the large wholesale and retail markets in major towns and cities, but may also include food or other agroprocessing businesses. The visits to these markets need to be organized with care so that the persons that the farmers are going to meet know beforehand the purpose of the visit by the farmers, and are prepared to provide the information that they require. The farmer group prepares itself to find out information on varieties and types of product, their quality characteristics, the preferred presentation (size, weight, etc.), packaging, price, frequency and volume of delivery, terms of payment, etc.

The farmers must also use this opportunity of visiting markets to observe and ask questions about products that are in high demand, and that they think they could introduce to their area, either now or in the future.

Similarly, the farmers will need information on the production of the crops or livestock options they have chosen. Again, the market facilitator identifies experiences of other farmers who are successfully producing and selling a particular product, and arranges for the farmer market research group to visit and collect information on management practices, input and labor requirements, costs, and postharvest handling and marketing aspects.

Selection of options. The final selection of options is undertaken in the presence of the whole community. The market research group presents the results of the market and enterprise visits, providing information on the demand in the market for each option, the costs of production, and the prices that they can expect when they sell. A comparison of the relative ease of production,

and the benefits that each option could bring to different groups in the community, should also be made.

After thorough discussion of each option, the community arrives at a consensus as to the options that they wish to pursue immediately. Based on the information obtained during the market visits, the community may also wish to identify options that look attractive for the future, and that could be the subject of farmer experimentation. The community meeting closes with the identification of those farmers interested in participating in the development of these options as commercial enterprises, and those with interest in experimenting.

Integrated agro-enterprise projects. With the selection of the enterprise options, a new phase of the process of creating or strengthening community agro-enterprises initiates. This is the design of an integrated agro-enterprise project for each product selected. This phase requires a much more detailed analysis of the chain of actions and actors involved from production through to marketing, with the goal of designing concrete actions to improve the functioning of the value chain. The process of the design of integrated agro-enterprise projects will be treated in more detail in another issue of Agro-ecology Highlights.

The above process is underway in the abovementioned communities. In each of the communities, “income” or “market” groups of farmers have been formed, and visits made to wholesale and retail markets to collect information about different crop and livestock categories. Visits have also been made to other farmers, and in some cases research stations, to gather technical and cost information on the production, postharvest handling, and sale of the products of interest to farmers. Table 2 shows the initial crops and livestock that each of the communities in the three countries has prioritized following a systematic evaluation of different alternatives.

Table 2. Enterprise options initially selected by Beyond Agricultural Production to Poverty Alleviation Initiative (BAPPA) communities.

Site	Principal crops	Enterprises selected
Kabale, Uganda	Potato, sorghum, sweet potato, beans, peas	Pyrethrum, eggs
Lushoto, Tanzania	Maize, beans, potato, tomato, onion, sweet pepper	Beans, tomato
Dedza, Malawi	Maize, beans, groundnuts, sweet potato	Goats, rabbits

The farmer criteria used for selecting any particular product is in the process of being systematized. For example, in Kabale, Uganda, pyrethrum was chosen as an attractive option because of the following reasons:

- Its production and sale are economically attractive.
- There is a local company that purchases pyrethrum flowers. The company provides seed and technical assistance, and collects the dried flowers at collection centers close to the areas of production.
- Pyrethrum can be grown on farmers’ lots that are underutilized at present: On high ground and in soils that are not so suitable for food crops.
- The women of the communities are favorably disposed to pyrethrum because they see it as an opportunity for men to become more engaged in agriculture (men are perceived by women to waste their time in unproductive activities, such as brewing and drinking).

In Kabale, as part of the BAPPA project, CIAT's IPRA Project is backstopping a complementary activity of farmer experimentation that is looking at appropriate cultural practices for pyrethrum production, primarily response to fertilization with organic and inorganic amendments.

1.1.3. Define and develop prototypes for other tools for market opportunity identification

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Collaborators: Edward Gironza, Luis Armando Ortiz, Diego Izquierdo, Carlos A. Quirós, Jose I Roa, Rupert Best, Mark Lundy; Rodelfi Betancur (Asociación de Beneficiarios de la Subcuenca del Río Cabuyal, Cauca [ASOBESURCA]), Investigación Participativa en Centro America project (IPCA) - Honduras, CIAT-Nicaragua; Fundación Promoción e Investigación de Productos Andinos, (PROINPA)-Bolivia

Because implementation of the methodology presented in the MOI manual, or Guide No. 7, requires considerable business expertise and time, several alternative MOI tools are being proposed that are simpler and shorter, but that will certainly limit the amount and/or quality of information collected. These proposed tools in fact reduce the need for facilitators, consultants, or coaches to guide small-scale farmers throughout the MOI process. They are outlined below.

The rapid market survey focuses on identifying key parameters for selling traditional and existing commodities, and/or agro-industrial products, such as quality, quantity, and continuity required, plus potential purchase price. It consists basically of one section of the MOI manual, which can be used as a standalone tool, with some minor additions.

Market visits are simple activities, but have to be adequately planned and coordinated, and can provide very good information. Generally, participants select one or more products, and then focus on identifying the key market requirements for selling these products. A prototype is under way, based on the experience with small-scale farmers in the Cabuyal reference site in northern Cauca, Colombia. The BAPPA initiative, described in section 1.1.2. above, uses market visits by farmers as part of the process for selecting income-generating options for farming communities.

Local Market Intelligence System (LMIS) is a simple tool that allows pertinent market information to be collected on a permanent basis. As the basis for developing the prototype, a survey was applied in October and November 2001, to 30 small-scale farmers in 20 first- and second-level organizations, including several local agricultural research committees (CIALs, the Spanish acronym) in Honduras, Colombia, Nicaragua, Bolivia, and Ecuador. The purpose of the survey was to identify what type of information is really valuable for small-scale farmers, how and where they would like to receive this information, and if they are willing to pay for it. This tool poses the challenge of being sustainable in the long-term. A report on the survey will be available this year, and a prototype will be developed and tested in one or more of CIAT's reference sites, and possibly in other locations.

Activity 1.2. Alternative Trade Information System (ATIS)

1.2.1. Launching of ATIS on project's Web page

Contributors: Carlos F Ostertag, John J Hurtado, Angela Arenas

Collaborators: Sergio Mafla; Luis Hernández (consultant), Oscar Hurtado (consultant)

ATIS was launched this year. Its main components are a global directory of alternative trade institutions with more than 100 contacts, articles and PowerPoint presentations presenting key market and technical trends in alternative trade, and linkages to important alternative trade agencies. It also includes PowerPoint presentations on several business topics, such as business orientation, marketing basics, business plans, and marketing plans.

Articles include “Fair Trade in Europe: Evolution, operation, institutional structure and trends”, “Overview of Alternative Trade”, “The organic certification process”, “FLO guidelines” (guidelines, contracts, questionnaires), “Basics of agro-ecological agriculture”, and “Case study of the export of an organic herb from Colombia”.

Output 2

Tools, methods, and information for developing appropriate postharvest technologies for small-scale rural agro-enterprises

The purpose of Output 2 is to generate information and tools that facilitate the selection and development of appropriate technology for the postharvest processing of agricultural products that have been identified as having potential for increasing income for smallholder farmers. Activity 2.1. seeks to develop user-friendly information systems that permit users access to basic information required to take decisions about postharvest technology selection. Activity 2.2. is focused on adapting, developing, and implementing a set of participatory methods for undertaking postharvest technology research with clients and beneficiaries in a given socioeconomic context. Although these methods were successfully developed for preharvest research, the principles are only recently being adapted for the postharvest area. Activity 2.3. deals with the generation of basic knowledge and adaptation of cutting-edge technology for adding value to selected products with a novel market potential that have been prioritized through our work in the reference sites.

Highlights

- The Information System on Postharvest Management and Processing of Cassava is being put on the Web page in phases.
- An alliance was established with InforCauca to develop an Information System for Rural Management Development (SIDER, the Spanish acronym). Its purpose is to become an information service for small-scale rural producers and the organizations that work with them, through a local network of communication that is supported by and integrates traditional means and channels of the new information and communication technologies.
- The first phase of the work with the Groups of Agro-industrial Rural Research (GIAR, the Spanish acronym), which seek to construct local capacity in the community to validate and adopt technologies of postharvest processing, has been completed with the selection of appropriate varieties for the production of *panela* and the improvement and technological adjustment of its mills (producing units of *panela*). Thus, the approval of a new project was achieved that is supporting producers of fewer resources, and expanding the coverage.

Activity 2.1. Develop inventories and systematized information for products and processes with market potential to define information and technology needs

2.1.1. Information system on cassava postharvest management and processing

Contributors: Jhon Jairo Hurtado; Nadine Zakhia (Centre de coopération internationale en recherche agronomique pour le développement [CIRAD])

Collaborators: Rupert Best, Ángela M Arenas

The information system has been developed to offer extensionists, specialists in development, small-scale producers, researchers, teachers, and policymakers access to information on cassava postharvest and processing. The system has begun to be implemented by stages on the project Web page (Figure 2), at the same time that, with the support of a consultant, some data are enriched and updated. The information system will be fully available in late November.



Figure 2. Web page of the Information System on cassava postharvest management and processing.

2.1.2. Project initiated to develop local capacity for capturing relevant technological information in support of the integrated agro-enterprise projects in Cauca Department

Contributors: Jhon Jairo Hurtado; Dora Patricia Arévalo (InforCauca)

Collaborators: Nathan Russell, Olga Paz, Eduardo Figueroa (SN-4); Rupert Best, Carlos Ostertag, Mark Lundy; William Cifuentes (CORPOTUNIA); Rodrigo Vivas (Consortio Interinstitucional para una Agricultura Sostenible en Laderas [CIPASLA]); Rodelfi Betancourth (ASOBESURCA); Juan Carlos Gallego (DFID project, Colombia), Carlos Tellez (CCI); Julian Casasbuenas (COLNODO)

Information system for rural enterprise development

The InforCauca project and the RAeD are advancing work with small-scale producers of central and northern Cauca Department in the fields of information technology and communication for community development and rural enterprise development, respectively. These projects have

identified that a main limitation for rural enterprise development is the deficiency in availability of support services (technical and managerial assistance, training, seed capital and credit, communications and information services) for the small-scale farmer. Among these services, access to information proves an indispensable element for wise decision taking.

A small-scale rural businessman needs information on markets (prices, buyers, tendencies, quality requirements, etc), technological options (equipment, uses, processes, and technological scales, etc), production costs, and a directory of suppliers of inputs and support services, among others aspects. Based on these needs, and given the complementary work of the two projects, early in 2001, InforCauca approached RAeD with the purpose of developing an information system to supply these needs, for which RAeD presented a proposal. However, to generate local capacity in the zone, InforCauca delegated the development of the process to the Rural Agro-industrial Committee (RAI) of CIPASLA. In this way, CIPASLA and the Tunia Telecenter initiated development in the second semester of 2001.

When they presented an advance of results in February that was not satisfactory, InforCauca decided to stop the process, and, in March of this year, initiated planning work with RAeD to reformulate the development of the Information System. The draft proposals prepared by CIPASLA-Tunia Telecenter, CCI, and RAeD were used as a base for elaborating the Plan. From this work emerged SIDER, which has been defined as:

An information service for the small-scale rural producer that comprises electronic products supported by a Local Network of communication that integrates traditional means and channels of information and communication.

The defined plan covers the following objectives:

- (1) Design a user-friendly information system that involves the Telecenter and that reaches clients to support decision taking on rural agro-enterprise development
 - Elaborate a diagnostic of information needs among organizations of the consortium and others, and prioritize and identify existing and most appropriate means of communication for the beneficiaries
 - Generate an information product available on CD and/or Internet
 - Design mechanisms for the widespread diffusion of knowledge and information according to existing and used channels of communication in the zone, identified in the diagnostic
 - Institutionalize and promoter the information system
- (2) Build local capacity to administer and strengthen information systems
 - Develop a participative process with local partners
 - Carry out a training process at various levels
- (3) Define a strategy of sustainability of all the system
 - Financial sustainability
 - Social sustainability

- (4) Prepare a training manual that supports the replication of this experience
- Systematization of the experience
 - Training manual

An executor group made up of local partners (CIPASLA and CORPOTUNIA), ASOBESURCA (users' representative), Tunía Telecenter, Delegate of the RAI of CIPASLA, InforCauca, and RAeD is developing SIDER. This group is supported by InforCauca and RAeD, who in turn count on the support of consultants, such as the DFID Project Colombia, the CCI, and COLNODO.

The development of SIDER is advancing parallel to its two main processes: The development of an information product (whose consultation areas correspond to the diagnostic information identified by different organizations and/or projects in the subwatershed of the River Cabuyal, Caldon, Cauca), and the establishment of a communication network (see Figure 3).

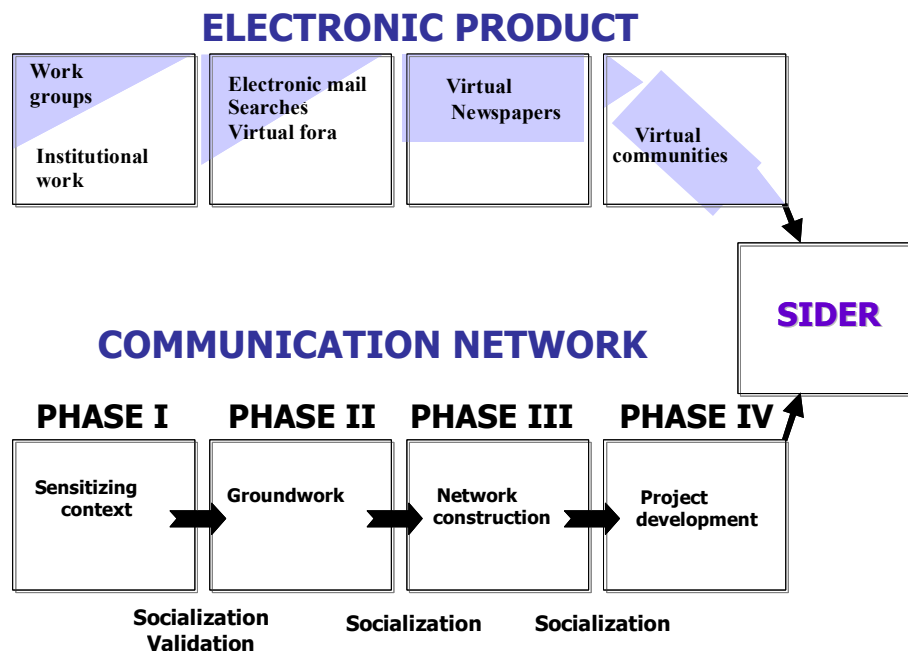


Figure 3. Parallel process for the development of the Information System for Rural Enterprise Development (SIDER).

SIDER initially will include information on five productive lines – plantain, blackberry, milk products, and anthuriums (prioritized with the participation of the community and the organizations that support them in the RAI Committee of CIPASLA), and *panela* (crude sugar blocks). The latter was chosen to begin with, given the strong institutional presence of CORPOTUNIA and RAeD, to be able to count on a model of system operation, evaluate it, and orient towards including the other five lines.

Development of the information product

The development of this component has had the support of the CCI, an organization interested in generating local information systems. The initial generation of the contents is being developed by CIPASLA (management information component) and CORPOTUNIA (information technology component). The organizations have used the following steps: Generation and discussion of an information map, to include collection, classification, analysis, and synthesis of the information. The prices component also has CCI support.

The electronic platform for the electronic product is being discussed with COLNODO with the support of the CIAT Information Systems Unit. The objective is to have freely distributed software to facilitate economic access to local organizations, and to have a tool for the communication network of dynamic publication of contents, for example, applications that permit updating of Web pages in quick, easy, and decentralized form. Given that this process will count on the participation of the organizations and the communications network, its implementation will be carried out in different phases according to the advance in training and knowledge of the communication network.

Communication network

The communication network has been formed through the presentation of SIDER to *panela* producers of the zone of influence (central and northern Cauca) of the Information System, thus:

- The Association of *Paneleros* in Santander de Quilichao,
- The GIAR of Suárez, and
- The GIAR of Caldon.

These groups appointed the persons that would develop communication work in the zone, such that now there are three groups of about 10 persons each, in these three municipalities.

Activities developed with the Communication Network are supported by the DFID Project, Colombia that shares with the project its experience in the development of networks with organizations.

Activities developed with the groups

Presentation of SIDER: In this meeting, SIDER was presented to the established groups, emphasizing the formation of a Network of Communication in the zone, and its responsibilities towards the community and the project, as well as the training that would be received.

Groundwork. Communication I: This workshop was carried out with the DFID Project, Colombia, at the Universidad Autónoma de Occidente in Cali, led by Dr Juan Carlos Gallego, Director of the DFID Project, Colombia. Thirty persons attended, representatives of the groups formed in Santander de Quilichao and Suárez, the Association of *Paneleros*, CIPASLA, Tunía Telecenter, and the SIDER Technical Team.

The conceptual aspects developed during the day were: What is communication? – Some main points about the speech of communication, and communication in the networks. It was conceptually emphasized in the differentiation between what is information and communication.

Identification of actors, spaces, means and/or channels, flows of information: In this workshop, continuity was given to the working day with the DFID Project, Colombia. Each group worked apart, and the concepts retained and their interpretation from the Communication I workshop were investigated. In the same way, spaces, actors, means and/or channels of information and existing communication in their respective municipalities and villages were identified. Based on this information, the strategies of communication in the zone were established.

Information flow: In this session, the groups represented through diagrams the flow of information in their zone.

Initiating project design: This meeting sought to find out the level of knowledge of the groups regarding project design.

Identification of other actors in the panela productive chain: The participants of each link of the chain were identified, and a directory of these actors produced as a base to the process.

Activity 2.2. Adapt and refine participatory methods for improving processing efficiency and product quality for existing and new rural agro-enterprises

2.2.1. Integral improvement of the agro-industrial rural *panelera* chain, with small-scale producers of the municipalities of Santander de Quilichao, Suarez, and Caldono, northern Cauca Department, as an alternative to improve income generation

Contributors: Carlos Chilito, Jhon Jairo Hurtado

Collaborators: Progamma Nacional de Transferencia de Tecnología (PRONATTA); Didier Alberto Serna, Eyder Montero (CORPOTUNIA)

This project was formed by CORPOTUNIA and RAeD, and funded for a period of 2 years by PRONATTA. Through this project, RAeD seeks to develop a methodology for the participative development of appropriate technologies through GIARs, which are considered as a real and active mechanism of participation in the planning process, to validate, disseminate, and establish a technology. The GIARs are made up of farmers and/or processors that, together with research or technology transfer organizations, prioritize the criteria to work in an agro-industrial process. They participate in setting up trials, evaluations in the processing units, discussion of results, and their feedback to the community, permitting the appropriation of the process into the rural population.

The first phase of the project has concentrated on planning, setting up the research trials, forming the GIARs, and working with them on the first two objectives of the project to be developed in this phase.

The GIARs were formed in different municipalities (Santander de Quilichao, Suárez, and Caldon), and vary between 12 to 14 persons in size, with the participation of women in some groups, representatives of *panelera* villages. A process of training on participatory concepts was begun with these GIARs, so that they could then go into the field with a basis in the participative research process and their role as producers / researchers. A process of participative research is being followed with the groups, similar to that used by the CIALs (Figure 4).

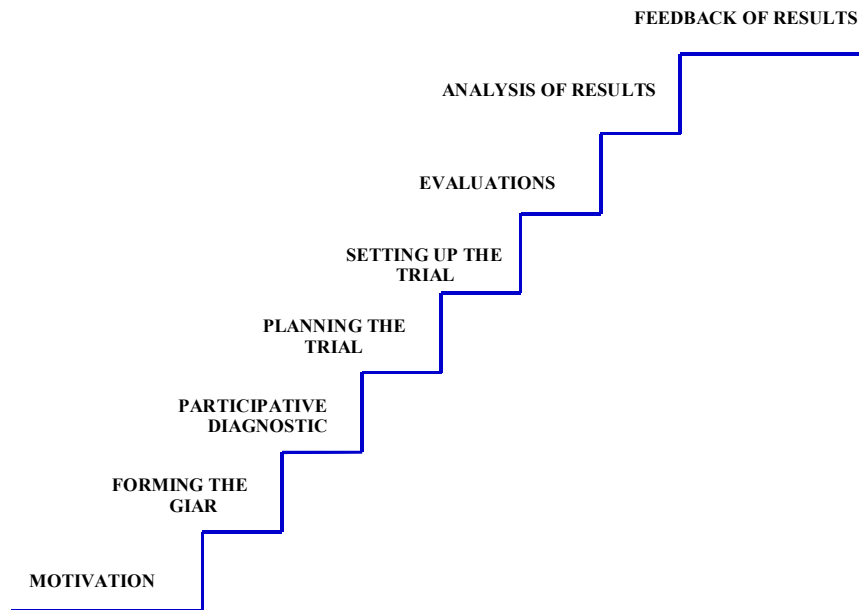


Figure 4. Participative research steps being followed with the Grupos de Investigación en Agro-industria Rural (GIAR).

The outstanding characteristics of the groups are an orientation to the market, work in the development of new products, and the study of all the links of the agro-industrial chain.

The project coordinated directly with the beneficiaries (producers and local technicians – Unidades Municipales de Asistencia Técnica Agropecuaria [UMATAs]) the research strategy and places in which to carry out the improvement of the participative research. This foresaw an identification of the *panelera* zones / municipality through field trips by technicians and directors of UMATAs for the purpose of identifying the main producing villages, and to elaborate the base line / municipality. Thus, farms are being visited to offer support and advice, and to follow up the different project activities.

Below, we present the development and achievements obtained in the two objectives that are being developed in the first phase.

Specific objective 1: To arrange a portfolio of appropriate varieties for the production of good-quality *panela*, managed with the criteria of organic production.

The project was socialized with about 170 *panela* producers in the municipalities of Santander de Quilichao, Suárez, and Caldono. During these meetings, the project's range, objectives, and activities were made known, and the resources available to beneficiaries for its correct execution.

As a result, producers formed groups, keeping in mind that these were representative of their *panelera* zones / municipality. Thus, five GIARs were formed, one in the municipality of Suárez with the participation of 12 producers; one in Caldono with the participation of 13; and three in Santander de Quilichao with the participation of 14 producers in the southern zone, 12 in the flat zone, and 13 in the high zone; for a total of 64 producers of sugar cane and *panela*.

In the same way, a sensitizing event was carried out on the participative agricultural research methodology, with 11 participators, including technicians and leading producers especially. Given that this project is of adaptive research type, the objective of this workshop was to sensitize the technicians that are participating in the project to the main mechanisms and strategies that we should manage in research with producers that guarantee technological adoption and improve the process of transference / communication. They also contribute in generating local technical capacity to assess and offer sustainability to the process once the project ends. CIAT's IPRA Project conducted the workshop, which ran for 2 days.

The GIAR training has included:

- *GIAR Training Workshop*. The project was presented again, the work methodology and its different phases made known, and the GIAR duties regarding the community and the project.
- *Criteria Definition Workshop*. Workshops were carried out with each GIAR, in which criteria were defined participatively, to be kept in mind to elect when choosing which varieties of those existing in their zones should be evaluated and why they were important to the producer. Each GIAR identified four or five sugar cane materials for evaluation in their municipality or zone.
- *Field trips* were carried with each GIAR, the experiment plots were identified and marked out, and varieties to be evaluated were chosen. Field evaluations were carried out in the municipalities of Caldono and Suárez, and in two of the zones of Santander de Quilichao. Quantitative and qualitative data from these evaluations are being recorded.

Specific objective 2: To adjust the technology of CIMPA-type oven models to local conditions

To fulfill this objective, the sugar mills were participatively identified that would benefit from oven improvement as in the technical proposal. Thus, an oven was built in the municipality of Caldono incorporating a pyrotubular boiler (following the research technical proposal), and another with the same type of boiler in the municipality of Suárez.

The participative technical evaluation was begun with the Caldono oven, and results will be contrasted with the technical evaluation carried out by the GIAR of the oven with air-cooled boiler.

Preliminary results of the evaluation gave the following data (improved vs. traditional):

- Capacity: 45 kg *panela* / hour vs. 25 kg *panela* / hour.
- Firewood consumption: 0.5 kg / kg *panela* vs. 4 kg / kg *panela*.

The oven improvement was co-financed by the producer (25%), who assumed costs of the labor of the master builder and some materials, such as cement, mortar, and bricks; the project assumed the remainder. A project beneficiary participated in building the Caldona oven, gained training, and acquired the skill for oven construction according to the technical designs. UMATA technicians are also participating in this type of activity.

It is important to note that for this first phase, only the construction of two ovens was contemplated, for which budget was available.

