Project SN-4

Communications and Information
for Rural Communities

*Linking research with development
and Cyberspace with the town square*

Summary Annual Report for 2002

October 2002

Information and Communications in Rural Communities
Linking research with development and Cyberspace with the town square

Objective: To strengthen the decision making capacity of rural communities and R&D organizations by better enabling them to obtain, generate, and share information and knowledge, with the aid of modern information and communications technologies (ICTs).

Outputs:

- Appropriate models for integrating ICTs into rural community development
- Local information systems for rural agroenterprise development
- Local information systems to support agriculture and natural resource management (NRM)
- Tools for local assessment of risks and opportunities in crop production and NRM
- A virtual network of community-based groups employing participatory R&D methods, linked with formal R&D organizations
- Impact assessment and continuous learning

Milestones:

2003   Training tool on community telecenter development, initial version of a local information system for rural agroenterprise development, and preliminary study of telecenter impacts completed in Colombia.

2004   New projects under way in southwestern Colombia to scale up the community telecenter model in collaboration with various national institutions and local partners.

2005   Projects under way in other Latin American countries to develop local information systems in support of agriculture and NRM as well as risk- and opportunity-assessment tools and to build a virtual network of community-based groups using participatory methods, linked with formal R&D organizations.

Users: The immediate beneficiaries will be local organizations (particularly farmer groups, NGOs, and schools) that acquire new information management and communications skills. To the extent that new ICTs are linked with conventional media (such as community radio) and informal communications networks, a much broader segment of the rural population--including groups, such as women, who often get less than their share of development benefits--will gain more equitable access to relevant information and knowledge.

Collaborators: The project will seek alliances with other international centers in target subregions--e.g., CONDESAN/CIP in the Andean zone, CATIE in Central America, and ICRAF in eastern Africa. It will also identify developing country universities, research institutes, government programs (such as Compartel in Colombia), and NGOs committed to improving the use of new ICTs in remote rural areas. At the grassroots level, the project will identify numerous local partners for developing project outputs. Finally, the project will build alliances with international organizations that have strong expertise in information and communications for development--e.g., Bellanet, the Association for Progressive Communications (APC), and the International Institute for Communications and Development (IICD).

CIAT project linkages: Provides all Center projects with a new option for increasing research impact and obtaining feedback on their products from rural people. While focusing initially on tropical America, the project will actively pursue opportunities to work in Africa and Asia.

CIAT: SN-4 Project Log Frame (2003–2005)

Project: **Information and Communications for Rural Communities**
Project Manager: **Nathan Russell**

Narrative Summary	Measurable Indicators	Means of Verification	Important Assumptions
Goal To help the rural poor build sustainable livelihoods by improving the flow of genuinely relevant information among rural communities and research and development (R&D) organizations.	- Increased numbers of more efficient rural agroenterprises. - Increased numbers of local initiatives aimed at improving natural resource management. - Increased opportunities for off-farm activities that generate income and employment.	- Impact evaluation within a sustainable livelihoods framework based on household surveys, interviews with key informants, and group techniques in targeted rural communities.	
Purpose To strengthen the decision-making capacity of rural communities and R&D organizations by enabling them to better obtain, generate, and share information and knowledge with the aid of modern information and communication technologies (ICTs).	- New options for enhancing livelihoods identified by individuals and organizations in rural communities through improved information access. - Stronger planning and problem-solving capacities in rural communities, based on improved electronic communications both among communities and with R&D organizations. - A greater capacity of local organizations to satisfy information demand in rural communities.	- Case studies on the use of information obtained with the aid of ICTs in targeted rural communities. - Impact evaluation of Web-based information applications developed by local organizations.	- Rural communities can obtain affordable, reliable access to Internet. - National and local organizations commit themselves to providing rural communities with relevant information services. - Rural communities prove receptive to a new information culture based on the use of modern ICTs. - Systems for continuous monitoring and evaluation adopted by organizations hosting rural community telecenters.
Outputs 1. Appropriate models for integrating ICTs into rural community development 2. Local information systems for rural agroenterprise development 3. Local information systems to support agriculture and natural resource management (NRM) 4. Tools for local assessment of risks and opportunities in crop production and NRM 5. Virtual networks of community-based groups employing participatory R&D methods, linked with formal R&D organizations 6. Impact assessment and continuous learning.	- Feasibility studies on achieving connections among targeted rural communities. - Financially and socially sustainable telecenters established by local organizations with the aid of training tools developed by CIAT. - Dynamic, Web-based information systems developed by local organizations receiving training and other support from the Center. - Locally developed Web-based information systems successfully integrated with conventional communications media in rural communities. - Relevant information services developed for farmers that use participatory R&D methods, thus providing a basis for virtual networks of farmer groups.	- Training tools available in print form and on CD-ROM. - Locally developed information systems available on the Web. - Consultancy reports and project information on the Web and in print form. - Conference papers, journal articles, and technical reports on the performance and impact of community telecenters.	- Public and private telecommunications agencies support initiatives to create affordable, reliable Internet access in remote rural areas. - National and local organizations can generate resources through information services that enable them to sustain these services. - National and local organizations gain credibility in rural communities as reliable providers of useful Web-based information services.

