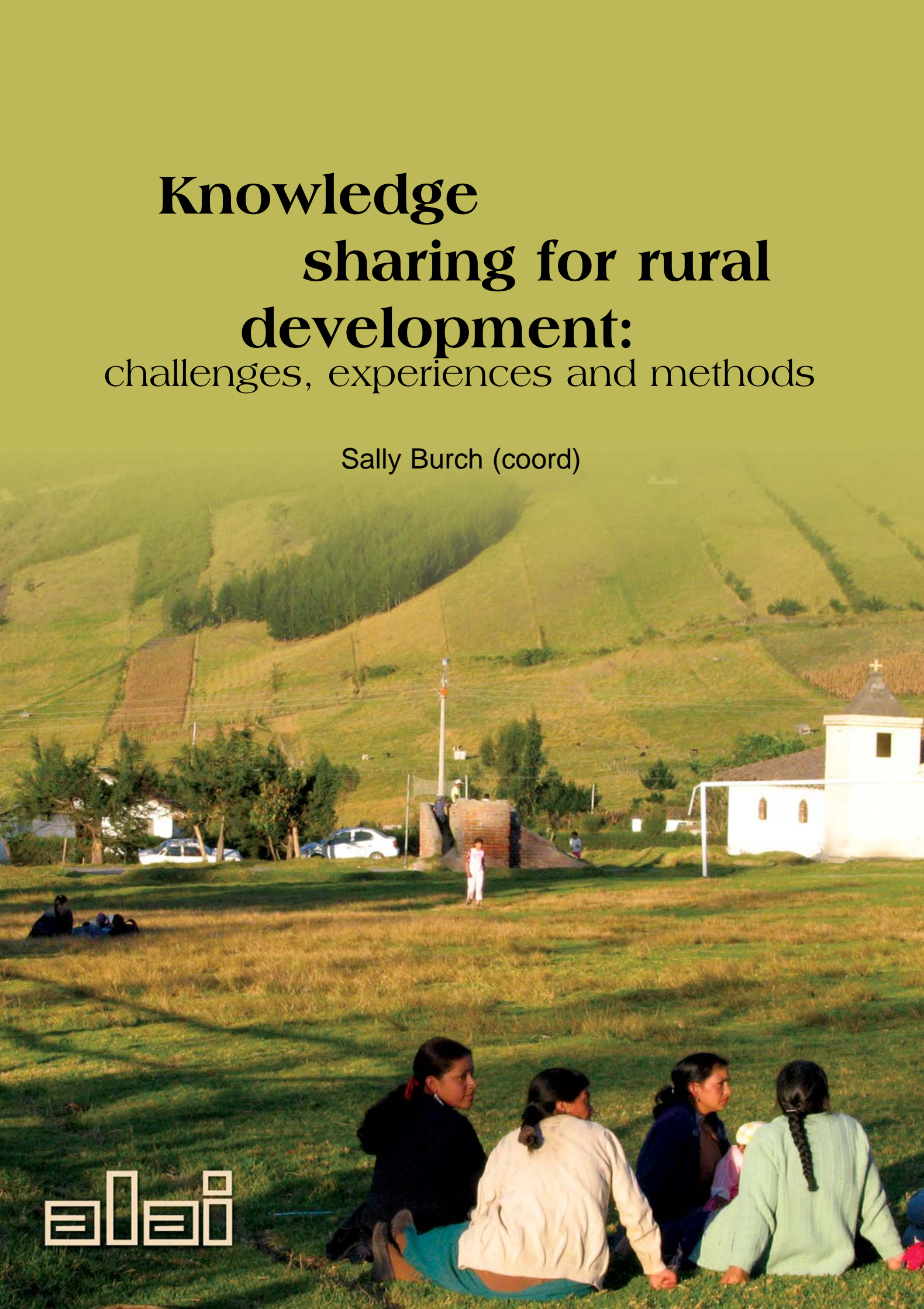


Knowledge sharing for rural development: challenges, experiences and methods

Sally Burch (coord)



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Since the "Green Revolution", world food production has grown at a dizzy pace. Yet hunger continues to spread throughout the globe, chiefly in the countryside, as small farmers are increasingly forced into ruin. The agro-industrial model is thus showing signs of fatigue.

More and more peasant farmers are seeing ecological agriculture, combining ancestral and new methods, as a sustainable solution. This brings about new challenges, such as how to recover knowledge that was becoming lost, adapt it to current conditions and complement it with new knowledge. The creation of mechanisms to generate and share knowledge - both among farmers and with investigators and specialist centres -, is now a condition of survival of rural communities.

This book explores these issues, combining reflections with concrete experiences that, among other things, are experimenting how new information and communications technologies can foster effective knowledge sharing.



Quito, May 2007

Knowledge sharing for rural development:
challenges, experiences and methods

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Contents

¿Which knowledge for rural development?	5
<i>Sally Burch</i>	
Sharing knowledge for rural community development: Echoes from the Latin American South-South Workshop	13
La Catalina: A knowledge sharing experience for capacity building processes	18
<i>Kemly Camacho</i>	
Media and Materials for Knowledge Sharing	32
<i>Lena Zúñiga</i>	
ICTs for building knowledge, as an administrative tool	38
<i>Luis Carlos Aguilar</i>	
The Agrarian Information System in the Huaral Valley	43
<i>Fanny Jiménez</i>	
Satellite-linked Telecenters unite migrants with their familias	46
<i>Mónica Loyola Crespo</i>	
Exchange of local agricultural content in rural Uganda	50
<i>Ednah Karamagi Akiiki</i>	
Knowledge exchange for the conservation of life-giving natural resources	54
<i>María Augusta Robalino, Juan Emilio Zambrano, Máximo Cangá, Maricruz Valencia</i>	
Resistance and contributions from the Maya cosmovisión	58
<i>National Indigenous and Farmer Coordination -CONIC-</i>	
Challenges for Schooling in the Brazilian Countryside: the Experience of the MST	62
<i>ALAI</i>	
Some resources on knowledge sharing	69

Which knowledge for rural development?

Sally Burch

ALAI, Quito, January 2007

For millennia, the countryside has been fertile terrain for the evolution of human knowledge. For example, generations of farmers have discovered or improved more than 10,000 species of edible plants; they have developed extensive knowledge concerning the properties and uses of plants; through practice they have learned soil management and how to adapt to climatic differences, across diverse geographic locations; they have developed techniques for fertilization, pest control, animal husbandry, medicinal preparations, crafts utilizing agricultural products, and much more.

Also, each society has generated their own means of transmitting knowledge from generation to generation, and while some knowledge has always been held in reserve by certain crafts or occupations, the great majority of knowledge has been shared freely. This experimentation and exchange are precisely what have enabled improvements in species and techniques, adapting crops to local conditions. In addition, it has contributed to the conservation of biological diversity, ensuring that the ecosystem remains robust. In this way, although people have not been altogether immune from disasters and plagues, they have been equipped with mechanisms to overcome them.

The impact of the Green Revolution

In the last century, starting from the so-called "Green Revolution," transformations in the countryside have profoundly altered this way of life. Since the 60s, with the introduction of so-called "improved seeds," global food production increased exponentially. These seeds provided greater harvests, avoiding - in theory - the looming global food shortage stemming from population growth. This increase in production accelerated during the 90s; between only 1990 and 1997, production of food per capita grew by nearly 25% (Duch, 2006). By that time, almost 75% of the rice-growing areas in Asia and 70% of corn in the world was cultivated using these improved varieties, and an estimated 40% of farmers worldwide were utilizing industrial seeds, particularly in Asia and Latin America.

According to Peter Rosset, Joseph Collins and Frances Moore Lappé (2000): "Much of the reason why these "modern varieties" produced more than traditional varieties was that they were more responsive to controlled irrigation and to petrochemical fertilizers, allowing for much more efficient conversion of industrial inputs into food."

Given this, it seems astonishing that, far from resolving global hunger, the situation has worsened within the same period, deteriorating more rapidly since the 90s. This past October (2006), Director-General of the Food and Agricultural Organization for the United Nations - FAO - Jacques Diouf, deplored that one decade after the World Food Summit in Rome (1996), during which a commitment was made to halve the number of people suffering from hunger by 2015, in developing countries today, there are 820 million more people who go hungry than in 1996, most of whom are women. Furthermore, this figure is rising by 4 million each year.

Paradoxically, people suffering from hunger live primarily in the countryside. The vicious circle facing small farmers is well-known: indebtedness, deteriorating quality of life, hunger, loss of land, migration, etc.

Gustavo Duch (2006) states that "In impoverished countries farm families survive, in most cases, within an ecosystem highly suitable for agriculture, for raising animals, for fishing or for the enjoyment of forest products. However, more than 70% live in poverty and suffer from malnutrition because these resources are controlled by a few elite."

As early as 1986, the World Bank, one of the main proponents of the Green Revolution, recognized in a study on global hunger, that a rapid increase in food production would not necessarily guarantee greater food security; in other words, that hunger would not diminish. It identified lack of purchasing power as the central issue for undernourished people (Rossett et al, 2000).

Various analyses demonstrate that those who have reaped the greatest benefit from rising food production are transnational agribusinesses. Currently, global trade in seeds already surpasses 30 billion dollars, four times that of 1970. (Desfilhes and Dufour, 2005, p 87). In the mid 80s, thousands of seed companies existed, and not one held more than 1% of the market share. By 2003, 10 companies controlled 30% of the global market. At that time, 65 agrochemical companies existed. Today, a dozen agrochemical companies control 90% of the global market (Ribeiro, 2003).

For the majority of farmers, however, this has meant losses, because the cost of inputs has risen more rapidly than the gains from production. For example, a study based in Central Luzon, Philippines, demonstrated that while the rice harvest increased by 13% during the 80s, it required an increase of 21% in fertilizer use (Rossett et al, 2000). This implies a growing economic and technological dependency on the part of the peasantry, who have to purchase agricultural inputs each season within an imposed technological framework, in which their ancestral knowledge no longer counts.

The global organization Vía Campesina considers that the root problem is export-ori-

ented agricultural production, whose priority is trade in food rather than satisfying local nutritional needs. Associated with this are practices of "dumping" whereby subsidized agricultural products are sold in countries of the South below the cost of production, to the detriment of local agricultural economies.

Alternatives to the agro-industrial model

A lot of evidence exists demonstrating that the industrial model of agriculture - based upon monocultures and homogenous seeds, utilizing chemical fertilizers and pesticides - is unsustainable, as much in terms of costs, as because it exhausts the soil. An increasing number of farmers in the world are abandoning the use of industrial inputs, if only because they cannot afford to pay for them.

However, serious factors persist that prevent the adoption of alternative forms of development, beginning with state policies that, since the 80s, have been aligned with neoliberal economic prescriptions. Thus, in many countries of the world, agriculture programs, access to credit and legal frameworks continue to favour, mainly or exclusively, the agro-industrial model. Also, the scientific research that receives support and financial investment, as well as academic and official recognition, is mainly that which serves agro-industry.

It seems beyond belief that for two decades, in the European Union, farmer organizations have had to struggle against regulations that prohibit them from collecting and sowing their own seeds, or that fine them for doing so. Both in Europe and in the U.S.A., legal restrictions persist against the age-old practice of farmers exchanging seeds, rules which are starting to be introduced also into Latin America, for example, as a condition for signing Free Trade Agreements.

Recently, faced with ever more clear evidence that the agro-industrial model is unsustainable, efforts are mounting to defend and work for change. In fact, experience increasingly demonstrates that agroecology offers a viable and sustainable alternative to this model, and can be equally productive in the medium term, ensuring better livelihoods for farmers. However, change will be difficult to attain without public policies which favor genuine development for peasant farmers and protection for the natural environment. In several countries, rural struggles point towards such policies: for example, those in favour of agrarian reform or food sovereignty.

One of the most serious impacts of the agro-industrial model has been the progressive loss of ancestral rural knowledge. In the early 80s, it was estimated that more than half of the world's genetic diversity amongst cultivated plants had been lost- along with the related knowledge - a process that continues year after year, signifying a loss for all of humanity.

Meanwhile, as part of the resistance to this model, an effort has re-emerged to retrieve traditional knowledge and species. A first step in this initiative is to revalue these

resources, given that, frequently, rural communities discredit their own reserve of knowledge, assuming that outside knowledge is superior. One aspect of the Green Revolution has been the propaganda that has accompanied it - with the aid of mass media - concerning the "progress" that agroindustry signifies in relation to past approaches.

Another necessary step is to re-evaluate the applicability of traditional knowledge and methods to present conditions, and to renew mechanisms of exchange and agricultural improvement. Even so, today, the recuperation of past practices is not always enough to sustain rural life in the face of new challenges and demands. For example: how to recover soil which has been depleted through monoculture and application of fertilizers? What techniques are adequate to replant mangroves and marine life in coastal areas devastated by shrimp farms? Which methods will protect crops from new infestations, without contaminating food and the environment? And fundamentally, how to achieve a level of food production which ensures a dignified livelihood for rural families as well as feeding growing urban communities?

In many cases, in order to respond to these challenges, new technical and scientific knowledge will have to be sought, which can be adapted to specific cultural and geographic circumstances. Although this often implies relying upon external advice, it also raises the necessity of improving levels of internal expertise. In this context, the development or renewal of practices and mechanisms for knowledge creation and exchange takes on new meaning and relevance, not only for the daily task at hand and the livelihoods of the rural communities, but also for the future of humanity.

Towards a transformative knowledge

Within this search for better approaches, it is useful to reflect on what we understand as knowledge: how is it acquired? what knowledge do we prioritize socially?

Knowledge necessarily implies a process of assimilation and transformation by the human mind. A data base can contain information - that is, organized data - but for this data to become knowledge, it must be appropriated and confronted by reality. For scientist Albert Einstein, *the only source of knowledge is experience*.

The popular education theorist, Paulo Freire, considers that to know is to construct categories of thought with which one can appraise the world, making its interpretation and transformation possible. In addition, he recognizes that generating knowledge is a social process: *There is no knowledge in existence that has not been born out of preexisting knowledge and that which exists today came from that which existed before* (Carlos Stolen Núñez, 2005). For this reason, to share knowledge is a condition for its creation.

