

Building intercultural bridges for the development of rural Peruvian communities

by Carlos de la Torre and Rubén Sierra y Toribio Quiape

Innovative ways of working have resulted in improved irrigation systems for communities in Cusco. Acknowledging the farmers as equals and as researchers has led to genuinely appropriate changes.

TWO DECADES OF state and NGO development efforts with rural Peruvian communities have not so far produced great results, but the experience has not been in vain. It has shown that the key to successful technology exchange is the horizontal communication and training which fuses farmer knowledge and modern science.

Experiences in this field are still rare, but this article presents one of them. It deals with an irrigation improvement project involving six rural communities in the Vilcanota valley in the Cusco region of Peru. Here an attempt is being made to promote the exchange of technological knowledge among the communities and among the farmers. Importantly, this knowledge is derived from shared research and discussion between the community members and the engineers who make up the IT team.

The first step in approaching rural culture in the Andean area is to respect the social and economic organization chosen by them; this is, in the majority of cases, the *comunidad*. (It is important to realize that the *comunidad* is

not a collectivist institution where there is equality and shared property rights over all resources; this is an idealized view which was disseminated by the 'ethnic movement' that developed during this century in the main cities of the country.)

During Inca times, and within the context of a planned economy, the state maintained two spheres of parallel agricultural production. The first one was based on the production of maize, and the second on the production of potatoes. Maize production was in the hands of the state through the public construction of irrigation systems and the construction of terraces. The growing of potatoes, on the other hand, was the responsibility of farming families, who were organized into *ayllus*, and who had to be self-sufficient in food.

Under the Inca state, farming families had to devote a great part of their work to agricultural tasks on the state lands, the construction of public buildings, and to the army. In compensation, they received from the state technological help and, through the food reserves accumulated in the *ccolcas*,

or state warehouses, protection against climatic risks.

Under Spanish rule, the *ayllus* became 'indigenous communities', with legislation to protect their communal territories. But in exchange they had to pay taxes in money, not in kind, and had to carry out obligatory work in the mines and farms belonging to the Spanish or old Andean gentry. They also lost the technical support and food security of Inca state planning.

Under the present Peruvian Republic, the indigenous communities have gained by the abolition of both tax payments and mandatory work in the mines, but they have lost much of their land to the big landowners, who were helped by new legislation favouring their interests.

Only in the middle of this century did even a part of the central government begin to be concerned about the quality of life and the development of the rural population. During the 1970s a radical agrarian reform programme put an end to very large land holdings in the countryside, though the expropriated land was not returned to the indigenous communities: it remained in the hands of state enterprises in the highlands and was turned into co-operatives on the coast. After twenty years, the majority of these enterprises and co-operatives have gone bankrupt and have been dissolved; since then part of the land has been given to individual smallholders and part has been returned to neighbouring rural communities.

In recent years the political troubles and new economic policies have led to a reduction in the size and functions of central government. There has also been a reduction in the technical support and state credit which benefited the people in the *comunidades*.

The *comunidades campesinas* of the rural Andean region make up the majority of the civil institutions in Peru and in the neighbouring countries of Bolivia and Ecuador. There are approximately 5000 *comunidades* in Peru, comprising 50 per cent of the rural population and 20 per cent of the overall Peruvian population. Economically, the *comunidades* contribute 68 per cent of the national production of food such as corn, wheat, quinoa (a



Intermediate Technology

The origins of irrigation in Peru are ancient; this underground system is pre-Inca.

millet-like grain), goats, cattle, sheep, llamas, and alpacas.

The rural *comunidad* also preserves the traditional Andean culture, both in the management of natural resources for the production of food, and in the systems of organization for productive activities and social functions. It maintains its own view of the world and its own religious beliefs.

This institution has survived against all the odds, adapting itself to the changing economic and political conditions of Peruvian society. Nowadays, the people in the *comunidades* occupy one of the lowest levels in the pyramid of wealth distribution and income, but in spite of this its importance has not decreased in economic, demographic, or cultural terms.

With a history of unequal, and often hostile, relationships with the rural community, how can an open attitude and good communication with the rest of Peruvian society be expected from this institution and its members?

How can a relationship based on technical co-operation be established between an NGO and the rural Andean *comunidades* without draining their human and material resources, and without antagonizing their culture? How can these communities be encouraged to offer the best of their legacy to the rest of the world?

The challenge for rural development institutions is how best to build a bridge of communication and trust with a *comunidad* which has a different culture and which has come to expect to be treated with hostility and contempt by outsiders.

Building cultural bridges

The *comunidad* is a social, but also economic, organization that balances the private interests of its members and the collective management of some of its resources; those that cannot be profited from individually form part of the communal property. For instance, the majority of the agricultural lands and cattle are the property of individual families. The irrigation systems, tractors, and mill, on the other hand, are the property of the *comunidad* and are administered according to rules established in a *comunidad* assembly.