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Senior Staff

Nathan Russell, Communications Specialist and Project Manager (30% SN-4)
Edith Hesse, Agricultural Economist and Head, Library and Documentation Unit (15% SN-4)
Nancy Johnson, Agricultural Economist (10% SN-4)

Partners

Within CIAT the project currently works closely with the Rural Agroenterprise Development (SN-1) and Impact Assessment (BP-1) Projects. It is also building ties, through joint project development, with the Participatory Research (SN-3) and Land Use (PE-4) Projects.

Listed below are the local partners in InforCauca--SN-4's first and so far only project--which supports community telecenters in Colombia's Cauca Department.

* Asociación de Cabildos Indígenas del Norte del Cauca (ACIN), Santander de Quilichao, Cauca
* Colnodo (operated by the Asociación Colombiana de Organizaciones No Gubernamentales para la Comunicación Vía Correo Electrónico), Santafé de Bogotá, D.C.
* Corporación Colombia Internacional (CCI), Santafé de Bogotá, D.C.
* Corporación para el Desarrollo de Tunía (Corpotunía), Piendamó, Cauca
* Consorcio Interinstitucional para una Agricultura Sostenible en Laderas (CIPASLA), Pescador, Cauca
* Corporación Universitaria Autónoma de Occidente (CUAO), Cali

* In connection with the development of new projects, SN-4 is building alliances with additional local partners as well as with various international organizations, including the global Association for Progressive Communications (APC) and Canada's Institute for Connectivity in the Americas (ICA).

Budget

Project SN-4: Information and Communications for Rural Communities

Source	Amount (US$)	Proportion (%)
Unrestricted Core	112,620	50
Restricted Core	0	0
Carryover	-	0
Carryover from 2001	0	0
Subtotal	**112,620**	**50**
Special projects*	110,731	50
Total project	**223,341**	**100**

* Includes from Canada's International Development Research Centre (IDRC) and the Rockefeller Foundation.

Research Highlights for 2002

Project SN-4 was created early in 2002 on the basis of recent work done by CIAT's Communications Unit in close collaboration with the Rural Agroenterprise Development and Impact Assessment Projects. This is the InforCauca Project, a 3-year initiative that supports the development of community telecenters in southwestern Colombia. Begun in 2000 and scheculed to conclude in June 2003, the Project is being executed jointly by CIAT, the Corporación Universitaria Autónoma de Occidente (CUAO), and various community organizations, with funding from Canada's International Development Research Centre (IDRC) and the Rockefeller Foundation in the USA.

In the sections that follow, we briefly describe advances in the two rural telecenters supported by the project and in our efforts to evaluate and enhance their social and economic impact.

Telecenter at Tunía

The rural telecenter at Tunía formed a clear vision of what it must do to attain economic, institutional, and social sustainability, and it took important steps toward this end in 2002.

A key factor shaping that vision is the Compartel Program, a massive social telecommunications initiative implemented recently by Colombia's Ministry of Communications. Under this program 670 Internet access centers have been set up in small rural communities throughout the country, of which about 20 are located in Cauca. Each center has two computers with Internet access and is run as a small business, often within other businesses, such as pharmacies, hardware stores, and a national package delivery service.