In a given society, the choice of which knowledge is developed is not a neutral process. Currently, what is considered "universal knowledge" is increasingly that which is developed to serve powerful economic interests. So much so that in the last quarter century, publicly-financed research has been drastically reduced, giving way to that financed by large corporations.

The World Bank - an institution which also boasts of being a knowledge bank - expressed this vision of "universal knowledge" in a document which argues how knowledge management can favor development: *"Developing countries need not reinvent the wheel (...) Rather than re-create existing knowledge, poorer countries have the option of acquiring and adapting much knowledge already available in the richer countries. With communication costs plummeting, transferring knowledge is cheaper than ever."* Among the national strategies to reduce inequalities, the Bank mentions three means of facilitating this acquisition: *"an open trading regime, foreign investment, and technology licensing"*; in addition, it proposes *corporatizing research institutes* (Pascal Renaud, 2005, p. 404-406).

We could hardly expect alternative approaches to development to arise from this model of thought. Rather the creation of other forms of knowledge will be required, which is an enormous challenge, as is argued by investigator Rigoberto Lanz, adviser for the Scientific Mission of the Ministry of Science and Technology of Venezuela: *The question is not only putting what we have already developed in science and technology 'at the service' of the people. (...) It is not just a matter of people 'having access to' a particular science or technique, that is simply available in some kind of department store of neutral options. The fundamental question is how to produce a distinct logic for integrating knowledge and society, another cognitive model, with new concepts and categories that lead toward a new rationality (...) This implies... an emerging process of **critical appropriation** of all available knowledge within society, which will reverberate within the institutional models responsible for governing this field. The grassroots impact of this policy cannot be measured in terms of 'extension' but rather by the predominant role played by the people in driving their own affairs (including the technical solutions to their problems)* (Lanz, 2006).

Private property or public good?

In this dichotomy concerning visions, the privatization of knowledge (via the ever greater expansion of intellectual property rights) and its nature as a public good comes into play. From their original purpose of stimulating creativity, while assuring reasonable remuneration to authors and inventors, copyright and patents are expanding today into more and more areas - including forms of life, such as genetically-modified seeds and genomes. One of the areas in which the impact of such policies is felt most intensely is in the countryside. Without giving them recognition, transnational companies are patenting the ancestral knowledge of indigenous peoples, and then trying to earn royalties from these same rural populations for using the seeds that they have patented. In the face of this problem, Latin American countries have been slow to react to ensure adequate protection of the traditional knowledge of their peoples.

In fact, the production and exchange of knowledge and information has a peculiarity that distinguishes it from material goods. Through the process of sharing, knowledge is not lost, rather it is multiplied and enriched. In other words, intellectual common goods

can be used concurrently by a countless number of people, without interfering with or destroying the shared resource. For this reason, the economy of symbolic goods does not correspond to the same parameters as that of material goods. With the growth of digitization and the Internet, the cost of reproducing and distributing symbolic goods (texts, data, audio-visuals, computer software, music, etc.) is close to zero; but as these products are very easy to copy for free, this is seen as a threat by those who are trying to profit from them. This leads to demands for establishing and extending intellectual property rights and further restricting copyright. In the majority of cases, the main beneficiaries of such rights are no longer the individual authors and inventors, but rather large corporations.

One of the consequences of this push toward privatization of knowledge is that it jeopardizes the principle of international law, recognizing cultural and scientific creation as the common property of humanity and as a source for new creations.

"Collective intelligence" initiatives stand out among the citizen-based responses to this phenomenon, one of the main expressions of which is the free software movement. This movement defends four freedoms: the freedom to use computer software; the freedom to study and adapt programs; the freedom to distribute copies, as well as to upgrade and share programs so that everyone benefits. These liberties are similar to those claimed by the movement for the free exchange and improvement of seeds. As reaffirmed by Jean-Marc Defilhes and François Dufour (2005, p.86) members of the Farmers's Confederation of France, the traditional practice of farmers has signified: the liberty to freely sow and reap the fruits of a plant; the freedom to study plants and to adapt them to one's own needs; the freedom to share seeds and to participate in their geographic distribution, as well as to improve seeds and to share these improvements for the benefit of the community.

The potential and limits of information technologies

As part of the answers to the issue of knowledge for rural development, formulated within the field of international development, in the last decade, great expectations have arisen from the potential of new information and communication technologies (ICTs).

Dominant discourse focuses on the need to overcome the "digital divide," pointing out that the lack of access to these technologies will only deepen gaps in development, whereas greater access would allow rural communities to connect with information and knowledge that will supposedly help them to overcome underdevelopment. These arguments have led to considering programs which give marginalized populations access to technology as a solution for underdevelopment.

Undoubtedly, access to telecommunications should be guaranteed as a universal service¹. However, there is no evidence to demonstrate that these technologies can, in and of themselves, provide solutions to the problems of rural development indicated above. In

1 In Latin America, often the prime motivation of the rural population to access telecommunications - whether mobile, fixed or Internet - is to keep in touch with their migrant family members, inside or outside the country.

practice, many projects based on a technological approach have failed, when they start from the view that technology is a tool with which to channel knowledge from the outside, without regard for the existing knowledge system within the community concerned, their values or their culture.

Nonetheless, there is mounting evidence, that through a process of community appropriation, these technologies can indeed be a strategic component of more integrated solutions. Various initiatives that have started from a process of the communities themselves identifying their needs and priorities, have taken on a search for methods and methodologies, in which ICTs are identified as one of many possible options which may be harnessed for development and exchange of knowledge. There are no universal prescriptions to achieve this, but some common criteria can be identified. The sharing of experiences, including the successes and errors encountered, can help optimize integration of these tools.

It was with this understanding that, in March of 2006 in Ecuador, the *Workshop on knowledge-sharing for rural community development* was organized, which was part of a series of South-South exchanges that have taken place in various countries of Asia and Africa - this being the first for Latin America -. (The workshop was coordinated by Hivos, ALAI, IIAV and IDRC. The following chapter is an overview of the results).

This publication gathers together experiences shared during this event as well as other related experiences which show-case different facets and methods for knowledge sharing in the context of rural communities. In addition, it explores several methodological instruments and materials for exchange, employed in one Central American initiative in social economy. It also draws from five local experiences, accounting for different approaches in the use of ICTs as tools for systematizing, sharing and building knowledge. These are: in Bolivia, self-managed audio-visual documentation in various locations; in Peru, an online agricultural information system in the Valley of Huaraz; in Ecuador, a website and telecenters for relatives of migrants, in Cuenca, and photographic documentation for raising awareness in communities of shell-fish collectors in the mangroves of Esmeraldas; then in Uganda, exchange of agricultural knowledge with the help of radio, cell phones, the internet and other technical supports. Also, we present a contribution of aspects concerning resistance based upon Mayan indigenous knowledge, in Guatemala; and finally, the proposal for rural education and training developed by the Landless Workers' Movement, in Brazil.

These very dissimilar experiences have in common an understanding of the importance of starting from needs and priorities as identified by the concerned communities, respecting local culture and means of communication. They also make it clear that technology, as powerful as it may be, is a tool, whose contribution to development will depend upon how the actors and the communities adapt it to their own goals.

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Exchange with the
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Sharing knowledge for rural community development: *Echoes from the Latin American South-South Workshop*

The workshop "Sharing Knowledge for Rural Community Development with the help of ICTs," took place from March 16th to 21st, 2006. It was convened by Hivos, IICD, IDRC, and ALAI as the 7th in a series of "South-South Exchanges," which have taken place in various countries on different continents, on the initiative of the first three organizations mentioned above.

The main aim of the "Sharing Knowledge for Rural Community Development" workshop was collaboration concerning knowledge and Information and Communications Technologies (ICTs) for rural community development, in the context of globalization. It took place across three different locations in Ecuador: Quito, Tumbaco y Muisne. The 27 participating organizations, representing 10 different countries, are all involved in one way or another with rural development processes and, though using various methods and technologies, they are all exploring the use of ICTs for sharing knowledge in the communities.

As the central theme, emphasis was placed on the role played by knowledge sharing in rural development processes (for example, in agriculture, community tourism, shellfish harvesting, and marketing). Within this general framework, the workshop explored in greater depth the topics of "local knowledge and content" in the context of globalization, as well as "ICTs as a tool," and "sustainability of community information centres."

Local knowledge and content

In the course of the workshop, a distinction was made between two types of knowledge: one being "local, traditional or ancestral," which is the closest to a grassroots experience, and the other being "technical, expert, or academic," related to processes of organization and exchange on more institutional levels. It was pointed out that as part of this process discussion is needed about the power dynamics that intervene, imposing one kind of knowledge over another, or negating or discrediting certain types of knowledge compared to others, questioning their legitimacy, etc.

The need to work towards understanding the limitations existing in the relationship between these two types of knowledge was recognized, noting the possible transformations in their content and the implications of these changes, seeking in this way to support "two way learning" processes rather than superimposition or imposition.

ICTs as a tool

Information and Communication Technologies (ICTs), when thought of as tools that can facilitate the knowledge-sharing process, gave rise to agreement amongst the group that "ICTs are means, and not an end." In this respect, it is important to note the distinction made between ICTs and "New" Information and Communication Technologies (NICTs). Both can be referred to as tools for communication and distributing information, but a wider range of related technologies can be found in the first, such as radio, television, theatre, etc., while NICTs focus primarily on digital technologies, such as the internet.

The shared experiences verified that ICTs, in their various forms, can facilitate knowledge sharing processes. These processes are optimized when there is clarity, with regard to what knowledge to exchange based upon the objectives, who is involved in the exchange process and which technology is the most appropriate to use. In this respect, one participant commented:

ICTs are a facilitator, a channel, and a mechanism of [information] flow. However, fundamentally what really produces the change are not the ICTs, but the information that is shared [...]. When the flow is unblocked there are transformations in the organizational process. This must be taken into account, because while it is said that technology produces such changes, they are actually generated by the flow of information and the sharing of knowledge.

In this way, one type of technology is not prioritized over another for its age or novelty, but instead for its effectiveness to facilitate the sharing of knowledge with respect to the set goals. The participants then recognized the necessity to learn about these different means and methods for applying ICTs according to specific needs and objectives. In this way, ICTs can be adapted to each local situation, identifying the mechanisms that allow for a "friendly" encounter between these technologies and the communities.

Moreover, the potential of ICTs for organizing and preserving traditional or local knowledge was debated, as well as their aptness for facilitating dialogue between local knowledge and expert knowledge that is already systematized. It was noted that this process implies work to restructure concepts and perspectives, within the organizations themselves that are working for community development. In this respect, one participant expressed:

It is necessary to arrange processes according to which technologies will be used, as much in order to bring together expert and local knowledge systems, as to advance systematization of local practices. This requires NGOs to move towards models, built through dialogue and collaboration, of participatory social analysis-which allows for such engagement, dialogue, and consensus among different systems and knowledge [...].

At this time, ICTs can play a very important role in furthering processes of systematizing local knowledge; because if we leave the rich, local processes simply within oral traditions, this understanding little by little-as we have experienced before-will begin to be lost [...]. Afterwards, greater integration and balance can be sought, integrating systems of expert knowledge in a more balanced way with this organized local knowledge.

Sustainability of Community Information Centres

Although sometimes known as info-centres or telecentres, the group preferred to call them "Community Information Centers," referring to the intentionality to create a space where varied and useful information for the development of the local community is stored and accessed. The center is for information and is, above all, of the community.

One of the major problems faced by this type of project is sustainability, both in economic terms as well as in social and cultural terms, particularly when communities do not feel that the information centre is their own. Speaking about sustainability goes beyond simply financial considerations. The issue of sustainability is economic, as much as it is social and cultural. One of the keys to sustainability is through a true appropriation of the project and, thus, of the centre itself, on the part of the community. Another way discussed in the workshops, which relates to the diversity of ICTs, just like the diversity of needs and concerns of the community, has to do with the diversification of the services that a community information centre can offer. The more the community gets involved from the beginning in the planning, design of the centre and implementation of activities,

the greater the probability that the centre will become a gathering place for the various concerns of the community, and that it will truly be adopted by the community. This opinion was shared by one participant, who indicated that:

The information centres can also put to use more than just good technologies, they can be spaces for exchange: they can be in touch with a community radio station to advertise a video presentation or to promote the paintings that school children are creating on rural themes... The centre can harness, give feedback and broadcast the various forms of information that exist in these information centres.

Several participants emphasized that it is also important to coordinate with different types of groups, such as other grassroots organizations, NGOs, public and private businesses, international supporters, etc. Special emphasis was given to the necessity of having ties with government bodies and local authorities, who "should be present throughout the process, responding to the communities." In this way, it was pointed out that forming strategic alliances opens up the possibility of accessing a variety of mechanisms, techniques, methodologies and ICTs themselves, that are necessary to reach the objectives.

Some lessons learned

From the many lessons that can be drawn from the workshop exchanges, we summarize here some of the most important, both in content and methodology.

Content:

- * In the context of globalisation, retrieving, valuing and sharing local knowledge takes on a new meaning and relevance, as an answer to a model of agro-industrial development that has been incapable of improving the living conditions in the countryside.
- * In order to be able to act in the face of the transformations that are taking place in the rural areas, it was seen to be important to have a grasp of this global context, and how it is affecting local communities.
- * It was pointed out that sharing knowledge is not necessarily a spontaneous practice, but that it requires motivation, policies, mechanisms, techniques, means, etc. A key factor of motivation - and of success - is to start from the needs identified by the communities concerned.
- * Information and communications technologies (ICTs) - both conventional and new - were identified as tools that can contribute solutions, within a strategy of knowledge sharing for local development. But they are not a solution in themselves, nor are applicable to all cases. Which tools are most appropriate can be identified according to the context and methodology, considering their particular advantages and limitations, and adapting them to local conditions.

Methodology:

- * It was understood that in dynamics such as this workshop, it is necessary to define beforehand whether the group wants to focus mainly on the interchange of experiences, or on the collective construction. In this case, the group opted for the latter, which was judged by the majority to have been the most adequate, given the characteristics of the participants present.
- * The character of a workshop of this type (with a very diverse group, of organizations that were not known to each other beforehand, without a pre-established common future project), implies methodological challenges, that demand great flexibility in adapting the rhythm and thematic approach to the spirit of the group. It is a plus to involve the participation of the group in these definitions.
- * It was understood that follow-up is important, but does not necessarily have to occur among the same group. The important thing is how what has been learned feeds back into the practices of each organization, in their own context, and into the interchanges in the networks where they participate; also in the bilateral relations and interchanges that arise between participants of the workshop.

