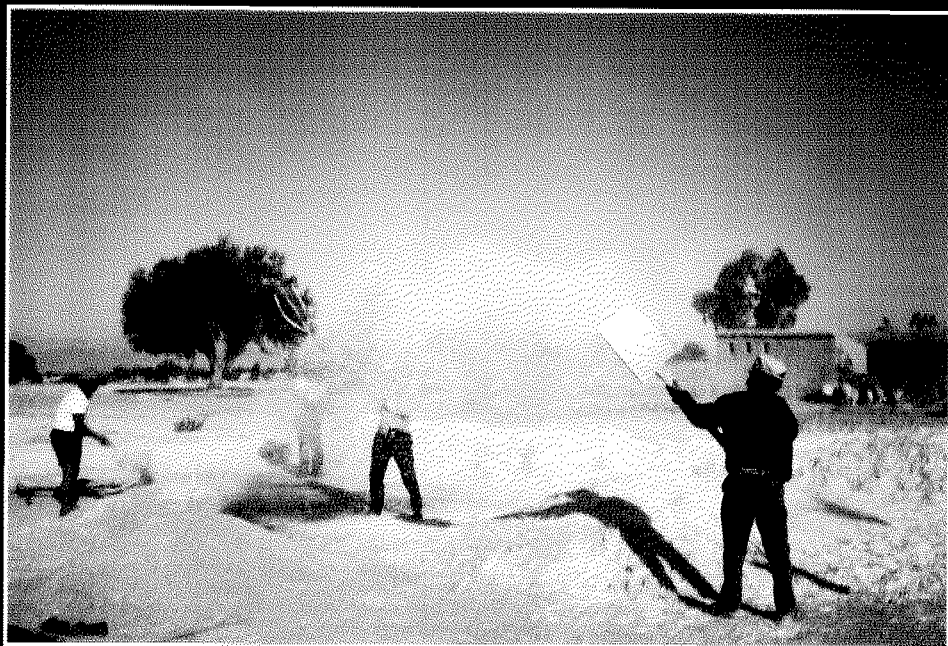


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GLOBAL DEVELOPMENT

An experiment
in rural development in Bolivia



SIMÓN I. PATIÑO FOUNDATION

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FOREWORD

The experiment described in this book had its roots in the situation found in communities where our people's libraries network has branches. The libraries, originally intended as places for reading and learning, very soon turned into actual community centres where all residents could meet and express themselves in various ways.

Since our Foundation also operates Centres of activities in the main development sectors, the idea came quite naturally that the combined knowledge and experience of these institutions might be channelled into a global experiment aimed at halting the exodus of the region's best people and the inevitable resulting impoverishment. The choice of the community of Aranjuez was dictated, first and foremost, by the fact that it seemed representative of other localities in the valley and, secondarily, by practical considerations.

Our intervention was, by definition, limited in time, its object being – once the necessary momentum had been established – to enable the community to proceed under its own steam towards the desired goal of autonomy. Five years after our withdrawal we invited CERES, an independent institution, to review the results of this original experiment.

The unadorned account that follows is presented in the hope that our efforts may prove helpful to all participants in development programmes – very widespread in Bolivia – especially in the approach they adopt to these issues. Besides telling us something about the difficulties, culture and mentality of the region's inhabitants, these pages reveal the immense influence that the great socio-economic currents that tend to rule the world today wield even in the remotest areas of the globe

John Dubouchet
Director
Simón I.Patiño Foundation

This document was prepared by:

CERES

Centre of Studies on Social and Economic Reality

Cochabamba, Bolivia

INTRODUCTION

From 1990 to 1995, four centres of activities belonging to the Simón I. Patiño Foundation undertook an *Integrated Development Project (IDP)* in a peasant community of the High Valley of the Department of Cochabamba with the object of improving the quality of life of the population and halting the process of emigration severely affecting the region at that time. The Pairumani Centre for Phytoecogenetic Research, the Albina R. de Patiño Pediatric Centre, the Pairumani Model Farm and the Simón I. Patiño Educational and Cultural Centre combined their efforts in coordinating the development of the community of Aranjuez (district of Arbieto, province of Esteban Arze).

The project had several components: basic services (latrines, drinking water supply systems), production (irrigation, agricultural innovations of a technological as well as an organizational nature), education and culture (construction of school buildings, environmental awareness-raising activities, encouragement of reading), and work with a group of women. In 1995, the responsibility for the project was handed over to the community and the participating institutions withdrew. Since then, unfortunately - for various reasons, including, among others, internal dissensions and shortage of water - the community has failed to pursue all of these activities.

Our text describes the experiment from its inception, the handing over of responsibility and the relative continuance of activities. The first chapter is devoted to the framework within which the project was carried out. At this point we need only state that the site is an agricultural one subject to chronic drought problems.

The next chapter describes the start-up of the project, the needs expressed by the community and the efforts to meet them made by the participating centres. A further chapter gives a detailed account of the organization and the activities undertaken, with particular emphasis on the participation of the inhabitants of Aranjuez.

The last chapters deal with relations within the community, the handing over of the project to the community and the causes and consequences of the interruption of most of the project activities. The text concludes with a more general reflection on the subject of development, for which the experiment under consideration serves as a starting point.

THE SIMÓN I. PATIÑO FOUNDATION AND THE CENTRES PARTICIPATING IN THE PROJECT

Simón I. Patiño Foundation

Established in 1958 by the heirs of the great Bolivian industrialist Simón I. Patiño (1860-1947), the Simón I. Patiño Foundation of Geneva designs and develops for South America, and particularly for Bolivia, research programmes as well as programmes for practical application in the spheres of education, culture, research, health, hygiene, nutrition, agriculture and ecology through a number of centres at which specific activities are pursued at all levels, from basic adult education to university studies.

It conducts these activities at various centres belonging to the Simón I. Patiño University Foundation established in La Paz in 1931 by Don Simón I. Patiño himself.

In Europe, it successfully conducts a variety of programmes in the fields of ecology and culture. Through its publishing companies, it endeavours to make known the wealth and diversity of Latin American letters and culture. At its University Centre in Geneva, it trains young executives for future careers in Bolivia.

Simón I. Patiño Educational and Cultural Centre

The Simón I. Patiño Educational and Cultural Centre is a centre for training, information and exchange of ideas in the fields of education, culture and science. It is also engaged in the in-depth study of problems relating to Bolivia's development.

The Centre's activities, which are essentially focused on books and the encouragement of reading, are carried out through a network of libraries: a Reference Library at the Centre itself, a chain of People's Libraries spread over the Department of Cochabamba, and an Encouragement of Reading unit.

At the cultural level, the Centre houses the Centre for Contemporary Bolivian Art, a handsome gallery where a broad panorama of contemporary Bolivian painting is presented in an exceptional setting. Works by young artists are regularly exhibited in adjacent showrooms.

The literary counterpart of this gallery is the Centre for Contemporary Bolivian Literature, a meeting place for authors and the reading public. In addition to organizing all kinds of literary events, the Centre also engages in the study of contemporary national literature.

Concerts of every kind of music are also given in the main hall of the central building and in the remarkable open-air auditorium.

Lastly, the Simón I. Patiño Centre provides the venue for major national and international meetings, not only making available its organization and installations but also participating actively, especially in the cultural field.

Albina R. de Patiño Pediatric Centre

Established for the purpose of helping the underprivileged children of Bolivia, the Albina R. de Patiño Pediatric Centre is a centre for curative, preventive and social medicine run by a Bolivian medical team whose ranks are regularly swelled by outside contributors.

