Youth and research: experiences from Honduras and Colombia

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Young people have a natural disposition for innovation and for learning new tools, and these assets can help them to create viable options to remain in the countryside. The experiences of the *International Centre for Tropical Agriculture* (CIAT) in Honduras and Colombia have shown that the involvement of children, teenagers and young adults in the analysis and solution of important issues of their communities can provide a new dynamic to rural development. Two projects, started in 2001, involved the participation of some 270 rural youth in Honduras and 350 in Colombia, aged between seven years and the early twenties. These young people selected and developed research projects directly related to their interests and responsibilities in their families and communities.

Getting started

There are seven active groups in Honduras and twelve in Colombia, with roughly equal representation of boys and girls. In both countries the groups are open to all interested youth and participation is voluntary on a project-by-project basis. Most of the participants (approximately 80%) also attend school, and many activities are coordinated with the local school system to provide sustainability beyond the timeframe of the project.

Experience with adult farmer research groups has shown that they become more effective if the members have developed the capacity for self-organization. With this in mind, attention was paid from the beginning to building the capacity of young facilitators.

Honduras project timeline

- December 2001: 100 young persons selected 25 young men and 25 young women to represent their communities as facilitators. The project made use of a participatory approach developed by CIAT known as CIAL (Comités de Investigación Agrícola Local).
- February 2002: Young facilitators invited other young people from their communities for an introductory meeting and formed research groups with 3-8 youth facilitators and one adult facilitator.
- 2002-2003: Young facilitators from six communities (the principal village Yorito and five surrounding small communities) received about twenty trainings, which they then repeated in their own communities.
- Late 2002: Groups had decided on and started to implement their activities and research. Most of the groups gave priority to food security and reforestation.
- 2003: Two additional research groups (within the secondary school) were added as well as a group from another community, which had already started activities on their own.

The group's initial selection of research topics reflected their concerns and the opportunities that their rural environments offer for them to become competitive future farmers and effective natural resource managers. They prioritized food security, reforestation and environmental quality (see Table 1). The number of youth involved in each activity ranges from three (i.e. beans for food security in Colombia) to 42 (i.e. garbage collection and stream cleaning in Honduras).

Results

The project and the results to date demonstrate the capacity of rural youth to address local issues and offer viable solutions. Research activities are ongoing for all of the themes chosen and two examples are highlighted below.

The Honduran group "*Por un Futuro Mejor*", with 17 members, has evaluated several tree species for the production of firewood. Collection is usually a task performed by children and youth, and deforestation in the area was making them spend more time on firewood collection. Preliminary results show that *Leucaena* and *Guama* are potentially excellent species for reforestation, as they have a high productivity for firewood and are well adapted to the local environment. This youth group has also embarked on several parallel activities with the support of their community. It has built a community hall for meetings and cultural activities, improved the existing road to their highland settlement and is planning the construction of a football field and a local primary school.

In Colombia, a group of 20 members has embarked on the diagnosis of their 400 hectare watershed. A drought that occurred in 1993 and its effects motivated them to become involved in restoration of water sources. The survey was designed with the participation of the oldest members of the group. Preliminary results include the diagnosis of water quantity (55% of the population in the watershed experience water shortages during the driest season) and quality (88% of the households need to boil their water for domestic consumption). All members were trained in data collection and data analysis was done collectively. The group presented their results to the community in December 2003. This group is also involved in research activities related to forest characterization, identifying tree species in their watershed and is participating in the creation of a local enterprise for the sustainable use of bamboo.

The fact that the young people are involved in the analysis of local problems is creating a sense of belonging, as well as an awareness of the opportunities they have to change their environment. They are being encouraged to come up with solutions and to develop a vision of the future.

Parents and school teachers perceive the projects as an opportunity to gain experience and acquire skills that are beneficial for the individuals and for the community. In Honduras, the number of young people who are interested in participating in this research project is still growing. They have an interest in their natural environment and food security, and are willing to spend time working on these issues. The school has observed a positive effect of the project on school attendance of project members from the surrounding communities. Young people from other communities have expressed interest in participating in the project. The number of groups is therefore likely to increase.