The complete review of the workshop (in Spanish) can be downloaded at:

<http://www.alainet.org/active/12146>

And a shorter English version here: <http://www.alainet.org/active/13368>



Meeting of Young
Cooperative Members:
presentation of group-
work results.
La Catalina, Costa Rica
SULA BATSÚ

La Catalina: A knowledge sharing experience for capacity building processes

Kemly Camacho
Bellanet-Sulá Batsú

These reflections are based upon the analysis of a three-year long process in Costa Rica of applying "knowledge sharing for collective creation" processes, in training processes with the social economy sector.

Bellanet is a secretariat of the International Development Research Centre (IDRC) of Canada. Its Latin American regional office is located in Costa Rica, hosted by the cooperative Sulá Batsú, a self-managed cooperative of professionals working in the areas of knowledge sharing, new technologies, the social economy, free culture and social research in Latin America, with special emphasis on Central America.

<http://blog.sulabatsu.com/>

Introduction

For the knowledge exchange process in La Catalina, the methodology was developed by Sulá Batsú (www.sulabatsu.com) with the support of Bellanet's (IDRC) Regional Office in Latin America (www.bellanet.org). This presentation is drawn from the perspectives of Sula-Batsu's members regarding this project.

Within the context of La Catalina Training Centre whose goal is to build capacity within the social economy sector, the challenge was to test in practice "knowledge sharing for collective creation."

La Catalina is a Training Centre for the Social Economy (www.lacatalina.org) located in Costa Rica with plans of becoming a capacity development centre serving Latin America and the Caribbean in the mid-term. With a beautiful location in Birrí, in the Province of Heredia, La Catalina acquired its facilities through the cooperation of forty three organizations that are all part of the social economy sector with the shared goal of developing training programs appropriate to the needs and conditions for social economy enterprise development. This centre seeks to give entrepreneurs the opportunity to receive training specifically tailored to the questions and concerns pertaining to the social-solidarity economy.

Enterprises within the social-solidarity economy¹ are understood here as productive initiatives focussed on people rather than capital. They are businesses that integrate social development, particularly at the local level, into their management structure balanced with environmental responsibility and economic results. They also aim to generate wealth and to re-distribute it in a fair and equitable way, sustainably, using economically-efficient production, but without being profit-oriented.

These initiatives spring from the needs of social groups who see entrepreneurship as an important route toward their own development. As a result, the organizational and political management of such initiatives are grounded in democratic principles rather than in the amount of capital each person contributes.

In 2002, 120 businesses came together to define what they would like to see from a Training Centre for the social-solidarity economy. They envisioned a centre that would build technical, management and political capacity amongst people within this sector to improve their competitiveness and to provide them with the necessary skills to address

1 This includes organizations involved in cooperative economic activities, meaning citizen-organized enterprises premised upon democratic values and management models. Such organizations share the following foundations: they work in the collective interest of their membership beyond simply generating profit, using an autonomous management model and democratic decision-making, prioritizing people and provision of work over capital.

These organizations take a more social and humane approach to economic activities, in contrast to the traditional private enterprise. This alternative vision does not infer a lack of profits. Instead, it means that profit generation is based upon principles grounded in the recognition that societies are made up of people.

challenges arising from globalization and international markets.

They also outlined the specific skills that entrepreneurs in this field require. In general at this time, leaders in technical areas of the social-solidarity economy, including business managers and many political leaders, have been trained in traditional business schools. As a result, the need for appropriate, high quality technical training oriented toward solidarity entrepreneurship was clearly identified.

The need for a unique approach to learning was also indicated. They emphasized practical learning that respects and draws upon the knowledge generated to date by the sector and which is best expressed in the lived experiences of those involved. They also indicated that such training should be dynamic and entertaining.

Taking into account the demands of the sector, Sulá Batsú with the support of Bellanet made a proposal to the Board of Directors and the Academic Council of La Catalina to implement an inaugural plan for the centre. The implementation process would be based upon "knowledge sharing for collective creation", as previously used by both Sulá Batsú and Bellanet in various parts of the world.

The inaugural plan took one year to carry out and included twelve workshops. Capacity building goals for the participants were laid out in four subject areas as decided upon by the Academic Council. These included: 1) social economy business management, 2) developing the concept of the social economy, 3) intergenerational exchanges, and 4) several technical topics selected for their relevance to the sector at this point in time such as international regulations concerning financial information, risk management in savings and credit cooperatives, and cooperative insurance. For several of these themes two or three workshops were developed.

Various stakeholders from the Central American and Costa Rican social economy sector supported and coordinated the realization of this plan. Special mention should be made of the Institute for Promotion of Cooperatives, the National Cooperative Council, La Catalina's Academic and Administrative Councils, and the Training Centre's partner organizations.

For the duration of a year and a half, "knowledge sharing for collective creation" was put to test as an appropriate approach to capacity building for the social economy sector given its particular demands. This article reflects upon this process with a focus on the outcomes of the process resulting from the implementation of the inaugural plan. The results from each of the particular subject areas elaborated upon during the collective creation process are also interesting but will be set aside for a later opportunity to be addressed.

Knowledge sharing for collective creation

Currently, knowledge has become one of the most important factors in productive processes. Knowledge is inherently human and has always been used by people to pro-

duce, reproduce and to improve their material and non-material conditions. However, it has now become the raw material for production.

Information and communication technologies play a central role in these new wealth generation processes because they constitute the space where diverse types of knowledge meet in order to develop productive processes.

In this context a strong trend has emerged to find ways of "capturing" knowledge. Proposals for knowledge management have arisen looking for means to create virtual spaces and automated systems (such as data bases) that will "organize" people's knowledge whether they are part of a business, social group or other productive process.

In contrast with this approach, an alternative proposal has been developed to challenge this concept of "knowledge management" which states that:

- * When knowledge is made explicit it becomes information. Information can be managed, that is, captured and organized in storage devices and disseminated in various digital and traditional formats.
- * Information is an input for individual and collective learning processes that people and social groups use in order to develop new knowledge.
- * Knowledge gained through lived experiences of individuals and social groups is called tacit knowledge. This cannot be stored nor captured, rather it can only be shared or exchanged through people's interactions. This can take place digitally or face-to-face, but the key element is the interaction. Additionally, this knowledge is intangible, in contrast to knowledge that can be made explicit and become information.
- * Until now, tacit knowledge has not been valued very greatly. It hasn't been favoured in productive processes nor in formal education. However, rural, aboriginal and other marginalized communities have principally relied upon tacit knowledge for their own development, survival and resistance.
- * Since tacit knowledge finds its expression in the experiences of people and social groups, it can't be captured and it can't belong to anyone except for the person or group who has lived it. As a result, it hasn't received the attention of those whose only goal is capital production. However, as previously mentioned, tacit knowledge has begun to draw the attention of large productive processes which have tried to develop mechanisms to make tacit knowledge as explicit as possible in order gain ownership of it.
- * However, given the particular nature of tacit knowledge, it is impossible to make it explicit and much less to possess it.

Only information can be managed. Knowledge cannot be transferred, captured or managed. It must be shared, through the interaction of people whether by digital means or face-to-face..

Design of the Process

In this section, lessons learned by Bellanet-Sulá Batsú during the development of the inaugural plan for La Catalina are brought forward.

Exchange-based knowledge sharing processes necessitate a particular methodological approach that begins with the following building blocks:

1. A clearly defined topic about which people want to collectively work together and develop new knowledge.
2. The information and knowledge that each participant brings with them.
3. The passion that participants have for the topic.
4. Existing power relationships between participants.
5. Group characteristics such as age, roles, responsibilities, identities, etc.
6. The time available for the exchange.

Once these group characteristics have been identified the methodology is designed, aiming to collectively create new knowledge concerning a particular topic, based upon the experiences of the participants. It is assumed that new knowledge is not equivalent to the sum of individual knowledge amongst the group, but rather that the interaction will add greater value to what they bring with them through synergies and exchanges that take place amongst the diverse participants. For this reason it is very important to have a clear understanding of the primary reasons and motivations for the exchange.

Regarding the process with La Catalina, which is our example here, the first decision made by the implementing team - in this case Bellanet/Sulá Batsú - was to divide the training process into three groupings: 1) conceptual development used to arrive at a focus, concept or position beginning with the experiences of the participants. 2) reflection, and 3) technical issues. For all three types of processes the same approach to knowledge sharing for collective creation was utilized, but toward distinct objectives as outlined in the following table.

Methodology for Knowledge Sharing for Collective Creation as utilized in the Inaugural Plan for La Catalina			
Type of process	Creation	Reflection	Technical
Objective of the process	To create a concept, methodology or approach based upon the experiences of all participants. This objective strongly relates to the idea that all participants have valuable experiences for the construction, deconstruction or reconstruction of concepts.	To reflect about a problem or situation affecting participants in the activity. This objective is closely tied with the fact that people have very few available spaces or opportunities to reflect collectively about shared concerns.	To increase participants' technical knowledge by establishing interactions between participants facing a particular day-to-day reality and people with previous experience in this area. This objective reflects the principle that regardless of how much technical "expertise" a person might have, her or his knowledge can always be challenged when faced with various realities.
Objective of the exchange	To interact with people having diverse experiences pertaining to the topic at hand in order to create new ideas and concepts.	To create a dedicated space for listening and bringing forward diverse perspectives and concerns arising from the participants' experiences. These activities don't have to arrive at a concrete proposal, rather it is hoped that participants will come away with perspectives different from their own all developed from a shared experience.	
Learning objective	Participants will have a new perspective and a different understanding of the topic under discussion.	At the end of the session, participants will have new perspectives that challenge their own understanding of a specific topic.	Participants will question their own expert technical knowledge on a specific topic.
Examples of topics explored using this methodology	The management model What is the Social Economy?	Inter-generational interactions	International Regulations of Financial Information Cooperative insurance Financial Risk Management

Another key factor is that the knowledge generated through sharing processes results in both tacit and explicit knowledge of which only the latter can be documented. However, participants also take away valuable tacit knowledge which can't be captured or measured. This tacit knowledge is exhibited for example in attitude changes, new relationships, well-founded opinions and an overall strengthening of the social movement. As a result, there are also many intangible outcomes.

The thematic support team

The process facilitation team doesn't always share an in-depth understanding of the topics about which the knowledge sharing process will take place. This makes having a thematic support team necessary which includes people with broad expertise on the particular topic. In this regard, it isn't necessary to rely upon people with academic expertise, instead practical experience should be given high priority.

This team helps to assess the starting point of knowledge that the sector currently has about the given topic, as well as key milestones to be attained and central issues to be addressed. They also review the learning objectives as outlined by the process facilitators. This advisory group is particularly vital with regard to technical subjects.

Each process of knowledge sharing for collective creation is unique. Even if one process shares the same objectives as another, the group of people that collaborates and interacts during the process will never be the same.

Discovering the passions and knowledge that each group brings

This is one of the most important challenges for knowledge sharing because it is frequently unknown until the interaction between participants begins. As a result, the working agenda should generally begin with an activity that allows the process facilitators to get an understanding of this element.

This also means that the initial agenda can't be completely structured and it's likely and sometimes necessary that the agenda be modified once this element is understood in order to tailor the process to the group. This issue may present challenges for people who are accustomed to having strict agendas arranged in advance of the activity. However, lessons learned during the process with La Catalina indicate that open and flexible agendas are fundamental to maximizing the design of the interaction considering the knowledge and interests that the group brings with it. This implies a serious transformation in the traditional structure of collective processes.

Also evident is that in order to achieve success, the central facilitator and her or his support team must be equipped with: a) flexibility, to transform the process in a short time, requiring a deep understanding of the methodologies, techniques and their use; b) the capacity to improvise as needed in order to achieve the proposed knowledge-based objectives, and c) well-developed skills in "reading" a group and its dynamics.

Ensuring a "horizontal" interaction

Processes of knowledge sharing for collective creation share the basic requirement of "horizontality" between participants. This means that in laying out the process conditions must be established, including the venue or space, such that participants feel they have

equitable circumstances within which to bring forward their personal perspectives and experiences concerning the topic under discussion.

When knowledge sharing methodologies were in the early stages of development, particularly through the work of Bellanet-Ottawa with the international virtual community KM4DEV, with which Sulá Batsú has been working on these issues, one of the main concerns raised by the Bellanet-Sulá Batsú team was whether it is actually possible to have "horizontality" under the very unequal conditions existing in places such as Latin America.

In the inaugural plan for La Catalina, the workshops for collective creation brought together managers with their workers, directors from administration councils together with representatives from their membership, people with a long history as part of the social economy sector with younger generations having expectations that new work spaces will open up for them, technical staff with policy-makers, as well as producers, both men and women. It was crucial to establish conditions that would permit this tremendous diversity of interests, expectations and perspectives to interact under conditions allowing for "horizontality."

In this regard, we learned that collective creation has limits depending upon the particular group. Once such a limit is reached where conditions enabling "horizontality" have broken down, people can no longer participate equally in the constructive process.

In order to achieve the greatest horizontality, it is necessary to ensure that a) every participant has something to contribute to the chosen topic, b) every participant is passionate about some aspect of the topic, c) every participant understands and approves of the conditions for knowledge sharing.

Two aspects need to be highlighted regarding conditions for sharing. First of all, with regard to experts it's commonly believed that learning takes place when one or more experts make presentations to a group on specific subjects. In contrast, the methodology under examination values and prioritizes expertise gained through everyday experiences, which is often deemphasized in traditional educational processes.

The second issue needing to be addressed deals with the time allotted for people to speak. Generally in collective processes, a few people monopolize the dialogue either because they are in positions of power that gives them a greater perception of legitimacy to speak for longer or because they consider themselves to be an expert on the topic under discussion. However, usually these people don't participate in processes of collective creation or they establish a clear distance between themselves and the rest of the participants. The knowledge sharing rules as part of this process outline that for every 3 hours of exchange the maximum amount of time an individual may speak should not exceed 20 minutes. While some flexibility exists, this is considered a golden rule. This rule is also a condition for horizontality that proved difficult to implement in the process with La Catalina, but which was progressively established making it possible for everyone to interact.