It is a centre for the dissemination of the latest achievements in modern pediatrics, as well as for medical and paramedical training and scientific research.

It comprises the following services:

- Hospitalization: several wards with a total capacity of 45 beds are reserved for serious cases, infants and school-age children.
- Polyclinic: a centre for consultations offering specialized treatments for many different diseases as well as preventive and social pediatric services. Over 25 000 consultations a year are provided.
- Teaching: in close collaboration with the medical school of Greater San Simón University of Cochabamba, the Centre offers courses in pediatrics, receives trainee pediatricians from the University and provides training and proficiency courses for nursing staff.

Disease prevention and family education are among the Centre's priority concerns. Accordingly, check-ups of healthy children are carried out as part of a system of monitoring the growth and development of infants between birth and 5 years of age. In addition, early detection of malnutrition is targeted by teams of specialists who hold regular group meetings with families and offer home support.

The Centre also offers regular proficiency courses and lectures to local pediatricians.

Pairumani Centre for Phytoecogenetic Research

The Pairumani Centre for Phytoecogenetic Research selects new varieties of maize, hard wheat, haricot beans, lupin and broad beans which offer higher yields, a better nutritive quality and greater resistance to diseases and parasites and are specially adapted to climatic conditions in different parts of the country.

It cooperates with national and international agricultural dissemination programmes, offering advice on plant-growing to local farmers, especially small-holders, and in this way contributing significantly to the improvement of the population's nutrition.

Thanks to its Gene Bank, the Centre collects, preserves, multiplies and defines local varieties of maize, haricot beans, lupin, amaranth, capsicum spp. and cucurbitaceae. It also preserves various species imported into Bolivia several centuries ago, such as broad beans and wheat.

Optimum conservation of these varieties is ensured in the Centre's air-conditioned cold rooms where the germinating capacity of seeds can be maintained for 15 years. Furthermore, the samples are regularly regenerated in order to maintain their germinating capacity. A detailed catalogue, including descriptions and evaluations, is kept of all samples.

The Centre conducts its activities in collaboration with institutions and experts all over the world.

Pairumani Model Farm

Situated about 30 km north-west of the city of Cochabamba, in the foothills of the Tunari range of mountains at a mean altitude of 2,600 metres, the Pairumani Model Farm covers an area of 500 hectares, 265 of them cultivable and the rest consisting of forests and paths.

The farm's activities fall into two main categories:

- Genetic improvement of the dairy herd, Holstein Frisian breed;
- Production of certified seed from varieties selected by the Pairumani Centre for Phytoecogenetic Research.

Crops are raised by natural agrobiological methods without chemical fertilizer or pesticides, which makes the Model Farm an ecological reference point for the continent as a whole.

The Farm also engages in reforestation of non-cultivable land and in research on animal breeding and crop-growing subjects.

2. THE FRAMEWORK

2.1. General

Situated north-east of Tarata, the provincial capital, and 30 km south-east of the city of Cochabamba (see map, fig.4), Aranjuez was declared a "vice-canton" in 1912 and a "canton" by Acts of Parliament passed in November 1914. Before the promulgation of these acts, the village was called Pampa Mamata and included the hamlets of Villa Rosario, Liquinas, Aranjuez Pampa Mamata and Higueraani.

The region is situated at a mean altitude of 2 700 metres. Since the climate in Bolivia depends essentially on the altitude, the annual temperature average fluctuates between 13 and 18 degrees Centigrade, with monthly variations of 7 degrees between the coldest and warmest months¹. The average annual rainfall reaches 420 mm, concentrated mainly between November and March. The region's topography is relatively flat, with a gentle gradient from south to north and slight valley formation. The soil, formed of alluvial or pure clay, is fairly deep and moderately fertile, suitable for growing maize, potatoes, wheat, barley, peas, alfalfa and fruit such as peaches and grapes.

The principal water resources are groundwater (at a depth of 12 to 14 metres). In the rainy season Aranjuez receives an additional water supply from six rivers. There is no supply of run-off water from the mountainsides. The region's trees are principally acacia,

¹ *According to Arbieta's municipal development plan, these characteristics correspond to the definition of a low-altitude mountain area. According to R.L.Holdridge's classification of areas suitable for habitation, the region belongs to the category of "sub-tropical steppe with thorn-bearing vegetation".*

carob, *chillijchi* (*Erythrina Falcata*), *jarca* (*Acacia visco*, a tree with lilac-coloured blooms and with fruit popularly known as "castanets"), mollé (false pepper-plant, *Schinus molle*), pine, willow, *tara* (*Coullteria tintorea*, very hard-wooded) and *tipa* (*Tipuana spacirosa*)

Aranjuez forms part of the High Valley of Cochabamba which includes the provinces of Arani, Esteban Arze, German Jordan, Punata and Tiraque, an area with the highest population density in the country that has been of considerable importance to the Department of Cochabamba in the course of Bolivia's political, social and economic history². It is worth pointing out here that Tarata, the capital of the province of Esteban Arze (in which Aranjuez is situated), was the birthplace of two particularly charismatic Bolivian presidents, Mariano Melgarejo and René Barrientos. For a brief period under Melgarejo's rule Tarata was also the capital of the Republic. Besides, the trade unions of the High Valley farmers were the most vigorous supporters of the land reform of 1953.

Furthermore, the name of "Bolivia's granary" by which the Department of Cochabamba was once known was principally due to the production of cereals in this particular area. This area also supplied the country with manpower at times when other regions, such as the silver- and tin-mining centres or the rubber-producing area, were enjoying rapid economic expansion.

Before the colonial era, the region was settled by Aymaras and Quechuas. More recently, in the period immediately preceding the land reform, *piqueros* (free peasants owning small plots of land) accounted for three-quarters of the population of Aranjuez,

² According to the results of the census of 1992, all the High Valley provinces taken together had a population density of 40 persons per square kilometre, while the figure for the country as a whole was 7 persons per sq. km.

the rest being farmers tied to the large estates or *haciendas*. With its slogan "The land belongs to him who works it", the reform recognized the importance of the peasant class and bestowed individual property rights throughout the region. This led to the emergence of a peasant economy oriented primarily towards neither profit nor expansion but towards providing an access to land and work for the majority of the population. However, as the years went by, properties bequeathed by parents to their children were gradually dismembered, giving rise to the phenomenon known in Bolivia under the name of "minifundización" (transformation of large land estates into a multitude of minute ones). This resulted in a decline in productivity and in inadequate use being made of natural resources, especially land.

Migration has always been an important element in the social and economic development of the High Valley of Cochabamba, and Aranjuez is no exception to this rule. During the decades in which tin mining was in its heyday, the mining centres of Oruro and Potosi acted as a magnet for a population in search of employment. In the years after 1940 many people migrated to Argentina, the men to work in building, the women in the garment industry. This process is still continuing today, even if the past half-century has seen some fluctuations due to the ups and downs of Argentina's economic development. According to the preliminary study on which Arbieta's Municipal Development Plan was based, there are between twenty-five and thirty families from Aranjuez living in Buenos Aires today.

Another country that attracts emigrants from Aranjuez is the United States. About forty-five of them – men and women between eighteen and thirty-five years of age – are currently living in that country, where they are employed principally as builders, building labourers or in other trades not requiring highly skilled labour. Aranjuez men aged between 15 and 40 are recruited for cotton and

sugar cane harvesting in the north of the Department of Santa Cruz. Another important centre of attraction inside Bolivia, especially since the early 1980s, has been the tropical part of the Department of Cochabamba with its coca leaf plantations.