Though one such center is located in nearby Piendamó, it does not compete with or duplicate the work of the Tunía telecenter in this extensive rural environment. On the contrary, as explained below, the Compartel centers may represent an important opportunity for the telecenter at Tunía to play a more ambitious role in fomenting the use of ICTs for sustainable development.

In the meantime the telecenter continues to offer basic ICT services to local users and is promoting these heavily through programs in local rural schools. It is also providing new services, such as the use of a Web-based program called NetMeeting for long-distance (including international) phone service at the price of a local call. Since the telecenter computers have Webcams as well as microphones and speakers, users can not only converse with others long distance but also see them, making it possible to engage in videoconferences.

The telecenter has also cultivated close relationships with local organizations. In the process it was transferred early in the year from the community cultural center where it previously operated just around the block to the headquarters of Corpotunía. This local NGO has 15 years of experience in conducting integrated development projects in central Cauca, and it is particularly adept at working with farmer groups to create small rural agroenterprises. As described later, Corpotunía is playing a key role in the development of a community-owned information system to support rural agroenterprises.

In support of organizations like Corpotunía, the telecenter is developing an on-line directory of funding sources for community-based projects. Also, the telecenter operators, having completed their own Web site (which can be accessed through the InforCauca site at www.inforcauca.org),

are now helping develop sites for local organizations, including the municipal government of Piendamó.

These experiences positioned the telecenter to seize a new and exciting opportunity that arose around midyear. In May the InforCauca team met with staff of the Centro Regional de Población (CRP), an organization in Bogotá that has been contracted by Compartel to carry out a 1-year project aimed at linking the 670 Compartel centers more closely to community organizations. During a visit to the telecenter at Tunía, Corpotunía, the telecenter's host organization, offered to implement the project in all of Cauca and neighboring Valle del Cauca Departments. This has involved organizing training and related activities for Compartel center operators and representatives of local organizations in 42 small towns.

In addition to providing Corpotunía with extra resources and valuable experience, the project has pointed the way to a new role for the telecenter. Rather than eventually compete with the Compartel centers in the basic services market, Corpotunía and its telecenter could specialize in training, local content generation, and project development, aimed at incorporating ICTs into the work of community-based organizations. In this way they could contribute continuously over the long term to a goal that the CRP project, though national in scope, is addressing only modestly through a 1-year effort.

Telecenter at Santander de Quilichao

The telecenter operated by the Asociación de Cabildos Indígenas ("governing councils") del Norte del Cauca (ACIN) at its headquarters in Santander de Quilichao functioned smoothly throughout the year and consolidated its role in support of the Association's various programs.

Most of the telecenter's users are leaders and staff of these programs as well as persons who travel to Santander on market days (Wednesdays and Saturdays) from the various indigenous reserves (*resguardos*) scattered across northern Cauca Department. The telecenter operators mainly help users search the Web for information pertinent to their work and assist them with e-mail communications related to ACIN's projects and to its relationships with national and international organizations. The Association's recently completed Web site (which can be accessed through the InforCauca site at www.inforcauca.org) should facilitate those contacts by projecting a strong image of ACIN and by providing detailed information about its various activities.

Since the *resguardos* are generally quite remote from Santander, it is difficult for many members of these communities to access telecenter services directly. To overcome this obstacle, the telecenter has extended its reach by cultivating close links with community radio programs operating in some of the *resguardos*.

For example, building on an arrangement created last year, the telecenter operators copy relevant information onto diskettes every day and send them via "chivanet" (*chivas* are rugged rural buses) to Toribío, where they are retrieved by the young operators of the community's radio program. Among the materials sent are radio program scripts and "alternative international news" provided by Radipaz (Red Latinoamericana de Radios para una Cultural de Paz) as well as e-mail messages and articles from the Web sites of development organizations and local newspapers.

The telecenter has also established close ties with a community radio program in Jambaló, where communication with ACIN headquarters is facilitated by the presence of a Compartel center (see earlier description of Compartel). In addition, the telecenter actively assists in the development of

material to be broadcast via a new regional radio program run by ACIN that reaches all of the *resguardos* in northern Cauca.