Conditions for Sharing

- * The more knowledge is shared, the more it grows.
- * Knowledge can't be transferred, only shared.
- * Everyone in the group has valuable knowledge and experiences with regard to the topics for which the gathering has been organized.
- * Diversity of experiences and opinions must be respected in order to enable sharing.
- * Since every participant has knowledge concerning the topic under discussion, the contribution of each person is equally valuable.
- * Within the group, with regard to the specific topics, either no one is an expert or we are all experts.
- * It's recognized that the contributions of others transform and augment both individual and collective knowledge.
- * It's recognized that time is scarce such that it's important to respect the time allotted for each to speak making clear that additional time taken by one person to speak limits others' participation and hinders the interaction process.

The lay out of the physical space should also support the process of "horizontality". For example, as far as it's possible, a central table from which speakers present, should be avoided. People who are going to speak or present can do so from their seat along with the rest of the participants. Facilitators should also be seated amongst the participants.

Valuing tacit knowledge

This approach to knowledge sharing for collective creation values tacit knowledge in a new way because it has been generally downplayed in both productive and formal education processes.

In this way, the knowledge upon which many local communities have developed, particularly those most excluded from economic processes, is given fundamental value. Elements such as oral tradition, critical to the development of our identity, are given higher rank as part of this methodology. Also, knowledge that can be documented is given the same level of importance as that which people bring with them through their own experience. Inevitably, this approach brings attention to the issue of property over knowledge, however this will be set aside for discussion at a future point in time.

Techniques for Sharing

One of the most common misinterpretations of this methodology is that it is based in the application of particular techniques. As previously stated, the central idea is to design a knowledge sharing process within which various techniques are brought together and used in order to achieve the anticipated development of concepts and skills through the course of the process.

Criteria for selecting appropriate techniques rely upon three elements: the objectives for creation, the conditions of the group and the potential for interaction that exists at a given point in time.

Since this article focuses on methodology, details are not included concerning each technique used in each of the various processes. These may be consulted in the website of Sulá Batsú (www.sulabatsu.com) and in future publications.

However, to give an example, the following table summarizes some of the techniques used during the process with La Catalina.

Techniques	Methodological Objective
<i>After Action Review</i>	Review, evaluate or give feedback on an activity that has already taken place.
<i>Peer assistance</i>	Design an activity. Consult with one another concerning a decision and a proposal.
<i>Storytelling</i>	Recount an experience by telling a story.
<i>Open spaces with 5 variations</i>	Multi-purpose activity useful for revealing knowledge and passions brought together by the group. Create and discuss topics arising from group interests.
<i>Create a newspaper</i>	Visioning.
<i>Puzzles</i>	Summarize what was learned.
<i>Life lines</i>	Create proposals from diverse perspectives and visions.
<i>Knowledge and passions</i>	Establish what knowledge and passion the group is bringing to the process with regard to a specific topic.
<i>Graphic representations</i>	Document and organize the process of collective creation.
<i>Sketches</i>	Document and organize the process of collective creation. Also used to loosen up or relax following a sharing process.
<i>Group interrogation</i>	Develop questions concerning key themes, learning to carry out a healthy interrogation of oneself and others.
<i>Creation based upon work of another group</i>	Develop complementary visions and proposals.
<i>Nuclear fusion</i>	Moving from the individual to the collective in the process of creating a proposal.

The cyclical process and saturation points

Another characteristic of knowledge sharing processes is that they have saturation points. These points arise at two key moments. First of all, when the group is tired. Although the activities and techniques utilized in this approach are dynamic and entertaining, intellectual fatigue usually sets in during the collective construction stage. The process facilitator needs to be aware when this is taking place and to immediately interrupt the process such that knowledge building is not negatively affected.

Saturation also takes place when group contributions start becoming repetitive. This indicates that the knowledge which the group has brought to the exchange process has been largely integrated into the process. It is said that knowledge sharing processes work cyclically, like a spiral. Once all of the inputs have been included as part of the collective creation process, a saturation point is reached and the group starts repeating itself. At this stage, the process facilitator needs to begin integrating new perspectives into the creation process.

There are several ways to include new perspectives, one way is to mix up the participants in each working group, another way is to involve new participants. Storytelling is an additional approach to reconsidering an experience or to furthering a process of interrogation. Thematic facilitators may also enter in to break up the cyclic nature of knowledge sharing. Thematic facilitators are people with a breadth of experience in the subject under discussion. They might also be people who have spent time reflecting on the theme such that they can introduce new elements into the group process.

The knowledge sharing team

One of the main problems with these processes is that they can be very expensive to organize because they require a significant number of facilitators. For example, during implementation of the inaugural plan we involved approximately 50 young professionals, responsible for various roles over the course of the different activities.

On average, a good facilitator can work with a maximum of 15-20 people at a time utilizing this type of process. Sometimes in La Catalina we were facilitating 120 participants at a time, requiring up to six methodological facilitators to carry out the processes of interaction and collective creation. Likewise, each group facilitator needs a support person who is responsible for documenting each proposal and making notes concerning the group process.

In summary, for each activity, the facilitation team requires:

- * A *main facilitator* with the responsibility of weaving together the knowledge building process. Amongst other things, this means making sure that each activity connects to the next and that the process of collective creation and conceptual growth of the group is moving along. This person is also responsible for "reading" the group

as a whole and for redefining the agenda and the dynamics according to his or her interpretation of how things are going, including reorganizing groups and methodological facilitators depending upon the course of the process. The main facilitator also designs the overall process and provides ongoing summaries throughout the training. Finally, this person is responsible for the facilitating team throughout the activity.

- * *Process facilitators* are responsible for the collective creation process with each working group. They must have a thorough understanding of the techniques being used as well as the overall objective. They must be able to summarize their group's work in order to integrate it with that of others and will meet as often as necessary with the team of facilitators in order to do so. The composition of working groups will be in constant flux depending upon the techniques used.
- * *Thematic facilitators* are people with particular experience in the areas under discussion. They must be willing to participate in the collective creation process and to avoid thinking of themselves as an "expert", or lecturing in order to "transfer" their knowledge to others. They must also be willing to take part when saturation points are reached in order to advance the process as needed.
- * *People responsible for documentation* are vital, given that in this approach the process is just as important as the results. In general, it's very difficult to find good note-takers who can concurrently document the process using video, photography, or other such tools. As a result, it's necessary to have at least one person per working group with the role of recording as best as possible the process after which they will help to organize the documentation concerning what took place as well as the results.
- * The *logistics coordinator* is another essential role. She or he makes sure that work spaces are conducive for "horizontal" enabling the sharing process. The logistics coordinator is also responsible for making materials available in a timely way to each process coordinator for each technique that is used. This person also collects the materials produced by the documenting team.
- * Someone is also designated to *design and produce the required materials*. Due to the degree of improvisation and re-scheduling sometimes necessary as part of these processes, materials often have to be produced along the way and often very quickly. Materials may be printed or digital, occasionally including multimedia development or web-page production. In the case of the inaugural plan a media production unit was set-up on site. At other times, large flipcharts have been sufficient.

Final thoughts

As previously mentioned, evaluating the outcomes of a "knowledge sharing for collective creation" process is extremely difficult because many results are intangible and difficult to measure. Amongst these are included attitude changes, new relationships, transformative processes and organizational strengthening. While participants take away many such results, only explicit knowledge can be documented. This doesn't include the important aspects such as enthusiasm, pleasure, new visions and perspectives that each participant also takes away with her or him.

In conclusion, it is evident that knowledge sharing contributes to:

Thematic development: Specific topics were built upon throughout the duration of the plan. Collective knowledge evolved with regard to the particular subjects selected during this period of time.

Establishing a space for reflection: The social economy sector in Costa Rica and Central America needs time and space to reflect together. Generally, organizations and businesses don't prioritize for this. However, this process indicated the need and benefits of making available such a resource.

Designing a meeting space: Capacity building processes carried out in La Catalina brought the sector together, strengthening the concept of the social economy, as well as cooperation, productive links and the social economy movement as an option for development.

Knowledge for affecting change: The process demonstrated that knowledge can affect change, particularly through the sharing of experiences. Sharing has a special impact because it helps people identify with one another. The discovery that everyone has something to contribute is transformative. They also discover that through learning, integrating, adopting and adapting the experiences of others that they develop new innovations for their businesses.

Following from this process, similar examples from other situations were found, which are also very valuable. However, it's important to clarify that this methodology goes beyond simple sharing processes between people or straight forward collective creation. Rather, the methodology examined here has theoretical and methodological implications for better understanding of the knowledge building process.

An additional lesson learned during this time is to avoid mixing incompatible methodologies. For example, trying to implement a "knowledge sharing for collective creation" approach with groups who prefer more traditional approaches such as long presentations by guest speakers is ineffective.

Presenting this methodology as a valid approach for capacity building has also been complicated, since training processes are usually thought of as something more traditional.

Pertaining to the approach proposed by Bellanet-Ottawa and the virtual community KM4DEV, two key contributions arise from this case study:

Firstly, collective creation is added to the original knowledge sharing proposal. It's necessary to go beyond sharing and to use the space for collective creation such that sharing results in specific concrete outcomes.

Secondly, the development of mid- and long-range processes rather than simply facilitating a single workshop permits development of long-term initiatives in cooperation with a sector or group such that processes of transformation are more deeply entrenched.

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Media and Materials for Knowledge Sharing

Lena Zúñiga

Sulá Batsú- Bellanet LAC

Knowledge sharing is a complementary response, from a critical standpoint, to the knowledge management trend. Organizations have invested significantly in researching and developing methodologies and tools in order to document, catalogue and capture knowledge for its optimal use in productive activities.

Documenting and recording

Documenting and recording the outcomes of activities and projects makes extensive use of different media instruments, in workshops and exchange activities. This was also the first approach that our team took to integrating media.

The objective of documentation is to capture the experiences, ideas and collective creations developed during the activity in order to copy, archive or refer back to them. In knowledge sharing processes, documentation is essential to creating an explicit archive of what was collectively created, for which photos, videos, presentations, transcripts and documents used during the activity are very important.

These materials and media together tell the story of what took place. They compile the information shared or created during the workshop and, using visual, audiovisual or digital means, they ensure that people can remember what took place and communicate this to others who were absent.

A wide variety of resources, with different qualities, can be used to document and record processes and activities. Organizations have the most experience using media in this way. Some have also been quite innovative and have created interactive presentations about what was shared.

One case presentation:

Workshop about the Cooperative Management Model

For the workshop on the Cooperative Management Model our team created and published a website which included:

- A photo gallery where we posted pictures taken during the event
- A section for video interviews which we carried out with several participants
- A video with soundtrack which included the main images and ideas shared during the workshop
- A section for audio interviews that we carried out
- A section from which all the documents and presentations from the workshop could be downloaded.

With the help of note-takers, transcripts and summaries of several sessions were made available immediately. The workshop contents and archive were documented and published "live," including comments and observations from participants.

<http://www.lacatalina.org/modelogestion>

Use of media and methodological support

The potential for digital media or multimedia to be integrated into knowledge sharing methodology and to help create sharing conditions has not been well-explored.

One example of such an application would be if part of the workshop interaction takes place in a web forum and the forum is made part of the methodology. Instead of being a side process, the forum could become a subgroup for participants who are geographically distant. The web forum could also be used as a storage facility that is progressively filled with ideas, links, examples and resources used during the workshop.

We've also used video. Using video in place of a live expert presentation has given us very positive results when it has been integrated into our methodology and used for a specific purpose. For example it can pose questions for debate or provided a starting point for discussion amongst the group leading towards a common creation. Video can also be useful to help explain a complicated topic for participants to use when they return to their organizations. Videos, however, require a greater effort to produce than most other materials and are also expensive. As a result, their use must be clearly justified and it must be well integrated into the methodology. The quality of editing and images, its availability in

multiple languages (with subtitles or translation), and the documents or digital files that accompany the video, are all factors that may hinder or enhance its usefulness to present a subject and generate discussion.

One of the main joint projects between Sulá Batsú and Bellanet LAC is "low tech" media production to support knowledge sharing dynamics and spaces. We've put a lot of effort into facilitating interactions based on simple materials that are very familiar to participants such as large posters, scrap paper, cardboard, scissors, colored paper and coloring materials. Each methodological design includes an outline of the required materials which will help to advance the process rather than being mere decorations. For example, different colored ribbons can be used to help identify groups, cardboard cards can be put together to create a mural of everyone's ideas, a giant map can help participants to collectively identify where they're from.

Creating and transforming media

Another aspect of media that we've wanted to build into knowledge sharing experiences, as far as possible, is to integrate training for participants so that they can transform both the content they create as well as the media they use during the interaction. The idea is that participants manipulate and transform media by determining its role in the knowledge sharing process, the way it will be applied and what kind of results will be produced. In this way, media becomes an essential part of the sharing process and enhances collective creation.

An experience:

The Cube: a methodology for assessing the Internet's social impact

Participants of this workshop were from Central American social organizations, who learned how to apply an impact assessment methodology which they helped create during participatory research. To help participants visualize the methodology as a multi-dimensional process, the facilitators created a cube that had been printed on cardboard and which was then assembled. Each side represented a different aspect of the methodology. This required creating graphics for each element assessed and a different technique to accompany each side of the cube during the course of the workshop. The result was an interactive workshop with consistent content in distinct modules, that participants could easily recreate in their own organizations. The cube served several purposes, including thematic integration and visualizing the multi-dimensionality of the topic, as well as providing a guide for participants and working material for facilitators.

Two proposals for future development:

Meta-recycling and *Estudio Livre*

We recently wrote a pilot project proposal to apply meta-recycling in the Central American context. Meta-recycling is a Brazilian approach to the social re-appropriation of computers, in which used computers are rebuilt using art and FLOSS (free software). (<http://www.metareciclagem.org>)

Estudio Livre is a group which collectively produces digital music, animation, images and video in the communities. It takes a creative approach to capacity building with the idea of sharing as its base giving an example of how sharing and media can go together.