A relation living abroad is a most important source of income for many people. For example, it is said in Aranjuez that certain goods "made in USA" (motor cars and agricultural machines) are bought with money sent by the emigrants. And since most of the emigrants are men, women have come to play a primary role in development and in agricultural activities, which, despite these economic contributions from abroad, remain very considerable

Before the *Integrated Development Plan*, the crops grown in Aranjuez were essentially potatoes, maize, wheat and peas. Peaches were among the least important products; as for tubers, potatoes were grown exclusively for consumption in the home. The production process was already mechanized to a considerable extent owing to the use of tractors hired by the farmers.

According to the report entitled *Human Development Indicators for 311 Communities*, Arbieta today occupies 182th place in terms of human development. According to the *Poverty Map*, Arbieta holds 229th place among Bolivian communities in terms of the proportion of the population living in a state of poverty³.

In 1998, the year in which Arbieta's Municipal Development Plan was drawn up, there were 120 families totalling 528 persons living in Aranjuez. The number of persons per family (on average 4.4) is slightly above the average for the rural part of the Department of Cochabamba (4.14 according to the 1992 census).

The principal economic activity of the population of Aranjuez is agriculture (accounting, according to the 1992 census, for

39.6%), but income from this source is supplemented by other activities. Before proceeding to draw up the *Integrated Development Plan*, the Simón I. Patiño Foundation, present in the community since 1985 thanks to its “encouragement of reading” activities, conducted a survey of the economic resources of local families (see figures 1 and 2).

Figure 1
SOCIO-ECONOMIC STRATIFICATION IN ARANJUEZ

Stratum	Average monthly income	Patrimony	Economic activity and/or profession or trade	Percentage of the population
Low	Bs 237 US\$ 65	House, land, farmyard animals	Agro-pastoral	31%
Middle	Bs 561 US\$ 160	House, irrigated land, farmyard animals and large cattle	Agro-pastoral Building work Drivers	51%
High	Bs 1 057 US\$ 300	House, land, tractor, car	Notables, emigrants, professionals	18%

³ See UNDP, *Indicadores de desarrollo humano para 311 municipios, La Paz, UNDP-UDAPSO, 1998 and UDAPSO, Mapa de la pobreza. Una guía para la acción social, La Paz, UDAPSO, 1993. With a life expectation of 54 years, an annual per capita income of US\$ 1 091, a period of school attendance of 2 years and a literacy rate of 69.66%, Arbieta has a human development index of 0.386. (According to the same source, the most developed locality is Santa Cruz de la Sierra with an index of 0.686 and the least developed, Tinquipaya on the High Plateau of Potosi with 0.214.) Arbieta has 86.2% people classified as “poor”. (The poorest localities are reported to be Yunguyo de Litoral and Esmeralda, where poor people account for 100%; Santa Cruz de la Sierra, with 42.5% of poor and destitute inhabitants, is the least poor.)*

Figure 2
SURVEY OF FAMILY INCOME SOURCES IN ARANJUEZ
(1991)

Income source	Persons concerned	Unit	Period	Annual income
Maize (<i>wilkaparu</i> & <i>waltako</i>)	All	5 to 10 "fanegues" of 200 to 300 ears each	Agricultural year	Bs 1200 to 1500 (US\$ 350 to 450)
Temporary migration to high-altitude areas and valleys for potato harvesting	Various	Payment in kind (1 "arrobe" per day)	October to January	Bs 900 to 1400 (US\$ 250 to 400)
Building work at Arbieto, Cliza and Tarata	Building workers	15 to 30 Bs/day (3 to 6 US\$/day)	30 to 45 days/year	Bs 700 to 1200 (US\$ 200 to 350)
Making local pastry goods	5 families	35 persons/day	40 days	Bs/family 1160 (US\$ 325)
Money sent by relatives living in Argentina	30% of men 5% of young women	No data	No data	US\$ 430
Money sent by relatives living in the US	5% of heads of family	No data	No data	No data

Source: project data

The survey also helped to identify the main impediments which farming had to face in Aranjuez. It was noted that neither technical assistance nor State credit facilities were available to farmers. Conversely, from the farmers' point of view the unrestricted entry of agricultural products into Bolivia showed out the obvious absence of protection (illustrated by donations of North American wheat). As for natural phenomena, besides the geographical constraints affecting the region's accessibility, agricultural production was also rendered extremely difficult by climatic factors such as drought and frost. Furthermore, the local farmers' way of using natural resources was hardly compatible with resource renewal, land and forest use being the most striking cases in point.

The three main agricultural products grown are currently being used in the following manner:

Figure 3

USE OF THE THREE MAIN CROPS GROWN IN ARANJUEZ

Product	Sale	Processing and consumption	Seed	Average output per family
Maize	50%	40%	10%	660 kg on 0.5ha
Wheat	40%	50%	10%	400 kg on 0.5ha
Potatoes	50%	45%	5%	2600 kg on 0.5 ha

Source: Arbieta Community Development Plan & interviews

Access to a market, whether for selling or for buying goods of all kinds, is essential to a peasant economy. The need for cash compels the farmer either to over-exploit the natural resources available to him or to leave the community in search of temporary employment elsewhere, a practice which, in the long run, may cause the breakdown of the family. And selling off one's cattle in case of need (for the smallholder, owning a cow is a form of saving) is not something that can be resorted to very often. This observation, incidentally, applies not only to Aranjuez but to the whole of the High Valley.

Lastly, it should be noted that the form of labour organization in Aranjuez is the "agrarian syndicate". There also exists a Drinking Water Committee composed of four members. The trade union is affiliated at the provincial level to the United Peasant Workers, Province of Esteban Arze Group, which has its headquarters in Tarata, and, at the municipal level, to the Special Union of Arbieta. The latter is where the community's peasant organizations come together; it is the place where community participation is planned and where it is decided how to use the State co-participation funds that are redistributed by law throughout the country. In all other organizational matters, the union deals directly with the provincial group.

2.2. Development at Aranjuez

Development at Aranjuez does not begin or end with the execution of the *IDP* alone. It is a long-term process governed by the constant changes the population has to face in its day-to-day life. A list of the activities that foreshadowed the Plan, from the time the People's Library was opened in coordination with the local trade union in 1985, is given below.