Generation of local capacity

CORPOTUNIA and RAeD have led the formation of a technical committee for *panela* in northern Cauca, at which companies participate, such as: UMATAs, Instituto Colombiano Agropecuario (ICA), Corporación para Estudios Interdisciplinarios y Asesorías Técnicas (CETEC), Corporación Colombiana de Investigación Agropecuaria (CORPOICA), and representatives of the *panelero* union. After the formation of this committee, CORPOTUNIA extended its participation to the whole chain of the *panela* agro-industry in Cauca Department, with the support of friendly companies and the private sector, represented by the Consejo Asesor Regional de Comercio Exterior (CARSE), and the Centro Regional de Productividad e Innovación del Cauca (CREPIC), with whom criteria will be unified and actions coordinated to increase strengths and decide directives around our mission as facilitators of social development / productive processes.

This departmental committee applied the proyectos productivos integrados (PPI) and RAeD methodology, with CORPOTUNIA facilitating, and they identified the actors present in the chain and their main needs. They also found out the institutions (private, state, and base organizations) that are carrying out shared work on the theme, and their knowledge of it. As a product of the methodology, the committee formulated a project to give continuity to the actions that are being advanced in *panela* in 14 municipalities of the department. Financing was agreed with the Programa Integral de Apoyo a Pequeños Productores de Economía Campesina within the framework of the Plan for Modernization of the Rural Economy of the Department of Agriculture and Rural Development of Colombia for the amount of 544 000 000 pesos for a period of 2 years, and in which the GIAR are considered the research axis.

2.2.2. Participative technological evaluation of different alternatives in *panelera* ovens for the small-scale producer of *panela*, northern Cauca Department, Colombia

Contributors: Carlos Chilito, Jhon Jairo Hurtado

Collaborators: PRONATTA; Didier Alberto Serna, Eyder Montero (CORPOTUNIA)

CORPOTUNIA and RAeD developed this project, and the Fondo de Investigación en Agroindustria Rural (FIAR) of PRODAR financed it for 1 year. The project purpose is to offer a low-cost technological alternative, with greater efficiency (greater quantity of *panela* / hour), and smaller environmental impact, to processors with traditional ovens. These ovens have a mean production capacity of 19 kg of *panela* per hour and mean consumption of 3 kg of firewood per kg of *panela*, compared to improved ovens with a capacity of between 40 to 60 kg of *panela* per hour, and a consumption of 0.5 kg of firewood per kg of *panela*.

The technological proposal seeks to increase efficiency from 19 kg per hour of *panela* to about 40 kg per hour, based on 25% co-financing by the beneficiary (represented in labor and some materials) of a total investment of 1 100 000 Colombian pesos; and 35% (1 470 000 Colombian pesos) co-financed in PRONATTA's proposal, and not within the reach of the majority of traditional producers of *panela*.

This project contributes to the development of the methodology for the participative development of appropriate technologies, and benefits the GIARs formed in the municipalities of Santander de Quilichao and Caldono. The project, which is being executed, has the following objectives:

- Form GIARs,
- Apply the technological proposal starting from current oven constructions,
- Carry out the technical recommendations for oven improvement according to the evaluations of different technological models present in the zone, and
- Carry out financial analysis for each technology present in the zone, and the alternative proposal.

Activity 2.3. Generate basic knowledge and adapt cutting-edge technology for adding value to selected products with novel market potential

There are no advances to be reported under this activity in 2002.

Output 3

Information, options, and recommendations for the design of efficient and effective organizational schemes for small-scale rural agro-enterprises and their support services

The purpose of Output 3 is to provide information, methods, and recommendations for the design and operation of efficient and effective organizational schemes for small-scale rural agro-enterprises and their support services. Three levels of intervention are contemplated. Activity 3.1. considers simplified business-oriented methods and tools for the internal organization and operation of existing and new rural agro-enterprises. Activity 3.2. looks at the social cohesion and integration of individual agro-enterprises, seeking to define options for achieving successful linkages to expanding markets, and for organization of raw material supply. This research is carried out through cross-case and cross-country analysis, and interaction with partners in the reference sites, and provides useful information on lessons learned, best practices, and different options for the delivery of these services.

Highlights

- RentAgro, the user-friendly computer program for calculating financial profitability, is in an advanced stage of development, and will be packaged in an attractive CD-ROM with a pamphlet, together with a 160-page illustrated user's manual.
- An attractive 45-page booklet describing the main characteristics and advantages of 15 profit and non-profit organizational formats in a user-friendly manner has been prepared and distributed.
- A portfolio of simple, user-friendly guides on several key business topics is being developed, and has already been tested in consultancies involving small rural agro-enterprises in Colombia.
- Three case studies on technical and organizational innovation in rural agro-enterprise clusters, two in Latin America and one in SE Asia, were prepared and presented at an international conference on local agrifood systems.

Activity 3.1. Design options and recommendations for the organization and operation of rural agro-enterprises

Tools for strengthening the business, marketing, and financial orientation of rural agro-enterprise activities

3.1.1. Finish and launch RentAgro (user-friendly software for calculating financial profitability)

Contributors: Carlos F Ostertag, Sergio A Mafla, Juliana Rizo

Collaborators: Fernando Rojas, Diana Paola Valero (IS); Nathan Russell (SN-4); Angela Arenas; Germán Arias (Legal Advisor)

This product responds to the generalized lack of information regarding production costs and profitability levels for agricultural and agro-industrial projects and enterprises. Furthermore, many development organizations and small farmer organizations lack the necessary training to estimate profitability parameters for production projects.

As a consequence, RentAgro, an interactive computer program, was designed to help users without a financial background prepare financial profitability models for agricultural and agro-industrial projects and enterprises. The software is actually a user-friendly interphase (in Visual Basic) between the user and the Excel electronic worksheet, and includes a Help tool. The complete software product includes a CD-ROM with a pamphlet, a 160-page illustrated users' manual, and a technical systems manual.

The software features a step-by-step procedure to financial modeling, including subroutines for calculating working capital, investment, interest expenses, and residual asset values. Among the main components are investment and working capital, sales' volume, conversion factors, variable costs, fixed costs, interest, and tax expenses. The software will calculate numerous financial parameters, such as IRR, NPV, gross margin, net margin, break-even point, and ratios such as sales per labor costs.

An advantage of this software is that it is completely flexible; that is, it is not specialized in any crop or product, meaning that it can be used for any crop or product alternative.

The scope and complexity of RentAgro has increased, which is the main reason why the product is still not ready for introduction into the market. A multidisciplinary team, including a business expert, an agro-industrial engineer, a computer programmer, a graphic designer, a lawyer, and an editor has developed RentAgro.

Currently, the software is being pilot-tested, the name RentAgro is being registered, other legal permits are being obtained, and a marketing plan is being prepared. It is anticipated that RentAgro will be ready for market introduction in mid-2003.

3.1.2. Define and develop a prototype for a database on legal formats for rural agro-enterprises

Contributors: M Carolina González, Carlos F Ostertag

Collaborators: Germán Arias (Legal Advisor); Chambers of Commerce in Bogotá and Cali, Colombia

A 45-page booklet on "Organizational and legal formats and steps for formalization of rural agro-enterprises in Colombia" was prepared as part of a Master's thesis. More than 100 copies were produced internally and distributed to rural development organizations and small farmer organizations in southwestern Colombia. A survey was conducted among 20 formal and informal, small-scale rural businessmen in southwestern Colombia to identify priorities with respect to demands for information on organizational formats. The booklet presents, in an organized and friendly manner, the main characteristics of 15 profit and non-profit

organizational formats. It also includes a comparative matrix describing advantages and disadvantages for each legal format.

Plans are underway to expand the distribution of this booklet to other regions of Colombia, and to replicate similar work in other countries in Latin America.

3.1.3. Define and develop a prototype for promoting a business and market orientation

Contributor: Carlos F Ostertag

Collaborators: Juan F. Barona, Diego Izquierdo

The basis for this work is a PowerPoint presentation already developed on this topic that describes in simple terms what it really means to have a business orientation. This presentation will be expanded, and notes will be added. Afterwards, a brief guide will be prepared that will include exercises and group dynamics. This booklet will be ready in the first quarter of 2003.

3.1.4. Define and develop a prototype to facilitate Business Plan preparation

Contributors: Carlos F Ostertag, Edward Gironza, Luis A Ortiz

Collaborators: RAI Committee of the Cabuyal Reference Site; Walter Galindo (Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria [CIPAV]); Nubia M Lara (CORPOTUNIA); Cooversalles; Barragán Group; Diego Izquierdo, Juan F Barona, Maria E Girón (Fundebasa)

The basis for this work is a PowerPoint presentation, entitled “Basics of business plans”, which was a result of a bibliographical review, and used in 2001 in national and international rural enterprise development workshops in Colombia, Uganda, and the Philippines.

A simplified business plan format was prepared for use by small farmer organizations, as part of the business support provided to the Quilichao *Panela* Association and by the RAI Committee in the Cabuyal reference site in northern Cauca, Colombia. These farmer organizations were trained and coached on the design of IAPs around agricultural products such as blackberry, plantains, poultry, cut flowers, and milk products. This process included the development and execution of simple business plans relative to these products.

Furthermore, the RAeD provided assistance to NGOs and rural agro-enterprises in the development of business plans in southwestern Colombia (CORPOTUNÍA, Quilichao *Panela* Association, and dairy cooperatives). This latter experience was critical in identifying key client needs in relation to business plans.

A simple guide will be prepared that will explain how to complete the simple business plan format. The guide and the simplified format will be the basis for the business plan prototype that will be developed during the first quarter of 2003.

3.1.5. Case studies of rural agro-enterprises for national and export markets in Latin America

Contributors: Carlos F Ostertag, Lizbeth Lasso, Mireille Totobesola, C Wheatley (consultant)

Collaborators: Alvaro Nieto, Adriana M Ochoa, Silvana Espinosa (consultants); Juan F Barona, Trinidad Daza, Rupert Best; Eduardo Figueroa, Nathan Russell, Julio C. Martínez (SN-4)

This work centers on the analysis of success factors for 11 rural agro-enterprises in Latin America. Eight of the case studies correspond to rural agro-enterprises in South America that export part or all of their products, whereas three of the case studies pertain to rural enterprises in Central America focused on internal markets. Two versions are being prepared. The shorter version, with summaries of the case studies, will be published; whereas the longer one, containing the complete case studies, will be placed on the project's Web site as a public good.

Currently, the analysis, conclusions, and recommendations are being revamped, and a timetable for publishing the shorter version is ready. It is anticipated that the longer version will be placed on the project's Web site this year, and the book containing the shorter version will be published before June 2003.

3.1.6. Methods for strengthening strategic planning for rural agro-enterprise activities

Contributors: Carlos F Ostertag

Collaborators: Walter Galindo (CIPAV); CooVersalles; Grupo de Barragán and Sta. Lucía; Diego Izquierdo, Juan F Barona; Maria E. Girón (Fundebasa)

This year's training activities with small farmer organizations have underlined the great importance of this topic to promote a sound business and market orientation. The basis for this activity is a PowerPoint presentation on strategic planning for regions, communities, and enterprises, developed last year. This presentation is divided into three sections; the first focuses on defining the terms "goal", "strategy", and "strategic planning"; the second centers on strategic planning concepts and sequence for regions and communities; and the third on strategic planning concepts, sequence, and strategies for rural enterprises. The latter section presents the Boston Consulting Group and General Electric approaches towards planning the business portfolio, plus the Ansoff product-market growth matrix.

Strategic planning activities were conducted this year with several small farmer organizations in southwestern Colombia. These activities have indicated the need to carry out further bibliographical research, and to develop a strategic planning method that is simpler and better adapted to small-scale rural producer's needs. A strategic planning guide will be developed with examples and exercises.

3.1.7. Methods for strengthening the marketing orientation and marketing management of rural agro-enterprise activities

Contributor: Carlos F Ostertag

Collaborators: Juan F Barona, Diego Izquierdo, Oscar A Sandoval

This work is also based on several PowerPoint presentations on marketing plans and marketing strategies that are already developed. This year, the project has gained further knowledge and practical experience on marketing problems and opportunities of small rural enterprises, through consultancies and business training workshops. Consultancies involved a sour-starch wholesaling cooperative, two dairy coops, and five integrated agro-enterprise projects in southwestern Colombia. In addition, one of the initial activities in marketing training workshops for small-scale rural producers is to listen to their marketing experiences and limitations, and to discuss strategies to overcome them.

The marketing presentations include these topics: “Marketing basics for rural agro- enterprises”, “Product design”, “The price”, “Distribution”, “Promotion”, “New product development”, “Marketing research”, and “The marketing plan”. These presentations are in the process of being adapted and improved, together with notes.

This will be the basis for preparing a booklet guide on writing marketing plans that not only will include a simple format, but also will explain how to design marketing strategies. This product will be available in mid-2003.

3.1.8. Support in business orientation and management to rural enterprises and small farmer organizations

Contributors: Carlos F Ostertag, Diego Izquierdo

Collaborators: Ricardo Ruiz (CETEC); José M Trujillo (Cooperativa Agraria de Productores y Procesadores de Yuca del Cauca [COPRACAUCA]); Lisandro Rebolledo and Hernán Rebolledo (businessmen); Faculty of Industrial Engineering of the Universidad del Valle

This year, RAeD has provided business assistance to several rural agro-enterprises and small farmer organizations in southwestern Colombia, using two formats. In the first, RAeD provides direct business coaching to the manager relative to strategic planning, designing and executing marketing plans, and solving day-to-day problems. This work is carried out in periodic meetings with the manager, but does not involve formal training. The second format is more formal, and involves a training-action process, which we call “Learning or Action Alliances”, which is divided into several thematic modules. Each module has training, action, and feedback components, with the overall purpose of advancing business development activities and facilitating learning by both parties, “instructors” and participants.

COAPRACAUCA: Marketing of sour starch and feasibility of rural snack agro-industry

The first format was applied to COPRACAUCA, a marketing cooperative that sells sour starch produced by cassava processors, in collaboration with a local rural development NGO, CETEC. Its market share is less than 5% of the national market. The sour-starch trade is a low-margin business, and the cooperative's sales are below break-even point. In general, this marketing cooperative has traditionally lacked a solid business and marketing orientation. Furthermore, there is an organizational problem in the form of deficient commitment and support from the cassava-processing trade.

Funded by Colombia's Ministry of Agriculture, CETEC and the RAeD, in consultation with COPRACAUCA members, developed and executed an action plan involving the strengthening of the sales and marketing structure in Cali, Medellín, and Bogotá (the main markets for cassava starch in Colombia), plus the design and implementation of a marketing plan.

In summary, the marketing plan included the following: An improvement of the quality of sour starch sold and of the quality-control laboratory; revamping the brand and packaging; launching a premium-priced, high-quality sour starch; establishment of a weekly sour-starch price information system; offering discounts for cash payment; expansion of starch distribution to large retailers; and positioning the cooperative's products as based on quality, service, and technical assistance by means of a low-cost advertising campaign in Cali using pamphlets and posters.

As a second component of the same Ministry-funded project, RAeD, together with CETEC and students from the Universidad del Valle, prepared a thorough pre-feasibility study and business plan for a rural agro-industry centered on the production and marketing of sour-starch-based snacks. The project obtained support from two entrepreneurs who used to compete in the snack market before they sold their brand.

The university students were divided by functions: Marketing, technical, economic and financial, environmental, and management. The financial profitability model developed for the proposed agro-industry indicated that the business could be very profitable. Currently, the NGO CETEC is seeking international funds to finance the initial investment required for the establishment of this rural cassava-based snack agro-industry that will benefit many small-scale cassava farmers and processors in southwestern Colombia.

Association of sugar cane processors: Business planning and marketing support

Contributor: Carlos F Ostertag; Nubia M Lara (CORPOTUNÍA)

Collaborators: William Cifuentes, Didier Serna (CORPOTUNÍA); Carlos Chilito

Funded by PRONATTA, a government project that supports rural agro-enterprises, CORPOTUNIA (a local rural development NGO) and RAeD are supporting the Association of Sugar Cane Processors from Santander de Quilichao, a small city in southwestern Colombia. This association groups 72 small, traditional processing plants and 120 members, who wish to defend and expand their market share in the region. As a result, the association has established a

marketing enterprise, and is marketing its products under one brand name. It is also in the process of developing new, convenient sugar-cane-based products.

In the last quarter of 2001, three workshops were conducted to train and coach members of the sugar-cane-processing association on the design of business plans. Additionally, an action plan for the marketing function was developed to (a) develop a promotional strategy for squared *panela* in the Cauca department; (b) develop a marketing strategy for their rounded *panela*; and (c) develop a new product development strategy, including consumer and product research.

Implementation of the aforementioned marketing plan has been delayed because the donor has not provided the funds yet. It is anticipated that this activity will start this year and continue throughout the first semester of 2003.

Marketing support to small farmer organizations in the Cabuyal reference site in southwestern Colombia

Contributors: Carlos F Ostertag, Edward Gironza, Luis A Ortiz

Collaborators: William Cifuentes (CORPOTUNIA); RAI Committee of CIPASLA

Funded by the IDRC, RAeD is supporting CIPASLA's RAI Committee in the area of marketing. The RAI Committee is executing five integrated agro-enterprise projects around plantains, anthuriums, farm chicken, blackberry, and dairy production. Marketing support has been provided in three ways: (1) by contacting potential clients for the aforementioned products, (2) by organizing visits to markets, and (3) by providing training in marketing management and in marketing plan development. A simplified marketing-plan format has been developed for the IAPs, and short workshops were implemented for these latter purposes.

Integrated business support for two dairy organizations in Valle, southwestern Colombia

Contributors: Carlos F Ostertag, Diego Izquierdo, Juan F Barona

Collaborators: Carolina González, Mark Lundy; Walter Galindo (CIPAV); CooVersalles; Grupo de Barragán y Sta. Lucía; Maria Eugenia Girón (Fundebasa)

Funded by PRONATTA and the Corporación Consorcio (a Colombian consortium of development NGOs), and in collaboration with CIPAV (a local rural development NGO), RAeD designed a 1-year "Alliance for Action" process focusing on business training, coaching, and accompaniment for two dairy cooperatives, Cooagalvasa (Barragán) and CooVersalles (Versalles), both located in the Valle Department in southwestern Colombia. This process started in April 2002 and will end the first quarter of 2003.

The format involved the establishment at each site of a guiding business-development committee, and the execution of modules of: "Getting to know each other", "Legal business formats", "Leadership and team work", "Business training" (business and market orientation, marketing basics, a simple accounting method, financial profitability models), "Strategic planning", "Market research", "Design of a business plan", and "Execution of a business plan", in that order. Each module was divided into feedback and training components (in a workshop),

followed by an execution/accompaniment stage. Currently, at both sites, the process is arriving at the market research module.

Overall, the Action Alliance process has been relatively successful. Several aspects should be noted: (a) both organizations are quite loose, and have required a leader or group of leaders to maintain commitment to training activities; (b) the need for business training has been amply confirmed; (c) the level of education of members of both groups varies greatly, from participants with a university degree to others with only primary education - needless to say, less-educated participants tend to participate less; and (d) the two organizations exhibit interesting contrasts, which are presented in Table 3.

Table 3. Contrast of the two dairy organizations, Versalles and Barragán, undergoing the “Alliance for Action” process.

Aspect	Versalles	Barragán
Altitude (region)	1500-2200 m	2000-3200 m
Accessibility	Good; paved road	Poor; unpaved road
Size of membership	50 members	Before: more than 200 members Now: unknown as yet
Type of organization	Cooperative	Before: used to be a cooperative Now: an “association” format was selected
Life of organization	6 years	Before: more than 18 years, but has been shut down Now: new organization is in formation
Leadership	Strong, local	Before: used to be strong, but external (leader lived in Cali) Now: weak
Motivation of members	Normal, high	Low, with some few exceptions
Social context	Peaceful	Violence (guerrilla, paramilitary, army)
Business trend	Growing; has new cooling equipment for milk	Comes from a major business failure; organization and processing plant shut down; cooling equipment sold
Dairy business segments	Cold milk	Before: cold milk, pasteurized milk, yogurt, cheese Now: only uncooled milk
Other agricultural products	Cattle for meat, fruits, vegetables	Cattle for meat, potatoes, peas, fruits, vegetables

Whereas the Versalles organization is relatively new and growing, the Barragán organization comes from a major failure, because it became financially unsustainable due to high costs and mismanagement of a dairy-processing plant located in Tuluá. Thus, the traditional 18-year cooperative has disappeared, and now the challenge for the Barragán community is to generate enough interest and motivation to start a new organization, with the hope that the same errors will not be made.

3.1.9. Study of the incidence of legal institutions in rural agro-enterprises in southwestern Colombia

Contributor: Carolina González

Collaborators: Carlos F Ostertag, Carlos Chilito; William Cifuentes (CORPOTUNIA)

The objective of this work, conducted for a Master's degree in Economics, was to analyze the small-scale rural businessman's perspective with respect to "formality and informality", together with the identification and analysis of possible government and/or market forces, if any, pushing enterprises towards formality. A questionnaire was designed and applied to about 30 small-scale rural businessmen in southwestern Colombia. In-depth case studies were also prepared with a subsample of 10 rural businessmen. Although this project was centered in Colombia, a similar project can be conducted in other developing countries.

The main conclusions of this study were:

- (1) The adoption of legal business formats increases costs, but facilitates access to credit and to formal markets, such as supermarkets.
- (2) No correlation was found between formality and sales price or unit costs.
- (3) The following aspects should be considered when deciding whether or not to formalize:
 - (a) When the business is consolidated and wishes to expand its markets, going formal is recommended.
 - (b) If the product is for human consumption and is considered as risky for public health, formalization is a must because of legal and sanitary requirements.
 - (c) If the agro-enterprise wants to penetrate formal retail outlets, such as supermarkets, formalization is also essential.
- (4) The State forces agro-enterprises to go formal indirectly through pressures by institutions in the distribution channel.
- (5) The most common legal formats encountered were the Sociedad Limitada, usually found in consolidated enterprises.
- (6) The other common legal figures found were the Associations and Cooperatives, used by small-scale farmers to compete in non-local markets.
- (7) The latter organizational formats are used in most cases because they are easier to implement and enjoy tax incentives, not because these non-profit formats are considered to be the best option in a particular case.
- (8) Non-profit organizational formats such as cooperatives exhibit problems related to inefficient administration, corruption, lack of commitment, etc.

The following are some recommendations.

- (1) The legal format for the new enterprise should be chosen according to its objectives; if it is a for-profit venture, the format should promote investment and commitment of members, to enable long-term growth.
- (2) Legislation for micro and small enterprises is inequitable, because fees are not proportional to size and/or investment.
- (3) The "Sociedad Limitada" format is recommended because partner responsibility is limited to their individual investments, and allows choosing other members.

Activity 3.2. Design options and recommendations for enterprise linkages in the agribusiness chain

3.2.1. The Systemwide Program Collective Action and Property Rights (CAPRI)-funded study “Social capital, collective action, and community agro-enterprise development: Understanding the linkages that contribute to poverty alleviation and sustainable natural resource management”

Contributors: Mark Lundy; Nancy Johnson (BP-1)

Collaborators: Claudia M Correa (CCI); Ruth Suarez (Centro de Estudios de Ganadería y Agricultura [CEGA])

The CAPRI-funded initiative will wrap up in October 2002 with a final workshop between researchers from CIAT, CEGA, and CCI in Cali. Fieldwork carried out by the Colombian partner organizations generated data for 50 different agro-enterprise firms located in five distinct regions of the country.

Data collection was completed in August 2001, and analysis is nearing completion. The sample of cases includes a wide range of productive activities. While dairy and fruit-related activities predominate (60%), 11 types of activities were identified, including woodworking, medicinal plant processing, and agro-tourism. The average number of employees per firm is 14, ranging from one to 70. Seventy percent of these jobs are permanent; however, only 20% are for skilled workers. Forty percent of the enterprises have no skilled labor. Just over one third of the employees are women. Women own or managed 16% of the enterprises.

Ten different organizational forms can be found among the enterprises, with the most common being limited partnership (*sociedad limitada*). Only 4% do not have a registered legal structure (*persona natural*). Sixteen percent are associations or cooperatives. Legal structure varies significantly by region. The cooperatives are more common in the Atlantic Coast and the Oriente Antioqueño, while family businesses dominate in Vélez, and especially, Ubaté. For both dairy and fruit-related activities (the only categories for which cross-regional, statistical analysis can be conducted), organizational structure varies significantly across regions, which is consistent with the hypothesis that technological factors alone do not determine organizational structure.