Until now, we've been shy about exploring this idea. During several workshops we have created content while the workshop is taking place: producing, editing, mixing and publishing live web and video materials. However, we have still mediated participants' approach to media, since methodological and thematic issues have taken priority over the communication tools being used.

A few important considerations

As a result of our experiences with integrating media production and knowledge sharing methodology in a way that is consistent with the particular objectives and target group, we've discovered that there are a series of relationships affecting the interweaving of multimedia with knowledge sharing process.

An example:

Marketing products and services

In a workshop with women from diverse cooperatives throughout Costa Rica we simulated a town market and created a space for participants to get to know the products and services that the others were offering. Each woman received a blank piece of paper, cards and coloring materials with which to draw their product or service with assistance from the facilitating team. Each person then called out their product in a creative way, moving around the room offering a small card with their contact information. The objective was the symbolic exchange of products and services. As a result of this activity, some women established business contacts and met like-minded or supportive organizations.

- * **Individual participants representing a group:** workshop participants usually represent a larger group that may be located in another part of the country, of the region or the world. In knowledge sharing methodologies, as well as in the use of media, we try to balance the individual participant's inputs with the inputs from the network or group that he or she represents. Media can help to illustrate this relationship in which participants are representing others. Internet tools for collective creation such as blogs, wikis, forums and chats are useful in this regard.
- * **Adapting audiovisual and symbolic language to the local context:** we try to ensure that symbols, images and language used in our materials are relevant to the groups involved considering their culture and context. References perceived to be foreign or irrelevant may hinder the sharing process, which also happens frequently when people encounter new or unknown technologies. Sometimes the simplest media is the most useful in helping participants to develop their own language in order to share and defend their ideas.
- * **Relationship between media and the objectives:** it is necessary to strike a balance between the space we give to the media we have prepared for a process and how the process is evolving toward the desired objectives. Often some of the materials we prepare for a workshop are left unused because dynamics within the workshop change, making them irrelevant or inappropriate. Media must always have a purpose that is directly related to the goals. Materials cannot be merely decorative; they need to be well-considered and suitable.

An experience:

Life and destiny

As part of an intergenerational knowledge sharing workshop we wanted to explore the different life and work expectations of people from various age groups. We created a long poster with a time line to illustrate a lifetime from which the group collectively created a story about a character from birth until death. Each group chose five numbers randomly which became "key" ages in the life of the character.

We placed "destiny cards" in a tumbler. These described important and unexpected changes in the life of the character, such as a career opportunity, a pregnancy or a natural disaster. The group had to integrate these elements into their story. At the end, this graphic representation of the character's life was analyzed to consider the contrasts between life expectations of rural, urban, older, younger, female and male populations. Each tool used during this activity had a specific purpose and was closely related to the achievement of the objective.

A technique:

Newspaper of the Future

In several workshops we've wanted to generate a vision of the local or national future based upon the group's perspectives in general. In order to do this, we've asked participants to use newspaper and magazine clippings, paint, markers, crayons and large gray cardboard panels. Each group assembles a newspaper dated for sometime in the future representing what will be taking place in various aspects of local or national life. The group designs the sections and the contents according to their own creativity and wording. This approach has resulted in very imaginative and provocative results which can be shared with everyone else without requiring further explanation.

- * **Participant as producer:** In order to appropriate the process, participants must see themselves and their ideas reflected in the media used. Materials that are too elaborate and which don't allow for changes or intervention by participants may be perceived as foreign or difficult to relate to. We try to use media that are simple, interchangeable, easy to reproduce and multi-purpose. As a result, participants can decide what form they will take and which ideas they will represent.
- * **"Live" media production:** We have had various experiences and different results in on-the-spot media production. While it's easier to prepare a video or set of photographs in advance, live production is a much more valuable experience. However, technical difficulties, lack of resources and the pace of live production may affect the quality of the final outcome.

After working nearly two years in the production of media and materials for knowledge sharing, our team recognizes both the great potential for integrating media with knowledge sharing processes, as well as the difficulties that this implies in order to ensure meaningful and coherent media production. Fundamentally, we are striving to produce economically feasible media and materials that are in line with knowledge sharing objectives, maintaining as the central priority the ideas, hopes and motivations of the individuals and groups involved given their specific context.

Lena Zúñiga is a researcher, member of the Bellanet - Sula Batsú Cooperative alliance.



Bolivian communities share knowledge with the support of graphic presentations. AGRECOL

ICTs for building knowledge, as an administrative tool

*Luis Carlos Aguilar
Sergio Quispe*

The AGRECOL Andes Foundation, with its headquarters in Cochabamba, Bolivia, is a regional information and documentation centre on agro-ecology and sustainable natural resource management. Its work focuses on knowledge management in these areas and is carried out through capacity building with various actors; information dissemination by diverse means; documentation and systematization of experiences; support for local initiatives; work with networks; and studying the potential impact of these efforts..

<http://www.agrecolandes.org/>

Information and communication technologies -ICTs- help in the construction of new, sharable forms of collective knowledge from the experiences of rural producers.

Before implementing the use of digital media, AGRECOL had accumulated (over a span of more than five years) a wealth of experience in the promotion and organization of exchanges between peasant farmers, during which agriculturists would visit one another's community. As a result, the farmers gained access to information about different ecological agricultural practices with which they could then experiment in their local setting. In order to better document these valuable lessons, some participants used digital cameras and audio recorders. At that point, the need emerged for a more systematic means of documentation, which would facilitate the dissemination of findings.

Based on institutional experience, digital photo cameras were introduced as the primary means for documenting the farmers' experiences.

Once the appropriate technology was identified, a participatory approach had to be found for the documentation process that would involve the whole community and, concurrently, respond to its own needs and decisions. The challenge consisted of developing a methodology that would transform farmers' perspective on the generation of local content: they and their families would take photos instead of being photographed; they would be outlets rather than recipients of messages; they would go from simply being sources to being producers in the process of knowledge management. In summary, the methodology had to ensure that the agriculturists assumed the role of authors, based upon their own experience and knowledge.

Methodology

The methodology, followed by the process, has four fundamental stages:

1. Preparation

Once agreement has been reached with the organizations to document their experiences, the selection of local facilitators is important. Next, the experiences to be documented are identified and prioritized by the farmers.

2. Training and documentation

The local facilitators are then trained in the use of digital cameras, computers and learn the documentation process, which involves recording and cataloguing sustainable agriculture practices. This process involves collective explanations, cooperative writing of a script that defines the situations, activities and places to be documented; as well as the media that will be used (such as photographs, interviews and drawings). At this point, the document is edited and organized along with sound and images into a multimedia *Power Point* presentation.

3. Validation

Validation is the multimedia presentation to the community of the information produced. At this time members of the community contribute, correct or complement the documentary, which will later be broadcast throughout the community and beyond as part of the process of sharing experiences.

4. Exchange of experiences

This is the time in which experiences documented by farmers of different regions are shared. The theoretical part involves showing the *Power Point* presentations, where the protagonists explain their experiences showing images and short films. Following this, practical demonstrations further explain the experiences they want to share.

Toward a process of self-managed documentation

Through these basic activities of documentation and dissemination, local content and new knowledge have been produced. After the first cycle of documentation and exchange, in which 15 organizations from different regions in Bolivia participated, several communities proposed to continue documenting their experiences. They appreciated the ease with which they could share knowledge with their children (a key motivation), disseminate their experiences within their municipalities and catch the attention of local authorities, promote their products, and train other farmers, amongst other reasons.

This raised the need to establish the basic conditions for self-management. The first condition: assure that the organizations have access to a digital camera and a computer. The strategy: come to agreement that the project will equip the organization with a computer, while each organization assumes responsibility to acquire a digital camera with its own funds. Under these conditions, the project was able to outfit six organizations in different regions of Bolivia. In addition, these organizations created a documentation center, in which training courses in use of the ICTs are also offered.

The documentation that these organizations now have is both an administrative tool and a means of sharing their knowledge. In addition, it provides a means of communication, which gives their communities, organizations, and institutions access to this information and knowledge, enabling them to advance towards sustainable rural development based upon eco-agricultural principles.

The farming experience in the community of Camillaya

The creation of transferable knowledge from the experience of producers has multiple possibilities for use and application. Although it is certain that an implicit knowledge exists within the individual and/or family productive processes in farming communities, with ICTs the farmers have entered into a process of *articulating* this knowledge, which allows the collective sharing and construction of new forms of knowledge.

But this collaborative construction of knowledge has also begun another process. It enhances inter-community relationships and acts as an instrument of negotiation with the local authorities, external institutions and financiers.

An experience that deserves to be mentioned is that developed by the organization AIPI (Integral Association of Inquisivi Producers), which includes among its member groups: "Kollamarca" (a group of women who work with medicinal plants) and the Organization of Beekeepers. Both groups are from the Camillaya community of the second municipal section of Quime, Inquisivi province, in the department of La Paz.

Their initial experience of building group knowledge out of individual experiences has generated an intergenerational symbiosis and enlivened the process of documentation.

Knowledge as an instrument of management

The addition of ICTs to AIPI's productive strategy, which is already nature-friendly, has led them to various benefits. In the case of the beekeepers, the new information and communication technologies have allowed them to generate material useful in the project management, seeking financial support, and marketing their products. *"... It is easier to convince people when one has photos or films to show. People only believe it when they see it..."* (Elsa Shock, naturalist of the Kollamarca organization).

Beginning with the insight of Ms. Elsa Shock, and coupled with the ICTs, AIPI has sought support for a business proposal to fortify its beekeeping activity. Their results have surpassed their expectations and obtained funds that have been administered by the beekeeper organization. *"... When we presented our project to the qualification committee, we stated clearly what we want to do, and they were easily convinced. In addition, within the ranking of the projects presented, we came in first place. They have even said that future funding proposals should follow our example..."* (Juan Vera, president of AIPI).

However, this experience shows not just how ICTs are being implemented into rural life, but also that communities will adapt models and find new applications for their own benefit. The use of new technologies in the communities is a tangible reality, from which a series of lessons may be extracted; ICTs are demonstrating this more and more.

Nevertheless, the experience also shows that these technologies do not always reach everyone, in the sense that not everyone has the same skills. For example, older people may have life-experience in productive activities, but have not been able to acquire the skills necessary to utilize ICTs.

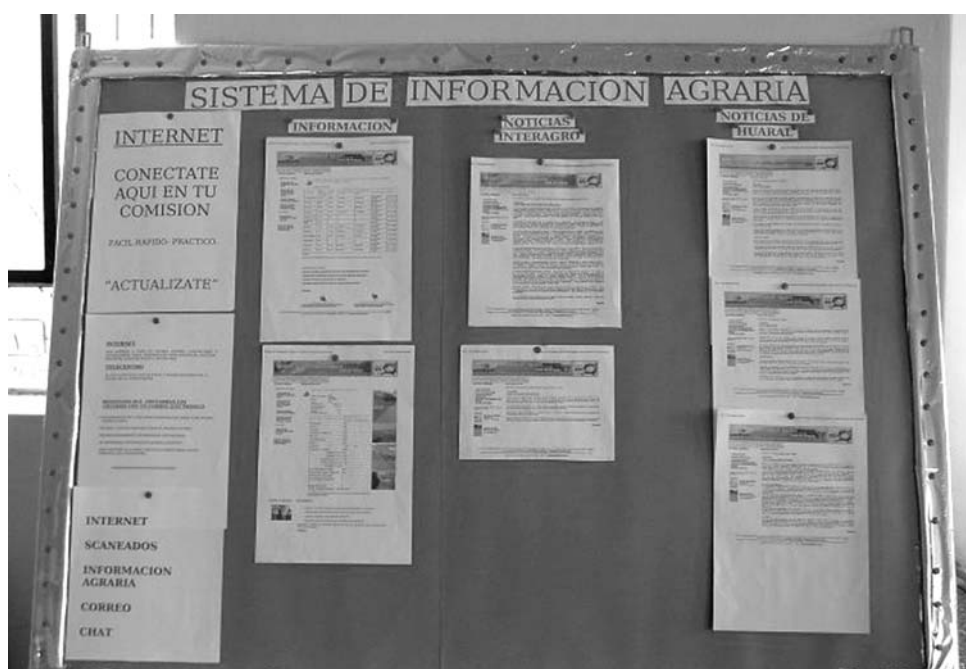
In the case of the Camillaya community, a *symbiotic intergenerational relationship* has developed whereby youth who have the skills to use ICTs collaborate with the adults who describe their experience from which presentations are developed. The young men who go to school and have skills in the use of new technologies (computers, for example) do not contribute to rural production. Through their interactions with the adults they are also gaining experience in productive activities.

This gender-generational interaction around use of ICTs, extends to the barriers regarding women's specific role in the community, and has led to a change in attitude in this regard. Young female students are incorporated in these processes as they attend school and learn computer skills, with which they assist older women to give their presentations.

A rational process of interaction must have some effect or result. Judging by the experience of AIPI, in which the adults describe their experience in order to give a presentation, the young people learn about the work of the adult producers. In turn, the adults learn from the training that the young people are receiving based upon the quality of education that is provided in the schools of the area. The important aspect of this interaction is that it demonstrates a preliminary outcome in what adults and youth are learning from each other.

Now, as a result of the dynamics generated by the ICTs arising from the symbiotic intergenerational relationship, is the construction of collective learning through a collaborative process for the long term.

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Mural newspaper,
Huaral Valley, Peru.
CEPES

The Agrarian Information System in the Huaral Valley

Fanny Jiménez

For more than three years now, the Huaral Valley, located 80 km north of Lima, has witnessed the progress of an initiative by the Irrigation Water Users' Council - an institution that unites the valley's farmers and which aims to take advantage of Information and Communication Technologies (ICT) in order to organize and share pertinent information with farmers in the area.