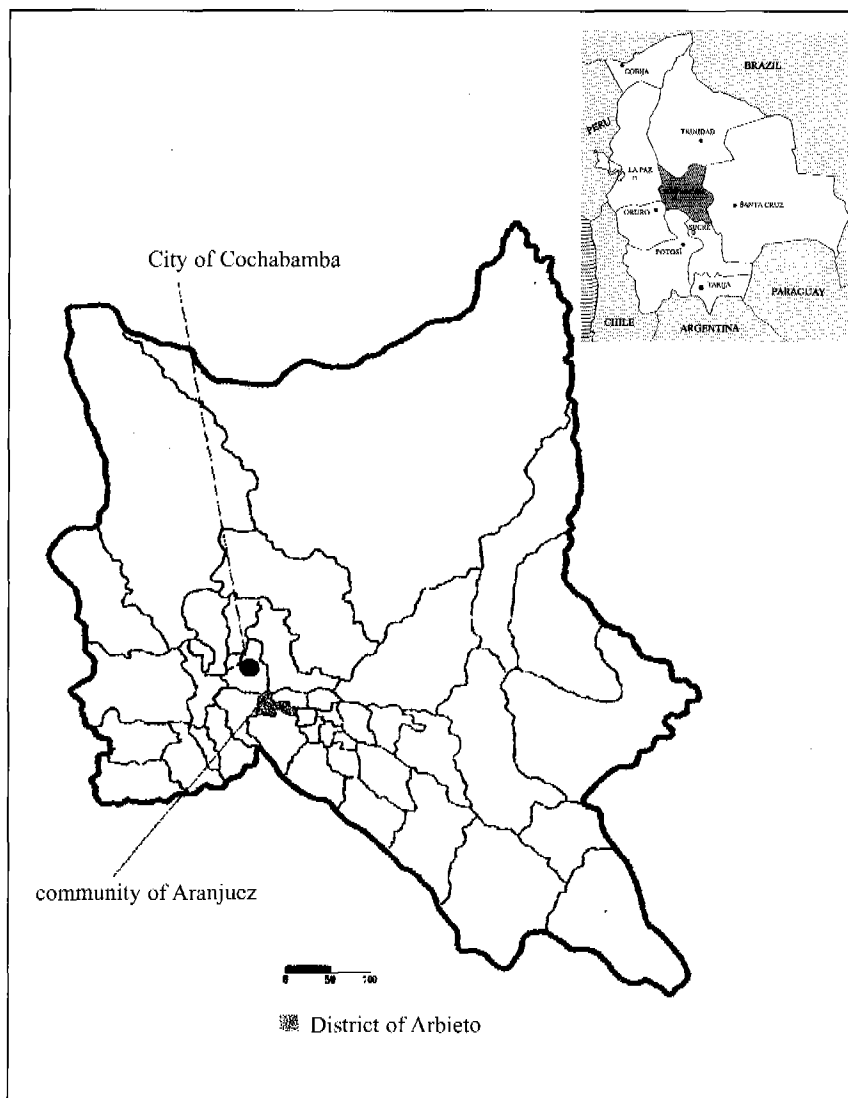
- 1985: Work with women begins; discussions on health and hygiene.
- 1986: Support by a woman volunteer from COSD⁴ in the preparation of booklets on health. Presentation and approval of a project for the improvement of the village school, funded in November.
- 1987: Repair of school roof. Renovation of library ceiling and floor, plastering and painting of library walls. In September, presentation of another project to the Canadian Government with a view to obtaining school desks and a metal entrance gate and cementing the school yard. The project was approved in October 1989.
- 1988: On 24 June, installation and fencing-in of tree nursery. In September, purchase and installation of an irrigation water pump.
- 1989: Participation in the embellishment of a square in Arbieto by planting ornamental plants. Protection of flowerbeds, planting of trees. Start of operations towards enlarging the library.
- 1990: Thanks to the support of the "2/3 Club", Canada, delivery of 120 school desks, an oven, a cooker and a small quantity of equipment. Opening of the new premises.

⁴ *Canadian Organization for Solidarity and Development*

Other experiments in development had already been conducted at Aranjuez. In particular, some North American volunteers had come to the community in 1960, staying for a period of six years and executing programmes relating to health, agriculture, forestry and stockbreeding. As part of these programmes, the volunteers had provided training to the population, introduced new varieties of wheat and eucalyptus and encouraged the use of pesticides.

Aranjuez had also been involved in larger projects covering the whole of the High Valley, e.g. a home crafts wool-weaving project, which unfortunately failed to survive the economic crisis. Larger regional projects were also undertaken. Thus, a project combining fruit-growing and milk production was developed in the 1970s and 1980s. However, owing to the region's characteristics, only the fruit-growing component (training of peasants and agricultural promoters, planting of apple, peach and plum trees and vines) could be carried out. In none of these cases did the project results come up to expectations.

Figure 4
THE COMMUNITY OF ARANJUEZ IN THE DEPARTMENT
OF COCHABAMBA AND IN BOLIVIA



START-UP OF THE PROJECT

3.1 Coordination between institutions

At the start of the project, the various bodies of the Patiño Foundation were operating independently, each within its own field and without any real coordination. Collaboration was undertaken here and there on an ad hoc basis. However, the Pairumani Model Farm and the Centre for Phytoecogenetic Research did sometimes carry out joint activities; thus, for example, some of the Centre's experimental and practical research work might be done at the Model Farm. Likewise, one of the Simón I. Patiño Centre's People's Libraries, intended for the use of Pairumani's children and young people and for persons employed on the estate was already established at the Model Farm. Sometimes the Farm would supply food to the Albina R. de Patiño Pediatric Centre. But this initiative had to be abandoned because of the high transport costs necessitated by the distance between the two institutions.

In 1989 and 1990, the People's Libraries staff had formed a clearer picture of the needs of certain communities. The occasion then presented itself, with the local organizations' consent, to concentrate the efforts of four institutions in a single location. An "Integrated Development Centres Project" was then developed for Pairumani (province of Quillacollo in the Central Valley), Aranjuez (High Valley) and Collpa-Ciaco (province of Arani, likewise in the High Valley), where the libraries, thanks to their continuous presence, were solidly entrenched and well aware of the population's needs. In fact, the initiative came to fruition only in Aranjuez.

The challenge seemed full of promise, even though the participating institutions could not, of course, hope to meet all of a community's needs.

3.2 The context: State reform

It is important to point out here that the *Integrated Development Project* experiment was carried out at a time of intensive State reform in Bolivia. Rural areas, in particular, were undergoing profound change.

The reforms introduced from 1985 onwards were aimed at achieving greater decentralization (administrative in the case of Departments, political and administrative in that of districts) and greater popular participation in the management of local development. The liberalization of the economy brought to an end the most critical episode of hyperinflation in Bolivian history. The closing down and, later, the privatization of State enterprises had led to massive dismissals of workers. This, in turn, had led to the proliferation of an "informal", often family-based, economic sector in some of the cities.

The State also introduced educational reforms, regulated the use of natural resources and set up a monitoring system based on sectoral superintendent's offices independent from party or company interests. These reforms took place between 1993 and 1997, in particular through the promulgation of Acts on decentralization, popular participation, educational reform, ministries, privatizations, judicial reform and pensions. The agrarian system was also amended and the political Constitution of the State reviewed. The existence of several cultures in Bolivia was henceforth recognized in its Article 1.

The most important reform was the Popular Participation Act, which began to be implemented not long before the *IDP* was handed over to the community. This Act extended the jurisdiction of municipalities to rural areas (previously, municipal authorities had existed only in urban centres); so far as the economy was con-

cerned, it established the amount of State co-participation for each district in relation to the size of its population. It gave new responsibilities to local authorities by handing over to them the management of infrastructures in the fields of health, education, sport and local irrigation. Thus recognized, residents', indigenous peoples' and peasants' associations could henceforth participate in planning and monitoring municipal management processes.

3.3 Origins of the project and choice of place

The project arose out of three ideas inspired by the work of the People's Libraries Network of the Simón I. Patiño Centre. First of all, the members of the library staffs became aware of what was lacking in the lives of local inhabitants. Second, the community organizations began to ask these staffs for support in matters other than education and reading. Lastly, as time went by, the libraries came to be used as the communities' "social centres". The case of Aranjuez is exemplary in this respect. According to the network's director, the residents recognized the library's social importance: "The library is our social centre, the place where everyone goes to meet everyone else", were they textually reported as saying.