Detailed data were collected on the relationships between the owners and managers of agro-enterprises and their employees, suppliers, and clients, with the purpose of better understanding the role of social networks and trust-based relationships in rural agro-enterprises. Preliminary analysis finds that the nature of these relationships varies significantly by relationship category. Firms tend to seek their skilled employees, agricultural suppliers, and providers of market information from among their friends and family. Relationships with suppliers of non-agricultural inputs, technology and technical assistance providers, and clients are more likely to be purely professional in nature. The very different relationship that firms appear to have with providers of information (about markets and product opportunities), versus technical assistance, is interesting for its potential implications for the role of external agencies in supporting rural agro-enterprises.

To estimate economic returns to social capital, firm level measures of social capital demand were developed based on the number of relationships that firms maintained. The number and quality of relationships a firm maintains correlate with “functional” indices of social capital developed on the basis of the qualitative analysis. Both the functional and the structural (number and quality of relationships) measures are correlated with the owner’s personal relationships, as measured by the number of groups that he or she belongs to in his/her personal life. This supports the theory that markets for the services of social capital are imperfect, and that as a result, firms’ endowments of social capital determine their demand for it.

The number and proportion of strong relationships that a firm maintains contribute positively and significantly to the firm’s income per employee. The total number of relationships is not significantly associated with income, which suggests that both quality and quantity matter. This finding extends results of past studies that found positive returns to measures of size of personal networks without addressing issues of quality or specifying the mechanisms by which these relationships affect firm structure.

It must be pointed out that these results are not highly robust, most likely because of the way the sample was selected based on five regions. It is very difficult to separate regional impacts from other factors. Further research is warranted to confirm the result, especially with regard to the aspects of social capital in which firms should invest. Contribution of social capital to net income should also be assessed because many of the benefits of social capital may be cost reducing rather than income increasing. A planned extension of this research is to look at with whom firms have relationships, to see whether relationships with different types of actors are more important for firm performance than others.

Several specific obvious policy recommendations arise from these results. Both quantitative and qualitative results suggest that firms can benefit from strengthening their existing relationships with other actors in the supply chain. In the case of clients, improving communication and seeking feedback appears to be one promising avenue. The qualitative analysis also suggests several ways in which firms can strengthen collective action among employees and agricultural producers, including building links to personal lives via training and provisioning other benefits, absorbing the transaction costs associated with collective input provision, and being more proactive about identifying where collective action is likely to work and where it is not before committing resources to its support.

3.2.2. Development of conceptual and methodological frameworks for the analysis of local agrifood systems, clusters, and networks

- Contributors:** Mark Lundy; François Boucher (CIAT-CIRAD- Département territoires, environnement et acteurs [TERA]); Christopher Wheatley (consultant); Carolina González, Viviana Sandoval, Carlos Chilito; Dai Peters (Systemwide Initiative on Urban Agriculture [SIUPA])
- Collaborators:** Rubiela Díaz (Panama); Maricela Cascante (Universidad de Costa Rica [UCR]); Sylvia Papuccio, Daniel Bravo (Ecuador); Maria Cristina Rangel Moreno, Gonzalo Rodríguez (CORPOICA, Colombia); Didier Alberto Serna, Eyder Montero (CORPOTUNIA); Ricardo Ruiz (CETEC); Gordon Prain (Centro Internacional de la Papa [CIP]-SIUPA); Joep Slaats (CIP-Hanoi)

Research on agro-enterprise clusters or concentrations of agro-processing industries in rural and peri-urban areas has continued both in Latin America and SE Asia.

Work on the area of Local Agrifood Systems (SIAL, the Spanish acronym) in 2002 has focused on the design and implementation of seven case studies in Ecuador (2), Colombia (3), Panama (1), and Costa Rica (1). CIAT has provided support for methodological design and field-level implementation, as well as backstopping to the individual researchers involved in the studies. Specific inputs have included participation in the research design, training of individual researchers in the use of proposed tools, and methodological backstopping in regard to the use of participatory methods. Workshops were held in Cali (5-7 March 2002) and Panama (21-24 July 2002), and final case studies should be ready by November 2002.

In addition to general support to the individual researchers carrying out SIAL case studies, CIAT has implemented two studies itself in Cauca, Colombia (see below). The first, carried out by Carolina González, focuses on the case of small-scale *panela* processors in the Municipality of Santander de Quilichao; while the second, led by Viviana Sandoval, revisits the case of cassava sour starch. Key results show that, although these cases meet the majority of necessary conditions to be considered a SIAL, they present severe limitations in terms of collective action, organization, and ability to compete in a globalized world. Both cases will be presented at the SIAL Symposium sponsored by CIRAD in Montpellier, France in October 2002.

Output 4

Institutional models and policy options for establishing and strengthening rural agro-enterprises and their support systems at the microregional level

The objective of Output 4 is to generate appropriate models, instruments, and policies to facilitate the process of establishing a sustainable agribusiness system at the microregional (municipality, watershed, etc.) level. These systems are composed of dynamic, market-oriented agro-enterprises and businesses, and appropriate local support services, both of which build upon local leadership and external support. In the process of building the local agribusiness system, it is important to maintain an updated business portfolio, create and strengthen local capacities, and design and execute corresponding research and pre-investment projects.

Activity 4.1. focuses on studying methods for integrating production, postharvest processing, and marketing functions around a given product or commodity with appropriate organization structures and support services.

Activity 4.2. centers on designing and strengthening a local support system for the development of rural agro-enterprises within a given territory. This system, made up of business development support services, includes support for new business ideas, and a mechanism for identifying, setting priorities, and developing market opportunities through the execution of integrated agro-enterprise R&D projects.

Activity 4.3. moves from the microregional level to consider aspects related to replication and the scaling up of the results obtained in 4.1. and 4.2. at a national level.

Highlights

- Conceptual framework for rural enterprise development in a territorial context developed, presented internationally, and used for the establishment of collaborative R&D projects with partners in Africa and Latin America.
- Integrated Agro-enterprise Development Project (IAP) promoted for Departmental-level, value chain analysis in Cauca, Colombia by local partner CORPOTUNIA, and used for the design of four IAPs.
- Field guides for IAPs, and the formation of local interest groups for rural enterprise development, to be published in Spanish and English.

Activity 4.1. Design conceptual frameworks and methodological options for organizing and integrating production, processing, and marketing functions for the establishment and/or strengthening of rural agro-enterprises

4.1.1. Conceptual framework for rural enterprise development within a territorial context developed and disseminated

Contributor: Mark Lundy

Collaborators: Carlos Ostertag, Rupert Best, Verónica Gottret

During 2002, the project developed a set of principals for rural enterprise development, and a logical framework of interconnected methods and tools to achieve this goal. Key principals for successful rural enterprise development identified by the project include (a) an entrepreneurial, market-oriented focus, (b) participatory decision making with partners, (c) a focus on strengthening existing local skills and building new ones, (d) a search for consensus among multiple actors, (e) equal access to opportunities for participating groups, and (f) social, economic, and environmental sustainability.

The territorial approach proposed by CIAT seeks to contribute to the development of local capacities to facilitate rural enterprise development in a flexible, dynamic, and coordinated fashion. This approach includes four major areas of work:

- (1) The identification and strengthening of an interest group, composed of diverse local organizations, with common goals and strategies for rural enterprise development;
- (2) Identification, management, and development of market opportunities available to the region;
- (3) Participatory value chain analysis and consensus building with diverse actors; and
- (4) Provision of appropriate and sustainable business development services for the region.

The entry point for this approach is the identification and consolidation of a local interest group. The other areas of work are subsequently developed in collaboration with that group.

Local interest group formation

The formation of an interest group around the theme of rural business development is an iterative process that varies depending on the organizations present in the area, previous experiences, and the necessities of the local population. In our experience, these groups usually include strong representation from producer organizations and NGOs, with somewhat lesser participation by public and private sector actors. Participants decide on membership in the interest group, the organizational form, and the demarcation of the territory in which the interest group seeks to work. To facilitate these decisions, two specific activities are carried out with the interest group at the beginning of the process. First, a profile of the territory including biophysical, social, organizational, institutional, economic, and political concerns is developed with secondary data and the use of rapid rural appraisal (RRA) tools. This information provides a common basis for decision making among group members. Based on this information, a consensus for action is developed, including the elaboration of a shared vision, mission and values, organizational structure and rules, and an initial action plan. At this stage, topics such as market orientation (producing what can be sold as opposed to selling what we produce), entrepreneurship, participation, and alliances are debated. This process is key because it allows group members to discuss and analyze past experiences, and decide on what actions are appropriate in the future.

Identification and management of market opportunities

Once the interest group exists, one of the first questions is what products and/or areas are most likely to generate positive impact for the region. To avoid past mistakes, where increased production led to saturated markets, low prices, and continuance of the poverty cycle, a market

orientation is developed through the identification of market opportunities. This process consists of two types of work—specific market studies, and the ongoing management of market intelligence. In the first area, CIAT has developed a market opportunities identification manual (Ostertag, 1999)⁴, which seeks to respond to three main questions:

- (1) What products show strong market demand in terms of increasing volumes and prices?
- (2) Which of these products can be produced in the region, given the biophysical characteristics, infrastructure, and access to productive resources?
- (3) Of those products identified in (1) and (2), which are of interest to smallholders?

The end result is a portfolio of options that respond favorably to the three questions. The size and diversity of this portfolio varies depending on market conditions, biophysical possibilities, and farmer interest, but normally includes from 10 to 30 possibilities.

In the area of market intelligence, CIAT seeks to build local capacity to generate, manage, and disseminate key market information on a permanent basis. This capacity involves not only direct market visits by interest group members, but also strategic alliances with national market information system programs, and the elaboration of dissemination tools appropriate to the rural context. Table 4 shows some of the range of tools developed by CIAT.

Table 4. Some market opportunity and intelligence tools developed by CIAT.

Aspects	Tools			
	Market Opportunity Identification	Rapid Market Study	Market Visits	Local Market Intelligence System
Duration	3-5 months	1-2 months	1-4 weeks	3-4 months start-up
Frequency	Periodic	Periodic	Periodic	Permanent
Thoroughness (1-5)	4 – 5	2 – 3	2	2 – 4
Complexity (1-5)	4 – 5	2 – 3	1 – 2	2 – 4
Local capacity versus external facilitation (%)	30/70	50/50	70/30	Initially 20/80, then 50/50
Focus on new products (1-5)	4 – 5	3	2	3 – 4

SOURCE: CIAT Agro-enterprise Development Project.

The end result of a market opportunity identification study is a basket of possible options for development in the selected region. At this stage, the interest group prioritizes these options, based on local criteria, in a participatory fashion. Local criteria used have included strength of market demand, product profitability, environmental impact, perceived *ex ante* development impact, organizations interested in the product, among others. These criteria vary by region.

⁴ Ostertag, C.F. 1999. Identifying and evaluating market opportunities for small-scale rural producers. Guide No. 7 (in Spanish) of the series “Instrumentos metodológicos para la toma de decisiones en el manejo de los recursos naturales”. CIAT, Cali, CO. 182 p.

Using local criteria, the market options are ranked and a decision made on which option(s) to pursue first.

Integrated Agro-enterprise Projects

At this stage, the local interest group moves into the participatory analysis of the selected product farm-to-market chain, using the IAP method developed by CIAT. The IAP method seeks to facilitate the analysis of the market chain by the actors directly involved and, through this process, generate collectively owned information, and a consensus for action. The scope of this analysis is somewhat broader than a typical subsector approach, in that it includes not only the farm-to-market chain as such (production, postharvest/processing, and marketing), but also two important cross-cutting areas—business organization, and the provision of business development services.

Business organization and support services present in a farm-to-market chain are key to understanding the possibility of improving chain performance through the effective use of existing skills and services, as well as identifying important bottlenecks that inhibit such improvements.

The IAP method starts after the selection of priority market chains, based on local criteria and information, generated in the phase of market opportunity identification. After that, specific market contacts are identified, and a simple database constructed with relevant information about both market contacts (name, address, phone, and others), and product conditions (quantity, quality, frequency, price, and presentation). This is complemented by a broader identification of relevant actors in the phases of production, postharvest, and/or transformation and commercialization to participate in the analysis of the chain. Information is gathered on the farm-to-market chain with representatives from the different phases, using participatory tools, focus groups, and direct interviews. Initially, each participant in each phase works in separate small groups in an effort to avoid undue influence by relatively better-informed actors. The actors review the information generated, identify and analyze bottlenecks, and propose solutions. At the end of the process, facilitated consensus-building workshops are held, where all information is shared and discussed with the various actors, with the goal of identifying positive synergies among actors, common interests, and critical points where strategic investments can achieve high returns. Figure 5 shows the steps used in this analysis.

After the process of negotiation with actors occurs, an action plan, or IAP, is drafted which includes both R&D activities in the short, medium, and long term. The goal of this IAP is to improve the competitiveness and sustainability of the chain through the development of a common business development vision among various actors. Once a common vision has been established, specific development or research activities may be disaggregated into discrete projects, depending on funding opportunities and donor interest, while conserving a clear idea of where everything fits together.

The local interest group coordinates implementation of activities, and sources appropriate funds and technical services based on the demands identified in the IAP. By learning how to design and implement an IAP – diagnose, analyze, design, source funds, and coordinate implementation

activities – the local interest group develops important capacities that are needed for other future IAPs.

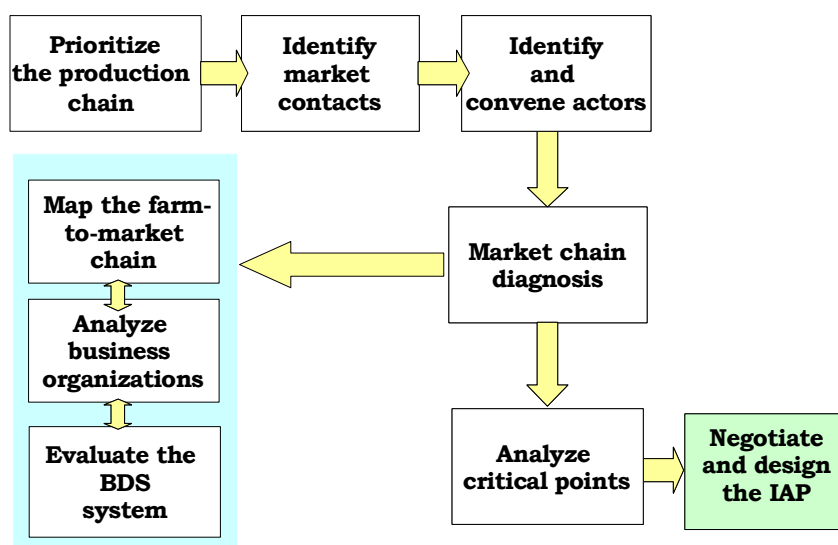


Figure 5. Steps in the integrated agro-enterprise development projects (IAP) method.

Provision of appropriate and sustainable business development services (BDS)

A final area of work in the CIAT approach is the provision of appropriate and sustainable BDS. In addition to the needs identified in IAP analysis and design, a third CIAT methodology is currently in development to promote the provision of effective BDS in rural communities. This focus covers financial, non-financial, formal, and informal services, and seeks to build functional markets for BDS that link specific demands with suppliers either at the local, regional, or national level. Substantial fieldwork remains to be done for this method, but Figure 6 shows the basic focus.

Some critical points in the area of BDS are:

- BDS should be seen as a for-profit activity that complements on- and off-farm employment. Potentially, functional BDS markets could not only increase local economic competitiveness, but also provide important opportunities for semi-technical employment in rural areas.
- Identification and inclusion of informal service providers (e.g., producer experts in technical assistance) as well as formal (technicians and extensionists) in market and product demand development. An effective local BDS market will probably consist of many informal actors supported and complemented by a lesser number of formal ones.
- Need to improve the effectiveness of BDS, both formal and informal, with the goal of increased competitiveness and sustainability. BDS should help facilitate positive gains in competitiveness rather than maintain the status quo.
- Use of partial and declining subsidies to promote innovative services. Services should strive for profitability, but some may require ongoing support given their strategic nature.

Initial work is being carried out in collaboration with the Instituto Interamericano de Cooperación para la Agricultura (IICA)-Ecuador in this area.

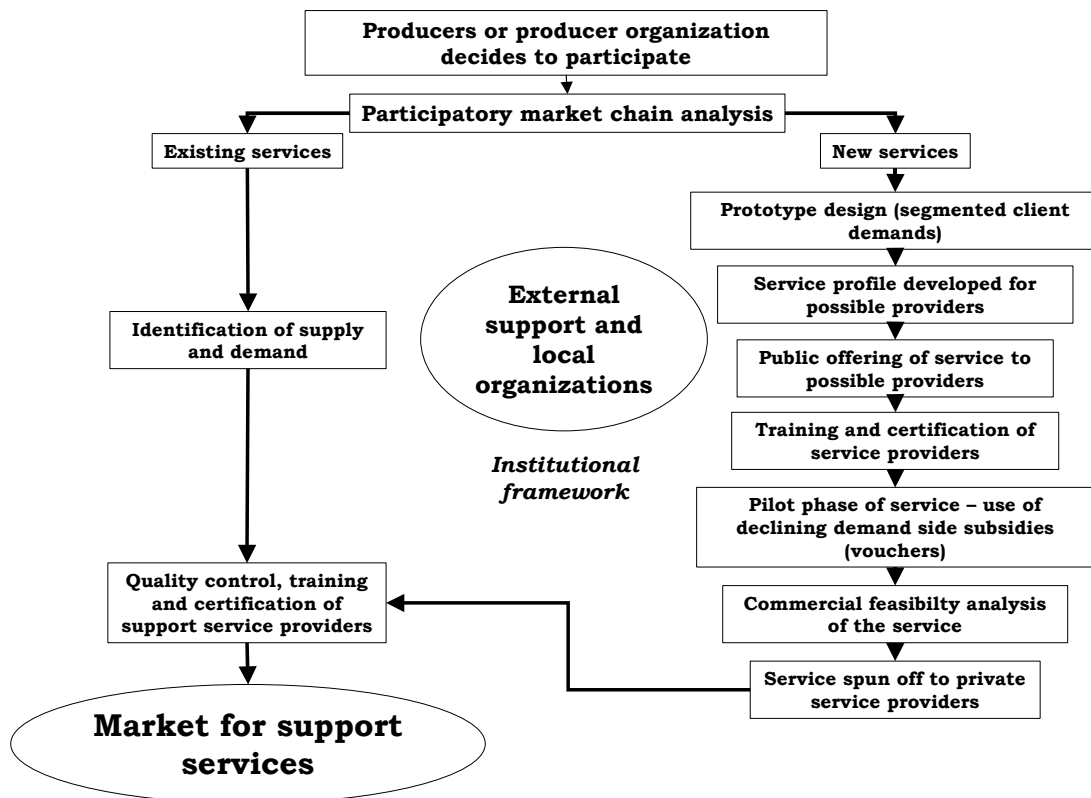


Figure 6. Creating markets for business development services in rural communities: Methodology.

The territorial framework was presented at two international conferences, and is posted on the Project's Web page in English and Spanish.

4.1.2. Empirical experiences on the design and development of IAPs

Contributors: Mark Lundy; William Cifuentes (CORPOTUNIA); Carlos F Ostertag

Collaborators: Nolberto Zambrano (Corporación para el Fomento de los Comités de Investigación Agropecuaria Local [CORFOCIAL]); Rodrigo Vivas (CIPASLA); Ricardo Ruiz (CETEC); Benjamín Ferreira (Comité Local para el Desarrollo Sostenible de la Cuenca del río Tascalapa [CLODEST]); Javier Soto (CRESE); Diego Izquierdo

The formulation of an IAP is the result of the application of the methodology of the same name. An IAP constitutes an action plan for the improvement of the competitiveness of a value chain, formulated with the participation and perspectives of multiple stakeholders. It may include activities in both research and development in production, postharvest / transformation, marketing, business organization, and/or support services. Final IAPs include short-, medium-,

and long-term activities, employ local or external resources, and may be presented as a comprehensive plan or in discrete segments to potential financing agencies. The IAP method facilitates the development of a common vision among value chain actors for the long-term, systematic strengthening of their economic activity. Nine IAPs were formulated during the project.

In the pilot sites, the project focused on the **formulation** of IAPs through partial financing of participatory workshops, market visits, and negotiations among value chain actors with the expectation that the **financing and implementation** of the activities contained in each IAP would be the responsibility of the local interest groups. By explicitly focusing most IDRC funds on IAP formulation, providing possible contacts for financing, and making available small amounts of co-funding, the project sought to strengthen the fund-raising capacity of the local interest groups rather than finance IAPs directly. In addition, the holistic nature of the IAPs led to total budgets that far exceeded the capacity of CIAT⁵. As a result, none of the IAPs has been fully financed, but seven of nine (77%) have secured partial funding for short- and medium-term activities, and eight of nine (88%) have begun to implement their planned activities with limited funding⁶.

A set of participatory methods was developed through action-research in the three CIAT reference sites for the development of IAPs. This method analyzes a farm-to-market value chain in five areas—production, postharvest and/or processing, marketing, entrepreneurial organization, and the supply of financial and non-financial, formal, and informal support services. The method includes four major phases: (1) the prioritization of a product chain and the identification of buyers and other actors; (2) the participatory analysis of the chain from the viewpoints of each set of actors; (3) the identification of bottlenecks, their causes, and possible solutions; and (4) a facilitated process of negotiation between actors to improve the functioning of the farm-to-market chain.

This method has been tested in nine cases divided between the three pilot sites. A final version will be published at the end of 2002. As a result of direct fieldwork, the following principals were identified as critical for IAP formulation and implementation. A successful IAP should:

- Have a strong business orientation, with the goal of satisfying market demands in terms of quality, quantity, price, and availability.
- Seek a holistic view of the value chain including production, postharvest, processing, marketing, business organization, and the provision of support services.
- Promote an explicit focus on integrating functions from production to consumption of the product to create greater systemic competitiveness.
- Search for increased synergies through coordination between different actors, including formal and informal private firms, NGOs, and the public sector.
- Facilitate the participation of key representatives of all stages of the value chain, including service suppliers, in the design and implementation of the IAP.

⁵ In the case of Colombia, to cite an example, the five IAPs formulated have a total budget of over US\$200 000.

⁶ In some cases, the information that resulted from the IAP process – such as new market contacts, the offer of better prices, or an improved business vision – led to interesting local dynamics that achieved positive change without substantial amounts of external financial support.

- Combine research and development activities in a common framework and coordinate activities on both fronts.
- Include short-, medium-, and long-term activities that mix local knowledge, capacity, and resources with external ones to improve the competitiveness of the value chain.

In addition, the IAP method was streamlined and simplified with implementation time dropping from 1 year in the first cycle to 6 months in the second, and to less than 3 months currently (Figure 7).

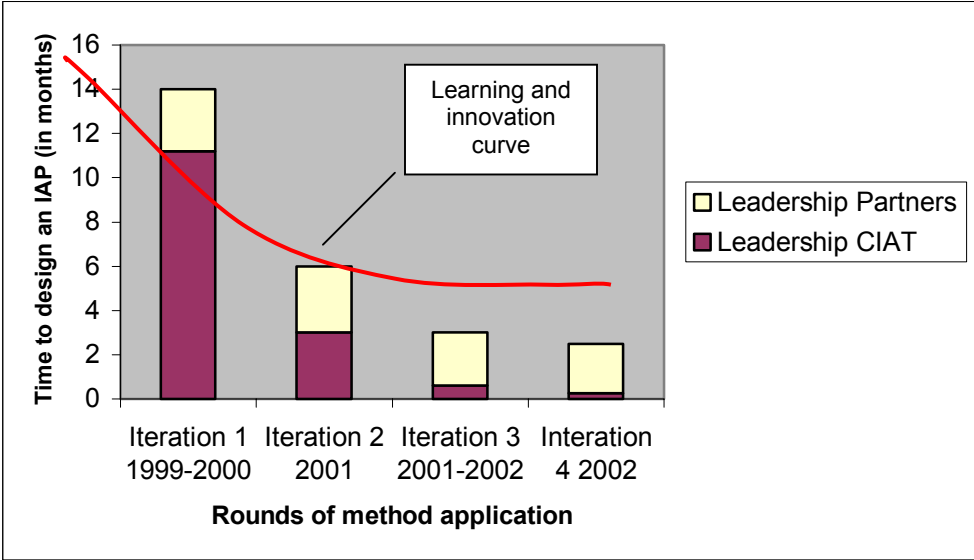


Figure 7. Streamlining methods through participatory learning.

In addition to learning and innovation processes, Figure 7 shows how leadership in method use has passed from CIAT to boundary partners. While not evenly distributed among all boundary partners, there is evidence of institutionalization of the IAP method with partners in Colombia⁷. This data would seem to support the idea that participatory processes – in this case action research – can contribute to innovation, learning, and increased local ownership of methods and tools. Table 5 includes specific details of current IAP projects.