Small-scale farmers often face a competitive disadvantage within the agricultural market. One main reason for this is a lack of access to timely and specialized information that could help them make appropriate decisions to improve their market participation. In response, the Chancay-Huaral Valley's Irrigation Water Users' Council, with support from the Peruvian Center of Social Studies (CPSS), has implemented an online Agrarian Information System (AIS) that enables farmers to quickly and easily obtain useful information in order to deter-

The Peruvian Centre for Social Studies -CEPES- is an institution specialized in rural development, dedicated to improving the living conditions of rural men and women in Peru.
<http://www.cepes.org.pe>

mine: what to plant; at what prices to sell their products; financial institutions from which they might gain support; the number of hectares being cultivated in the area; what type of crops have been planted, when they were planted and when they will be harvested; as well as other important information which might make them more competitive. The project directly benefits six thousand farmers in the Chancay-Huaral Valley.

In order to identify what information would be useful to the farmers, a needs analysis was undertaken. The Agrarian Information System was then created, with ongoing improvements since its launch in September of 2004. Later, training in use of the Internet was provided for farmers and their children, who lacked any previous contact with such new technologies. One very positive aspect of this is that they were trained using free software.

Sustainability of the telecenters

At this time, fourteen of the seventeen Irrigator Committees that make up the valley's Irrigation Water Users' Council are connected by a wireless network, having altogether sixty-two computers with online access. They also utilize a telephone network that allows them to communicate at very low cost. This infrastructure, previously unheard of in any rural part of the country, favors capacity development and agricultural information production at the local level. The various offices of the Ministry of Agriculture in Huaral have also become interconnected utilizing this network, including the Agricultural Agency, ATDR, INIEA- Donoso and SENASA.

The Irrigation Water Users' Council and the farmers within the Irrigator Committees have actively participated in all stages of the project. From the beginning they have understood the importance of maintaining and advancing the Agrarian Information System and have made concrete commitments towards these goals. As a result, they have managed to solve problems as they arose during the execution of the project and have offered support drawing upon their own resources.

One way these telecenters can be sustained is through the income received for particular services, which helps cover the cost of electricity and rent. While free for farmers, those outside the organization pay a fee to use the centers, which helps address some of the expenses. As well, the Council has income related to the irrigation water management, which also covers additional costs that the project incurs.

There is an ongoing effort to ensure that the farmers recognize the importance of this system and implement it as a useful tool in their work. This is achieved when a farmer enters into the information system and recognizes the data as real, identifying with the information and assuming it as their own.

The System uses and develops free software programs of high quality, which are improved through collaboration with national and foreign technicians. Since implementation costs are minimal, it is possible to make use of these programs to replicate this expe-

rience in other valleys without starting from zero.

Beyond new technology

Although new technologies, such as the Internet, inspire interest in people, they also have their disadvantages-one of them being that they are not readily accessible to many people. Taking this limitation into account and in spite of the enormous advantages that this new technology offers, the possibility of integrating traditional and new technologies has been considered. The Irrigation Water Users' Council is very enthusiastic about installing a radio transmitter, and producing programs that will widely broadcast the information that is currently part of the Agrarian Information System. This will ensure that the information reaches more people, along with news bulletins and other forms of information and communication.

Fanny Jiménez is the content manager of the Information Technologies area of the project of the Agrarian Information System through Internet for farmers in the Huaral Valley.



Pucara Telecentre,
Azuay, Ecuador
SOCIAL PASTORAL
SERVICE OF CUENCA

Satellite-linked Telecenters unite migrants with their families

Mónica Loyola Crespo

From a technical perspective, these telecenters are rooms equipped with personal computers, which are linked together through a dedicated connection in order to provide free Internet access. They are set up in various public and private locations, such as: libraries, government offices, municipal and town halls, community and cultural centers, union offices, and foundations, amongst others.

The Telecenters project oriented to migratory issues is an initiative of the Department of Human Migration of the Social Pastoral Service of Cuenca, province of Azuay - Ecuador, as part of the Intercommunication Project between Latin America and Europe, implemented in Ecuador by Caritas of Spain. The Social Pastoral Service is also part of the Migration, Communication and Development Plan.

<http://www.migrantesenlinea.org>

These centers are also known in Latin America as infocenters, public communication booths, access centers, digital libraries and more. They are not based upon universal models; instead they have grown out of experiences based with local culture and community needs.

Based upon this premise, the Social Pastoral Service of Cuenca, with the support of the "Intercommunication Project between Latin America and Europe", decided to launch the Satellite-linked Telecenter Pilot Project. They began in the Province of Azuay, in areas with the highest migration rates and little or insufficient telecommunication services. Their objective was for *"Latin American migrants in Europe and their families in Latin America to establish a lasting means of communication via the Internet, providing them with greater knowledge of the realities of migration to Europe and possibilities for development in Latin America"*.

Possibilities offered by the Telecenters

Telecenters offer many possibilities for the communities in which they are currently in place, including training of people of all ages in the use of this technology. Telecenters have been used to train the residents of Santa Isabel, Girón and Pucará in practical and technical skills. They have also been used to provide hands-on training to youth, who learn while operating the telecenters. These youth, who, in some cases, have been wasting their time largely on unproductive or meaningless activities, find in the Telecenters a creative, new and attractive space making two new things possible: on one hand, to learn about technology and, on the other hand, to learn about strategic uses of such technologies toward improving the standard of living in their communities. How? Through integrating ICTs into people's daily routines, as part of the local dynamics of the community.

Community Impact

January 13, 2004 marked the beginning for the implementation of the satellite telecenters. The installation process began with site selection and preparation, which was carried out with the cooperation by all participating cantons. Furniture was provided and arranged in each telecenter according to the number of computers and relative size. Each Telecenter was equipped with three computers, a Web-Cam, a printer and a broadband satellite connection. Moreover, each parish contributed additional equipment, according to what it could afford. Administrative personnel were selected by the parish priests within each canton, who took into particular consideration: gender equality (two of the three operators are women); technical and academic skills; and awareness of trends in local migration. The personnel chosen received technical and administrative training.

The telecenters in Santa Isabel, Girón and Pucará have become strategic locations of support for the communities. The available technology has enabled warm and timely communication between local residents and their relatives abroad. In addition, it has facilitated access to information pertaining to the needs and requests of users. At present, the

telecenters are visited by students from elementary to high school, who arrive to do their homework and internet searches. In smaller numbers, farmers and craftspeople occasionally arrive for meetings, to receive training, and to conduct searches on topics of interest for improving their production. Family members of migrants use chat, e-mail and video-conference to communicate with their loved ones. The youth of the community take advantage of the centers to meet, talk, play, and chat with other young people online. Teachers benefit from having Internet access in order to prepare for their classes and to update their teaching methods.

As a further example, the local Government of Pucará uses their telecenter to communicate with other Government authorities, as it is the only place in the canton where this service is offered. They are signing agreements with the telecenter in order to train their employees in the use of these new technologies. As well, within the telecenter, people can now obtain low-cost access to telephone communication over the Internet, taking care of an urgent necessity within the area: "... the shortage of telephone service".

According to the operators and administrators of the satellite telecenter pilot projects, there have been various benefits. But they all agree that telecenters have helped to further: *"...communication with friends and relatives who are abroad, as well as providing access to news, information other archives, and opening up the possibility of creating personal web pages, etc..."*

As a result, they also see several changes occurring in the communities:

In Santa Isabel: *"...The most noticeable change has occurred amongst the youth, such that it has become easier for them to do homework, projects, assignments, research, etc. It is a significant change since, although there is a library in the canton, the young people do not take much interest in it. However, the telecenter, has greater appeal for them. It has also attracted the attention of children; and as a result, they have learned how to use the computer. As well, little by little, families of migrants are beginning to use the telecenter with the purpose of communicating with their relatives..."*

In Girón: *"... A remarkable change has been noted in the youth, mainly because on the Internet they can find more up-to-date answers for their questions, which are not available at the libraries. It facilitates their research, and they can also use it to communicate with their friends and relatives. Institutional relationships have also improved..."*

In Pucará: *"... the most significant change achieved is that it is motivating the use of technology in a town as poor as Pucará, where residents previously knew very little about computers and much less still about the Internet. Particularly notable changes have been realized amongst the youth..."*

In conclusion...

We believe that the telecenters of Santa Isabel, Girón and Pucará have enabled more equitable access to new technologies, especially the Internet. They have facilitated greater

social inclusion for sectors with few resources and, for our target users, migrants and their families, fulfilling the mission for which the telecenters were created.

It must be emphasized that the benefit is not found within the ICTs as such, but in their potential to create powerful institutional networks, as well as to build social and economic capacity. In addition, in our case, they improve communication and exchange of information as well as affection. As a result, we must continue working hard to encourage families to consider the telecenters as their own, so that the families, as well as institutions, NGOs and local governments, see this as a cross-cutting service for their own transactions and as a center for development in their communities.

In our view, a high degree of community acceptance of the telecenters largely depends upon the benefits that result from the support of educational, cultural, economic, technological and political changes, which translate into a wide social impact.

The target group for this project was primarily migrants and their families regardless of age and gender. However, to ensure the sustainability of the telecenters it was necessary to involve other social actors that would promote synergy toward achieving our objectives, such as for example: the educational sector, local government, NGOs that work in each region, community organizations (whether for profit or not), youth, parish councils, community leaders, and producer cooperatives, savings and credit unions, etc. We are advancing bit by bit, slowly but surely.

Mónica Loyola was operational coordinator for the implementation of telecenters oriented to the migratory issue, on behalf of the Social Pastoral Service of Cuenca.

Exchange of local agricultural content in rural Uganda

Ednah Karamagi Akiiki

Rural communities have a wealth of information that could improve livelihoods in rural areas. However, to get it requires a lot more than just mobilizing people and get them sharing. This initiative combines aspects such as sharing meetings, radio programs, SMS, publications y local knowledge facilitators.

Knowledge Sharing Forums

Sveiby describes knowledge as an intangible resource that exists within the mind of the individual (Sveiby 1997). The farmers from time immemorial have had vital farming knowledge passed on to them by their parents. This farming knowledge is based on use of local content, for instance:

Dilute 1 litre of milk with 9 litres of water. Spray the solution every 10 days to prevent mosaic virus in tomatoes, tobacco and sugarcane. Weaker solution of 1 part milk to 10-15 parts water applied every 10 days is effective in controlling mites and plant diseases in many plants e.g. blights mildew, other fungal diseases and mosaic virus. Spray every 3 weeks to control spider mites and caterpillar eggs...

This is an example of a message that was sent out through Project SMS on 15 August 2005. This kind of information is what is shared among the farmers during the Knowledge Sharing Forums. The bottom line is that knowledge can be shared but it is up to the farmers to adopt this knowledge to increase their returns and income.

Knowledge is a vital vehicle to development. Interestingly, with each district visited, knowledge sharing for personal development is a new concept

Busoga Rural Open Source and Development Initiative (BROSDI) works in west Uganda. The organization involves the government and civil society in the rural areas, in issues relating to agriculture, health and human rights. It also develops methods in the use of ICTs and has participated in South-South exchanges in Africa.

<http://www.brosdi.org.ug>

among the farmers. After the first knowledge sharing forum in Pallisa District, one farmer Namutosi Rose acclaimed that:

Gwiko is my friend, everybody's friend... We all know him and that he rears turkeys... What we didn't know is that he has such enormous amounts of knowledge in turkey rearing... Our turkeys die every day yet we have the cure in our homes... More so, we call the 'cure' stubborn weeds and keep digging them out!

Additionally, Namutosi learned how to maintain the turkey houses and rear the young birds to maturity. She learnt all this from a man she knew, but it never occurred to her that he had practical answers to her challenges.

In the sharing process, the members of the forum choose one representative from each village who henceforth becomes the Village Knowledge Broker (VKB). Computer literacy and the ability to read and write are not obligatory because the project helps the VKBs to improve the quality of their task by encouraging intergroup adult literacy classes as well as providing them with training, support, information, etc. The VKBs are expected to be the information vanguards of the village they represent. Knowledge is processed and repackaged and then disseminated back to the VKBs who in turn pass the information on to the village members.

Means of dissemination

Radio

Every first Sunday of the month, the farmers share knowledge on Radio Star from 3:00 pm to 3:30 pm. Listeners are free to call in and ask questions pertaining to the crop or live-stock type being discussed. The radio programme is also recorded and cassette tapes are sent to the district so that those farmers that missed the programmes can listen to the tapes at their convenience. The project also sends listenership reminder notices to the farmers by SMS every first Friday of the month. These SMS indicate the Radio Station, time, date and the crop or livestock type to be discussed.

SMS

This method is used to send agricultural information to the farmers on a weekly basis. This is done every Monday, and the information is also uploaded on the project website for others to access. The database is composed of phone numbers from persons involved in community development work, individual farmers residing in rural as well as urban areas, male farmers, organizations and even government representatives. The activity that brings them together is 'agriculture using local content'. The information that is sent out is mainly derived from the Knowledge Sharing Forums.

Publications

Publications are also used in an attempt to disseminate information. This is by sending out monthly newsletters and information brochures. These were printed in English and

Luganda, the most widely spoken local language in the country. Unfortunately, they proved quite expensive and also were not the format preferred by the community. The project therefore opted to produce more information brochures and disseminate those to the farmers. These are in the form of 'How to Guides' and can be downloaded in PDF format from the project website (www.brosdi.org.ug).

Music, dance and drama

It also uses music, dance and drama to portray the information from the Knowledge Sharing Forums. Orphan children who are members of the Hope Children Club in Mayuge bring to life the knowledge shared. This is recorded and available on DVD and videotapes, and is used by farmers who can access computers and video decks. This approach is also a rational answer to the farmers who cannot come for the forums due to household chores and also those who are in areas not yet covered by the project.

Lessons and conclusions

It is important to understand that each community addresses gender concerns differently. Therefore it is important to understand the specific community culture. This also helps in understanding and making plans in advance on how to address the foreseen challenges and take advantage of the strengths.

Even if it is true that the rural communities have a lot of information, to get it requires a lot more than just mobilizing people to get them sharing. It requires planning at the base level; and conducting a mini-research to find out issues pertaining to culture, gender, other players, receptivity of persons and others. Then adjusting the plan according to the results, and visiting the community.

The project team, the district networks, government and other members of civil society have to work together in order for project ownership to prevail.