3.4 Philosophy of the project

The fundamental goal of the project was to strengthen the community. Since the People's Library was the point of entry into community life, the integrated development process necessarily had to begin with education – and, more precisely, with reading. As stated in the text of the project, "in order to derive full benefit from the pleasures of reading, a human being must, above all, enjoy good physical, mental and social health; must be properly nourished and cared for; and must enjoy general conditions of life that will facilitate the opening of his/her mind to knowledge. An adequate and balanced diet will maintain him/her in a good state

of health; only then can the potential of education be fully realized (...). All these areas – health, food, way of life, education – are intimately linked together, forming a chain of interdependent elements, none of which is sufficient by itself to guarantee the stability and solidity of the whole”.

Now let us see how these elements were reflected in the project’s goals. First of all, it must be pointed out that neither the central problems nor the ways of resolving them were *a priori* clearly defined by the Foundation staff. In the original text of the *Integrated Development Project* we read: “... the members of the community must plan and implement the project; it is up to them alone to propose solutions, if a situation of dependence intolerable for all concerned is to be avoided”.

The underlying postulate was, then, the local population’s awareness of its own problems. But subsequent developments revealed that this awareness was inadequate. The community’s technical know-how – and also that of the project team – turned out to have been greatly overestimated at the outset.

A second problem that arose related to the relationship between individuals and the community. In the project’s philosophy, the human being at the heart of the development process is perceived as an *individual*, whereas the implementation of the project is the responsibility of a *community*. A properly nourished individual enjoys good health, which enables him/her to acquire knowledge; the community, for its part, must ensure that it has an advantageous place on the market, it must protect the local environment, make sure that its members have access to education and health care and must see to it that all these elements mutually supplement and strengthen each other. To articulate such a relationship proved difficult, and solutions had to be found once the execution of the project was already in progress.

The objectives assigned to the project, set out below, take account of the desire to involve the community in defining and resolving the problems, the feasibility of the solutions proposed, and the community's intrinsic characteristics.

General objective:

- To provide the community with the necessary means to achieve economic self-sufficiency with a view to slowing down, as far as possible, the manpower drain responsible for the progressive depopulation of areas close to the cities.

Specific objectives:

- To halt the growth of poverty in rural settlements
- To reduce the high level of maternal and infant mortality rates
- To raise the level of education of the children
- To raise the standard of living of families, in particular by working with women groups
- To promote technologies and to develop infrastructures aiming at improving basic food production
- To encourage production of foodstuffs that meet market requirements, with a view to improving family incomes
- To train the community in organizing itself with a view to attaining the foregoing objectives.

As will be seen, the last six of the specific objectives became operational in the course of the activities executed by the participating centres.

Basic premises underlying the process as a whole:

- The community must remain the principal participant in the project.
- The activities must be consistent with the preservation and rational use of natural resources.

These basic premises did not explicitly mention equality between genders or generations, although this element was taken into consideration while carrying out the activities. As with most experiments relating to development, another problem soon became apparent, creating an element of uncertainty throughout the implementation period: the question of handing over responsibility to the community. How would the community pursue the goals it had itself defined? Was it fully convinced that the activities would prove successful? Would the results mutually reinforce one another, thus encouraging development? Would the project be continued once it had been handed over? We will endeavour to answer these questions by analysing the *Integrated Development Project's* organization and activities.

THE PROJECT IN EXECUTION

Analysing an *integrated* (or “*global*”) project is never easy, for the very reason that the objectives and activities are *integrated* within a single process and therefore cannot be considered separately from one another. In this chapter we will endeavour to identify some factors that will facilitate a better understanding of the *Integrated Development Plan*’s execution. We will begin with the organization of the project, continue with the activities carried out, and conclude with a paragraph devoted to community participation.

4.1 Organization of the project

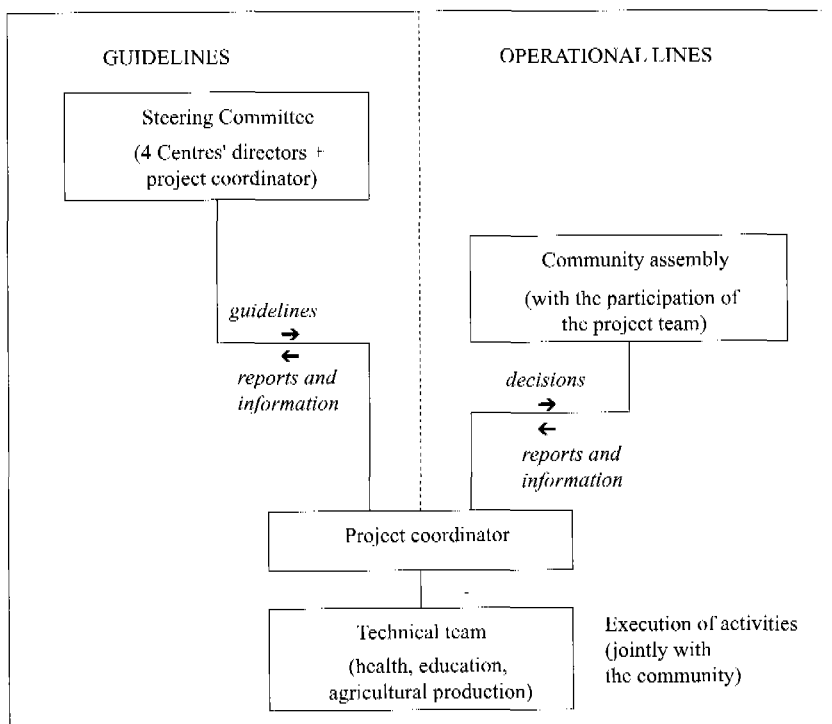
As already stated, the People’s Library in Aranjuez, integrated in the People’s Libraries Network set up by the Simón I. Patiño Centre⁵ as far back as 1977, was the starting point of the project, the library being the first institution that operated in Aranjuez for any considerable period of time. Accordingly, the project was undertaken on the basis of the library’s presence in the community and of the work performed so far.

The decision-making organs forming part of the structure of the *Integrated Development Plan* were a Steering Committee composed of the directors of the four participating centres and the Assembly of the Community of Aranjuez. As may be seen in Figure 5, the Committee took charge of defining certain guidelines

⁵ For the principles and operation of the People’s Libraries Network, see: Simón I. Patiño Foundation and Pro Bolivia, Promotion of reading. An experiment in Bolivia, Geneva, Portales Educational and Cultural Centre, 1985; Simón I. Patiño Foundation, Reading and Development. An original experiment in Bolivia, Geneva, Simón I. Patiño Foundation, 1996. Prior to 1992 the Simón I Patiño Educational and Cultural Centre was known as the Portales Educational and Cultural Centre.

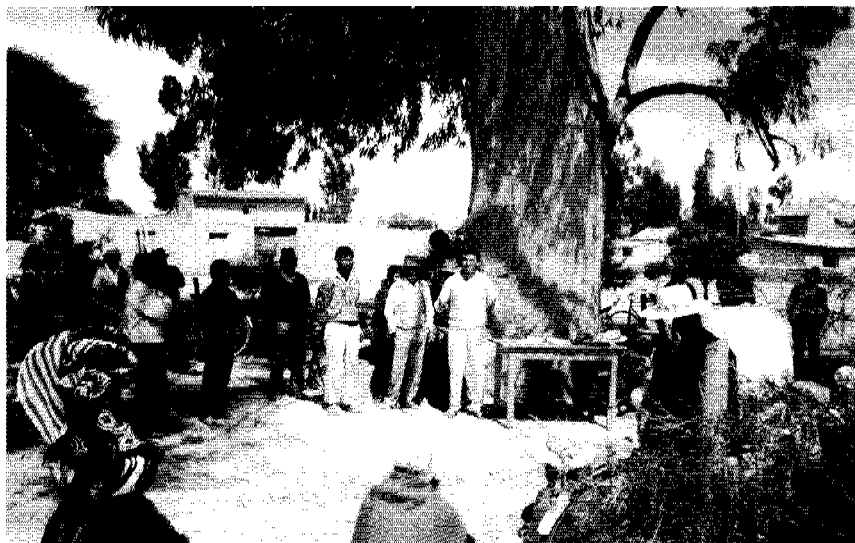
upon which specific activities were to be articulated. Starting with those general guidelines, the Assembly decided, on its own responsibility, what those specific activities should be and how they should be carried out. The presence of the project coordinator in both bodies – in the Steering Committee, to report on the project’s execution and in the Assembly, to act as the facilitator – was intended to ensure the consistency of specific activities with the project’s basic principles. The proposals of the Steering Committee were communicated to the community on a consultative basis, and the Assembly held monthly meetings in order to consider matters within its jurisdiction and to discuss the progress of the project.