In addition, the telecenter continues to support major gatherings organized by ACIN, such as the recent Encuentro Interétnico. Attended by hundreds of people, the event was designed to promote stronger ties between the region's indigenous, Afro-Colombian, and *mestizo* populations. The telecenter operators helped organize and publicize the event and prepare supporting information materials, much as they did last year in connection with the March for Life, which was organized to protest gross human rights abuses against the Paez and other indigenous groups in Cauca.

On the strength of these experiences, ACIN wants to expand its communications network, with a view to better integrating the widely dispersed Paez communities. Association leaders are also eager to incorporate ICTs more fully into their work on themes other than human rights, such as health, gender, forestry, and agroenterprise development. For this purpose the governors of ACIN's 14 cabildos have said they are willing to support telecenter development and related activities with their own resources. But the Association also hopes to embark on a new project that would bring outside funding and expertise to bear on these tasks.

Assessing InforCauca's impact

The experience and accomplishments of the telecenters over the last year reinforced our belief that they have strong potential to achieve sustainability and to generate considerable social and economic impact in their respective communities. The InforCauca Project made good progress this year in implementing a strategy to gauge those impacts.

During the first half of 2002, InforCauca completed and analyzed a survey of rural households in Tunía and in the watershed of the Cabuyal River, which is located in a neighboring municipality. Then, during the second half of the year, the project completed and analyzed a survey of users of the telecenters.

The main purposes of the telecenter users survey were to define their chief socioeconomic characteristics, identify instructive patterns in telecenter use, determine what information sources are most important for users, and gauge their perceptions of the quality of telecenter services. A total of about 70 users were surveyed, with the surveys being administered by the telecenter operators. Below we describe some of the most noteworthy results.

Predictably, a sizable proportion of telecenter users (about 37%) are well educated, having some technical or even university training. Overall, nearly half possess a secondary school education, and about 13% have completed or are in primary school. This underscores the importance of linking the telecenter with other media, such as community radio, which reach less privileged audiences. It also underscores the need to integrate telecenter services ever more closely with the work of community-based organizations that cater to the needs of the poorest people. The telecenters already appear to be attracting many individuals, like teachers, technicians, and social workers, who are providing important community services.

Nonetheless, only about 4% of users said they used telecenter services for community work. Most visited the telecenter in connection with their studies (about 38%) or work or to maintain contact with family or friends. The most common uses were Web searches and e-mail. Interestingly, about half of the users of the rural telecenters were women.

A particularly noteworthy characteristic of telecenter users is their youth. Though users ranged in age from 9 to 60, the average was about 26. Clearly, the telecenters have significant potential for positively influencing young people, perhaps through e-learning approaches that usefully supplement formal education and permit continuing adult education.

Even in the absence of such programs, though, the vast majority of users said they were satisfied with telecenter services in terms of the computer programs available, speed of Internet connection, and so forth. And nearly all rated the orientation and informal training provided by the operators as excellent or good.

Evidently, Internet use is starting to occupy an important place in these people's lives, complementing the diverse means by which they obtain or share information. Most spend somewhat less per month on telecenter services than on telephone calls but more than on newspapers and magazines.

Like the telecenter user survey, the community survey was designed to provide a socioeconomic profile of potential project beneficiaries, to determine what other information sources are important for the local population, and to identify local perceptions of telecenter services.

From this survey we hope to gain an overview of information needs in marginalized rural communities as well as a better grasp of key indicators by which future impact can be gauged. For example, information gathered about the natural resource base and social capital of these communities should give us a basis for detecting any future links between improved information and communication services and increased collective action to improve natural resource management.

Some 445 individuals from about 150 households in Tunía and the Cabuyal River watershed were surveyed; the surveys were administered by persons from the two communities who had been trained for this purpose. The majority of people living in the Cabuyal River watershed depend on agriculture, while those in Tunía are mainly students, day laborers, and salaried workers.

The rural communities in general, like telecenter users, depend on diverse media to keep informed. They mainly use electronic media, especially radio, to learn about local, national, and international developments. But they do not rely much on these media to obtain information about education and training, prices and marketing of agricultural produce, agricultural technology, employment opportunities, credit, health, and so forth. Most community members obtain this type of information from printed publications, such as leaflets and pamphlets.