The complete, published article can be found in Karamagi, Akiiki, E. (2006), *Towards improving farmer's livelihoods through exchange of local agricultural content in Rural Uganda*, KM4D Journal 2(1):68-77, <http://www.km4dev.org/journal>

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Ednah Karamagi Akiiki - Uganda - works in community development, in the fields of sustainable agriculture, gender, and others. She is currently the General Administrator of BROSDI.



Girl engaged in adequate
community use
of the mangroves.
Congal, Esmeraldas
CARLOS VINUEZA MONTUFAR /
FUNDECOL

Knowledge exchange for the conservation of life-giving natural resources

*María Augusta Robalino, Juan Emilio Zambrano,
Máximo Cangá, Maricruz Valencia*
C-CONDEM

The National Coordination for the Defence of the Mangrove Ecosystem (C-CONDEM) works in Ecuador for the defence, conservation and retrieval of the mangrove ecosystem. They thus aim to guarantee the vitality of the mangroves and other related ecosystems, and of the populations whose livelihoods depend on them, in the face of threats and negative impacts of activities that degrade the environment. The organization congregates more than twenty community groups and associations of shell-fish gatherers and artisan fisherpeople, federations and environmental and social NGOs.

<http://www.ccondem.org.ec/>

Project promoters began collecting, recovering and cataloguing information in 2004. In August of 2005, we made our first Power Point presentation about mangrove swamps during a training and exchange meeting with the communities. This process of work and project promotion is being carried out both in the North and South of the province of Esmeraldas, Ecuador. In the North, efforts center around revitalizing clam production, whereas in the South the initiative concentrates on community tourism.

While the exchange of knowledge and information takes place amongst communities in both sectors, the experience shared by community members and promoters in each case is unique. The goal is to gather together widely dispersed information, whether written, or in the form of testimonies, project reports, photos, videos, etc. As project promoters, we analyze and organize the information. Almost all of this information concerns community experiences, since local promoters within the organizations, associations or community groups have been writing about the situations and problems that they face. In addition, we carry out interviews with people.

As a result, the information being exchanged is drawn both from the process of systematizing information, and from what the communities directly tell us about. Overall, we aim to present proposals about how to improve the standard of living in these communities.

Community tourism

One of our proposals is a community tourism plan that was developed in cooperation with a community located in the south of Esmeraldas. Putting this plan into action involves two key steps:

1. Site visits

First, Visits were made to communities in which tourism is desired, in order to identify their tourist potential. In particular, visits were made to Bilsa, Muisne Island, and Mompiche, as well as to other communities that have joined the community tourism plan and have committed to develop it.

2. Workshops

The workshops are intended for the community members, including the local authorities, groups or associations, schools and the general population. They draw on technical know-how, taking into consideration additional inputs and advice needed for the project's implementation, as well as what resources are available locally. In this way technical and ancestral knowledge are brought together, with the objective of cooperating with members of the local community.

Renewal of fish, shellfish and crustacean populations for community benefit

The main source of income for residents of the mangrove swamps comes from harvesting shellfish and crustaceans, especially clams and crabs, as well as from small-scale fishing. These activities have been affected by ecosystem destruction. Our proposal for northern Esmeraldas has been to improve the standard of living through the clam population recovery in areas where it has been depleted. The plan is assisted by community-set fishing limits, determining appropriate harvest size utilizing three processes:

1. Motivation workshops

Motivational workshops are given to the communities involved in harvesting clams regarding this resource's potential and taking into consideration necessary inputs and advice toward implementing the repopulation of the species *Anadara Similis* and *Anadara Tuberculosa*.

2. Site visits

Site visits are then made in order to select project locations, to which they later return to construct harvest pens made out of mangrove and mesh, in which clams will reproduce. This project brings together technical and ancestral knowledge.

3. Adoption of Conservation Practices

Adoption of conservation practices is achieved through ongoing control, monitoring, and methods of harvesting clams according to the community-determined limits.

Our work

Using these methods of information gathering, site-visits and workshops, we are able to develop products for the publicity and promotion of community tourism as well as for clam conservation, while simultaneously learning about the reality within these communities, the rich diversity of resources that the mangrove ecosystem has to offer, and the challenges concerning clam conservation in the face of threat from shrimp farming. The publicity campaigns are mainly targeted at universities and communities using the radio, as well as through meetings with various organizations.

When making presentations to the communities, we use Power Point, primarily utilizing images. We have realized that, in communities where reading is not customary, wordy presentations do not give good results, and in addition that images can express much more than many words. Furthermore, by using images the many illiterate people who live in the communities are not excluded. It is worth mentioning that before making each presentation, we also take a survey to find out what people prefer-whether they like photos or drawings, which colors they enjoy, etc. Using this information, we adjust the content and design of the slides. Our next step is to make a preliminary presentation to groups or associations with which we work in each community. They provide feedback and make some changes, adding details and removing others, doing whatever they think is best, because they are the ones who really know the reality of their communities and how the presenta-

tion might be received. We take their ideas to assemble the final presentation that will be made to the community at large. In this way, the local community associations validate our presentations and learn from us, as we also learn from them.

The above explains why a different presentation is made to each community, according to their tastes and shared perceptions. The presentations incorporate local terminology; for example, we use the word *parir* (to give birth) instead of the more technical term *desovar* (to lay eggs) because it is commonly expressed this way in the community. We would say: "... the animals will *give birth* in the sea..." with "*lay eggs*" in parenthesis. The same approach is used in the slides about mangrove species, with common names first and corresponding scientific names in parenthesis. Along these lines, if we ask a woman in the community to tell us which mangroves exist in the area using scientific terms, she is unable. But if we ask her for the common names, she knows them all, as well as how to distinguish each of them. Therefore, it is not that she lacks this knowledge, but rather that she is familiar with other names. This demonstrates that while there are different ways to name the same things, the knowledge is present.

The ICTs strengthen our processes

Throughout this process, we have determined that with good management of communication technologies they can be very useful. It used to be that we would arrive in the communities and provide workshops with paper handouts, and halfway through the workshop people would fall asleep. But now, with Power Point, the workshop holds their attention. As well, with these Power Point presentations we have managed to attract groups of students to visit the communities, making the problems surrounding the mangrove ecosystem more widely known even at the level of their respective communities such that the people identify more with their location, recognizing it as their own and, thus, increasing their degree of organization. It is ideal if the community members feel like they are a part of this entire effort.

Toward this end, we have provided training to people in these communities in use of computers, as well as digital video and photographic cameras. In this way, they can independently gather and describe their own experiences using Power Point. Right now, however, the limited access these communities have to electricity, as well as computers is problematic. But, it is our responsibility to share what we have learned as project promoters, since we do not stay in the communities for a long period of time. If we give back what we have learned, they will be able to continue sharing their experiences. In fact, we have already trained 120 people and we hope that they can visit other communities, in the way that we do, to train even more. Given that writing is not a part of their culture, and that we want to avoid the loss of elders' knowledge, achieving this information is necessary in order to preserve it.

Maria Augusta Robalino, Juan Emilio Zambrano, Maximum Cangá and Maricruz Valencia are promoters of the Mangrove ICTs project, Conservation with Community Production, of C-CONDEM.



Mayan ceremony in the inauguration of the 3rd Continental Rural Women's Assembly (CLOC), Guatemala, 2005.
MINGA INFORMATIVA

Resistance and contributions from the Maya cosmovision

National Indigenous and Farmer Coordination –CONIC–

Native seeds: heritage of the Maya people

"The diversity of native seeds is the heritage of the Maya and indigenous people at the service of all humanity. On November 11th, 2006, the sacred Maya calendar displays: WAQXAQIB Q'ANIL. This energy is the Nawal of our native seeds. The Maya indigenous peoples have stood firm defending the diversity of these seeds, which have fed us for

The National Indigenous and Farmer Coordination (CONIC) of Guatemala has tens of thousands of members, 95 percent of them indigenous. Its efforts mainly focus on defending the rights of the peasant (including land rights), working from the perspective of the Maya identity and cosmovision, as well as universal indigenous rights. It strives to recover and sustain into the future: collective community power; history; duality and harmony between men and women; and the unique customs, traditions, thought and spirituality of the communities. It is a member of the Guatemalan organizations Union of Labour and Popular Action (UASP) and Wakib' Kej, as well as the Latin American Coordination of Rural Organizations (CLOC) and of the international farmer's movement Via Campesina.

more than five thousand years. It saddens us to remember the loss of respect for our seeds, due to the imposition of trade policies and the use of technology packages from the Green Revolution. While the "revolution" supposedly seeks to improve production, it actually sterilized and contaminated our seeds, as well as nature and Mother Earth. The imposition of the Free Trade Agreement (FTA) was *'el tiro de gracia'*-the mercy shot designed to eliminate them. (*Excerpt from an official release from CONIC, November 9th, 2006*).

"In many communities, maize, beans, and other basic grains are no longer treated in the way our grandparents traditionally did it: with affection, gratitude, celebration, incense and candles, but above all with tenderness. Now, they are treated like any other object necessary for life. Our Maya cosmovision takes the perspective that not one single grain should be thrown away, stepped on, wasted, or burned. It also says that seeds shouldn't be touched before receiving the secret of abundance. Nor should it be touched when night has fallen, for it scares the seed into withdrawing its abundance. Another lesson is that it is necessary to wait for the full moon in order to sow, and to present the seed before the *Ajaw Q'anil* in order to avoid diseases during the growth process. The same attitude is applied to saving the grains that will serve as seeds, and in so doing avoiding the weevil. These are only some of the teachings.

"The Western perspective taught in schools has contributed to the fact that children remain ignorant about many elements of Maya culture and spirituality; and of course in this case everything pertaining to seeds. They must memorize and repeat teachings from other cultures, while devaluing all aspects of Maya community and culture. This type of education has a negative impact on household and community education.

"We recommended to the communities who are part of CONIC that they should reactivate and strengthen the physical and cosmological conservation of the various classes of native seeds; indicated by the four colours that represent the four pillars of Maya cosmovision: birth, death, wisdom and life. To respect and learn the knowledge and recommendations of the elders in the family and community.

"- To improve seed classification according to the recommendations and guidelines of our grandparents. To not accept genetically modified seeds that, besides damaging our health by causing cancer, will eventually return to destroy our Maya cosmovision-which is based upon our native seeds-and make us lose the essence of the ancient seed of our grandparents.

"- To stop using chemicals in agriculture as they kill many vital elements within the soil, which might only be recovered after a period of ten years. It is urgent to offset and avoid further contamination in order to protect the health of animals and human beings. To stop burning Mother Earth's body with chemicals because we are shortening our lives as well as those of future generations.

"- To strengthen and increase the use of organic fertilizers and insecticides in various crops in order to ensure healthy and high quality harvests. Quality not quantity. To increase the production of improved fertilizers, fungicides utilizing plant compost, and

others." (*Excerpts of a message from CONIC to member communities, June 9th, 2005, or 8 Q`anil q`ij in the Maya calendar*).

The origins of the Maya cosmovision

Maya knowledge and cosmovision originated more than five suns ago; each sun representing 5,200 years of the long Maya story. Since that time, the law of Mother Nature was conceived, beginning with the principle of reciprocity and contributing to the balance of large, medium and small systems. This vision led to the understanding and explanation of the passage of time, in order to walk in step with it. The sun was conceived as our majestic grandfather, the moon as our glorious grandmother and the Earth as our mother. Our ancestors are considered as children of time and Mother Earth.

In addition, the Maya cosmovision conceived of the various elements of the system as time's workers, involved in a complex organization made up of several levels that interact and coexist. They cycle through various dimensions and generate life, including human beings, who understood the conscience, will, authority and knowledge of Mother Nature's elements.

The conscience, will and wisdom of Mother Nature are widely perceived when human beings primarily consume natural substances. The spirit of Mother Nature passes on her knowledge to us so that we can understand the organization and spirit of all the elements in the reproductive cycle, without altering her own nature. The sacred maize, cocoa, beans, achiote, pumpkin and tubers, as well as edible and medicinal plants, all nourish perception, resulting in various outcomes, from mathematics and the use of zero to astronomy and instruments that measure time and space.

Oilcloth and the sphere are both more than 3000 years old, and have served in understanding the movement and sequence of the stars and planets. These observations also led to the creation of several calendars that reveal the origin and destiny of life. Despite attempts at its extermination, this knowledge has survived thanks to life, Mother Nature and time.

Expression of resistance and survival

This knowledge persisted while the territory of the Mayab'-today known as Mesoamerica-was still intact. With the colonial system's imposition of agricultural products for export, knowledge, labour and land were usurped; marking the beginning of the latifundio-minifundio land tenure structure-characterized by a few large estates and numerous small farms. As a result, this knowledge fell away and now survives in limited spaces, as a refugee in its own ancestral territory. Since colonization, some aspects of this knowledge are stagnant while others have been reinvented for survival. In addition, attempts are made to disrupt the bartering system as new products are imposed for the market.

Recently, consumerist countries have imposed the production of non-traditional agricultural products. Despite being small farm owners, this demand brings with it the cost of depleting and further deteriorating the scarce arable land. It also takes advantage of the workers by compromising their honour and responsibility, inherited from our ancestors as a valued part of our culture.

From the moment of invasion, the Maya writing system was attacked; the pre-Columbian documents were almost entirely destroyed. Up to this day, eight documents have been retrieved that validate the knowledge that survives through oral tradition and in our own languages, and which continues being passed on from generation to generation.

The educational system retains a mono-ethnic and mono-cultural approach, despite reforms that have tried to be put in place. This system transforms the knowledge that students have, which has survived through oral tradition but is now threatened by such practices of alienation and domination.

Very little space or resources have been gained from this colonized state and whatever has been achieved only serves the most superficial aspects of Maya culture. Rather than addressing deeper cultural values, these opportunities are more likely to coopt indigenous representatives. This colonized state cannot give rise to a new plural being, given its ethno-centric and anthropo-centric origin, but it should take responsibility for and repair the damages done to Mayan culture.

The dialogue with modern techno-scientific knowledge

Human knowledge is the heritage of all of humanity because it arises from the socio-historical development of peoples. A change must begin with the historical recognition of the contributions made by ancestral knowledge, from which to enter into dialogue with technological knowledge bringing it back to equilibrium and out of conflict with Mother Nature. It is an urgent challenge to lay the foundation for a new approach to development, which must occur from the reestablishment and reconstruction of Mother Nature, a necessary condition for how to approach various types of knowledge.