Figure 5
OPERATIONAL FLOW CHART



As regards organization, the project benefited from the experience and resources of each of the participating centres. Given the intention to work with large numbers of local personnel, it was decided from the outset to use staff from all four Centres. The only staff members specially recruited for the project were the coordinator and two assistants, all of whom were already on the payroll of the Simón I. Patiño Centre. The Centre assumed responsibility for the general coordination of the operations. Besides the coordinator and his assistants, the Centre also recruited local staff (persons regularly involved in People's Library work, teachers, reading instructors, technical assistants in environmental and forestry matters). The Albina R. de Patiño Pediatric Centre, for its part, provided a field team composed of three experienced doctors, five recent medical school graduates, a biochemist and a nurse. Engineers specializing in zootechnics and the growing of forage crops were seconded from the Pairumani Model Farm; the Centre of Phytocogenetic Research sent specialists in maize, pulses and wheat. In this way, all the Centres provided staff for Aranjuez without any increase in their regular budgets. Since the Centres had never previously collaborated in carrying out a project of this kind, their directors found it difficult to reach agreement on activities and participate in the implementation of objectives not directly related to their usual work. Efforts to coordinate a plan of action were, however, made from the start, and the project's operations, activities and budget were planned by common consent.

As stated earlier, the successful execution of the *Integrated Development Plan* depended to a great extent on the work of the coordinator, whose responsibility it was, on the one hand, to give concrete expression to the guidelines laid down by the Steering Committee and, on the other hand, to ensure that the project benefited from experience gained and from lessons that could be drawn from activities performed. Maintaining links with both the Steering Committee and the Assembly (the decision-making bod-



ies), the coordinator was in constant direct touch with the top management of the Simón I. Patiño Centre – of which he was formally an employee – as well as with members of the community (in charge of project execution and follow-up).

The Simón I. Patiño Educational and Cultural Centre provided administrative and secretarial staff as well as offices, transport and logistic support. The director of the Centre also took charge of monitoring the project activities as a whole.

The role of the Community Assembly was fundamental to the project's operation. Questions of community participation in development management will be considered later; but first, we will describe the activities carried out.

4.2 Project activities

The project was initially intended to operate in the following areas:

- Education, teaching and culture
- Health and hygiene
- Agro-pastoral activities.

However, as a result of amendments introduced by the community, the activities were eventually divided into four major areas according to the objectives involved, as shown in the table below.

Figure 6
AREAS AND OBJECTIVES OF THE PROJECT

Areas	Objectives
Health	To reduce the high maternal and infant mortality rates
Education	To raise the children's educational level
Women	To raise the level of family life by strengthening the role of women.
Production	To encourage basic food production using appropriate technologies and infrastructures.
	To develop the production of foodstuffs meeting market requirements so as to improve family incomes

To these was added a sixth objective, namely, "to train members of the community in production and organization skills in order to achieve the foregoing objectives". We will deal with training in connection with each area and will also devote a special paragraph to training at the end of this report. Let us start with the subject of health.

4.2.1. Basic health and sanitation

Before describing the work done in the field of health under the *Integrated Development Project*, we must point out that the only health facility in Aranjuez at that time (and indeed still at present) was a health station staffed by State-employed personnel. Persons requiring more elaborate care had to go for consultation

to the nearest urban centres (Tarata or Cliza) or to Cochabamba. Notwithstanding this constraint, the work of the Albina R. de Patiño Pediatric Centre in the region was carried out in coordination with the health authorities.

The objective in this field was *to lower the high level of maternal and infant mortality*. Four series of activities were conducted with this end in view. They were: diagnosis of the state of health of the community; primary health care; training; and improvement of basic services. The field team of the Pediatric Centre took charge of the first three activities, leaving the last to the project team and the community.

A doctor, who was a native of Aranjuez and was living and practising there, supported the work strongly at the start. The considerable influence he exercised over many of the residents facilitated dialogue and helped to overcome a certain mistrust that might have stood in the way of carrying out the activities.

A health diagnosis of the community based on a survey covering 60% of the inhabitants was drawn up in 1991. This study was based on blood, stools and urine analyses. But it was met with suspicion on the part of the inhabitants, to whom such an activity seemed rather odd; they were afraid that some unknown use might be made of the samples taken⁶. Some people thought that cerebrospinal fluid as well as blood was being taken from the children and sold in town. A member of the community remembers how the samples were taken: "They did it in the village square. People were saying: "They're going to take our blood

⁶ *The fear was not entirely unfounded. In the late 1960s several protests were raised in Bolivia demanding the expulsion of the US Peace Corps. It had been discovered that some children in rural areas, allegedly vaccinated against certain infantile diseases, had in fact been sterilized. This story formed the subject of Yawar Mallku, a film by the Bolivian filmmaker Jorge Sanjinés.*

and they're going to sell it." That's why they were suspicious. They thought they weren't being told the true reasons (...), that's why people were suspicious"

After four unsuccessful visits by staff from the Pediatric Centre, and despite the local doctor's tenacious but still fruitless efforts to persuade the villagers, the study was on the point of collapse. The doctor then decided to offer his personal guarantee in order to make the operation possible. His family was the first to be analysed. Thus reassured, other families followed suit. The results of the study indicated that the children were suffering from nutritional shortages, in particular a shortage of proteins and vitamins. Yet in spite of everything the community remained skeptical. One of its members said, for instance: "The Albina Patiño doctors analysed the blood and the urine of the *wawas* (children), all that, to find out who was ill and what was wrong with them (the *wawas* have worms; they've always got some illness). But they didn't find anything here, no one is sick. They're all in good health".

In the light of these results it was decided to produce more protein-rich food. (Note that at the start of the project kitchen gardens were planted with a view to improving the families' diet.) A drinking water supply, still in operation today, was also installed.

So far as health care is concerned, the library infrastructure was used to launch campaigns for the prevention of acute diarrhoeas following a cholera epidemic and a few cases were treated at the Pediatric Centre. The campaigns proved successful, only two cases of cholera being diagnosed in the community.

The training provided was essentially concerned with environment-related diseases (Chagas disease, diarrhoeas), basic sanita-

tion, child health, reproductive health and development. Later, when describing the work done with the women of the community, we will see that training was provided in connection with this aspect as well.

As for basic services, work was done to provide drinking water and latrines were built. A well and a reservoir no longer in use, due to lack of financial resources, were cleaned out and restored. A distribution network of water for domestic use, still in operation today, was installed in coordination with the Tarata Development Committee (CODERTA). Here again, the community's first reaction was one of mistrust owing to an unfortunate episode in the past. However, in 1992 the situation was encouraging. The *National Population and Housing Census* conducted that year showed that 81.5% of families in the central sector of Aranjuez were connected to the water supply network at that time.