⁷ The use of the IAP method by CORPOTUNIA in Cauca, Colombia to facilitate the design of a Departmental-level IAP for *panela* is one such example. The method facilitated multi-stakeholder analysis of the *panela* sector, and the design of a large-scale development project focused on increasing systemic competitiveness. The results of this process were presented to the Colombian Ministry of Agriculture, which agreed to provide US\$120 000 in funding for implementation.

Table 5. Impact recorded in CIAT reference sites due to the use of Integrated Agro-enterprise development Project (IAP) tools and methods.^a

Product	Participants ^b	Results	
		Tangible	Intangible
Black pepper (Peru)	<ul style="list-style-type: none"> - 40 small farmers in Campos Verdes (Pucallpa) - CRESE - Local buyers - Buyers in Huancayo 	<ul style="list-style-type: none"> - Improved postharvest management led to product differentiation and a 25% price increase in local markets. - Links to external market led to two sales (total volume of 1.5 Mt) with prices 58% and 29% above local prices respectively. - Organization of producers in a private business (PIPER S.A.) - Partial payment by farmers for support services provided by CRESE 	<ul style="list-style-type: none"> - Entrepreneurial vision developed by the farmers that includes adding value to the product (milling) for the local market, and investigating the possibility of processing for larger firms and/or export for niche markets.
Cocona (Peru)	<ul style="list-style-type: none"> - 31 producers of cocona - 28 small-scale women owned processing organizations - CRESE - Ministry of Agriculture 	<ul style="list-style-type: none"> - Improved information about the farm-to-market chain for cocona, its difficulties and potential - No institutional or financial support for the initiative 	<ul style="list-style-type: none"> - Realization of the importance of institutional interest and accompaniment for the successful implementation of IAPs
Dairy products (Colombia)	<ul style="list-style-type: none"> - 3 dairy processing plants - CIPASLA - CORPOTUNIA - Local buyers - Buyers in Cali 	<ul style="list-style-type: none"> - Identification of additional market outlets for existing products - Adoption of health and legal standards - Reorganization of a community association 	<ul style="list-style-type: none"> - Recognition of the importance of clear organizational rules and the difference between social and business organizations
Blackberry (Colombia)	<ul style="list-style-type: none"> - 3 rural communities with 85 small producers - CIPASLA - CORFOCIAL - Local buyers - Buyers in Cali (fresh fruit and agro-industry) 	<ul style="list-style-type: none"> - Identification of substantial regional markets for blackberry - Contacts between farmers and supermarkets regarding quality and price - Initiation of farmer research on blackberry varieties - Initiation of producers' organization 	<ul style="list-style-type: none"> - Clearer vision of business opportunities for blackberry - Realization of the need for effective local capacities to promote small farmer organization - Possibility of value chain promotion with other actors, local producers/intermediaries
Plantain (Colombia)	<ul style="list-style-type: none"> - 7 rural communities - CIPASLA - Buyers in Cali (fresh fruit and agro-industry) 	<ul style="list-style-type: none"> - Identification of markets for fresh and processed plantain - Dialogue between farmers and buyers regarding varieties, quality, and prices - Reorientation of a government-funded research initiative based on information generated in the IAP - Initial tests on conversion ratios for drying plantain - Initiation of producers' organization 	<ul style="list-style-type: none"> - Clearer vision of business opportunities for plantain - Realization of the need for effective local capacities to promote small farmer organization

Continued.

Table 5. (Continued)

Product	Participants ^b	Results	
		Tangible	Intangible
Farm-raised chickens (Colombia)	<ul style="list-style-type: none"> - 275 small-scale producers, mostly women, from 3 municipalities organized in an association - CIPASLA - CETEC - Processing plant - Input providers - Local buyers - Supermarkets in Cali 	<ul style="list-style-type: none"> - Market contact established with supermarkets in Cali and a processing plant in Puerto Tejada to access the urban market in a profitable and sustainable manner - Product differentiation and marketing plan established - Activities started in the production of alternative concentrates to reduce production costs and increase competitiveness 	<ul style="list-style-type: none"> - Increased understanding of the farm-to-market chain, actors, possibilities, and limitations on the part of the producers association - Development of a business vision by the producers' association
Cut flowers (anthurium) (Colombia)	<ul style="list-style-type: none"> - 3 women's groups (45 women) - CIPASLA - CORPOTUNIA - Buyers in Popayán 	<ul style="list-style-type: none"> - Negotiations carried out with buyers in Popayán led to a 24% price increase in exchange for the women assuming sorting and packing activities. - Definition of a work plan that includes direct sales of cut flowers and floral arrangements 	<ul style="list-style-type: none"> - Improved entrepreneurial vision that recognizes that the "business" of these groups is not selling cut flowers to intermediaries, but moving into direct sales in Popayán, and in the long-term producing higher value products such as floral arrangements.
Maize (Honduras)	<ul style="list-style-type: none"> - 45 small-scale maize producers in Sulaco - CIDES - Industrial buyers 	<ul style="list-style-type: none"> - Agro-industrial market niche identified, negotiations carried out, and sales made at a price 44% above local prices 	<ul style="list-style-type: none"> - Realization of the importance of improved market intelligence and contacts in achieving higher prices in non-differentiated products
Coffee (Honduras)	<ul style="list-style-type: none"> - 12 small-scale coffee producers - CLODEST - Local buyers - Regional buyers - Coffee exporters in San Pedro Sula 	<ul style="list-style-type: none"> - Market contact established with exporter in San Pedro Sula leads to a 16% price increase in return for strict grading and quality control. - Local buyers brought in to manage transport from Yorito to San Pedro Sula. - 227 quintals (11 350 kg) sold to the exporter in San Pedro Sula. - Regional buyer offered the same deal (better prices for better quality) and participating farmers have sold 50 quintals (2500 kg) to him. - Participating farmers' sales price is now 50% above that of the local market price. - A larger group of farmers (45) has initiated certification processes to sell its coffee as organic. 	<ul style="list-style-type: none"> - Producers are clear that product differentiation and quality leads to higher prices. - Greater knowledge of market options and ways of increasing value of a basic commodity

a. Planned IAP activities were initiated in all products in Column 1, except for Cocona in Peru.

b. For acronyms used see page 100.

4.1.3. *Ex-ante* evaluation of cut flower IAP carried out in Cauca, Colombia

Contributor: Alejandra María Cabrera Martínez
Collaborators: Nancy Johnson (BP-1); Mark Lundy

An *ex-ante* impact evaluation for the cut flower IAP (see Table 5 for further information) was carried out by Alejandra María Cabrera, an undergraduate economics student from the Universidad del Valle. The purpose of this study was to identify and document the impact of the IAP method in a specific case. An *ex-ante* approach was chosen, given the relatively short time that had elapsed between the design of the IAP and the study itself. The study looked at seven different organizations encompassing an equal number of communities with a total of 62 members.

Major findings included projected earnings for the next 10 years showing IRRs ranging from 53% to 102%, and benefit-to-cost ratios ranging from about 3.8 to 7.2. The smaller groups reported higher IRRs and benefit-to-cost ratios because of lower fixed costs. As reported in Table 5, an additional economic benefit was achieved by information generated in the IAP, and subsequent facilitated negotiations with clients. These two interrelated activities led to prices 2.3 times higher than prior to the IAP. In addition to economic benefits, the study highlighted organizational changes that resulted from the application of the IAP method:

- A strengthened business orientation (greater knowledge of, and links to, clients and markets, concern for quality and price) among participating groups;
- Design of a plan to improve the functioning of the farm-to-market chain, with specific activities focused on increasing competitiveness (increased production, better postharvest management, direct sales, and the search for new clients); and
- Identification and articulation of specific demands for support services based on a common vision of increased competitiveness.

Despite these positive findings, it is clear that the participating groups still require additional support if they are to achieve significant impact at the community level. Another limitation identified relates to the limited flow of information among the group members who participated in the IAPs. It would appear that participants have not made an explicit attempt to brief non-participants on the results of the IAP, thus limiting the spread of new knowledge and ideas within the groups and among them.

The full text of the thesis will be published shortly on the Project's Web site.

4.1.4. Preparation of a field guide for IAPs

Contributor: Mark Lundy
Collaborators: William Cifuentes (CORPOTUNIA); Carlos F Ostertag, Verónica Gottret

After various field level experiences, as detailed above, the RAeD team is developing a field guide on the design and negotiation of IAPs. This guide provides a systematic set of methods and tools designed to facilitate a participatory, multiple stakeholder analysis of a specific value chain.

End users of this field guide are expected to be extension agents and agencies, NGOs, and others interested in promoting rural enterprise development within a territorial context.

Use of this guide with development partners in Central America and Africa will commence in 2003 under the assumption that the text as such is a general guideline of what could be done to promote collective action to improve value chain effectiveness, and not a “recipe book” to be followed strictly. Within the context of Learning Alliances (see Output 5 for further details) it is expected that this tool will be adapted to the needs and capacities of local partners and thus lead to innovative learning processes in the area of value chain analysis.

A preliminary outline of the guide is given below.

Objective: Provide a methodological framework for participatory, multi-stakeholder analysis of value chains and the design of IAPs to achieve greater systemic competitiveness.

Contents:

- Section 1 Basic concepts for the design of IAPs and methodological overview.
- Section 2 Preparation for IAP design (identification of a priority value chain, basic market intelligence data, and identification of relevant stakeholders).
- Section 3 Participatory, multi stakeholder analysis of the value chain (mapping the value chain, evaluation of the level of business skills, and a rapid appraisal of supply and demand of relevant business development services).
- Section 4 Analysis of critical points in the value chain with multiple stakeholders (identification of critical points, prioritization, and analysis).
- Section 5 Pulling it all together: Designing and negotiating the IAP (facilitating multi stakeholder prioritization, problem trees, solution trees, the logical path, and a final matrix of R&D activities).
- Section 6 Observations on the implementation of IAPs.

Date available: The guide will be available in printed form from CIAT, or in electronic format on the Agro-enterprise Project Web site (<http://www.ciat.cgiar.org/agroempresas/>), in 2002 in both Spanish and English. Draft versions of this manual have been used in training courses in Latin America and Asia since 2000.

4.1.5. Preparation of a field guide for the formation of interest groups in rural enterprise development

Contributor: Mark Lundy

Collaborators: Rupert Best; Colletah Chitsike (CIAT-Africa); Félix Jiménez, María Elena Mendoza, Carlos Ulises Olivás (CARE-Nicaragua); Tom Remington (CRS-Africa)

An additional part of the toolkit for rural enterprise development in a territorial context is the field guide for interest group formation. This text, currently in a working draft form, has been designed for use by development partners in Central America and Africa in the formation of local interest groups for rural economic development. As such, the text is undergoing revision

and improvement based on the results of field activities in Nicaragua and East Africa. A finalized version of the guide should be available for wider dissemination and innovation in 2003. Below we give an initial idea of the content of the guide, and how CIAT will be eventually distribute it.

Objective: Provide a linked series of methodologies for the formation of interest groups in rural enterprise development within a territorial context.

Contents:

- Section 1 Identification of relevant stakeholders, formation of an interest group, and delimitation of the territory.
- Section 2 Getting the lay of the land: Tools for participatory analysis of livelihood strategies and the rural enterprise potential and limitations of a territory.
- Section 3 Consensus building: Reaching agreement on vision, mission, principals, and an initial action plan for rural enterprise development.
- Section 4 Strategic planning, internal strengthening, and external linkages.

Dissemination plans: The guide will be available in printed form from CIAT, or in electronic format on the Agro-enterprise Project Web site (<http://www.ciat.cgiar.org/agroempresas/>), by 2003 (tentative date) in Spanish and English. Draft portions of this manual have been used in training courses in Latin America and Asia since 2000, and will be further developed for upcoming work in Central America and East Africa.

Activity 4.2. Develop guidelines for the design of local support systems for promoting agro-enterprises that contribute to sustainable development at the microregional level

4.2.1. Conceptual framework for local support systems

Contributor: Mark Lundy

Collaborators: William Cifuentes (CORPOTUNIA); Roberto González (Agencia de Cooperación Técnica [ACT]-IICA, Ecuador); Rubén Flores, Nancy Medina (IICA- Fundación Maquita Cushunchic [MCCH], Ecuador); Veronica Gottret

Please see Section 4.1.1. for a description of local support systems within the context of a territorial approach to rural enterprise development.

4.2.2. Advances for the development of Rural Agro-enterprise Committees (RACs) in CIAT's field sites during 2002

Contributor: Mark Lundy

Collaborators: William Cifuentes (CORPOTUNIA); Marco Antonio Vásquez; Benjamín Ferreira (CLODEST); César Romero, Raimundo Hernández, Nelson Palma (farmers, Yorito); Javier Soto (CRESE); Alfredo Riesco (Corporación para el desarrollo sostenible de Ucayali [CODESU])

The project developed strategies for the design and implementation of support systems through action research carried out in three reference sites. Local committees for rural agro-enterprise development were established, and joint activities undertaken. Box 1 gives a summary.

Box 1. Summary of Rural Business Development Support Systems at the Local Level

(for acronyms and abbreviations used, see page 100)

Strategy: Develop local mechanisms for demand-oriented, agro-industrial projects, and for an appropriate, permanent support system for rural agro-industry.

Description of activities:

- Identification of local organizations (private, public, NGO, GO) with interest in rural enterprise development
- Interest group formation for rural enterprise development (common vision, mission, values, and shared work plan)
- Training in CIAT methods (MOI, IAP, and others)
- Implementation of CIAT methods, adaptation of methods to local conditions, and assimilation of hybrid methods in boundary partner organizations. CIAT facilitated this process.
- Ongoing and intensive interaction with local interest groups in Peru (CODESU/ CRESE), Colombia (CIPASLA), and Honduras (CLODEST), as well as individual boundary partner organizations to consolidate local support mechanisms for rural enterprise development

Effectiveness:

- Functional local interest groups were formed and potentially sustainable multi-party processes initiated in Colombia and Honduras. In Pucallpa (Peru) interest group formation failed, and a private sector firm was founded in 2001 to promote rural economic development.
- CIAT methods were successfully adapted to local needs and assimilated by boundary partners in Colombia, and to a lesser extent in Peru and Honduras. For example, CORPOTUNIA in Colombia used the IAP method to facilitate a departmental project for *panela* involving multiple stakeholders without CIAT assistance. This project has been approved and funded by the Colombian Ministry of Agriculture for US\$120 000.

Outputs:

- Three committees for rural enterprise development were formed. Two appear to have developed sustainable internal dynamics (including fund-raising and administrative capacity), and a private sector firm replaced the third.
- Market Opportunity Identification studies completed, two for Pucallpa, two for Cauca, and one for Honduras
- Nine IAPs formulated, eight in various stages of implementation

Required program follow up:

- Continued interaction with committees to identify additional demands for rural enterprise development tools, provide input on funding proposals, and continued adaptation and improvement of CIAT methodologies
- Strengthening of organizational and business skills among committee members either horizontally or via external inputs

Lessons learned:

- The use of “neutral” tools and methods, (in this case designed initially by CIAT) by organizations with divergent and occasionally conflicting philosophies, facilitates collective innovation and builds trust more effectively than sharing “proprietary” approaches.
- Participatory decision-making processes (planning, budgeting, and implementation) are slower, but generate important positive side effects, such as increased trust and collaboration.
- Most boundary partners possess limited skills, approaches, and methods for effective rural enterprise development, and thus would benefit from substantial ongoing support in these areas.
- Some of the tools developed by CIAT can be deployed successfully for profit by private sector firms (example of CRESE in Pucallpa, Peru).
- The area of RBD services is more complex than previously envisioned, involves myriad informal, formal, private and public actors, and requires further research to identify key entry points and flexible strategies for effective positive change. Research in this area is being carried out with IICA-Ecuador, and funding has been secured from NZAID for similar work in Colombia and Honduras.

As a result of fieldwork, two separate paths have emerged at the local level. In Pucallpa, a private sector firm was established to provide support services on a for-profit basis, in an environment of weak institutions and limited capacity for rural enterprise development. In the cases of Colombia and Honduras, however, the project evolved away from the direct provision of services towards a focus on markets for rural business development services (rural BDS) in recognition of the complexity of the issue and the myriad formal and informal support services currently offered. This second approach is an important area of evolving research for the project.

Reference site work focused on the strengthening of collaborative working committees, or interest groups, around the theme of rural agro-enterprise development. In each of the sites, interested parties were identified through general meetings and a process of consensus building carried out using participatory tools. Results from this process included the elaboration of a common philosophical framework (vision, mission, and values), and joint 6-month-long work plans. Work plan implementation allowed the opportunity to move from collaborative discourse to action through joint activities, shared responsibilities, and participatory evaluation of ongoing activities.

At the regional level, the project has established a working alliance with the Programa Cooperativa de Desarrollo Agro-industrial Rural (PRODAR). In operational terms, this has led to annual planning meetings between PRODAR personnel and the RAeD team, with definition of concrete work plans. In terms of service provision to our clients in Central America and the Andean Region, this is represented by the joint training activities undertaken and the links established between our respective Web pages as sources of information on rural agro-enterprise development. Box 2 gives a summary.

Both the RAeD team and those involved in the Consorcio para el Desarrollo Sostenible de la Ecorregión Andina (CONDESAN)-CIP Arracacha Project are in the process of developing methodological approaches, and links between the two have been maintained at the level of sharing information about experiences. Integration of methodologies into a coherent set of tools for application by a wide number of potential beneficiaries is currently in development. Box 3 gives a summary.

Box 2. Summary of Rural Business Development Support Systems at the Regional Level: The Case of the Programa Cooperativa de Desarrollo Agro-industrial Rural (PRODAR)

Strategy: A strategic plan for PRODAR for the period 2000-2009, and an operational plan for the period 2000-2002. One or more specific project proposals designed for execution by PRODAR over the period 2000-2002.

Description of Activities:

- Participatory strategic planning exercise with members of PRODAR, representatives of CIAT, and key stakeholders in March 1999
- Development of proposals for donors in collaboration with the International Development Research Centre (IDRC)
- Establishment of a working alliance between CIAT and PRODAR, including the organization of international training courses, participation of both organizations in each others' Regional Stakeholder Meetings, and cross referencing between Web pages

Effectiveness:

- The International Fund for Agricultural Development (IFAD) proposal, presented by the Instituto Interamericano de Cooperación para la Agricultura (IICA), was approved. However, IFAD and IICA decided to implement this project separate from PRODAR.
- A functional working alliance exists between CIAT and PRODAR for identifying and carrying out training activities in rural agro-enterprise development (two international courses and other opportunities), joint research activities (supply and demand of support services, collective action, and rural agro-industry clusters), and the development of a coherent and interrelated strategy of service provision at a regional level.

Outputs:

- Publication "Planificación Estratégica de Desarrollo Agro-industrial Rural para América Latina. 1999-2004. Serie de Estudios de Agro-industria Rural, 8 Agosto 1999, Lima, Peru"
- Some important changes in the way PRODAR is managed and administered were proposed and a new organizational structure recommended. With a view to longer-term sustainability, a change of status, such as a foundation, was also recommended.
- IDRC proposal was presented and funded.
- Two international courses on Rural Agro-enterprise Development in a Microregional Context organized and carried out between CIAT, PRODAR, the Universidad de los Andes (Bogotá), and the Fundación Carvajal (Cali). The Organization of American States (OAS) provided financial support for both courses.
- Proposals were prepared for further training activities with other actors based on an alliance model.
- Joint study on the supply and demand of support services for rural agro-industries (<http://www.prodar.org>); this study is the most frequently visited page on the PRODAR Web site.
- Methodological inputs (field guides, research design, participatory tools) for case studies on collective action in rural agro-industrial clusters in Peru, Ecuador, Colombia, Panama, and Costa Rica. See, for example, Lundy et al. (2001) "Informe primer taller SIAL Cajamarca: Mercado de Chanta". (<http://www.prodar.org>).

Required Program Follow-up:

- Continuing development of a franchise-based training program in rural agro-industry with a distance-learning provider
- Completion of rural agro-industry cluster case studies and participation in the preparation of a book on the subject (2003)

Lessons Learned:

- PRODAR's regional networking model is a useful and necessary complement to CIAT's research and training focus that enables the products of CIAT's research to reach a wider audience.
- For successful complementarity to occur, significant investment is required in building consensus, levels of trust, and mutual respect.

Box 3. Summary of Rural Business Development Support Systems at the Regional Level: The Case of the Centro Internacional de la Papa (CIP)- Consorcio para el Desarrollo Sostenible de la Ecorregión Andina (CONDESAN) Arracacha Project

Strategy: A set of collaborative ongoing activities between CIAT's ecosystem and CONDESAN-CIP postproduction and agro-enterprise research programs

Description of Activities:

- Participation of CIAT and CIP scientists in project planning and review of each other's projects
- Development of shared tools and methodologies based on CIAT and CIP projects for a wider audience

Effectiveness:

- From the CIAT viewpoint, exposure to the Outcome Mapping methodology developed by the International Development Research Centre (IDRC) and tested by CIP's Arracacha Project has influenced project monitoring and management.
- Uncertain what influence may have been achieved through the exposure of CIP - CONDESAN participants to CIAT's methods and approach

Outputs:

- Three project revision meetings in Corico, Bolivia; Cali, Colombia; and Lima, Peru
- Initial meeting facilitated by IDRC for the formulation of joint project proposals in Quito, Ecuador in April of 2001. Further discussion of this issue at the CIP Arracacha Review Meeting held in Lima in May 2002.

Required Program Follow-up:

Development of project proposals for development partners drawing on both CIAT and CIP experience in the area of postproduction and agro-enterprise. This process will involve CONDESAN as a possible link between research and development organizations in the Andean Region.

Lessons Learned:

In order to facilitate effective joint learning, experiences need to have been documented and analyzed prior to exchange. In regard to CIP - CONDESAN and CIAT, this has not been the case.

4.2.3. Feasibility study for the local provision of support services for rural agro-enterprises in Yoro, Honduras and Cauca, Colombia

Contributors: Mark Lundy, Carlos F Ostertag

Collaborators: Chris Wheatley (consultant); Rupert Best; William Cifuentes (CORPOTUNIA); Rodrigo Vivas (CIPASLA); Marco Antonio Vásquez

This activity will begin towards the end of 2002 as part of a new New Zealand Aid (NZAID)-funded project to promote the provision of sustainable market-based support services to local value chains in Cauca and Yoro.

During the implementation of the current agro-enterprise projects in the communities, the inadequacies of support services have become a major constraint to the long-term sustainability of the new enterprises. The traditional public sector service providers in rural areas (e.g., agricultural extension) are no longer present (because of privatization and a focus on larger scale farmers who can afford to pay consultancy fees), while other services have never been available locally through the public sector (e.g., marketing services). Funds were available in the existing project to perform a rapid diagnosis of existing service providers, and this revealed that some demand-based services are provided informally, but are of poor quality. The potential for a more demand-based provision of local services could exist, but the existing project (of the consortia and CIAT combined) does not include this within its scope (beyond the initial diagnosis already

conducted). Hence, this proposal seeks additional finance for a feasibility study for the establishment and initial operation of local support services for small rural agro-enterprises, which will include pilot schemes in Yoro and Cauca. Current work will have two phases.

Phase I, in which a detailed diagnosis of current services provides the basic information for the design, by all stakeholders (including actual and potential service-providers), of a prototype support service system. The diagnosis will include, and pay special attention to, locally provided informal services that are often ignored. The diagnosis will also assess demand (willingness to pay) for a range of services. The output from this phase of the project is a design for a prototype, demand-driven, local agro-enterprise support system.

Phase II entails the establishment and operation of this prototype support system (and the individual services this comprises), together with the monitoring and evaluation processes that accompany it. The major output is a feasibility study for the sustained operation of the system in each location, based on the initial experience and lessons learned to date. Further training and capacity enhancement of local institutions, based on these results, completes the assignment.

At the termination of this project, it is envisaged that the demand-driven support services will be operational on a pilot level, and that no further support will be required in those two locations, other than that available through the existing project with the two local consortia and CIAT. Beyond this, CIAT will disseminate and promote the international public goods (methods, tools, etc.) that result from CIAT's involvement with these local processes, to other meso-level, development-oriented clients in Latin America and beyond.