The local school in Honduras is setting up an outreach programme to increase the involvement of youngsters from the communities in the project and stimulate their secondary school attendance. Another initiative aims at the involvement of secondary schools in neighbouring municipalities, with the objective to set up similar projects. Activities initially focused

Table 1: Research topics and activities

Honduras

Research topic	Example activities
Firewood production	- Tree nurseries - Comparisons between different soils and their effects on tree growth
Fruit trees: food security and shade	- Identification of suitable fruit trees for the area
Garbage management	- Cleaning of streets - Stream clean up days
Water quality and quantity	- Collection and analysis of biological indicators of water quality - Wetland construction

Colombia

Research topic	Example activities
Vegetable gardens for food security	- Bio-intensive gardens - Seeds exchange workshops - Drip irrigation
Watershed management	- Analysis of pollution sources and areas affected by water scarcity
Sustainable use of bamboo for income generation	- Training in administration - Harvesting and processing of bamboo
Forest classification	- Forests transects - Tree identification workshops

on research are expected to develop into income generating activities, contributing directly to countering the rural exodus of youngsters.

Parallel activities and achievements

Working with youth in rural communities makes it evident that to capitalize on the potential of young talented people and natural resources, their involvement in research activities is only a start. Rural youth require the development of leadership skills, computer literacy and opportunities to make a living or continue their education after completing high school. The projects have exposed the young participants to workshops for the development of self-confidence, communication skills and the ability to work in teams; use of computers for data analysis, presentations, mapping and internet; revolving funds managed locally for small enterprises; and concepts of natural resource management such as indicators of environmental quality and watersheds as geographical units.

In preparation for research activities, the youth have received many hands-on training workshops to learn basic principles of research and organization. In Honduras they have also asked for recreational (sports) and homecare (baking) training which has been provided on voluntary basis by project participants and which they have subsequently repeated in their own communities.

Team work is one of the most challenging aspects of participatory research with youth. In communities with very limited income generation opportunities, collective work and the integration of youth with other members of their community is considered one of the main achievements of the projects. Groups have started monetary funds for the implementation of their plans, conducted fund raising activities and started to formalize the way they work. In Honduras this has led to the participation of youth groups in annual national meetings of the CIAL participatory research committees and in planning for the creation of small enterprises connected to the local market.

Synergy with other organizations

Many national and international organizations are concerned with youth, which provides an excellent opportunity for cooperation on development initiatives. Waste management and water quality, for example, are two issues on which local authorities and community members are working together, both in Honduras and in Colombia. Issues that affect young people have the potential to create a common vision. Project experience shows that development processes take a vigorous pace when they are aimed at young people with the desire and abilities to learn and innovate!

From the start, the activities of the project were conducted with youngsters both enrolled and not enrolled in school. The participants outside of school have found the motivation to re-initiate their formal education, which has been supported by the project.

Lessons learned

Youth are sensitive and committed to environmental conservation. They are willing to innovate and experiment with new ideas, and can work together with scientists in long-term research projects. Participatory research with youth on natural resource management and food security can also be a positive way to help scientists focus on appropriate research for development.

By becoming involved in research, youth can also act as a link and a means of communication, helping their parents and community to adapt to a fast-changing world. Local institutions converge around the young: municipalities, schools, environmental agencies, families and universities. Providing the young with opportunities to access relevant education and income generating activities can be an effective way to break the poverty cycle.

In poor isolated communities, research projects can bring unique opportunities to youth. Although most people in rural areas depend on agriculture, only a minority of their youngsters "dream" about a job in this field. Many would like to stay in their home area because of family and friends but only if income generating opportunities are available. Most would like to obtain a university degree. Despite the achievements of the projects, the challenge remains to provide rural areas with opportunities for their educated youth.

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