Indigenous peoples have contributed to today's world and to global knowledge; as is clear from observing the products that have originated from indigenous peoples. What more can be contributed now in this hostile environment? If everything is at risk of being patented, privatized, and exported ...

*This text was drawn from documents of CONIC and interviews with **Leopoldo Méndez Martínez and Rosa Tomas Atz**, of the Mayan Association Uk'úx Be (Heart of the Way), member of the Coordination and Convergence Waquib Kej, of Guatemala.*



Children on an MST
settlement participate in
a tree planting
Brazil
VERONICA LEON

Challenges for Schooling in the Brazilian Countryside: the Experience of the MST

ALAI

Based upon a variety of sources, Brazil is one of the countries with the greatest social inequality on the planet. Large estates, known as "latifundios," form the basic fabric of this arrangement. In 1984, confronting this reality and calling for agrarian reform, the Landless Workers' Movement (MST) emerged. However, not only was the movement demanding access to land, it also called for recognition of other rights, such as rural education and culture. As an outcome of this, the MST has become a socio-cultural movement for civic education.

The Landless Workers' Movement (MST) is a people's movement, made up of rural workers and others who are fighting for agrarian reform and against injustice and social inequality in the Brazilian countryside. Currently, the MST has a presence in 24 states around the country, with around 470,000 families organized as part of its settlements and camps. Its proposal and experiences in the field of rural education and training are considered to be a model in Latin America.

By making an issue such as land concentration a national concern after years of systematic avoidance in Brazil, the MST has become an important actor for democratization in the country. Of course, it plays an unsettling role since the organization is acting on behalf of an excluded sector to make its voices heard, challenging society as it demands full citizenship for its members. As one leader within the movement notes, it is in this sense that "in order to democratize the land, we have chosen to occupy it and from this point to construct a more democratic and just society. However, we have also realized that we have to occupy the fields of knowledge and wisdom, that is to say, of education, which is the meaning behind the slogan: "land occupied is a school established."

Along with this has come the construction of schools, development of courses and work in farmer training. Twenty five thousand members of the MST have become literate and there are more than two thousand schools within the settlements, where more than one hundred and sixty thousand children and adolescents are studying under the direction of more than four thousand teachers. As an outcome of their social struggle, these schools have official state recognition as public schools. In the camps, itinerant schools have been established, which are in operation within seven states, accommodating three thousand students and three hundred and fifty educators. As well, the movement takes into particular account the political education of leaders and militant activists.

As part of this process, the MST emphasizes the importance of autonomy with regard to future planning. That is, decisions pertaining to education, writes a leader within this sector, must respond to "our reality and guide us into the future, beginning with quality education and scientific rigor. What do we need then? If we have land, if we have knowledge, if we have thousands of years of experience, it's our responsibility to have good, adequately-compensated educators, where the community is an active participant and the State fulfills its duty to guarantee our right to be educated. In fact, from the point of view of the Landless Movement, to be a member without education is unthinkable. One must complete the full training process, right up to the university level such that one understands one's role within the community and how to make productive and creative contributions as part of one's generation."

In this effort to fully train community members to be ready to participate and to forge a common destiny, it has been important to establish a bond "between social and educational production, between socio-cultural and educational dynamics, between social and pedagogical thought, and between raising awareness for rights and advancing the struggle for education, knowledge and culture," says Miguel Arroyo¹, who goes on to describe a rural socio-cultural dynamic - a pedagogical movement - in which the development of the MST is constructed as an educational subject and as an educator: "Where its existence, its struggles, its organization, its expressions, its languages and images are educational, interrogating us, shaking up our values, concepts, imagination, cultures and structures.

1 Arroyo, Miguel (2000). *Prefacio, Pedagogía do Movimento Sem Terra*, Roseli Salette Caldart, Editora Vozes, Petrópolis, p.10.

Constructing new values and knowledge, a new political culture. Training new collective subjects."

Arroyo elaborates on the dominant political and pedagogical approaches to rural education, which he says only recognize "an ignorant people who are slow to become civilized and modernized by policies from outside." However, in contrast, through the movement of the MST which grew out of "its own rural social dynamics, that it is posing new problems and lessons for pedagogical theory in favour of rural social and educational policies. It resituates the central issues that education and culture have always considered."

A new challenge: secondary education

The establishment of schools initially arose out of necessity from amongst the first families who occupied unproductive land in order to cultivate it, and whose children needed access to primary school. They understood that schools would help their communities to take root. Soon after, questions began to emerge with regard to their ideas and methodology; one of first questions that the movement formulated was: "How do we create the school that we want?".

Today a greater challenge has arisen: to make secondary education more available. Out of two thousand schools, only fifty have managed to incorporate secondary education and/or intermediate levels, such that at the moment they are addressing the needs of about three thousand students across the country. However, most young people within the settlements, who would like to further their education, are obligated to go to the city to study, following a curriculum that does not correspond to rural reality, nor to a project of social change.

In this process, community involvement in education is considered fundamental. "The settlements and camps must actively participate from the early stages of outlining the educational project, throughout the phases of improvement, to that of concrete activities. It is important to maintain a deep, ongoing dialogue between the community and its educational institutions. Schools must assist in local development, articulating its challenges and seeking concrete alternatives at the same time. On the other hand, the community needs to feel a sense of belonging over the schools, suggesting topics of community interest and being open to potential feedback. The community has the right and the duty to participate in the ongoing development of education, beginning with its pedagogical elements, and including its economic, cultural and political aspects," reads a document from the Educational Sector of the MST (Educação Fundamental, November 2004).

Agroecology-oriented education

Development and exchange of knowledge in the interest of rural community development are challenges that do not solely concern adults within the community. On the contrary, the sooner one becomes involved, the greater are the possibilities of incorporating this into daily life. In addition, youth participation is fundamental to ensure the future of

these communities and to build up internal capacity for their development.

When explaining what is meant by rural education, Matheus Fernando Mohr, an educator in one of the schools in Santa Catalina, says that: "The central issue is translated into initiatives to strengthen rural areas, such that the educational project corresponds to the necessity not only of occupying, but of remaining on the acquired land. One example of this relationship is demonstrated by agroecology, which is premised upon cooperation and collective work, and which in practice is primarily channelled and related to the work of youth within the MST. Once more, this project extends beyond rural areas, to involve urban areas and to consider their particularities."

From a methodological point of view, Mohr explains: "The importance of understanding the world of work, allied with a consideration and understanding of one's lived reality, is emphasized as part of the early education of young people, such that basic education is considered from a polytechnical perspective. This is developed with the understanding that, beyond technical skills, we need to consider various technologies and their scientific foundations which characterize the relations between techniques of production and productive processes."

To explain this further, Mohr uses as a metaphor the stages by which the Landless Movement operates, "occupy, camp, settle." He elaborates, "In order to draw lessons from reality, we must introduce various historical and scientific aspects which allow one to understand agroecological theories; or, in other words, we must "occupy" the scientific foundations of agroecology. Next, following from theoretical and practical experiences which relate to the social, historical, cultural and geographic reality, we can receive, construct, experiment and share adapted techniques, based upon what has taken place; or in other words, we "set up camp" considering the various ways to implement agroecology. Finally, based upon an analysis of the results obtained, from organization and ongoing evaluation of these results, and with the goal of reviewing these practices as necessary, we arrive at the "settlement" of agroecological practices, grounded and arranged within the social struggle and resistance of the MST."

What is the contribution of communication and information within this process? The educator recognizes that they are important components, since "...they represent an important tool in the construction of knowledge, as part of the search for means to broaden one's worldview, and to share, as much internally within the camps and settlements as externally, that which we are currently building and advancing".

However, Mohr recognizes that access to these technologies is socially conditioned and, as a result, is a right to be gained. "We have obtained certain victories in this sense: establishment of information centers, some with Internet access; a newspaper for the educational community, correspondence between regions or states and with some Spanish-speaking countries. In addition, almost every school has video facilities with which to contemplate diverse areas of knowledge." Yet, other initiatives which depend upon the political will of governments, require further political struggle, so as to obtain equipment, technologies and resources.

Intermediate level basic education in areas of agrarian reform

Landless Workers Movement, Brazil

- * We take into consideration that this is a concern for all of Brazilian society. Less than half of Brazilian young people, between the ages of 15 and 17, reach secondary school; amongst these, only about half graduate. In rural areas, the education of young people is more critical: slightly more than one fifth of young people between the ages of 15 to 17 attend secondary school. Regional differences also exist within Brazil.
- * Considering education as human development has made us reflect on the subjective role of people in the pedagogical process and on the recognition of education as a human right for all people at every stage of life. To focus on the development of subjects is to work on a human project, linked with a societal project, defining learning processes necessary for such training and considering socio-cultural bonds of the subjects and their differentiation with each phase of life.
- * Our educational proposal relates to the construction of a people's project for Brazilian agriculture, linked to a new project for a Nation founded on sovereignty and justice. This work implies a creative reevaluation of rural life and recovery of self-esteem - often times stolen from those that live and work in the countryside - and a search to overcome the contradiction between country and city, an outcome of capitalist society. This challenge leads us to participate in the development of rural education.
- * Schools, particularly those in rural areas, can be "more than schools" when they provide a socio-cultural reference point for the community, either by being involved in solving local problems, which enables students to advance their scientific knowledge, to adopt technologies and to relate learning with practical situations in everyday life, as well as for the opportunities for social exchange that schools offer, such as in recovering family history, or as a result of opportunities to learn from books, films, debates and diverse cultural experiences. These activities can also be thought of as a way to engage young people who, for one reason or another, have to study away from their home communities.
- * Considering the necessary changes to the school system, the MST has established the following primary pedagogical principles:
 - 1º - Reality as the foundation for study and creation of knowledge, and as a training ground for critical analysis, worldview formation, intellectual freedom and thoughtful examination of the various dimensions of human life.
 - 2º - Education for work and through work.
 - 3º - Participation in democratic management processes which challenge students to

learn about self-organization and construction of an educational collectivity.

4° - Collective work and ongoing training of educators.

- * Our discussion concerning basic education at the intermediate level must begin with the concrete subjects who are principally demanding this opportunity, in other words, *youth within areas of Agrarian Reform* who are part of the *rural youth*; to consider a school for youth and of youth, viewed as individuals and as collective subjects who comprise a broader social identity: that of the Landless Movement, that of farmers and of the working-class. Also, to particularly consider education for these youth who are concluding their basic education and who must have alternatives for ongoing studies without needing to leave rural areas.
- * We consider that intermediate level basic education is, in fact, "basic" element of training for youth. One of its prime goals is to develop and to formulate in youth a *worldview*, articulated in *values and identities* which are adopted in this phase of life. In order to develop a critical and creative perspective of the world, it is necessary to have a basic understanding of scientific theory and practice, which allow one to understand the social, economic, political and cultural development of society, nature and various dimensions of human life. School helps to establish this foundation when it is able to link the processes of adoption and production of knowledge - the basic aspects of academic education - to issues in "real life"; in other words, to the world of work, culture, political participation, interpersonal relationships and, in the particular case of our youth, to the specific social struggle which they are inheriting or of which they are already a part.
- * It also implies the construction of methodologies and pedagogies which permit a real articulation of the relationships between general and specific knowledge, between science, technology and techniques, taking into consideration concrete reality as an object for the creation of knowledge and social engagement to be shaped by youth. In our case then, it is necessary to ensure that there is an organic relationship between the academic curriculum and key aspects of project development within the settlements, which in the present debates of the MST, give high-priority to cooperation and agroecology, with a clear need to specifically discuss the role of youth in their implementation.
- * Organizational and pedagogical design of schools which enables the implementation of this concept of "secondary education," must fundamentally include a combination of *processes of participative management* (which include the self-organization of students, as well as the relationship of the school with the system of organization, the development project of the settlement and cooperation from the youth within the Landless Movement); *involvement in productive processes* with links to production, as well as to cultural and organizational activities of the settlement, and to the struggles of the social movement; *practices of living together* which cultivate

values and humanitarian interpersonal relationships; and an *organization of studies* which favors academic integration, respect, value for diverse knowledge systems and an understanding of the relationship between knowledge, work, culture and social struggles.

Excerpts of the Final Document from the First National Seminar on Intermediate Level Basic Education in the Area of Agrarian Reform, Luziânia/GO, September 18-22, 2006. (Translation by ALAI.)

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Documents and news of the peasant-farmer movement of Latin America and the Caribbean.

KNOWLEDGE FORUM, FAO, http://www.fao.org/KnowledgeForum/index_en.htm

Provides a direct gateway to the Organization's expertise and wealth of knowledge through a series of interactive services. It includes input from the agricultural community regarding a wide range of issues affecting Food Security and Agricultural Production.

GRUPO CHORLAVI, <http://www.grupochorlavi.org/>

The Grupo Chorlaví is an interactive network that seeks to stimulate and facilitate decentralized processes of social learning, oriented to enhancing the quality and increasing the effectiveness of transformative initiatives of rural societies of Latin America and the Caribbean.

MISTICA (Metodología e Impacto Social de las Tecnologías de la Información y de la Comunicación en América), <http://www.funredes.org/mistica/>

A site dedicated to the theme of the social impact of Internet and ICTs and to the social aspects of the information society. It incorporates a virtual community of exchange among researchers and a data bank.

UNESCO, Communication and Information Program, <http://portal.unesco.org/ci/>

Includes resources on access to information and knowledge and capacity building in information and communication.

VÍA CAMPESINA, <http://www.viacampesina.org>

Documents and news from this World-wide peasant-farmers' movement.



Agencia Latinoamericana de Información

ALAI (the Latin American Information Agency) is a communications body, committed to promoting citizens' participation in public affairs and development, to the full enforcement of human rights and to gender equality. As part of the fight for democratizing communication, ALAI's mission is to formulate and to develop answers to the different challenges that communication raises, as a strategic area for social action.

ALAI's publications include the Website *Latin America in Movement* (www.alainet.org), focusing on social and political affairs of the region and social movements; the monthly magazine, under the same name, of Latin American opinion; the daily Spanish-language information service *alai-amlatina* and books on communication and social issues.