4.2.4. GIS-based decision support tool that integrates market opportunities, land use potential, and income-resource conservation trade-offs for defining most appropriate locations for rural agro-enterprises

Contributors: Mark Lundy, Marco Antonio Vásquez

Collaborators: Orlando Mejía (PE-3)

Smallholders in Latin America have limited negotiating power in regard to other market actors because of information asymmetries regarding prices, quantities and quality, and markets in general. As a result, their goods are sold for prices that represent little or no profit. This situation is especially acute given the net decline of many commodity prices, in real terms, over the last 5 years, and the constant increase of input costs. If these farmers had appropriate information, they could take advantage of market price windows, diversify into new, higher value crops, produce both appropriate quality and quantities, sell to specific market niches with better prices, and identify opportunities for simple (grading and sorting) or more complex (processing) options of value adding.

Work on a tool to provide information of this type to smallholders and their support agencies is wrapping up in Honduras. The resulting product mixes GIS tools for agro-ecological zoning and a market intelligence system to create a hybrid that will provide more appropriate information for farmers and support agencies. The tool contains data for most of Honduras at a scale of 1:50 000, which makes it appropriate for improved local decision making (Figure 8). The prototype will be ready at the end of October 2002.

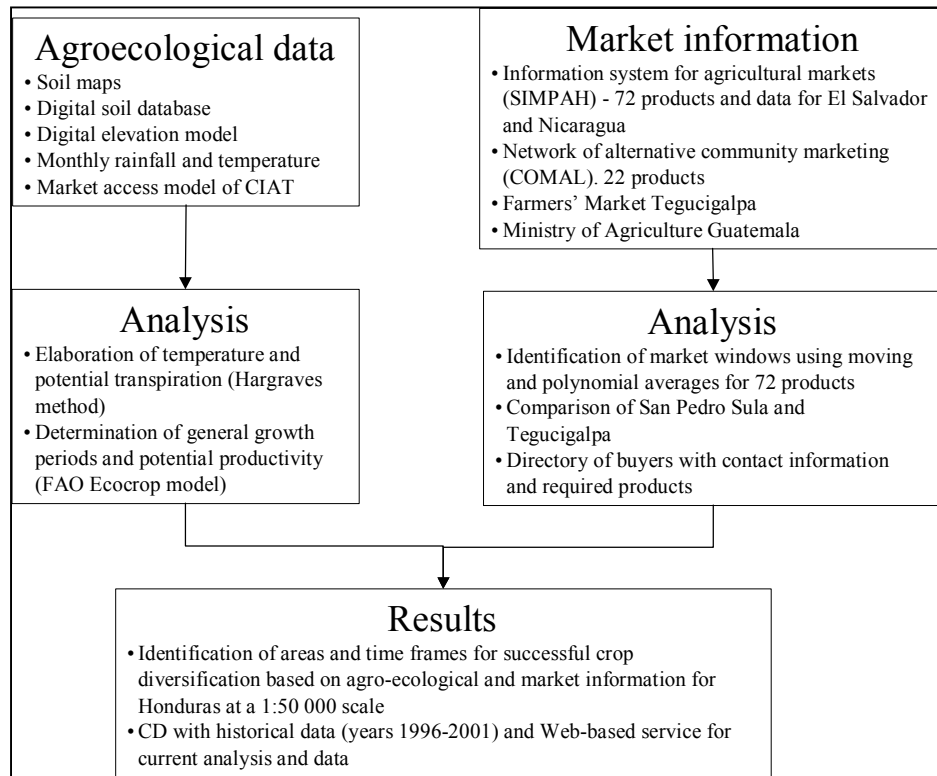


Figure 8. Data and analysis behind the information tool for smallholders.

Initial products generated by the system include: (a) analysis of historical market data to identify price and production cycles and market windows; (b) comparison of market prices and tendencies between Tegucigalpa and San Pedro Sula for 72 products; and (c) maps showing the agro-ecological potential of Honduras at a scale of 1:50 000 for 17 crops⁸. The combination of agro-ecological and market data allows regions to select crops in which they possess a good potential for production (based on agro-ecological data), the possibility to produce for high-price market windows and to target that production to the market that has historically paid the best prices. While currently working with 17 products, the tool can produce information for any crop for which agro-ecological and market data are available.

Plans to disseminate this tool involve two products: (1) a CD-ROM with historical market data and agro-ecological potential maps for the 17 crops previously mentioned; and (2) a Web-based consulting service for monthly market analysis and access to additional agro-ecological potential maps. The first product will be used to interest potential partners—rural development agencies both public and private—to enter into a strategic partnership with CIAT to develop and maintain the second product as a joint venture. Through the development of partnerships, we hope to promote innovation by users around the tool and, eventually, a sustainable, for-profit product that reduces information asymmetries in Honduras by providing reliable biophysical and market data to a wide group of users.

⁸ Chile, tomato, potato, onion, broccoli, cauliflower, cabbage, pumpkin, rice, maize, bean, sorghum, avocado, mango, pineapple, lemon, and orange.

Output 5

Enhanced capacity to design and develop successful agro-enterprise projects, within CIAT and other institutions

The purpose of Output 5 is to enhance the capacity to design and develop successful agro-enterprise projects, both among our partner institutions and within CIAT itself. Activities are contemplated at three levels. Activity 5.1. corresponds to the training of technical personnel in client institutions and organizations that are active in planning, in research, or in the promotion of rural agro-enterprise development. This training is provided through formal courses offered by CIAT and its partners. Activity 5.2. is aimed at enhancing the awareness of the contribution that rural agro-enterprise development can make to sustainable rural development. This is achieved by documenting the impact of the investment in research and development in this area, and providing efficient means for disseminating the results of the work among different stakeholder groups, and particularly among key government and private sector decision makers. Activity 5.3. covers the project's regional strategies and contemplates the consolidation and creation of strategic alliances that provide the basis for developing, in an integrated fashion, the project products, and projecting them over a wider area. Finally, Activity 5.4. has to do with the overall promotion of the project, and the means of communicating to our partners about the content and availability of our products.

Highlights

- “Learning Alliances” have been established with CARE-Nicaragua, CRS-EARO, and partners of CIAT's IPRA Project. These have initiated a process of action learning on rural agro-enterprise development based on RAeD generated methods and tools.
- The RAeD is participating in an International Service for National Agricultural Research (ISNAR)-coordinated project on Public-Private Partnerships for Agro-industrial Research in Latin America. Training materials were developed that incorporate RAeD-developed methods, tools, and case studies, and workshops undertaken for the Andean Region and Southern Cone countries.
- The first year of the RAeD's strategy for decentralization and the projection of its activities more explicitly in SE Asia and Africa has led to the identification of new strategic partners, and the development of important project proposals. One such proposal, which the Swiss Development Cooperation (SDC) has approved for financing, will lead to RAeD personnel being based in SE Asia.
- The project's Web page is one of the most visited CIAT sites, with five of our products in the top 10 downloads.

Activity 5.1. Train national personnel in the design and execution of rural enterprise development projects

5.1.1. Learning Alliances for outscaling and action research designed and established with NGOs in Nicaragua, IPRA, and East Africa

Contributors: Mark Lundy, Rupert Best, Carlos F Ostertag; Colletah Chitiske (CIAT-Africa)
Collaborators: Félix Jiménez, María Elena Mendoza, Carlos Ulisis Olivas (CARE-Nicaragua); José Ignacio Roa (IPRA); Tom Remington (CRS-EARO)

Traditionally, the links between agricultural R&D institutions associated with the small-farm sector have been weak, with a poor record of adoption of innovations in terms of either technologies or methods, coupled with nonexistent means by which the results of successes or failures can be fed back to the research process.

This deficiency is now recognized, and great efforts are being made to redress this situation through proactive collaboration between public and private service providers, particularly the publicly funded research institutions and the NGO sector. But there is a need to make a radical change in the way in which knowledge and mutual learning experiences are created and shared between the two groups.

The project is attempting to put into practice a new model of mutual learning between R&D, with a view to enhancing the rate of uptake of innovative concepts, methods, and technologies that are aimed at improving the competitiveness of smallholder production. The model is based on:

- (a) The identification of a specific development need or demand, and
- (b) The definition, and subsequent implementation, of a set of activities over time that involve a process of learning, putting into practice what has been learnt, and reflection and feedback on what has worked and what has not worked, followed by a further cycle of learning, practice, reflection, and feedback, etc.

This approach differs substantially from the common practice of attempting to “train” development practitioners in new methods and tools in one-off training courses of short duration.

During 2002, concrete activities in this area were developed with CARE-Nicaragua, CRS-East Africa, and partners of CIAT’s IPRA Project.

CARE-Nicaragua. In the case of CARE-Nicaragua, an agreement was signed in July 2002, under which CIAT and CARE enter into a learning alliance in the area of rural enterprise development via two existing rural development initiatives (RENACER in the Department of Estelí and Fondo de Apoyo a Redes de Organizaciones Locales (FAROL) in the Department of Matagalapa). While differences exist between the two areas, work is focused in both on (a) the formation of local interest groups in rural enterprise development, (b) the identification of market opportunities, and (c) participatory analysis and action planning for value chains. Figure 9 provides a schematic view of the relationships and roles in this learning alliance.

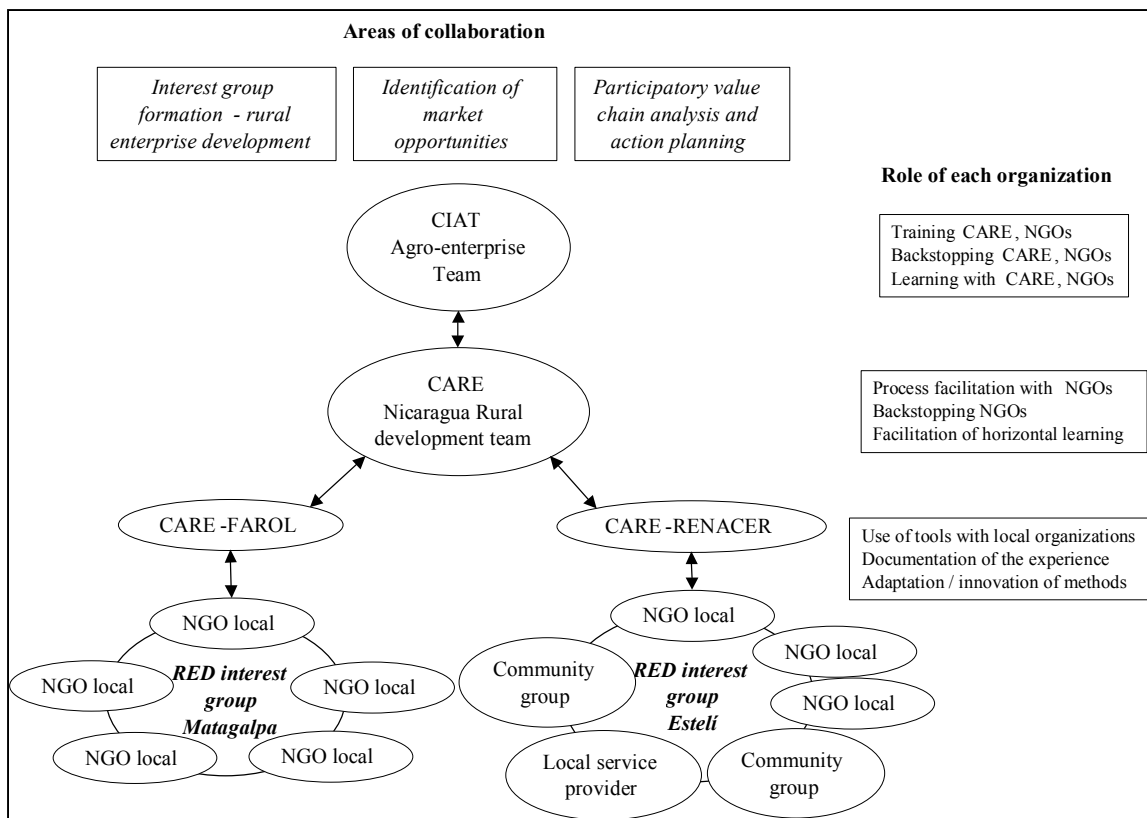


Figure 9. Learning alliance with CARE-Nicaragua: Themes and responsibilities, including nongovernmental organizations (NGOs).

As mentioned above, the possibility of working with a wide range of partner organizations—in this case ranging from an international NGO to local NGOs, service providers, and community organizations—provides an ideal opportunity for CIAT to learn about what works, what does not and why, and future research demands in diverse contexts without having to initiate activities from scratch. In addition, the fact that all the above structures existed prior to CIAT’s involvement—and are projected to continue work after CIAT finishes—improves the possibility that the inputs provided will continue to be used, adapted, and improved into the future. Finally, CARE-Nicaragua is covering all direct costs of this work, thus freeing scarce project resources for research activities.

CRS

The RAeD, together with the Association for the Strengthening of Agricultural Research in Eastern and Central Africa (ASARECA) Foodnet has entered into a “Learning Alliance” with CRS-EARO. The objective is to improve the capacity of CRS personnel and that of its partner institutions to support the development of sustainable links between their target farmers and markets. A sequential set of activities over a 16-month period has been designed, including four workshops that will cover the following aspects of rural agro-enterprise development:

- Interest group formation and market identification,

- Market opportunities evaluation and selection of enterprises,
- Agro-enterprise design and preparation of action plans, and
- Synthesis of experiences and preparation of guidelines for CRS use.

The initial workshop was conducted from 16–20 September in Nairobi, Kenya with the participation of 17 CRS-EARO staff and partner organizations from six countries: Ethiopia, Sudan, Kenya, Uganda, Tanzania, and Madagascar.

Following the first workshop, the participants and facilitators aspired to achieve the following:

- Collectively identify common needs and demands across countries;
- The capacity to initiate the process of interest group formation for rural agro-enterprise development;
- The capacity to undertake rapid market opportunity identification studies;
- Improve their skills for facilitating participatory and enterprise development processes in rural communities;
- Agree upon a subsequent set of activities that will meet the most important of the identified needs; and
- Elect a monitoring and evaluation group.

All participating countries developed an action plan to establish agro-enterprise teams and undertake rapid market studies that will be undertaken in the 4-month period until the next scheduled workshop at the end of February 2003.

Participants evaluated the workshop as satisfactory, with an overall score of 8 on a scale of 0-10. The aspects of the workshop that all the participants most appreciated were the sessions on Enterprise Spirit, Marketing Basics, Market Opportunity Identification, and Action Planning. The sessions on Interest Group Formation and Sensitization and Awareness Building on the Use of Participatory Techniques were less well received, although several participants acknowledged their importance. This feedback suggests that the facilitators did not have sufficient prior understanding of the current CRS modus operandi to be able to orient these sessions appropriately. The CRS is coming from a focus on disaster relief, with a seeds and tools approach, where food security has been the major objective. The shift to a more integrative and holistic, demand-driven approach is not an easy transition. Some comments of the participants on the workshop illustrate this: *“It really changed my idea of what my job is, working with farmers”*; and *“Those that would want to attend a similar workshop will find it wonderful. It is not easy to make a change.”*

Partners of CIAT’s IPRA Project

Funded by Kellogg, the RAeD and IPRA planned, and are executing, a business training process under the Learning Alliance format, targeted mostly for technical staff of support organizations working with CIALs and a few leaders of second-level, small-scale farmer participatory research organizations. Participants came from four Andean countries: Colombia, Ecuador, Peru, and Bolivia. The two 3-day workshops have been held in Quito, Ecuador, with 12-15 participants.

The first workshop was conducted in March and centered on explaining basic business concepts and the MOI methodology. Participants also presented their marketing experiences, and problems were identified and analyzed. In addition, a simple format was devised to evaluate the social and business aspects of small farmer organizations. Afterwards, participants executed the MOI process with CIALs in their regions. The second event was held in August, where participants presented their results after executing the MOI process, followed by training in the IAP design. As homework, participants will design IAPs together with CIALs in the regions where they work.

In general, both workshops were well evaluated by participants (a score of 8.1 and 8.7 out of 10 respectively), although the first workshop was considered to be too intense, especially for the few small-scale farmers. It should be pointed out that the RAeD's training materials are targeted to technical personnel. It was suggested that business-training materials should be adapted for use with small-scale farmers.

In the third workshop to be held in the first quarter of 2003, the IAPs will be reviewed, and afterwards, participants will receive further training in strategic planning for their CIAL organizations.

5.1.2. Participation in the Training and Diffusion component of the Public-Private Partnerships for Agricultural Research Projects managed by ISNAR

Contributor: María Verónica Gottret

Collaborators: Willem Janssen, Jaime Tola, Zenete Peixoto Franca, Frank Hartwich (ISNAR); Graciela Ghezan (Instituto Nacional de Tecnología Agropecuária [INTA]-Argentina); Silvia Galvez (Instituto Nacional de Investigación Agraria [INIA]-Chile)

During the 1990s, ISNAR, together with National Research Organizations and the Regional Programs for Cooperation in Agricultural Research (PROCI) conducted a project that led to training tools to be used by national research organizations for the identification of new technological demands in agro-industrial and environmental research. After this, because of the success of the project, Latin American research leaders charged a working group consisting of the PROCIs, national agricultural research systems (NARS), CIAT, and ISNAR with preparing a second phase project. The working group concluded that the major challenges were in developing systemwide partnerships for agro-industrial research. Thus, the Public-Private Partnerships for Agricultural Research Project was developed and funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), ISNAR, NARS from the region, and the University of Hohenheim in Germany.

The project purpose is to build capacity on participating national research institutes of Latin America to develop partnerships with the agro-industrial sector that contribute effectively to agro-industrial innovation in a way that induces the equitable and sustainable socioeconomic development of Latin American countries. Thus, the project focuses on (1) validating and implementing, in three pilot countries, public-private partnerships for agrichain development; (2) establishing a training and diffusion program for all interested Latin American countries; and (3)

undertaking research on the design of public-private partnerships to ensure that they contribute effectively and equitably to agricultural development.

CIAT's RAeD staff forms part of an international project team, together with NARS and ISNAR staff, consisting of Silvia Galvez (INIA, Chile), Graciela Ghezan (INTA, Argentina), Maria Verónica Gottret (CIAT), and Jaime Tola (ISNAR) that is responsible for the Training and Diffusion component of the project. During 2002, the team executed the following activities:

Development of a 5-day training module

A 5-day training module was developed on public-private partnerships for agro-industrial research directed to multi-institutional teams composed of NARS, Universities, Ministries of Agriculture, and Science and Technology Institutes' staff, as well as private sector representatives. This training module is the result of a joint effort among the INTA of Argentina, CIAT's RAeD, and the Learning for Institutional Innovation Project of ISNAR. In this training module, the experience obtained during the first-phase of the INIA- Inter-American Development Bank (IDB)-ISNAR Project, and that of CIAT on IAPs was combined to develop a new product that better responds to the needs not only of the second phase of the project, but also those of its users given the new context of Latin America in the 21st century. The module consists of 16 working sessions that include written summaries, presentations, and exercises that promote active participation and discussion.

Development of a 1-day workshop module for promotion of public-private partnership of agro-industrial research

To ensure the highest possible degree of application of the newly learned concepts after the training events, the module uses a collective action plan approach that is accompanied by a 1-day workshop module to be used by the participants to promote public-private partnerships in their respective countries. This module consists of an introduction and three working sessions: (1) Changes in the Demand for Agro-industrial Research: Focus on Agrichains and Innovation; (2) Public-Private Partnerships; and (3) The Planning Process of Innovation for the Development of Agrichain Development via Public-Private Partnerships.

First training course for the Andean region conducted in June

From 24-28 June 2002, the Training and Diffusion component staff of the project held a regional training workshop where they applied the newly developed 5-day training module. The training workshop participants included representatives from public agricultural research institutes, universities, the government (Ministry of Agriculture), and the private sector of five Andean countries: Bolivia, Colombia, Ecuador, Peru, and Venezuela. The Workshop objectives were to:

- (1) Improve individual and institutional capacities to develop partnerships for agro-industrial research;
- (2) Impel multi-institutional integration as a catalytic element to develop partnerships;
- (3) Promote the public-private approach for agro-industrial management; and

- (4) Develop collective plans for the promotion of public-private partnerships for agro-industrial research through 1-day promotion workshops for the participant countries with the purpose of identifying problems that can be solved with a partnership scheme.

In result, the training course aims to enable participants to sensitize stakeholders in their countries to initiate a process of self-implementation of public-private partnerships for agro-industrial research.

On a daily basis, the participants evaluated the training course. The results of this evaluation showed that the major strengths were:

- A high participation of trainees in the learning process;
- Group work dynamics, analysis, and discussion;
- A logical and appropriate sequence of the themes and sessions developed;
- Renewed and fresh materials with real life and practical experiences;
- The appropriateness of the methodology used;
- The quality of the trainers in terms of knowledge and experience in the theme;
- The quality of the presentations; and
- The quality of the training materials.

On the other hand, the major weaknesses expressed by the participants were:

- Not enough participation of the private sector;
- Short time for discussion;
- The theme of legal aspects on public-private partnerships is not included; and
- Stronger focus on technological needs vis-à-vis non-technological needs.

Second training course directed to the Southern Cone region conducted in September

The second training course was held in Paraguay from 23-27 September 2002, with the presence of 21 participants from Argentina, Brazil, Chile, Paraguay, and Uruguay. This second workshop presented a bigger challenge for the training team, given the level of development of the Southern Cone countries on agrichain development and public-private partnerships. However, the training course was very well received and evaluated by the participants. As expressed by Francisco Lanuza, researcher from the INIA of Chile “*We are leaving this workshop strengthened despite our previous knowledge on the theme*”.

The daily evaluation of the participants showed that the major strengths of the training workshop were:

- The relevance and pertinence of the theme;
- Clear and concise presentations;
- Dynamic and active participation of trainees in the learning process;
- Group work dynamics, analysis, and enriching discussions;
- High quality of the training materials and their content;
- The inclusion of real life examples;

- The possibility to exchange knowledge and experiences;
- The quality of the trainers in terms of knowledge and experience in the theme and their commitment; and
- Excellent organization of the event.

On the other hand, the major weaknesses expressed by the participants were:

- The schedule and the impossibility to work within it;
- Short time for group work and discussion; and
- The theme on public-private partnerships needs to be strengthened.

A third course is being organized for the Mesoamerican region and will be held in the Dominican Republic from 18-22 November 2002.

Output 5.2. Enhance the awareness of the potential of rural agro-enterprises to contribute to rural development

Activity 5.2.1. Learning from action-research on rural agro-enterprises development

Contributor: Maria Verónica Gottret

Collaborators: Rupert Best, Mark Lundy, Carlos F Ostertag; Nancy Johnson (BP-1)

Since 1996, the RAeD has been developing a conceptual approach together with a series of methodologies and tools aimed at fostering processes of rural innovation⁹ that facilitate the linkage of smallholders to growing markets, with the final goal of promoting sustainable rural livelihoods. These methodologies and tools were applied using action-research processes in different contexts, and through differentiated adjustment and diffusion mechanisms, involving a broad range of social actors.

The main research questions to be answered now are:

How effective are the different tools and methodologies developed by the RAeD, as well as the different mechanisms used to adjust, improve, and apply them, in fostering a rural innovation process aim to link smallholders to markets? And what is their potential to contribute to sustainable rural livelihoods in diverse contexts?

Subresearch questions are related to (1) the conceptual approach, methodologies, and tools developed, (2) the implementation and use of the approach, methodologies, and tools, and (3) the outcomes of implementation in terms of changes in livelihood strategies and outcomes.

To answer the above research questions, the project develops its different activities within the research framework presented in Figure 10. Research demands are identified and products are

⁹ The concept of “rural innovation” is defined broadly as “*the process by which ‘new things’ (production technologies) or ‘new ways of doing things’ (process technologies) emerge, are evaluated, adjusted, and used in order to innovate in the production, postharvest handling, processing, and marketing of agricultural products to improve the competitiveness of the sector in a sustainable manner.*”

then developed accordingly. Existing products are evaluated and disseminated through three different mechanisms: (1) directly by the project in selected reference sites in collaboration with partners; (2) through learning partnerships with development agencies; and (3) indirectly where it is implemented by developing agencies with minimum involvement of the project.