The suspicions were occasioned by an incident involving another well that the Bolivian Geological Service (GEOBOL) had begun to dig in 1975 and that had had to be abandoned. The National Service for Community Development (SNDC) of the Ministry of Peasant and Agro-Pastoral Affairs had taken up the problem in 1980. This body had constructed a reservoir for the storage of well water and had installed a supply network on condition that the beneficiary families paid 25% of the costs and also built some latrines. Unfortunately, the results proved negative because the pump installed to provide water for domestic use was incapable of raising a sufficient pressure. Besides, the location chosen for the well was inappropriate. The system failed to supply any water to families living in the southern part of the community. It remained in operation for only four years.

In 1989, the Protestant organization *World Vision* restored the system. Later still, CODERTA completed the work. Thanks to

funding by the Canadian "2/3 Club", the *Integral Development Project* supplied the missing pump.

But the population had burned its fingers. It believed that, as with the two earlier wells, the result would not be satisfactory, even though, as a member of the community said, "the new system was better". Several families, fully expecting yet another failure, refused to join in. Still, "the water came for the whole community. When they saw this, people became jealous, they didn't want the water to go to their neighbours. Why doesn't he make a sacrifice too, they said, it isn't right that he should benefit if he didn't participate...".

The following remark by one of the women of the community provides more details about the installation of the system: "It was us who installed the whole thing. The first seventy members worked hard digging trenches, each family had a certain length to dig. Men, women, everyone had his bit to do, in the end all of us were working".

From seventy, the number of the community's members rose to 103. And even though payments for this service remain irregular, the system has held up over the years.

The construction of latrines has been a constant concern in attempts to improve sanitary conditions in rural areas of Bolivia. At Aranjuez, besides those built under the *Integrated Development Project* and those, already mentioned, of the SNDC, there are also some dry latrines, rather rare at that time.

In 1994, the doctor living in the community expressed disagreement about the need for greater coordination with the State health system. The Pediatric Centre then chose to withdraw from the community, being of the opinion that the desired goals had

been achieved. The level of maternal and infant mortality had indeed come down by 40%.

4.2.2. *Education*

From the inception of the project, education was seen as a fundamental factor in improving the community's quality of life. Education is indeed the driving force that carries the other aspects of development in its wake. The objective in this area was *to raise the level of education of the children*. A three-pronged approach was chosen in order to achieve this goal: the People's Library, cooperation with the public education authorities, and education on environmental and forestry issues.

The library plays a role of crucial importance in the work of the Simón I. Patiño Centre. In the original text of the project we read: "The library is the driving force of our work. It is at one and the same time a mental symbol and a physical place, an environment in every sense of the word. Symbolically, it is the house of knowledge; concretely, it must be a crossroads, a meeting place for all, a place with a truly welcoming atmosphere".

The community in Aranjuez took active part in the construction of the library building. After its completion, a problem arose that was typical of the place. What happened was that, when the building was already up, an individual who had, for several decades, been pressing a claim to the plot on which the library now stood arrived from Argentina. As the land reform of 1953 allowed unused land to be transferred to the community, this "proprietor's" claims could easily be ignored, but part of the school grounds had to be sold in order to provide him with a return ticket to the neighbouring country.

It was decided that children attending the school would go to the library at least once a week as part of their regular school activities. Friday was chosen because that was the day on which the team from the Simón I. Patiño Centre visited the community.



Still on the subject of the school, mention should be made of the improvements made to the premises. In the words of one of the villagers, "To make the school work better, we built more schoolrooms, put up an iron gate, finished the roof and plastered the walls: these improvements were important for the children's education".

Children and teenagers represent the present and the future. Environmental factors, which unquestionably influence others such as economy and health, must be envisaged in a long-term perspective. The assembly therefore decided that educational activities for children and adolescents involving the environment

and forestry should be introduced. Theoretical instruction in these subjects was systematically accompanied by practical work.

Information campaigns on Chagas disease were also conducted and an instruction booklet on the prevention of this disease was published.

The children were introduced to the subject of forestry both under an official Forestry Education Programme conducted in State schools and through the establishment of forestry clubs. The work was based on a preliminary study carried out by the technical team, which had revealed two major facts:

- Shortage of wood for domestic needs
- A decline in agricultural productivity due to the progressive erosion of the plant cover essential to the protection and fertilization of the soil and to a sound hydrological cycle.

Given the great influence both these facts have on food production, the technical team of the *Integrated Development Project* decided to give priority to reforestation and drew up a programme of training in forestry. Topics relating to wood utilization and exploitation, ethno-botany and paleobotany were proposed for the syllabus. In the view of some experts, the region had once boasted a very rich native flora well adapted to its climate and soil.

The order of presentation of different subjects helped to identify the region's problems and to envisage possible technical solutions. The community's training requirements and the importance of forests were discussed first. Theoretical topics designed to explain the "tree/forest" link and the relationship between various ecological levels came next, followed by practical work. The course was planned to coincide with the community's usual work cycle and with traditional holidays.

The tree nursery, located near the People's Library, was the most important teaching aid. In the words of the project coordinator, "in developing this activity, the People's Library staff from the Simón I. Patiño Educational and Cultural Centre combined it with reading. A forest nursery with all kinds of different species was created as a teaching aid for the children. The forestry club was designed to develop love of species conservation among the children and, through them, in the community as a whole. This activity was used to explain how plants grow to the children. At the end of the experiment, a document designed to serve as a guide to forestry education was issued."⁷



⁷ Cf. *Sandalio Sanchez, Guide to forestry education: an alternative proposal. Geneva, Simón I Patiño Foundation.*

More than just trees were planted in the nursery. One of the community members remembers: "At that time, kids aged fifteen, fourteen, twelve (...) were taught how to plant cabbages, carrots, the lot. We grew huge cabbages, and around the plot we planted eucalyptus and pine trees, we planted them all over the place".

Practical activities for children also included cultivation of species not commonly grown in Aranjuez.

4.2.3 Agricultural production

A few years ago, at one of the many fairs held in the Department of Cochabamba (trout fair, *chicha* fair, apple fair) a woman from Aranjuez was crowned "queen of the peach". Naturally, the sovereign's head-dress was decorated with specimens of this fruit.

Indeed, they do grow good peaches in Aranjuez. Towards the end of the project, twelve hectares of the village orchards were planted with peach trees with a view to marketing the fruit. At that time, the sale of peaches from a hectare of land cultivated under good conditions (permanent irrigation and appropriate care) could bring in between 12 000 and 20 000 bolivianos (US\$ 2 500 to 4 000).

These results showed that growing peaches could yield profits and that more hectares of land could be planted with this fruit. The *Integrated Development Project* therefore put special emphasis on training farmers who were growing crops of this type and on improving irrigation infrastructures. But it failed to give sufficient importance to packaging and marketing the fruit, thereby imposing a serious constraint on production. Peaches are highly perishable and must arrive on the market in good condition. Furthermore, it was difficult to control the sale price because of middlemen who came to buy the fruit directly from the producers.

Besides peaches, it was also attempted to develop the production of lemons, oranges, grapes, mandarins and avocados. In fact, some families are still producing these types of fruit. The case of peaches is exemplary in that it illustrates how efforts on the part of the inhabitants of Aranjuez, together with the more general support of the *Integrated Development Project*, combined to produce fruit that corresponded to a genuine market demand and thus to improve the community's economy.