IT has signed a technical co-operation agreement with the *juntas directivas* (governing boards) of six *comunidades*. The document specifies the responsibilities agreed by both parties. The objective is to lay the foundations for a working relationship of equals, without authoritarian or paternalistic attitudes. This relation-



Intermediate Technology

Every four months the irrigation committees from each of the comunidades meet to exchange experiences.

ship, based on equality among institutions, is strengthened by the presence of an Advisory Committee, which is made up of the Presidents of the six *comunidades* and two members of the IT technical staff. This committee meets monthly to make decisions and to monitor progress.

The development strategy aims to harness all the potential productive capacity of the *comunidad* economy, starting with the improvement of the management of irrigation. It will result in better performance from the communal irrigation systems and an increased knowledge of irrigation techniques at the family level.

While focusing on improving the irrigation system, the IT technical staff also offered advice on the management of Andean crops and vegetables, animal health services, and rotating seed banks. These programmes attempt to reconcile the techniques of Andean agriculture with those of an ecological agriculture.

It was very important in the first place to set up a group of people to carry out the technical work. The work group includes two engineers, one anthropologist and six farmers, who are called *kamayoq*. (The word *kamayoq* originates from the Quechua language and it means 'a specialist in a technique'.) All members of the group are from the region and speak the Quechua language.

The *kamayoq* originate from training courses on gravity irrigation techniques and the management of crops which were organized in this region by PRODERM, a technical co-operation organization that ended in 1990. The *kamayoq* are young farmers who

have both technical training and their own specialized knowledge passed on through family tradition. They are all active members of their *comunidad* and have their own smallholdings and family cattle. The *kamayoq* are thus a link between two cultural worlds: the *comunidad* world and the world of the engineers.

This group carries out research activities about *comunidad* knowledge and culture within our technical spheres, and the following areas of study are being pursued:

- ways of distributing irrigation water in each *comunidad*;
- measuring the efficiency of the communal systems of irrigation;
- techniques of irrigation and farming that are unique to the region; and
- gathering information about livestock health and husbandry.

The roles of women in carrying out the productive tasks of the *comunidad* are being studied in the cultural and social research. Research is also being carried out into the structure of income, distribution of resources, and the rationale of the family and of the *comunidad* economy.

This research provides information that will be discussed during the training meetings with the farmers.

Improving performance

The aim of the technical advice is to improve the performance capacity of the organizations that use irrigation. In the *comunidades* these organizations consist of Irrigation Committees, normally made up of a president, a treasurer, and a variable number of *tomeros*, or irrigation technicians,



The kamayoq provide training to the farmers and take their questions and solutions back to the irrigation committees.

elected by the communal assembly for a two-year period.

The training activities involve staff meetings of the project workers with the members of the Irrigation Committee. During these meetings the work group present the results of the research that is being carried out in the *comunidad*, for example the schemes of communal irrigation distribution, and they explain any current problems. A discussion is then held, where any issues relating to the project are dealt with. These meetings are also opportunities to discover whether the information gathered during fieldwork is accurate, and to ensure that the course of the research can be directed according to the needs and priorities of the communal irrigation scheme.

In this way both research and training are tied together, and both activities feed on each other. The research also allows the gathering of the farmers' knowledge, and by means of analysis and group discussion an

attempt is made to fuse this with modern science.

Besides the meetings with each Irrigation Committee, the project also offers one-day workshops for the treasurers, *tomeros*, or presidents of the committees. During these workshops the issues dealt with are specific to the roles that they perform.

Inter-comunidad meetings

Every four months inter-*comunidad* discussion meetings take place. These act as a point of contact for the irrigation committees from the six *comunidades*, and are used to present and discuss issues that interest them all, and have two main objectives:

- to create an opportunity for the exchange of opinions, knowledge, and experience between the irrigation authorities of the different *comunidades*.
- to strengthen the links between the Irrigation Committees of the *com-*

unidades that belong to the same river basin.

There have been three meetings of this sort so far (1993). The meetings have always been in one of the six *comunidades* and the subjects covered have been:

- the current state of the irrigation infrastructure;
- the techniques for irrigation at the smallholding level; and
- the *comunidad's* irrigation regulations in relation to the national water legislation.

A medium-term target of the project is the creation of a network of the irrigation user organizations of these *comunidades*, so that they can initiate a suitable relationship with the state irrigation authority and with the organizations that carry out development projects in the Vilcanota valley.

Improving techniques

The second line of technical advice is for the family groups in each *comunidad*. The *kamayoq* teach irrigation and growing techniques in the different seasons of the agricultural calendar.

The training meetings are carried out in productive small-holdings, where the farmers discuss and exchange knowledge with the *kamayoq* according to their own agricultural experience. This group of families also receives the support of a seed loan.

At this level the transfer of knowledge is from farmer to farmer, given that the *kamayoq* are members of the same *comunidad*.

The present account is our own experience so far. In time we will correct strategies and ways of work, but the main motivation will continue to be to build intercultural bridges within our society. ●

Carlos de la Torre and Rubén Sierra y Toribio Quiape are members of IT Peru's Irrigation Programme, Casilla 18-0620, Lima 18, Peru.

What is the driving force behind your power?



Wind and Solar energy are technically appropriate and economically viable sources of energy for a.o. small water pumps, lighting, radio, T.V., battery charging and telecommunications. They are now considered as vitally important components of rural development schemes.

LMW Windenergy
Solarenergy
Hydropower