Use of the Internet is still quite low in these communities, though about half of the people surveyed in Tunía have at least heard about the community telecenter. If the Internet is eventually to play an important role in helping rural communities build sustainable rural livelihoods, much more must be done to develop locally relevant Web content and practical applications that facilitate the individual and collective efforts of rural people to combat poverty and halt environmental degradation.

Enhancing InforCauca's impact

In a step toward that end, the InforCauca Project is devising an approach for creating local information systems that foment and support rural agroenterprise development. Farmers in Cauca are unlikely to exit poverty as long as their livelihoods depend mainly on the sale of staple crops at low prices. Their best hope for change probably lies in value-added processing and more adept

marketing of diverse agricultural products, including selected staples as well as more commercial crops.

To help farmers fulfill this hope, CIAT supports the work of a community-based agroenterprise development committee in central Cauca. Based on market studies, the group has prioritized about a half dozen market chains--coffee, brown sugar, cassava, plantain, blackberry, milk products, and cut flowers--and is now devising integrated agroenteprise projects to achieve competitive, profitable production of these commodities. A key prerequisite for the success of this work is that rural people have access to reliable communications and information services, so they can make sound decisions in a timely manner.

In search of an effective way to meet that requirement, the InforCauca team has organized its work on local information systems around the seven priority products listed above. In this effort the team is working closely with Corpotunía, CIPASLA (the Spanish acronym for a local watershed management association), and various farmer groups. These organizations have chosen *panela*, or brown sugar, as the pilot case for initial development of the information system. *Panela* consists of blocks of dark-brown, unrefined sugar derived from sugarcane juice and used to prepare beverages, cakes, and cookies. Colombia is the world's largest producer of panela and ranks first in consumption per capita.

The information system will consist of two main components. The first is a Web-based product that deals with all aspects of *panela* processing and marketing as well as with agroenterprise management generally. Corportunía and CIPASLA are compiling and organizing the available information, which is widely scattered among various sources.

In this work they are receiving valuable guidance from CCI (Corporación Colombia Internacional), an organization that specializes in gathering market intelligence and offers a wide range of information services via the World Wide Web and other channels. The InforCauca team is also consulting with Colnodo, a Colombian communications network that helps NGOs improve networking and information sharing with the aid of ICTs. One of Colnodo's main contributions has been to provide advice on the use of tools like Action Applications (developed by APC, the Association for Progressive Communications), which permit broad participation in the development and maintenance of Web sites. The information on *panela* should be on-line by December of this year, and farmers will be able to access it from the community telecenter at Tunía or any of the local Compartel centers.

The other main component of the information system consists of a communications network made up of representatives from several *panela* processing associations. Their main functions are to feed information from their own experience and experimentation into the Web-based product and to share the information it contains through community assemblies, church meetings, bulletin boards, and so forth.

In forming the communications network, InforCauca staff are drawing on the ample experience of a Colombian project (funded by DFID, the UK's Department for International Development) that coordinates a national network of hundreds of NGOs. With assistance from this project, InforCauca has held two workshops with network members to present basic concepts on communications and community networking and to characterize the main channels of communication in rural Cauca. A next step is to develop communications strategies that support local agroenterprise development. Network members will also receive training in the development, management, and evaluation of agroenterprise projects.

Problems and Solutions

The main limitation of Project SN-4 at this point is the lack of funds for a full-time project manager. In the absence of such a person, development of the project is being guided mainly by the heads of the Communications and Information/Documentation Units. At the same time, they continue to handle their responsibilities for CIAT's corporate communications and information services.

Given the continuing decline in CIAT's core funding, there appears to be only one option for remedying this situation in the short term. And that is to develop new special projects, which build on and extend the accomplishments of the InforCauca Project in Colombia and other countries and bring in enough funds to cover a significant share of personnel costs.

Future Plans

Toward that end project staff, in addition to overseeing InforCauca, dedicated a significant amount of their time to developing concept notes and building institutional alliances to carry out new projects. In the coming weeks and months, we will finalize a funding strategy for these projects and begin approaching prospective donors.

Performance Indicators

The InforCauca Project has produced outcomes that represent important steps toward some of the measurable indicators indicated in the project log frame (e.g., financially and socially sustainable telecenters established and dynamic Web-based information systems developed).