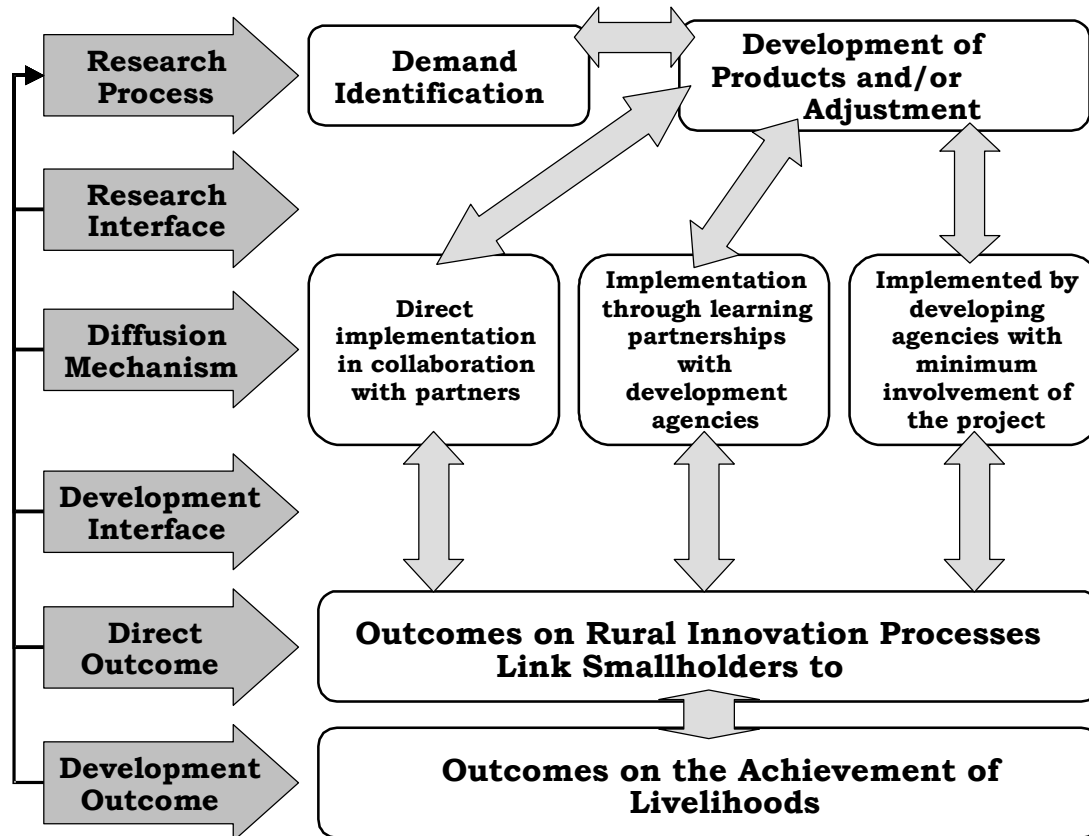


Figure 10. The Rural Agro-enterprise Development Project research design.

The evaluation of the project’s impact will take into account, and endeavor to assess, the relative efficacy of these three mechanisms (see section 5.2.2).

5.2.2. Rural innovation processes for rural agro-enterprise development and their contribution to sustainable rural livelihoods

Contributor: Maria Verónica Gottret

Collaborators: Ashwani Saith, Cristóbal Kay (ISS); Kees Jansen (Wageningen Agricultural University); Willem Jansen (ISNAR)

In order to establish a formal learning process, during 2002 a PhD project proposal entitled “Rural innovation processes and their contribution to sustainable rural livelihoods: Understanding the interface between research and development” was finalized and approved by the ISS in The Netherlands. Fieldwork was initiated in September 2002. This research project will focus on the diffusion experiences through direct implementation in collaboration with

partners, and is financed using core funds of CIAT's RAeD and Impact Assessment Projects and co-funded by a Dutch Ministry for Development Cooperation (DGIS)-DPO PhD Research Fellowship.

A further proposal entitled "Evolving research agendas towards a territorial approach for promoting rural innovation: Learning from pilot and out-scaling experiences" was presented to the Mink'a de Chorlaví Fund with the Technical and Agrarian Change Group of the Sociology Department from Wageningen University.

Together, these two proposals aim to respond to the following six questions:

- (1) What are the roles of differentiated social actors, organizational processes, and institutions in the process of rural innovation, and how does innovation take place?
- (2) How do formal and informal institutions mediate the access to knowledge, technology, and information, and the complementary resources required for rural innovation, by socially differentiated actors?
- (3) What has been the influence of R&D interventions, particularly those of CIAT's RAeD and its partners, vis-à-vis local initiatives in the rural innovation process? What have been the outcomes, and why?
- (4) What have been the outcomes of rural innovation processes on the livelihood strategies pursued by socially differentiated actors, and the achievement of sustainable rural livelihoods? How were these outcomes achieved, and why?
- (5) How can rural innovation be promoted more effectively under different conditions and contexts and for socially differentiated actors?
- (6) What is required for rural innovation processes to contribute to socially inclusive and environmentally responsible economic growth?

By answering these questions, the PhD research aims to achieve the following overall objective: "To contribute to the formulation of more effective and efficient policies and R&D interventions that have a greater possibility of reducing poverty and promoting a sustainable development process for the rural sector of Latin America, through a collective analysis and learning process".

Corresponding to each of the above the research questions, the specific objectives of the thesis are to:

- (1) Analyze and understand rural innovation processes as the interface between R&D interventions and development outcomes, through the eyes of the differentiated social actors involved (i.e., rural inhabitants, farmers, traders, government and NGO bureaucrats, front-line technicians, and social workers).
- (2) Assess the influence of structural factors that foster and/or constrain the choices and alternatives given to socially differentiated actors that interact, negotiate, and bargain to construct knowledge, access and control technology and the complementary resources to innovate, and implement livelihood strategies.
- (3) Evaluate and explain the role of differentiated social actors, organizational processes, and institutions, including R&D interventions, in facilitating rural innovation processes, and in mediating access to, and control over, the necessary resources for innovation.

- (4) Evaluate and explain the economic, social, and environmental outcomes of rural innovation process, with emphasis on those processes facilitated by CIAT in collaboration with national, regional, and local partners, and its contribution to the achievement of sustainable rural livelihoods.
- (5) Propose either adjustments in the existing R&D approaches or new approaches that can effectively promote rural innovation processes that are socially inclusive, environmentally responsible, and have a higher potential to contribute to the generation of sustainable rural livelihoods.
- (6) Develop a methodological approach to assess the process of rural innovation and its contribution to the generation of sustainable rural livelihoods.

The research employs an actor-oriented approach that places actors at the center and permits the visualization of interventions as an ongoing transformational process in which different actor interests and struggles are located, instead of viewing it as the simple implementation of a plan for action (Long, 1992)¹⁰. An advantage of this approach is that social actors are not simply seen as disembodied social categories or passive recipients of intervention, but active participants who process information and strategize in their dealings with various local actors as well as with outside institutions and personnel (Long, 1992)¹¹. Thus, this analytical approach developed and used by Long and other members of the “Wageningen School”, is key to having a better understanding of, and analyzing processes of, change.

The actor-oriented approach is combined with a sustainable rural livelihoods approach that has grown out of the work of, amongst others, Sen (1981)¹², Chambers and Conway (1992)¹³, Leach et al. (1999)¹⁴ and has been placed in an analytical framework by Scoones (1998)¹⁵ and Carney (1999)¹⁶. This approach has an explicit focus on the importance of institutions and the composite nature of rural peoples’ livelihoods, and thus explicitly focuses on the themes of poverty and environmental sustainability. Economic and social development outcomes are assessed in terms of economic growth, equity, employment generation, and capacity building. Environmental outcomes are related to land-use management, and the sustainability of the agricultural production systems.

Further, this approach provides a broad model for a holistic and integrated view of the processes by which people achieve (or fail to achieve) sustainable livelihoods, and the institutions that mediate the access to livelihood resources. In order to assess institutions as mediating the access to livelihood resources, “entitlement analysis” (see Leach et al., 1999)¹⁴ is used to take a full

¹⁰ Long, N. 1992. Introduction. *In*: Long, A. (ed.). *Battlefields of knowledge: The interlocking of theory and practice in social research and development*. Routledge, London, GB. p. 3-15.

¹¹ Long, Norman. 1992. From paradigm lost to paradigm regained? The case for an actor-oriented sociology of development. *In*: Long, A. (ed.). *Battlefields of knowledge: The interlocking of theory and practice in social research and development*. Routledge, London, GB. p. 16-43.

¹² Sen, A. 1981. *Poverty and famines: An essay on entitlement and deprivation*. Oxford University Press, GB.

¹³ Chambers, R.; Conway, G. 1992. *Sustainable rural livelihoods: Practical concepts for the 21st century*. Institute for Development Studies (IDS) Discussion Paper 296.

¹⁴ Leach, M.; Mearns, R.; Scoones, I. 1999. *Environmental entitlements: Dynamics and institutions in community-based natural resource management*. *World Develop* 27: 225-47.

¹⁵ Scoones, I. 1998. *Sustainable rural livelihoods: A framework for analysis*. IDS Working Paper No. 72.

¹⁶ Carney, D. 1999. *Approaches to sustainable livelihoods for the rural poor*. Overseas Development Institute (ODI) Poverty Briefing.

account of the conditions that constrain the choices and strategies of differentiated social actors that interact and negotiate to access and control livelihood resources, construct knowledge, develop technological and organizational capabilities, implement livelihood strategies, and pursue sustainable livelihoods. Hence, understanding the role of these structural factors permits an assessment of the possibilities to achieve desired economic, social, and environmental outcomes.

The research will be conducted in two of the reference sites where the CIAT R&D strategy was developed and implemented. The first is the Cabuyal watershed in Colombia, where the strategy was first implemented by CIPASLA in the early 1990s; and the second is the Tascalapa watershed in Honduras, where the strategy has been further refined and validated since 1996.

Processes of change will be analyzed in two ways. Qualitative comparisons will be made by constructing life histories for selected case studies; while quantitative comparisons will be made by reconstructing data from previous studies, and during the last stage of the research where relevant quantitative information will be collected based on the qualitative results. In this manner, a balance and combination between quantitative/qualitative data and analysis will be achieved.

5.3. Consolidate and establish collaborative links and strategic alliances

5.3.1. Strategies for project decentralization developed

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5.3.1.1. SE Asia

The RAeD is expanding in Asia. Last year's course in the Philippines will be repeated in 2003 in Vietnam, to coincide with a new SDC-funded agro-enterprise development project that will be starting up in both Vietnam and Laos. This will see RAeD personnel stationed in Asia for the first time. In addition, collaboration continues with SIUPA in a peri-urban agriculture project near Hanoi that focuses on clusters of root crop processing and pig production / marketing household enterprises (see Output 3.2). Opportunities for collaboration in the Philippines are being explored with CARE and the World Bank. These developments will not only allow the project to take the methods and tools developed in Latin America to Asia, but also will ensure that they can be adapted and applied to the SE Asian context in the most effective and efficient manner, by local partners. It will also provide opportunity to develop, with these partners, new research products of wide application.

Identification of research demands

During 2002, some project development opportunities were seized, both by RAeD personnel, and by the CIAT-Asia office. These included:

- A RAeD project for Laos and Vietnam financed by SDC. At the time of writing, this proposal is in the final stages of approval. This will provide funds to recruit two project staff to be located in Asia.
- Support to a World Bank project in Bukidnon, Mindanao, Philippines. CIAT-SEARCA and UPWARD are in dialogue with the World Bank-Philippines, with the aim of providing support to a process of reorientation of public sector agencies to a more market-based, demand-driven agricultural services. This program could expand to other provinces in 2003, and scope for active involvement remains.
- A participant from the first Agro-enterprise course from CARE-Philippines is applying the CIAT methodologies in existing projects in Leyte, and facilitating their incorporation into new projects in other adjacent provinces. Again, there is scope for more active CIAT involvement in this process, as funding becomes available. There is potential for this to develop into a learning alliance as projects develop.

New product development

At the present time, the RAeD's involvement in research activities in Asia is confined to its participation in the SIUPA Project on "Improving agro-enterprise clusters: Root crop processing and piglet production clusters in peri-urban Hanoi", which is reported in Activity 3.2.

Building local capacities

In May 2001, a RAeD course was held in Los Baños, Philippines, in association with SEARCA (Agro-industry Development Program) and UPWARD. This course followed the outline of the CIAT course, complemented by a number of field visits to agro-enterprise experiences and project in Central Luzon. See last year's annual report for further details. During 2002, a second course was planned, to be held in Vietnam in April 2003. This responds to the demand expressed

by Vietnam during the first course, the Postharvest Technology Institute (PHTI), Ho Chi Minh City, proposed a second course to be held at its installations in southern Vietnam, that would take advantage of the many small enterprise experiences of that institute. Subsequently, a proposal developed with SDC for rural agro-enterprise development in Vietnam has been financed, and this course will now play an important role in training the personnel to be involved in that project. Interest has been expressed from other projects in Vietnam. In November 2002, a further visit to Vietnam will be made to explore potential field visit sites where participants can engage with local development processes. It is hoped that this will take place in Dak Lak province, where coffee production is now in crisis and diversification of crops and markets is needed. This course is being organized with SEARCA and UPWARD as well as PHTI, and will be open to participants from E and SE Asia.

The second course will thus result in the development of a number of new research products (documented local agro-enterprise development cases in Vietnam; components of the agro-enterprise development process methodology adapted to Vietnam context and conditions), as well as a corps of local professionals with capacity to execute this methodology, within the context of the SDC and other projects across SE Asia, after their participation in the course.

Support processes – fundraising and alliances

The strategic alliance with SEARCA's Agro-industry Development Program and UPWARD is being consolidated through the new course planned for 2003 in Vietnam, and through the joint approaches to other donors in the Philippines (World Bank and CARE). The Vietnam course will allow this process to deepen.

In Vietnam, the new SDC project will allow the development of new alliances, with international agencies involved in similar and associated activities (e.g., Helvetas, which is involved in supporting sustainable agriculture in a number of provinces).

Fundraising efforts have been limited by the lack of personnel permanently based in the region, although active efforts by the CIAT-Asia office have resulted in the major achievement of the SDC project being brought close to approval.

Additionally, a proposal is under consideration by BMZ that would support development and dissemination of a range of research products in the BDS area, in South Asia (India and Sri Lanka). If funded, this would start in mid 2003.

5.3.1.2. E/S Africa

In January 2002, Rupert Best, RAeD Project Manager, was out-posted to Kampala to initiate the process of establishing activities in E and S Africa. The overall purpose of projecting the activities of the RAeD to Africa is to build the capacity of national institutions in the application of agro-enterprise methods and tools for identifying and developing crop and livestock opportunities that can motivate the adoption of good resource management practices.

The project is seeking, together with other CIAT scientists and partner institutions, to build an integrated approach to strengthening the capacity of local institutions in their support of innovation at the community level. This involves members of CIAT's Tropical Soils Biology and Fertility Program (TSBF) Institute, and the Participatory Research and Impact Assessment Projects. Through previous contacts and projects (see previous Annual Reports), an alliance has been established with ASARECA's Foodnet (managed by IITA), with which a number of activities in E Africa are now underway. Recently, relations with the International Centre for Research in Agroforestry (ICRAF) and the African Highlands Initiative (AHI) have been strengthened through the joint appointment of an anthropologist who will be working on scaling-up issues in two of the three BAPPA sites (see Output 1.1.2.), where the project is working with international and national NGOs. There are also ongoing projects involving CIP and IITA through the Southern Africa Root Crops Research Network (SARRNET).

Identification of research demands

During 2002, no formal needs assessment was undertaken. The present priorities and work plan of the project in Africa are largely based on the interactions achieved with partners through the Food and Agriculture Organization (FAO)- Global Forum on Agricultural Research (GFAR) regional consultation on postharvest that was held in Entebbe in September 2001 (see the 2001 Annual Report for details). The areas prioritized have been confirmed in their importance by the strong demand shown by both national (e.g., National Agricultural Research Organisation [NARO] and National Agricultural Advisory Service [NAADS], Uganda) and regional organizations (e.g., CRS-EARO).

New product development

The following initiatives are underway:

- (a) ***Beyond Agricultural Productivity to Poverty Alleviation.*** This interdisciplinary project seeks to promote rural communities, and the farmers that make up these communities, as agents of their own change. The approach includes decision making on, and development of, options for income-generation. Research is undertaken in three sites in collaboration with NGO partners: Kabale in Uganda with Africare, Lushoto in Tanzania with Traditional Irrigation and Environmental Development, and Dedza in Malawi with Concern Universal. The Canadian International Development Agency (CIDA) funds the project. See Output 1.1.2. for further details.
- (b) ***Integrating Nutrient Management for Building the Assets of Poor Rural Women.*** This project links with (a) above and focuses on gender-related issues of the selection of viable options for soil fertility maintenance, based on the identification of attractive market options. The Ford Foundation, through the Systemwide Integrated Soil Water Nutrient Management (SWNM) and Participatory Research and Gender Analysis Programs (PRGA), funds the project.
- (c) ***Strengthening urban agriculture in Kampala.*** Foodnet and the CIAT RAeD are leading a subcomponent of this project on the identification and evaluation of appropriate market

options for urban and peri-urban farmers. This 1-year project, whose objective is to generate information that will lead to the development of a long-term project on urban agriculture in Kampala, is part of the Strategic Initiative on Urban and Peri-urban Agriculture. The project initiated in July 2002. The market opportunity component will initiate in November 2002.

- (d) ***Seed system and enterprise-related initiatives.*** The project participates in the following seed-related activities:
- “Marketing strategies for sustainable seed systems in Rwanda”. This project is being executed together with CIP, within the Agricultural Technology Development and Transfer Project funded by the United States Agency for International Development (USAID), and focuses on beans and potato. Activities will initiate in October 2002.
 - “Assisting disaster-affected and chronically stressed communities in E and Central Africa: Focus on small farmer seed systems” that is being executed jointly between CIAT, CRS, and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). A planning meeting was held in March 2002.

Building local capacities

The following projects have been initiated:

- (a) ***A Learning Alliance between Catholic Relief Services and CIAT-Foodnet.*** The purpose of this alliance is, through a mutual learning process, to improve the capacity of CRS East Africa personnel, and that of its partner institutions, to support the development of sustainable links between their target farmers and markets, while at the same time providing feedback to research on the usefulness of the methods and tools employed. Ethiopia, southern Sudan, Kenya, Uganda, Tanzania, and Madagascar are the countries involved in this alliance. See Output 5.1.1. for further details.
- (b) ***Rural Innovation and Land Discovery.*** A CIAT-NARS proposal for capacity building in decision support for natural resource management (NRM) in three E and S African countries is in preparation. This proposal has market opportunity and integrated agro-enterprise project design components. Activities have initiated in Uganda with the running of a training course for NARO personnel on Farmer Participatory Research and Participatory Market Research approaches in February 2002. This 2-week course was the first time that a market opportunity identification component has been integrated into the conventional Farmer Research Group/Local Agricultural Research Committee methodology for determining a farmer’s research agenda.
- (c) ***Identification of enterprise opportunities and the services required to support them.*** As part of the NAADS “trailblazing” efforts, support is being provided to the initiative, led by AHI, in Rubaya Subcounty of Kabale District, Uganda. With Foodnet, the RAeD organized and ran a 3-day course for NAADS’ community and market facilitators charged with undertaking with farmer organizations a process of enterprise identification and prioritization.
- (d) ***The Southern African Root Crops Research Network (SARRNET-IITA-CIP) agreement with CIAT and CLAYUCA.*** The project and CLAYUCA are providing market and enterprise orientation to SARRNET over the period 2000-2002 with the aim of promoting the agro-

industrial use of cassava and sweet potato through the formation of public-private R&D partnerships.

Support processes – fund-raising and alliances

The project has participated in various initiatives led by other projects to secure additional funding. Of note are: A proposal to CIDA that will provide the resources to continue and consolidate the BAPPA initiative described in Output 1.1.2., and a proposal to the Belgian Government that will build on the “resource-to-consumption” approach embodied in the Integrating Nutrient Management for Building the Assets of Poor Rural Women project mentioned above.

The RAeD was the principal proponent of the following project proposal:

Attacking rural poverty through trade: Linking smallholder farmers to high-value agrifood markets in E Africa and S Asia. This is a PhAction proposal presented to BMZ by CIAT in partnership with CIRAD, the German Agency for Technical Cooperation (GTZ), IITA, Natural Resources Institute (NRI) and Traidcraft. The proposal is that, by the end of the project development, organizations will have access to and will be using a range of information resources that assist in the organization of effective and equitable linkages between the small-scale agrifood sector of developing countries (farmers, processors, traders, etc.), and emerging domestic and international agrifood markets segmented according to consumption trends. If approved, the project will concentrate its actions in E Africa and S Asia, and will commence in the first semester of 2003.

5.3.1.3 Central America and the Caribbean

Identification of research demands

Although a formal process to identify research demands was not carried out during 2002, informal consultations with farmers, farmer organizations, and support agencies in both Nicaragua and Honduras provide a general idea of research demand. Box 4 presents a compilation of research demands.

Box 4. Demand for Agro-enterprise Research in Central America

- Improved agricultural information systems
- Participatory market identification, intelligence, and development tools
- Organizational schemes and best practices for the marketing of agricultural goods
- Provision of support services and development of markets for rural business development services
- Market contacts for export products
- Quality control, especially for export goods
- Design and facilitation of horizontal learning processes between nongovernmental organizations active in rural economic development to identify best practices that feed into to policy processes

SOURCE: Trip reports 2002, and personal communication.

A formal process of demand identification has been proposed as part of the ongoing collaboration between the Project and CARE-Honduras. The proposed work would involve CARE offices, and potentially other NGOs, in a process of reflection on what they have done in terms of rural economic development, what has worked, what has not, and why. From this exercise—based on two face-to-face workshops in the region—and electronic communications, a joint research agenda for the area of rural enterprise development (among other themes) would be developed. Funding is being sought for this effort.

New product development

Product development in the region continues through two different strategies: (1) direct implementation in reference sites, and (2) implementation through learning partnerships with development agencies.

In the first case, work in CIAT reference sites in Honduras and Nicaragua provides opportunities to test new ideas on a trial basis under direct CIAT supervision. This is the case with tools such as that described in Output 4.2.4. “GIS-based decision support tool that integrates market opportunities, land use potential, and income-resource conservation trade-offs for defining most appropriate locations for rural agro-enterprises”, the IAP methodology, and upcoming work on markets for rural business development services. Once these methods and tools have been developed and tested at this level, they are considered “prototypes”, and may be offered to interested development partners to continue their refinement and dissemination.

In Central America as in Africa, the second strategy for new product development is being used under the name of Learning Alliances (see Output 5.1.1. for additional information) with development organizations. In this case, the action research processes being implemented are problem based and holistic in nature. As a result, they link a variety of the Project’s tools in a logical manner. Additional work is projected in this area in Honduras with CARE (Market Access Proposal), GTZ (COHASA Project), IPCA / Asociación de CIALES (ASOCIAL), and possibly CRS and World Vision. It is important to note that this work contributes to two strategic processes of the Project simultaneously: New product development, and building local capacities.

Building local capacities

Strengthening local capacities for rural enterprise development in Central America involves the use of the learning alliance model (see Output 5.1.1. for additional information), and direct training courses in the region. Direct training courses are planned for October and November 2002 in coordination with the Escuela Agrícola de la Región Tropicó Humedo (EARTH) University and CATIE, both in Costa Rica. Results from these events will be reported in the 2003 Annual Report.

Project administration

Mark Lundy is responsible for Project administration in Central America, while Marco Antonio Vásquez coordinates fieldwork in Honduras and Nicaragua. Additional coordination is carried

out with the CIAT regional coordinator, Miguel Ayarza, and other CIAT projects such as Forages (M Peters, A Schmidt, F Holman), IPRA (CA Quiros), Land Use (T Oberthür, S Cook), Communities and Watersheds (JA Beltrán, MC Roa), Soils (E Barrios), Tropical Fruit (J Cock), and the Institute of Rural Innovation (JA Ashby).

Funding

Current funding for work in the Central American region in 2002 has come mainly from IDRC, CIAT core funds, and the learning alliance with CARE-Nicaragua. Operational funds will increase in 2003 with the implementation of the new NZAID Project, but personnel will remain on CIAT core resources.

Table 6 lists additional funding proposals currently in preparation for the region.

Table 6. Project proposals for Central America or involving Agro-enterprise Development Staff from Central America.

Project title	Geographic focus	Partners involved (CIAT and non-CIAT) ^a	Proposed budget
Improved livelihoods of smallholders through market-driven use of forages in fragile environments of Central America	Honduras, Nicaragua, Costa Rica	CIAT - forages, IPRA, land use, agro-enterprise development Non-CIAT - FONDEAGRO, DICTA, INTA, SERTEDES, GTZ-Honduras, University of Hohenheim Germany	US\$1,200,000 over 3 years
Market Access Proposal	Honduras	CIAT – Agro-enterprise development Non-CIAT – CARE-Honduras	US\$2,700,000 over 3 years
Maguaré: Networking people, markets, production, and ecology to enable safe diversification of Latin American farmers into organic agriculture	Colombia Mexico (Chiapas)	CIAT – land use, communications, tropical fruit, agro-enterprise development Non-CIAT – local producer associations, Avanti Communications, Uni. del Valle (Col), Uni. de la Frontera Sur (Mex), GTZ, Austrian and German partners	4,200,000 EUROS over 3 years

a. For acronyms used, see page 100.

