Within CATIE itself, the project has contributed to strengthening the multidisciplinary approach in the study of the farm as a system, as different disciplines are involved in the study. The project has also enabled students from nine Central and South American countries to undertake postgraduate and in-service training.

Work in the project will continue for another year during which biological research will continue. Eight out of 11 studies have been completed so far: they include topics such as digestibility, nutritive value, voluntary consumption, effects of agronomic practices with beans, cassava, corn and sweet potatoes. The work with the 10 selected farmers will also be continued. This study is intended to document the receptivity and acceptance of these farmers to technology transfer.

On a larger scale, the research has been extended through cooperative efforts with IDIAP — the Agricultural Research Institute of Panama — and, at the national level, the project has involved the Ministry of Agriculture and the Institute of Land and Settlement in different geographical and ecological zones. In many cases, the work is complemented by projects supported by the Interamerican Development Bank and AID's Regional Office for Central America and Panama.

Created five years ago by the Costa Rican government and IICA (the Inter-American Institute of Agricultural Sciences) — which endowed it with a scientific legacy — CATIE aims to support Central American and Caribbean countries in the areas of food production and forest development. Focused on the small farmer and international in outlook, CATIE is well suited to undertake projects such as the Centre-supported animal production project which will benefit low-income rural peoples.

The road from Sananduva to the tiny village of Sao Paulo — a cluster of houses around a church, parish school and meeting hall — swiftly rises and falls, wraps itself around sharp curves and opens onto deep valleys, dark green mountain landscapes, and fields of soybeans and millet that climb up steep hills.

The village parish hall is large and well-equipped. Divided into two rooms, it has electric lights — a service that only recently reached this community. As it gets dark, farmers and their wives — many of them with children — arrive and are seated. They are serious and quiet, their unmistakably European, particularly Italian, origins reflected in their colourful clothes and fleeting conversations in their mother tongue.

The group grows to about 50. Then Selina DalMoro, Director of Municipal Education in Sananduva and local coordinator for the Father Landell de Moura Educational Foundation (FEPLAM), addresses the gathering to explain the importance of the courses that are beginning, the methodology to be used, and to thank the students for their participation.

The group then divides into two, women in one room, men in the other. Each group has an instructor who begins today's lesson by playing a tape cassette that is frequently stopped and commented on. One course is on fruit growing, the other on horticulture. Each is 68 hours long, and classes will meet as often as the student's schedules allow, depending on the work in the fields. In addition to attending classes where they listen to a tape some 25 minutes long and to the instructors' comments, the students receive a text and exercise book. When they finish the course, they will receive an attendance certificate.

The Sao Paulo cassette school is one of hundreds like it in the state of Rio Grande do Sul, each of which has 25 to 35 students led by a monitor or teaching assistant.

Many adult education organizations in Latin America use the mass media. Most of them are directed by religious organizations or are affiliated to churches. FEPLAM may be the only exception, although it bears the name of a priest, Father Landell de Moura, a noted Brazilian scientist who patented a radio transmitter before Marconi. The foundation has borne his name since 1967, two years after its establishment in the town of Porto Alegre. Originally called the Educational Radio and Television Service (SERTE), it was created as a result of an agreement between the Ministry of Education and Culture of the Brazilian government and the Secretariat of State for Rio Grande do Sul state.

The use of "tele-education" originated and developed in Latin America where the mass media, particularly radio, offer the only possibility of reaching isolated rural populations.
FEPLAM had begun using available mass media to complement ongoing adult education efforts in rural and urban areas even before the concept gained popularity on the continent. FEPLAM’s goals are to “conduct educational and cultural extension programs aimed at human development, both as individuals and members of society; to make better known the importance of educational broadcasting as a development tool; and to encourage the efforts being made to improve educational broadcasting techniques.”

FEPLAM meets its objectives through the selection of the courses, the adaptation of the curriculum to radio, television, cassette, slide/sound shows and printed materials, and the production and programming for these and other media.

It’s status as a private, nonprofit foundation gives it great flexibility in managing resources available at state, private, and community levels. It also benefits from a ministerial decree that stipulates that radio and television stations must devote five hours a week to educational programming, to be broadcast during prime time.

Although FEPLAM currently employs 120 people — 2 of which are agronomists — it also draws on municipal and community organizations to promote and organize its rural education courses and to adapt them to local needs. By efficiently exploiting local resources, FEPLAM is able to keep the cost per student enrolled in rural education courses at less than 112 pesos. The teaching methodology has been adapted to the needs of the participating students. Students can work either individually at home, or in groups, complemented with class meetings. Home learning materials are also provided. Their rural development series is now being broadcast by commercial radio stations: the programs last 15 minutes and the stations can choose from up to 70 different subjects.

To date, it has been difficult to measure the effectiveness of FEPLAM’s services in terms of the adoption of new technologies or changes in behaviour that lead to greater productivity and economic well-being. With IDRC support, it has now launched a research project that seeks to measure behavioural changes as a product of its communications program.

Four regions in the state have been selected for the study: two for the experiment and two as control areas. In the first two regions, FEPLAM is offering new rural development programs. One offers technical advice on the production of potatoes, cassava and beans, concentrating on low-technology and labour-intensive methods. Because these crops make up the basic diet of the small-farm family, the course addresses the most significant items in the life of the target audience. The second course deals with cooperatives and is therefore much more concerned with the sociological behaviour of farmers.

The study will test the hypothesis that participation in the courses will change the behaviour of farmers, by changing their planting practices and by their degree of participation in cooperative activities, such as the maintenance of cooperative storage facilities.

This is the first attempt in Brazil to measure the effectiveness of tele-education in terms of its broad practical effects. And because of the popularity of mass adult education programs in Latin America that aim to influence the behaviour and attitudes of rural populations, this project will be of great interest to other organizations and countries concerned about the causal relationship between educational programs and subsequent behaviour.