Additional proposals are expected during late 2002 or early 2003 for (a) the Nicaraguan version of the Market Access Proposal with CARE-Nicaragua, and (b) linking agro-enterprise research with rural development within a context of mutual, cumulative learning among multiple stakeholders, with IDRC.

5.3.1.4. Andean Region

The strategy for the Andean region is based on finding effective ways of complying with our three strategic processes, that is, the processes that we think provide value to our clients. Our clients are GOs and NGOs interested in fostering sustainable rural development, small farmer organizations and agro-enterprises, donors, government agencies, academic institutions, and development banks. There are two crosscutting requirements for the execution of our strategic processes: The development of alliances, and funding. These latter requirements are not important for our clients, but they are critical for us.

Strategic alliances

In the Andean Region, the project participates in projects, and establishes and consolidates alliances in Venezuela, Colombia, Ecuador, Peru, and Bolivia. Some of our allies are/will be at the Andean regional level, whereas others are/will be at the local or national level.

Main partners at the Andean regional level. Intercooperation (a Swiss international NGO), Atica, IICA-Ecuador, CIP-CONDESAN, PRODAR, IPRA, Red de Instituciones Vinculadas a la Capacitación en Economía y Políticas Agrícolas en América Latina y el Caribe (REDCAPA), possibly the international NGOs CRS, World Vision, and CARE.

Main local or national partners, per country.

Colombia	RAI Committee of CIPASLA, CORPOTUNIA, CIPAV and the two dairy organizations, Corporación Consorcio, InforCauca, Planeta Valle, Asociación Hortifrutícola de Colombia (ASOHOFRUCOL), Red Nacional de Agroindustria Rural (REDAR) Colombia, Coagrocauca, Quilichao sugar cane processing association, Comité para la Promoción de la Yuca (PROYUCA), SENA, possibly other development NGOs
Ecuador	CONDESAN-CIP Arracacha project, Fundación Avanzar, possibly other NGOs
Peru	CONDESAN-CIP Arracacha project, Intermediate Technology Development Group (ITDG)
Bolivia	Consorcio Interinstitucional para el Desarrollo Rural en Bolivia (CIDERBO), PROINPA, Atica
Venezuela	Partners yet to be identified

Identifying demands for research and other products

Our global research agenda includes the following questions:

- Is our “Territorial approach for rural business development” a real solution for promoting sustainable rural livelihoods?
- Are the critical assumptions on which we base our territorial approach correct?
- Have we interpreted problems and opportunities in society and the rural sector correctly?
- What are the options for implementing parts or all of our territorial approach, and which ones are the best?

- What other specific research needs and priorities, inserted in our territorial approach, are there?
- How can we become more effective and efficient at executing our three strategic processes?

We have to be on the lookout for answers and clues to these questions by consulting secondary information, including electronic bulletins, and participating in pertinent conferences and symposiums. However, we can also identify demands in our daily work, while conducting consultancies, in processes involving learning and action alliances while training and developing products. In other words, we can identify research and product demands while performing all of our strategic processes. In a sense, that is the philosophy of “learning alliances”.

Developing research and information products with partners

The RAeD has a quite large portfolio of products that are in different stages of development. The need and demand for these products has been identified previously, and will contribute to the enrichment of the four main components of our territorial approach to rural business development. Most of these products are developed in conjunction with our local and international allies. Table 7 is a matrix with a list of the most important products underway. It should be noted that members of the RAeD team in several regions are developing this product portfolio.

This great diversity of products implies different approaches towards product development. Some product and methodological concepts and prototypes are the result of observations in the field and analysis of secondary information, others are principally the result of bibliographical searches, and still others are mostly derived from discussions and workshops with partner institutions and colleagues. Other product development approaches are more formal, with the formation of a multidisciplinary group, as in the case of RentAgro.

These concepts and prototypes are enriched and validated in activities in reference sites, and in learning and action alliance processes. In both cases, collaboration from local and international partner agencies is vital.

During 2003, the RAeD’s Andean region will make a special effort at focusing on launching many of these products already in the pipeline, instead of adding other products into the long list.

Table 7. The Rural Agro-enterprise Development Project's product portfolio and development stages.

Component of territorial approach	Name/Topic of product	Stage of development
Global Territorial Approach Methodology	Summary of Territorial Approach to Rural Business Development methodology	Advanced
	Analysis of key success factors of rural agro-enterprises in Latin America (books: long and short version)	Advanced
	The business and marketing orientation for rural agro-enterprises (guide, booklet)	Intermediate
	Social capital as an asset for rural agro-enterprises in Colombia	Intermediate
	How to promote collective action in agro-enterprise clusters or sistemas agroalimentarios localizados (SIALS)	Intermediate
Module 1: Identifying local interest groups and defining a vision	Guide on this module (guide, booklet)	Intermediate
	Identifying interest groups (guide, booklet)	Intermediate
	Reaching agreements among actors (guide, booklet)	Intermediate
	Preparing a holistic regional profile (guide, booklet)	Advanced
	Strategic planning for rural agro-enterprises (guide, booklet)	Intermediate
Module 2: Identifying market opportunities for small rural producers	Identifying market opportunities for small rural producers (guide, book)	Advanced
	Planning and executing rapid market studies (guide, booklet)	Advanced
	Market visits for small rural producers (guide, booklet)	Intermediate
	Local system for market intelligence (guide, booklet)	Starting
	Design of financial profitability models (guide, booklet)	Intermediate
	RentAgro, software for developing financial models of projects (CD-ROM and User's Manual)	Advanced
Module 3: Designing Integrated Agro-enterprise Development Projects	Use of GIS and market data to identify better product options (guide, book)	Intermediate
	Designing integrated agro-enterprise development projects (guide, book)	Intermediate
	Development of simplified business plans for rural agro-enterprises (guide, booklet)	Intermediate
	Basics of marketing strategies for rural agro-enterprises (guide, booklet)	Intermediate
	Development of simplified marketing plans for rural agro-enterprises (guide, booklet)	Intermediate
	Quick social and business evaluation of rural agro-enterprises (guide, booklet)	Intermediate
	Participatory development of agro-industrial technology (guide, book)	Intermediate
	Inventory and analysis of legal organizational formats in Colombia (guide, booklet)	Advanced
Module 4: Strengthening the local support system for rural business development	Strengthening the local support system for rural business development (guide, book)	Starting
	Prototypes for different local services	Starting
	Alternative trade information system (Internet-based: databases, Power Point presentations, papers, linkages)	Advanced
	Cassava information system	Advanced
	Information system for rural business development	Starting
	Leadership (guide, booklet)	Intermediate

Promoting the development of local capacity for rural business development

The objective here is how to reach a large number of potential beneficiaries as quickly as possible, and among the mechanisms is to make alliances with institutions that can act as multipliers. These institutions can be international NGOs, large national NGOs, international development programs, government agencies, donors, and academic institutions, including informal Internet-based trainers such as REDCAPA.

In the Andean region, we have traditionally conducted formal, short international training programs, and have also worked with and influenced local development organizations working in CIAT reference sites. However, to maximize scope and impact, we have to move towards establishing learning and action alliances with international and other large NGOs and government programs.

This year, as in previous years, the Andean region has conducted action or learning alliances with local NGOs (CORPOTUNIA), rural agro-enterprises (CooVersalles, Barragán dairy group, Quilichao sugar-cane trade association), and NGOs working with CIAT groups in the Andean region (PROINPA, International Institute for Rural Reconstruction [IIRR], and others), with the objective of influencing them, learning about the alliance process in itself, identifying demands, and validating and enriching product prototypes in the pipeline.

Together with PRODAR, the RAeD has been preparing a strategy to explore the interest of a preselected group of academic institutions from Latin America in establishing an alliance focused on training and formation of human capital around the rural business development theme. The rationale for this is that neither CIAT nor PRODAR can meet the current demand for this type of training, or have a competitive advantage in offering it. Additionally, it is deemed possible to attract significant funding through this type of strategic alliance.

Around 10 to 15 universities in Andean and Central American countries will receive a formal invitation to participate, together with a pamphlet describing the product portfolio offered by both the RAeD and PRODAR. One or two institutions will be selected from those expressing interest. Needless to say, an eventual alliance will imply responsibilities for both parties that have been clearly spelled out in the terms of reference already prepared for this process.

Support processes – alliances

PROYUCA. The RAeD is a member of PROYUCA, a committee of development organizations interested in promoting the cassava agro-industry located in southwestern Colombia. PROYUCA coordinates actions within the cassava sour-starch marketing chain, and tries to attract funds to support this chain. The main activities conducted this year have focused on obtaining the support of Colombia's Ministry of Agriculture to apply greater control of illegal industrial starch imports from Thailand, Ecuador, and Peru that are then fermented to produce sour starch. In addition, a proposal was submitted to the government's Alliance for Competitiveness Program to obtain funds to strengthen this marketing chain, but efforts have been unsuccessful because this program is focused on cassava as poultry feed. In view of the change in government, PROYUCA has insisted in obtaining government support.

Planeta Valle initiative. The RAeD established contact with Planeta Valle, a foundation created in the year 2000 by a group of institutions from the government, business, academic, and social development sectors, including CIAT. The purpose of Planeta Valle is to act as an inter-institutional platform to develop consensus around a strategy and to facilitate its implementation, for integrated development of the Valle del Cauca department in southwestern Colombia, where CIAT is located.

Planeta Valle's director, Fernando Chaparro, has been a member of the CIAT Board of Directors, and of the CGIAR. Luis A Villegas, heading the agro-industrial development unit of Planeta Valle, visited us in September. It is anticipated that both the RAeD and Planeta Valle will be exchanging information and methodologies in the future, especially relative to rural business development.

Corporación Consorcio. Corporación Consorcio (CC) is a consortium of the largest Colombian development NGOs. Through this alliance, we can obtain support in product conceptualization and development, and have access to valuable development information. Additionally, CC acts as representative of important US donors, and therefore can be useful for fund-raising. CC is currently promoting the organization of an institutional network to strengthen community organizations in Colombia, and is also supporting the creation of a development Web page, AVANZA, funded by the Gateway Development Foundation and the World Bank.

SENA. This year, our project participated in two series of technical evaluations of rural development proposals sent to SENA, Colombia's technical training service, and centered in rural agro-industry and strengthening of agro-marketing chains. The basis for the evaluation is a special format designed by SENA that assigns points to multiple aspects of the proposal. At the end, it is decided whether the proposal passes or fails, and recommendations are made relative to how it can be improved.

Consultancies for organizations operating in Colombia. Several proposals for consultancies have been prepared, as follows:

- “Market study of selected cassava-based products in Colombia”, August 2002, presented to a small farmers' association located in Magdalena Medio, Colombia.
- “Business training for an agro-enterprise project with displaced small farmers in the Atlantic coast of Colombia”, September 2002, presented to FUPAD, an international development NGO operating in Colombia.
- “Pre-feasibility study for a cassava-based rural agro-industry in the Atlantic coast of Colombia, September 2002, presented to Fundación San Isidro, a local development NGO.
- “Marketing study for panela in Putumayo”; October 2002; presented to Chemonics, an international development NGO that operates under a USAID-funded contract.

InterCooperation (IC). The alliance with the Swiss development NGO, IC, is very important because it is a key actor in the SDC-funded network that includes other NGOs, such as Atica and others, and is active in most of the Andean countries.

The IC received funding from SDC to execute a US\$850,000, 3-year project in Ecuador focused on rural business development, including several methodologies proposed by the RAeD, such as the MOI, the participatory design of IAPs, and the strengthening of local support services. The project also encompasses business training, to be conducted by a local NGO, Avanzar. The role of the RAeD will be to conduct training and research alliances with local NGOs on the aforementioned topics. The project will start in November 2002.

CIDERBO. In August 2002, a 3-day workshop was held in Cochabamba, in which CIAT together with Bolivian public and private development organizations, plus international organizations such as CIP-CONDESAN and Intercooperation, formed CIDERBO, or the inter-institutional consortium for rural development in Bolivia.

CIDERBO's mission is to articulate national demands of the rural sector and to propose, develop, and execute new methodologies and technologies for sustainable rural development in Bolivia. CIDERBO will work around the following themes: Watershed management, development of production systems, rural business development, community organization, and strengthening of local capacities. A conceptual framework was jointly developed and a Bolivian coordinator, Roberto Méndez from Proyecto de Manejo Integrado de Cuencas (PROMIC), was elected.

A technical coordination committee was named; CF Ostertag and Jorge Blajos (PROINPA) were chosen for the rural business development theme.

FAO- GFAR. FAO and IICA/PRODAR organized a workshop on a regional consultancy on innovation in post-production, which was held from 19-21 March 2002 in Quito, Ecuador. This event was one of a series of workshops held worldwide by the FAO. About 25 participants from FAO, IICA, and different Latin America organizations, including several consultants, attended this meeting. The workshop was organized around three sections: Conceptual framework (presented by FAO and IICA/PRODAR), Vision of interest groups, and Working groups. Work in groups was related to three main topics: (1) a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis per region: Mexico, Central America, Caribbean, Andean Region, and the Southern Cone; (2) defining five critical issues or themes for post-production, together with a corresponding development objective and purpose; and (3) identifying mechanisms and actors to solve problems in each of the themes identified.

The RAeD participated in the SWOT analysis for Mexico, and in one of the five themes identified as most important: "Business management, market and information". The presentation of this group outlined a strategy almost identical to the RAeD's Territorial Approach to rural business development.

Activity 5.4. SN-1 project development and promotion

5.4.1. Develop a marketing and communications plan for the project

Contributors: Carlos F Ostertag, John J Hurtado, Angela Arenas
Collaborators: Nathan Russell (SN-4); Mark Lundy (SN-1)

Two meetings were held in August and September to define an initial marketing and communications strategy for the RAeD. The marketing and communications group was formed, and the following framework was proposed for future work in this area:

Phase 1: Design and execute an internal communications strategy within the RAeD

Phase 2: Design and execute a communications strategy within CIAT. Other CIAT projects can be clients and allies. How do we want to position ourselves?

Phase 3: Marketing plan for audiences outside of CIAT

(a) Market segmentation: determine key client categories

(b) Determine main needs of each client category

(c) Positioning: what message/image do we want to project to our clients? Include: logo, change in name (Desarrollo agro-empresarial rural vs. Desarrollo de agro-empresas rurales)

(d) Marketing plan

Marketing plan

Product. Our project as a whole is a product, individual tangible products, and our Web page. With respect to the Web page, look out for new contents related to external news and events. Include a list of services that can eventually expand to encompass distance learning and Internet-based training and interactive multimedia.

Price. Establish a pricing strategy; set prices for individual products; determine when products will be free of charge.

Distribution. Ways by which our products will reach our clients/users? By physical or electronic distribution; other channels.

Promotion. Ways in which we are going to make the RAeD and its products known to clients.

Advertising - pamphlet, presentations, other media, electronic bulletin, establish alliances with other related bulletins.

Personal sales and/or distribution - participation in pertinent events, such as conferences, symposiums, seminars. Conduct novel activities such as a Tropical Festival.

Sales promotion – discounts on individual products

Public relations – take advantage of Internet and free press

5.4.2. Web site revamped and a strategy for internal information management developed and implemented

Contributors: Angela María Arenas, Jhon Jairo Hurtado, Viviana Sandoval, Carlos Chilito, Trinidad Daza

Collaborators: Rupert Best, Carlos F Ostertag; Mark Lundy (SN-1); Gilma Gómez, Nathan Russell, Simone Staiger, Jorge Gallego (SN-4); Informations Systems Unit, Information and Documentation Unit

Web page

In April, the Spanish version of the project's Web page was launched (<http://www.ciat.cgiar.org/agroempresas/espanol/inicio.htm>) with the new CIAT standards, and in July, the English version was presented (<http://www.ciat.cgiar.org/agroempresas/ingles/index.htm>) (Figure 11). The two versions include: Research themes, in which the project components are presented (marketing, postharvest technology, managerial organization, PPIs, local systems of support (SLA), training, and strategic alliances). In each one of these is included the RAeD contribution, its research themes, documents in PDF, books, information systems, Power Point presentations in PDF format), and related Web sites. This is so that the user, on visiting the Web page, finds the published information in a context that supports its best use and next to other information products. In this way, there are sections dedicated to Partners, Donors, Beneficiaries, and About Us and Our Team.

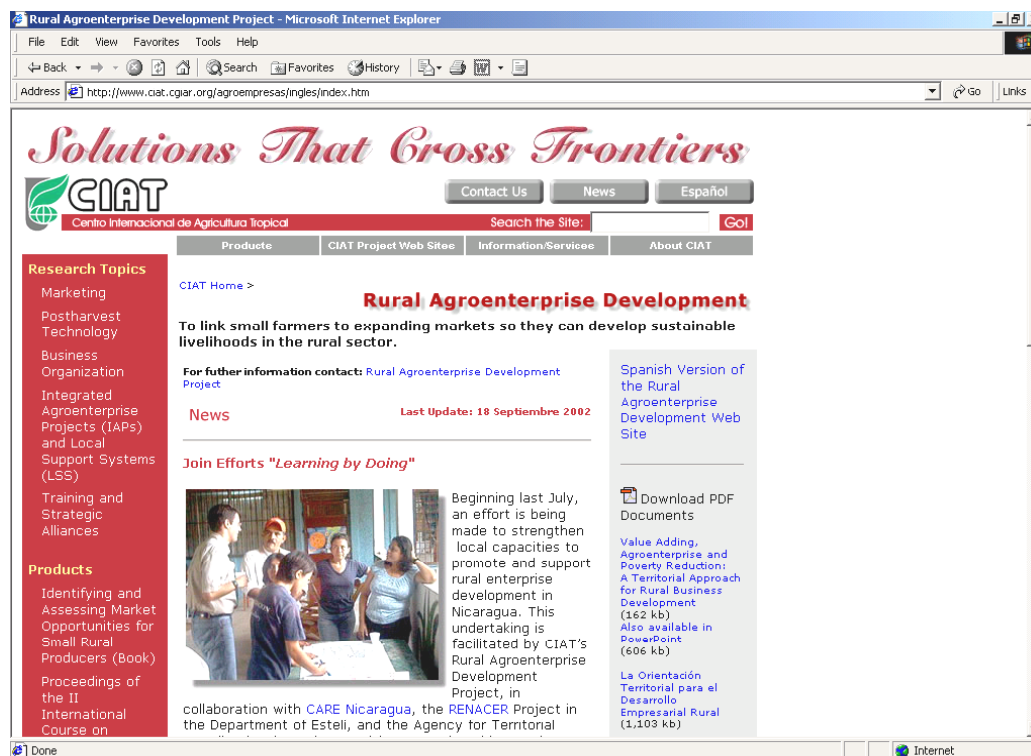


Figure 11. Web page of the Rural Agro-enterprise Development Project in English (September 2002).

The pages are updated each month (news, documents, and links), and project members supply the information that is published to those responsible for the Web page. However, the formation of an editorial committee has been proposed that determines which publications and documents should be published, and a style template has been designed for the documents (Word) generated by the Project that can be downloaded.

A template for the page on Small Grants Fund reports is in process (an introduction and format is being prepared). These documents are edited and compressed in PDF format (final reports and summaries), following 2-months of compilation (17 documents and 17 summaries of the different institutions that received these donations were revised and converted to this format).

Statistics report

The CIAT Web group acquired the Counting Program of Web sites: Summary. The reports produced by this program show 231 visits since the launching of the page in April and 5289 for the month of August (these reports are by entry through the initial page). These numbers put the Project as the third most visited of CIAT. Also, the program reports that of the 10 most consulted CIAT PDFs, five belong to the Project. In September, there were 40 registrations; 422 documents were downloaded from the page.

Diffusion

Since the launch of the Project Web page, diffusion has occurred automatically (not directly carried out through the project) through different means:

- Internal inter-institutional news sheet ARCOS (No. 211)
- Red Ecorregional para América Latina (REDECO) Web site
- The REDCAPA electronic bulletin, AgroBoletón No. 20, (<http://www.redcapa.org.br/espanol/agrybo>)
- IICA's electronic bulletin, Sistema de Información Científica y Tecnológica del Sector Agropecuario en las Américas (INFOTEC), informative summary of 16-07-2002 to 22-07-2002 (<http://infotec.ws>)

Documentation Center

In September 2002, the Documentation Center reached the number of 2424 documents registered. The loan control book reports 135 consultations. The most consulted documents are related to themes of: cassava, *panela*, capital stock, and markets.

Backup

The CIAT Information Systems Unit, with the purpose of lessening the administrative load of the Computing Center, initiated a pilot project with the Project to delegate responsibility for the Backup of the information of computers in their care. With this end, training was given to three project members on the management of the Backup My PC version 4.71 software, giving them responsibility for carrying out this process. Initially a consistent structure was defined in each

computer, in a folder called ToBackup in which is included one with the user name, and another for the mail. It was agreed to carry out a Full Backup (complete registration of the files) monthly, and a differential Backup (only registers the modified files) weekly. The Backup is carried out on a computer with a recording unit for CD-ROM.

Update directory of project contacts

This project was started in September to prepare an updated directory of worldwide RAeD contacts, mainly in Latin America, Africa, and Asia, but also including the USA, European Union, and Australia. It is anticipated that the directory will have about 300 records. This database is an important tool for our marketing and communications strategy, and will also be used by CIAT to distribute publications.

5.4.3. Participate in Symposiums and Conferences

Contributors: Carlos F Ostertag, Rupert Best, Mark Lundy
Collaborator: Maria Verónica Gottret

The RAeD members have participated, and will participate, in the following events at which papers on RAeD's territorial approach were presented:

- The First Henry A. Wallace Inter-American Scientific Conference, "Globalization of Agricultural Research", CATIE, Turrialba, Costa Rica, 25-27 February 2002.
- 17th Symposium of the International Farming Systems Association (IFSA), to be held from 17-20 November 2002 in Orlando, Florida. An oral presentation entitled "Rural agro-enterprises, value-adding and poverty reduction: A territorial orientation for rural business development" will be made under the theme "Small farm diversification and competitiveness", one of a total of five symposium themes.

List of Donors

Restricted Core

The following donors provided restricted core funding for the RAeD during 2001:

Department of International Development (DFID), United Kingdom.

Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), France provided support to the project through the participation of their scientific personnel in collaborative projects.

Special Project Funding

The following donors provided special project funding for the RAeD during 2001:

International Development Research Centre (IDRC), Canada.

Ministère des Affaires Etrangères (MAE), France.

Australian Centre for International Agricultural Research (ACIAR), Australia.

Ministerio de Agricultura y Desarrollo Rural (MADR), Colombia.

Unrestricted core funding

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

List of Collaborators

The following persons and institutions collaborated with the RAeD during 2001.

Within CIAT:

- Germán Arias, Legal Advisor
- Miguel Ayarza (Coordinator, Central America)
- Alfredo Caldas, (Training and Conferences)
- Simon Cooke, Glenn Hyman, Grégoire Leclerc, Thomas Oberthür (PE-4)
- Soniia David (IP-2)
- Edith Hess, Carlos Saa (Information and Documentation Unit)
- Peter Kerridge (Coordinator SE Asia)
- Roger Kirkby (Coordinator E/S Africa)
- Anderson Medina (PE-5)
- Bernardo Ospina, CLAYUCA
- Douglas Pachico, Nancy Johnson (BP-1)
- Carlos A Quiros, José Ignacio Roa, Luis Alfredo Hernández, Elías Claros (SN-3)
- Fernando Rojas, Carlos A Franco (Information Systems Unit)
- Nathan Russell, Simone Staiger, Silvia A Pérez, Francisco Motta, Julio C Martinez (Communications Unit)
- José Ignacio Sanz, Vicente Zapata, María Cecilia Roa, Olaf Westermann, Orlando Mejia (PE-3)
- Edmundo Barrios, Juan Guillermo Cobo (PE-2)

Outside CIAT:

Australia

- Greg Johnson, ACIAR, Canberra

Canada

- Simon Carter, Alternative Approaches to Natural Resource Management in Latin America and the Caribbean Project (MINGA), Ed Weber, Consultant, IDRC, Ottawa

Colombia

- Edgar Alzate, Asociación Mutual para la Esperanza del Tambo, Popayán
- Consuelo Ballesteros, Corporación Consorcio de Organizaciones Comunitarias de Desarrollo, Bogotá
- Juan Pablo Bedoya, Valle en Paz, Cali
- Yesid Castro, Universidad Pontificia Javeriana, Bogotá
- William Cifuentes, Didier Serna, CORPOTUNIA, Tunia
- Claudia María Correa, CCI, Bogota
- Alejandro Fernández, Martin Moreno, Universidad del Valle (UNIVALLE), Cali
- Luis Hernández, Consultant, Cali
- Oscar Hurtado, Consultant, Cali

- Diego Izquierdo, Consultant, Cali
- María Emma Jaramillo, Libardo Ochoa, Fundación Carvajal, Cali
- María Oliva Lizaraso, Proyecto para el Desarrollo de la Microempresa Rural (PADEMER), Ministerio de Agricultura
- Sergio Andrés Mafla, Consultant, Cali
- Beatríz Mejía, Fundación Smurfit-Cartón de Colombia, Yumbo
- Enrique Murgueitio, Walter Galindo, CIPAV, Cali
- José Restrepo, FIDAR, Cali
- Ricardo Ruiz, CETEC, Cali
- Liliana Salcedo, Jaidi Madera, Fundación Restrepo Barco, Bogotá
- Ruth Suarez, CEGA, Bogotá
- José Manuel Trujillo, COAPRACAUCA, Santander de Quilichao
- Rodrigo Vivas, CIPASLA, Pescador
- Hector Viveros, Fundación para el Desarrollo de la Pequeña y Mediana Empresa, Cali
- Nolberto Zambrano, CORFOCIAL, Pescador

Costa Rica

- Mario Piedra, CATIE, Turrialba

Ecuador

- Bill Edwardson, Consultant, Quito
- Roberto González, ACT-IICA, Quito

France

- Gérard Chuzel, Nadine Zakhia, Dominique Dufour, CIRAD– Département d'amélioration des méthodes pour l'innovation scientifique (-AMIS), Montpellier.
- Denis Requier Desjardin, Université de Versailles
- Ellen Hanak, CIRAD- Cultures annuelles (CA), Paris
- Denis Sautier, CIRAD-TERA, Montpellier

Germany

- Christian Henckes, GTZ, Eschborn

Holland

- Veronica Gottret, PhD student, ISS, the Hague

Honduras

- Benjamin Ferreira, CLODEST, Yorito
- Miguel Flores, CIDES, Sulaco
- Saul San Martín, Servicios Técnicos para el Desarrollo Sostenido (SERTEDES), Yorito
- César Romero, Raimundo Hernández, Nelson Palma, farmers, Yorito
- Orlando Rodríguez, Gabriela Palma, teachers, Sulaco

Italy

- Fernando Chaparro, GFAR, Rome.
- François Mazaud, Information Network on Postharvest Operations (INPhO), FAO, Rome.

Japan

- T Hayashi, Japanese International Research Centre for Agricultural Sciences (JIRCAS)

Malawi

- N Mahungu, SARRNET, Lilongwe

New Zealand

- Julian Heyes, Institute for Crop and Food Research (ICFR), Christchurch
- Chris Wheatley, Braun Wheatley Partners, Nelson

Nicaragua.

- Manuel Ruiz, Javier Latino, Proyecto de Desarrollo de San Dionisio (PRODESSA), San Dionisio

Peru

- Michael Hermann, CIP, Lima
- Sonia Pezo, Miguel Malavar, ITDG, Cajamarca
- Alfredo Riesco, Consorcio de Desarrollo Sostenible de Ucuyalí (CODESU), Pucallpa
- Hernando Riveros, PRODAR, Lima
- Sonia Salas, CONDESAN, Lima
- Miguel Angel Valdivieso, Javier Soto, CRESE, Pucallpa

Philippines

- Dindo Campilan, CIP-UPWARD, Los Baños
- Nerlie Manilili, South East Asian Ministers of Education Organisation (SEAMEO), SEARCA, Los Baños

Tanzania

- Sicco Kolijn, SARRNET, Dar es Salaam

Uganda

- Shaun Ferris, IITA, Kampala

United Kingdom

- Guy Poulter, Richard Hodges, Geoffrey Bockett, NRI, Chatham

Uruguay

- Helen Raij, IDRC, Montevideo

Papers, publications and reports of the Rural Agro-enterprise Development Project 2002

Papers published in journals

Gottret, M.V.; White, D. 2002. Assessing the impact of integrated natural resource management: Challenges and experiences. *Conserv Ecol* 5: 17.

Requier-Desjardins, D.; Boucher, F.; Cerdan, C. 2002. Globalization, competitive advantages and the evolution of production systems: Rural food processing and localized agrifood systems in Latin American countries. *Entrepreneurship Regional Develop.* (Submitted)

Vitrac, O.; Dufour, D.; Trystram, G.; Raoult-Wack, A-L. 2002. Characterization of heat and mass transfer during deep-fat frying and its effect on cassava chip quality. *J Food Engineer* 53:161–176.

Theses

Cabrera, A. 2002. Propuesta metodológica para evaluación de impacto de Proyectos Productivos Integrados en el Municipio de Caldon, Departamento del Cauca. Facultad de Ciencias Sociales y Económicas, Departamento de Economía, Universidad del Valle, Cali, CO.

González, C.M. 2002. Incidencia de las instituciones legales en las agroempresas rurales. Tesis (Maestría). Facultad de Economía, Pontificia Javeriana, Santa fe de Bogotá. 144 p.

Flier

Best, R. 2002. Farmer participation in market research to identify income-generating options. *Agro-ecology Highlights*. CIAT, Kampala, UG.

Papers presented at conferences, seminars, and symposiums

González, C. 2002. Sistema agroalimentario localizado de trapiches paneleros en Santander de Quilichao. Coloquio Internacional “Sistemas agroalimentarios localizados: Productos, empresas y dinámicas locales”, 16-18 Oct, Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Montpellier, FR.

Hurtado, J.; Dufour, D. 2002. Potencial de utilización agroalimentario de los almidones de plantas amiláceas no-cereales sometidos a diferentes tratamientos estresantes. Seminario – Taller “Especies promisorias para sistemas sostenibles de producción agropecuaria: Nacadero *Trichanthera gigantea*, Botón de oro *Tihonia diversifolia* y Bore *Alocasia macrorrhiza*. 3-5 Julio 2002, Cali, Colombia. Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria (CIPAV), CO.

Johnson, N.; Suarez, R.; Lundy, M. 2002. The importance of social capital in Colombian rural agro-enterprise. CAPRI workshop on Methods for Studying Collective Action, 25 Feb – 1 Mar 2002, Nyeri, KE.

Lundy, M.; Ostertag, C.F.; Best, R. 2002. Value adding, agro-enterprise and poverty reduction: A territorial approach for rural business development. First Henry A Wallace Inter-American Scientific Conference, “Globalization of Agricultural Research”, Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), 25-27 Feb 2002, Turrialba, CR.

Lundy, M.; Ostertag, C.F.; Gottret, M.V. 2002. Enfoque de cadenas productivas: Una herramienta para mejorar el vínculo entre pequeños productores y el mercado. XII Encuentro Nacional de Zootecnia. Asociación Nacional de Zootecnistas, Asociación de Zootecnistas del Valle del Cauca y la Universidad Nacional de Colombia, 4 Oct 2002, Sede Palmira, Palmira, Valle del Cauca, CO.

Ospina, B.; Best, R. 2002. Strategic alliances of cassava farmers with private and public sectors: A new approach for development of the cassava crop in Latin America. Paper presented at the 9th Japanese International Research Centre for Agricultural Sciences (JIRCAS) International Symposium, “Value-adding to agricultural produce and products. Towards increase of farmers’ income and vitalization of rural economy”, 16-17 Oct 2002, Tsukuba, JP.

Peters, D.; Wheatley, C.; Prain, G.; Slaats, J.; Best, R. 2002. Improving agro-enterprises clusters: Root crop processing and piglet production clusters in peri-urban Hanoi. Paper presented at the symposium “Local agrifood systems: Products, enterprises and the local dynamics”, 16-18 Oct 2002, Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Montpellier, FR.

Sandoval, V. 2002. Sistema agroalimentario localizado de producción de almidón agrio de yuca en el Departamento del Cauca, Colombia. Coloquio Internacional “Sistemas agroalimentarios localizados: Productos, empresas y dinámicas locales”, 16-18 Oct 2002, Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), Montpellier, FR.

Reports and documents prepared by the project and consultants for internal purposes and for partners, including donors

CIAT. 2001. Annual Report produced for the Department for International Development (DFID). Rural Agroenterprise Development Project. CIAT, Cali, CO. 95p.

CLAYUCA-CIAT (Consortio Latinoamericano y del Caribe de Apoyo a la Investigación y Desarrollo de la Yuca-CIAT). 2002. Annual Report to International Institute of Tropical Agriculture (IITA) on the Subcontract Agreement for the Execution of United States Agency for International Development (USAID)/ Southern Africa Development Community

(SADC)/ Southern Africa Root Crops Research Network (SARRNET) Grant No. 690-G-00-99-00258-00 between IITA and CIAT, June 2002. CIAT, Cali, CO.

CORPOTUNIA-CIAT (Corporación para el desarrollo de Tunia-CIAT). 2002. Primer informe de avance del proyecto “Mejoramiento integral de la cadena de la agroindustria rural panelera, con pequeños productores de los municipios de Santander de Quilichao, Suárez y Caldono, norte del departamento del Cauca, como alternativa para mejorar la generación de ingresos. CIAT, Cali, CO. 13 p.

González, C. 2002. Figuras jurídicas y formalización de agroempresas rurales. Proyecto de Desarrollo Agro-empresarial Rural, CIAT, Cali, CO.

González, C.; Johnson, N.; Lundy, M. 2002. Capital social y estructura organizativa en agroempresas rurales colombianas. Prepared as part of the Collective Action and Property Rights (CAPRi)-funded study on Social Capital, Collective Action, and Rural Agro-enterprises. Internal document, CIAT, Cali, CO. 17 p.

Johnson, N.; Lundy M. 2002. Social capital, collective action and rural agro-enterprises. Project implemented by CIAT, Centro de Estudios de Ganadería y Agricultura (CEGA), and Corporación Colombia Internacional (CCI). Narrative Summary to Collective Action and Property Rights (CAPRi), covering the period July-December, 2001. CIAT, Cali, CO.

Lundy, M. 2002. Formación de grupos de interés para el desarrollo empresarial rural: Guía de campo. Draft written for CARE-Nicaragua as part of the Learning Alliance Project, August 2002. CIAT, Cali, CO.

Lundy, M.; Best R. 2002. Promoting agro-enterprise links for improved rural livelihoods. Final narrative report presented to International Development Research Centre (IDRC), Canada as part of IDRC Project No. 98-8753-01/50387. CIAT, Cali, CO.

Project Proposals presented to donors

A learning alliance on rural agro-enterprise development. A project proposal presented to the Catholic Relief Services - East Africa Regional Office by CIAT and Foodnet, August 2002.

Attacking rural poverty through trade: Linking smallholder farmers to high value agrifood markets in E Africa and S Asia. A PhAction research proposal presented to Federal Ministry for Economic Cooperation and Development (BMZ), Germany by CIAT, with Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), International Institute for Tropical Agriculture (IITA), Natural Resources Institute (NRI), and Traidcraft, May 2002.

CIAT and CARE-Honduras. 2002. Propuesta de acceso a mercados. Proposal prepared for presentation to Canadian International Development Agency (CIDA), Canada.

CIAT. 2002. Maguaré: Empowering disadvantaged Latin American communities in biodiversity hotspots to network production and markets for safe diversification into environmentally sound agriculture. Proposal prepared for the European Community @lis initiative.

CIAT. 2002. Propuesta de colaboración con CARE-RENACER Estelí en le tema de desarrollo empresarial rural. Presented to CARE-RENACER, Estelí.

CIAT. 2002. Improved livelihoods of smallholders through market driven use of forages in fragile environments of Central America. Proposal prepared for Federal Ministry for Economic Cooperation and Development (BMZ).

CIAT-Wageningen Agricultural University. 2002. Evolving research agendas towards a territorial approach for promoting rural innovation: Learning from pilot and out-scaling experiences. Presented to the Mink'a de Chorlavi Competitive Grants. CIAT, Cali, CO. 20 p.

CORPOTUNIA-CIAT (Corporación para el desarrollo de Tunia-CIAT). 2002. Estudio de caso: "Trapiches paneleros de Santander de Quilichao". Propuesta presentada al Programa Cooperativa de Desarrollo Agro-industrial Rural (PRODAR) en el marco del Concurso Sistemas Agroalimentarios Locales.

Gottret, M. V. 2002. Rural innovation processes and their contribution to sustainable rural livelihoods: Understanding the interfase between research and development. Presented to the Institute of Social Studies for Dutch Ministry for Development Cooperation (DGIS)/DPO Funding. Institute of Social Studies (ISS), The Hague, the Netherlands. 16 p.

PROYUCA-CIAT. 2002. Estudio de caso: "Agroindustria rural en producción del almidón agrio de yucca en el departamento del Cauca". Propuesta presentada al Programa Cooperativa de Desarrollo Agro-industrial Rural (PRODAR) en el marco del Concurso Sistemas Agroalimentarios Locales.

Small-scale agro-enterprise development in the uplands of Lao PDR and Vietnam. Project proposal submitted by CIAT to the Swiss Development Corporation (SDC), September 2002.

Training manuals

Ghezan, G.; Gottret, M. V. 2002. Alianzas público-privadas para la investigación agroindustrial. Training module for the Instituto Nacional de Investigación Agraria (INIA)/ Federal Ministry for Economic Cooperation and Development (BMZ) / Program for Cooperation in Agricultural Research (PROCI) / CIAT / University of Hohenheim / International Service for National Agricultural Research (ISNAR) Public-Private Partnerships for Agricultural Research Project. ISNAR, The Hague, the Netherlands.

PowerPoint presentations

- Chilito, C.; Hurtado, J. 2002. La industria del almidón agrario de yuca en Colombia. Taller Teórico – Practico sobre opciones tecnológicas para el manejo poscosecha de yuca, 26 – 31 agosto 2002, CIAT – Consorcio Latinoamericano y del Caribe de Apoyo a la Investigación y Desarrollo de la Yuca (CLAYUCA)/ Servicio Nacional de Aprendizaje (SENA).
- Kaaria, S.; Best, R. 2002. Key concepts of farmer participatory research and participatory market research. PowerPoint presentation prepared for the training course on Farmer Participatory Research and Participatory Market Research held for the National Agricultural Research Organization (NARO), 25 Feb-7 Mar 2002, Kabale, Uganda.
- Ostertag, C. 2002. Estados de conceptos sobre identificación y evaluación de oportunidades de mercado. 18 slides.
- Ostertag, C. 2002. Identificando demandas de investigación para el desarrollo empresarial rural. 11 slides.
- Ostertag, C. 2002. Identificando necesidades de servicios locales de apoyo para el desarrollo empresarial rural. 14 slides.
- Ostertag, C. 2002. La orientación territorial para el desarrollo empresarial rural: Un marco metodológico de investigación y desarrollo para combatir la pobreza rural. Seminario institucional de los miércoles en CIAT. 35 slides.
- Ostertag, C. 2002. Strategic planning: Regions, communities and rural enterprises. 30 slides.
- Ostertag, C.; Rizo, J. 2002. Introducción al valor agregado. 11 slides.
- Sanginga, P.; Best, R. 2002. Rural innovation: A resource to consumption approach to improving community livelihoods. Presentation, June 2002, to the CIAT Board of Trustees and national program collaborators on the occasion of the visit of the CIAT Board to Kampala.

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List of Acronyms and Abbreviations Used

Acronyms

ACIAR	Australian Center for International Agricultural Research
ACT	Agencia de Cooperación Técnica, Ecuador
AHI	The African Highlands Initiative
ASARECA	Association for the Strengthening of Agricultural Research in Eastern and Central Africa
ASOBESURCA	Asociación de Beneficiarios de la Subcuenca del Río Cabuyal, Cauca, Colombia
ASOCIAL	Asociación de CIALES, Honduras
ASOHOFrucol	Asociación Hortifrutícola de Colombia
ATIS	Alternative Trade Information System
BAPPA	Beyond Agricultural Production to Poverty Alleviation Initiative
BDS	Business Development Services
BMZ	Federal Ministry for Economic Cooperation and Development, Germany
CAPRI	Collective Action and Property Rights, Systemwide Program of CGIAR
CARSE	Consejo Asesor Regional de Comercio Exterior, Cauca, Colombia
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Costa Rica
CC	Corporación Consorcio, Colombia
CCI	Corporación Colombia Internacional
CEGA	Centro de Estudios de Ganadería y Agricultura, Colombia
CETEC	Corporación para Estudios Interdisciplinarios y Asesorías Técnicas, Colombia
CIAL	Comité de Investigación Agrícola Local, Colombia
CIDA	Canadian International Development Agency
CIDERBO	Consorcio Interinstitucional para el Desarrollo Rural en Bolivia
CIDES	Comité Interinstitucional para el Desarrollo de Sulaco, Honduras
CIP	Centro Internacional de la Papa, Peru
CIPASLA	Consorcio Interinstitucional para una Agricultura Sostenible en Laderas, Colombia
CIPAV	Centro para la Investigación en Sistemas Sostenibles de Producción Agropecuaria, Colombia
CIRAD	Centre de coopération internationale en recherche agronomique pour le développement (<i>Center for International Cooperation in Agricultural Development Research</i>), France
CIRAD-AMIS	CIRAD-Département amélioration des méthodes pour l'innovation scientifique, France
CIRAD-CA	CIRAD-cultures annuelles, France
CIRAD-TERA	CIRAD-Département territoires, environnement et acteurs, France
CLAYUCA	Consorcio Latinoamericano y del Caribe de Apoyo a la Investigación y Desarrollo de la Yuca
CLODEST	Comité Local para el Desarrollo Sostenible de la Cuenca del río Tascalapa, Honduras

COAPRACAUCA	Cooperativa Agraria de Productores y Procesadores de Yuca del Cauca, Colombia
CODESU	Corporación para el desarrollo sostenible de Ucayali, Peru
COLNODO	Colombian communications network serving nongovernment organizations dedicated to community development
CONDESAN	Consortio para el Desarrollo Sostenible de la Ecorregión Andina, Peru
CORFOCIAL	Corporación para el Fomento de los Comités de Investigación Agropecuaria Local, Colombia
CORPOICA	Corporación Colombiana de Investigación Agropecuaria
CORPOTUNIA	Corporación para el desarrollo de Tunia, Colombia
CREPIC	Centro Regional de Productividad e Innovación del Cauca, Colombia
CRESE	Centro Regional de Servicios Empresariales, Peru
CRS	Catholic Relief Service, Honduras
DANIDA	Danish International Development Agency
DFID	Department for International Development, UK
DGIS	Directoraat Generaal voor Internationale Samenwerking, (Dutch Ministry for Development Cooperation), Netherlands
DICTA	Dirección de Investigación de Ciencias y Tecnología Agrícola, Honduras
EARO	East Africa Regional Office of CRS
EARTH	Escuela Agrícola de la Región Tropic Humedo, Costa Rica
EPA	Extension Planning Area, Malawi
FAO	Food and Agriculture Organization of the United Nations, Italy
FAROL	Fondo de Apoyo a Redes de Organizaciones Locales, Nicaragua
FIAR	Fondo de Investigación en Agro-industria Rural of PRODAR
FIDAR	Fundación para la Investigación y el Desarrollo Agroindustrial Rural, Colombia
FLO	Fair Trade Labeling Organisation
FONDEAGRO	Fundación para el Desarrollo del Agro, Peru
FUPAD	Fundación Panamericana para el Desarrollo
GFAR	Global Forum on Agricultural Research
GIAR	Grupos de Investigación en Agro-industria Rural
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (<i>German Agency for Technical Cooperation in English</i>)
IAP	Integrated Agro-enterprise development Project
IC	Intercooperation, a Swiss development NGO
ICA	Instituto Colombiano Agropecuario
ICFR	Institute for Crop and Food Research, New Zealand
ICRAF	International Centre for Research in Agroforestry, Kenya
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics, India
ICT	Information and Communication Technology
IDB	Inter-American Development Bank, USA
IDRC	International Development Research Centre, Canada
IDS	Institute for Development Studies
IFAD	International Fund for Agricultural Development, Italy
IFPRI	International Food Policy Research Institute, USA
IFSA	International Farming Systems Association

IICA	Instituto Interamericano de Cooperación para la Agricultura, Chile and El Salvador
IIRR	International Institute for Rural Reconstruction, Ecuador
IITA	International Institute of Tropical Agriculture, Nigeria
INFOTEC	Sistema de Información Científica y Tecnológica del Sector Agropecuaria en las Américas of IICA
INIA	Instituto Nacional de Investigación Agraria, Chile
INPhO	Information Network on Postharvest Operations
INTA	Instituto Nacional de Tecnología Agropecuaria, Argentina
IPCA	Investigación Participativa en Centro America project
IPRA	Investigación Participativa en Agricultura / <i>Participatory Research in Agriculture</i> of CIAT
IRRI	International Rice Research Institute, Philippines
ISNAR	International Service for National Agricultural Research, Netherlands
ISS	Institute of Social Studies
ITDG	Intermediate Technology Development Group, Zimbabwe
JIRCAS	Japanese International Research Centre for Agricultural Sciences
LAC	Latin America and the Caribbean
LMIS	Local Market Intelligence System
MADR	Ministerio de Agricultura y Desarrollo Rural, Colombia
MAE	Ministère des Affaires Etrangères, France
MCCH	Fundación Maquita Cushunchic, Ecuador
MINGA	Alternative Approaches to Natural Resource Management in Latin America and the Caribbean Project
NAADS	National Agricultural Advisory Service
NARO	National Agricultural Research Organisation
NRI	Natural Resources Institute (UK see TPI)
NZAID	New Zealand Aid
OAS	Organization of American States
ODI	Overseas Development Institute, UK formerly, now DfID
PADEMER	Proyecto para el Desarrollo de la Microempresa Rural, Cauca, Colombia
PHTI	Post-Harvest Technology Institute, Vietnam
PRGA	Participatory Research and Gender Analysis Programs
PROCI	Program for Cooperation in Agricultural Research
PRODAR	Programa Cooperativa de Desarrollo Agro-industrial Rural (Latin America and the Caribbean)
PRODESSA	Proyecto de Desarrollo de San Dionisio, Nicaragua
PROINPA	Fundación Promoción e Investigación de Productos Andinos, Bolivia
PROMIC	Proyecto de Manejo Integrado de Cuencas
PRONATTA	Programa Nacional de Transferencia de Tecnología, Colombia
PROYUCA	Comité para la Promoción de la Yuca, Colombia
RAC	Rural Agro-industrial (or Agro-enterprise) Committee
RAeD	Rural Agro-enterprise Development Project of CIAT
RAI	Rural Agro-industrial Committee of CIPASLA
REDAR	Red Nacional de Agroindustria Rural, Colombia

REDCAPA	Red de Instituciones Vinculadas a la Capacitación en Economía y Políticas Agrícolas en América Latina y el Caribe
REDECO	Red Ecorregional para América Latina
SADC	Southern Africa Development Community
SARRNET	Southern Africa Root Crops Research Network
SDC	Swiss Development Cooperation
SEAMEO	South East Asian Ministers of Education Organisation
SEARCA	Southeast Asian Graduate Studies and Research Center for Agriculture
SENA	Servicio Nacional de Aprendizaje, Colombia
SERTEDESO	Servicios Técnicos para el Desarrollo Sostenido, Honduras
SIDER	Sistema de Información para el Desarrollo Empresarial Rural
SIMPAH	Sistema de Información de Mercados de Productos Agrícolas de Honduras
SIUPA	Systemwide Initiative on Urban Agriculture
SWNM	Soil Water Nutrient Management program (Systemwide program of the CGIAR)
SWOT	Strengths, Weaknesses, Opportunities, and Threats analyses
TIP	Traditional Irrigation Programme, Tanzania
TSBF	Tropical Soils Biology and Fertility Program of CIAT
UCR	Universidad de Costa Rica
UMATAs	Unidades Municipales de Asistencia Técnica Agropecuaria, Colombia
UNIVALLE	Universidad del Valle, Colombia
UPWARD	Users' Perspectives with Agricultural Research and Development, Manila, Philippines
USAID	United States Agency for International Development, Washington

Abbreviations

BDS	business development service
GIS	geographic information systems
GOs	government organizations
IAPs	integrated agro-enterprise development projects
IRR	internal rate of return
MOI	market opportunity identification
NARS	national agricultural research systems
NGOs	nongovernmental organizations
NPV	net present value
NRM	natural resource management
PPIs	proyectos productivos integrados
R&D	research and development
RBD	rural business development
RRA	rapid rural appraisal
SIAL	sistema agroalimentario localizado
SLA	sistemas locales de apoyo
TA-RBD	territorial approach to rural business development