Peasant communities cannot, for a number of different reasons, live exclusively on what they grow themselves. In Aranjuez, according to the technicians of the *Integrated Development Project*, the reasons are essentially drought, frosts, poor soil, various plant diseases and degeneration of seeds. Members of the community must therefore go elsewhere to procure the lacking foodstuffs through ordinary trade channels. This encourages temporary or definitive emigration.

One of the aims of the *Integrated Development Project* was to improve the food situation of families and to ensure a stronger presence of the peasants on the market. Diagnosis of the local economy helped to identify four essential preconditions, as follows:

- appropriate use of land and labour;
- investment in infrastructures;
- training;
- market access.

Concretely, this meant that certain mutually complementary activities were undertaken under the objectives of *promoting basic food production and developing production to meet market requirements with a view to improving incomes*: on the one hand, training and technical assistance in growing crops for domestic or commercial use, and, on the other hand, improvement of infrastructures for irrigation and water harnessing.

a) Crops

It was agreed with the community to increase the growing of traditional crops and to introduce new commercial varieties, making more intensive use of manpower, investments and technology. The project coordinator therefore carried out a market study comparing the potential profits from three crops grown at Aranjuez at that time: potatoes, maize and wheat. According to the results of the study, neither potatoes nor maize seemed likely to bring any profits; only wheat could offer a profit margin, albeit minimal.

Although the study was made public, and although wheat does not require more manpower, water, or fertilizer, fungicides or pesticides than the other crops, the community could not make up its mind to increase wheat production, believing that the necessary changes and innovations would be too difficult to cope with. Assistance was therefore confined to the cultivation of two local varieties of wheat already grown for twenty years and to crop rotation techniques.

The maize grown by the community at that time was well adapted to the climate and hardly suffered from the usual diseases, the most serious being maize-ear worm and *cogollero* (parasite of the stalk extremity). However, the economic results remained poor. It was then decided to grow commercial maize and to try to penetrate other markets, such as the poultry market, which get their supplies principally in the Department of Cochabamba. Accordingly, three varieties of maize supplied by the Pairumani Centre for Phytocogcnetic Research were introduced: *aycha sara* (literally "meat maize", extremely rich in proteins), *waltaku* and *choclero blanco*. Productivity levels well above the usual average (five to eight tonnes per hectare instead of two) were achieved with the first of these varieties. Without

completely overcoming the population's skepticism, the demonstrations made with these three types of maize did succeed in convincing some of the villagers. Here is how the local doctor tells the story: "The peasant, you know, is a rather special sort of producer. For example, we got good yields with *aycha sara*. I had a plot of land of my own. The first experiments were undertaken on our land. I had two patches, each planted with a different kind of maize, one of them *aycha sara*. The result was a hundred per cent excellent. People saw that the yield was good and the next year a few friends had their plots sown with the same variety, again with quite a good result. Afterwards we sowed beans, also with good results. Then *tarwi* and *vainita* (a pod pulse) were sown. That was a success too."

Despite the high protein content and undeniably good yield of *aycha sara*, the community did not completely accept it, finding it difficult to adapt to traditional uses. Today, this variety is no longer grown at Aranjuez. Here is what people say about it: "It doesn't like it here; the ground doesn't suit it. It's too hard". "The *aycha sara* isn't much good when roasted". "There were two or three ears to every plant, but the stick was very thick and the grains tiny and hard". And so, when the weather conditions became unfavourable, this crop, like some of the others, was abandoned. A member of the community explains: "Everything was lost. That year, there was no water; we lost everything because it didn't rain".

The attempt to introduce new produce was intended to combine novelty with tradition, thus making the villagers of all generations aware of genetic innovations offering a high yield potential.

As already reported in connection with health, individual kitchen gardens were created from the start of the *Integrated Development Project* in order to improve the families' food



intake. Beans, beetroot, onions, lettuce, carrots and cauliflower were sown. Attempts were also made to market this produce. The best overall results (in terms of the quantities harvested and the sale price) were obtained with carrots. However, production costs were too high for this garden produce to maintain a presence on the market. Growing vegetables requires good irrigation, the use of fertilizer and a considerable amount of technology.

Among pulses, beans were the most successful, even though they need a great deal of water and are prone to a fungus disease known as “rust”. A woman of the community: “Now I’ve got two *arrobas* of beans and the yield is good”. Another woman: “Some people don’t like beans but I do like them, I sowed beans until last year”. And a male farmer: “I’ve still got some of those beans now, I haven’t lost any. It’s a good bean, big and long when green. If the weather’s right, it’ll produce two crops a year; the bean that’s going to produce will dry, get bigger at the bottom and grow for a second time”.

In spite of this success, the project team recommended that the bean should be used only for soil improvement purposes and as "green fertilizer" (buried in the soil at the plant stage). Attempts were also made to introduce beetroot and haricot beans into the diet of families in the community. In this connection, the librarian at the People's Library recounts: "Our beetroots were enormous, the children didn't want anyone to touch them, they didn't want their mothers to use them for cooking".

In contrast to other parts of Bolivia and of the South American continent where maize and haricot beans are used in association with one another, in this region there isn't a close association between the two. Nevertheless, one of the village women tried growing them together: "I sowed haricot beans, too, and potatoes as well. Many people sowed Dutch potatoes".

As to potatoes, the technicians recommended that only high-yield varieties should be grown, in winter and using irrigation. In contrast to other produce, growing potatoes does not offer any economic advantages; the production costs are very high compared with the yields obtained (two to two and a half tonnes per hectare).

Other communities in the area still remember the results of the Aranjuez experiments with the production of domestic and commercial crops. The community attributes the loss of some of these to drought. This brings us to the subject of efforts made to improve the supply of water to the market-garden plots.

b) Irrigation

According to the unanimous view of the community members, the chief problem with agriculture at Aranjuez has always been the lack of permanent irrigation. As one of them put it: "We always fail because of the climate. It just isn't favourable to us, there's

either too much rain or not enough. If you water a plant at the right moment, when it's germinating in the soil, then the yield will be good. But when there's no rain, the yield won't be as good. Even if you've prepared the plant well, it won't bear".

That is why the idea was conceived of introducing a system of spray irrigation and to set up a "mini-irrigation" association. The system was built in 1993 with a high participation from the benefiting families. But these were in the minority. One of the staff members of the Simón I. Patiño Centre reports: "I think that's where the problem arose. The work was meant for everyone, of course, but a personal input had to be made. Those who owned more could make such an input. So we worked with those who owned more, and the others were left out".

The association quickly ran into difficulties. The members' contributions couldn't be counted upon to pay for the electric current needed to operate the water pump. According to one of the members, "there was a problem. We, the families that had water to irrigate with, were supposed to participate in the maintenance work. But we're an indolent lot". And so, as one of the women responsible for the system explained to us, "I looked after the water tank for four or five years, always under the same conditions, without anybody to help me. It was like that – they just paid for the water, I had to pay the maintenance costs every year, all alone, so as to be able to water my peach trees".

Today, even if the system is still in operation, the problems persist. The community members that need this service ask the person in charge of the water tank to *sell* them water while complaining all the while that she is abusing her authority. Others have decided to dig their own wells and to install pumps for their individual use.

We have already referred to problems that arose because of the

community's skepticism about initiatives under the *Integrated Development Plan*. For example, we have seen how some people waited to see tangible results before deciding to participate in the water distribution system for domestic use. In the case of the irrigation system, many people adopted a similar attitude and only a minority of the community's members benefited from the system. Another issue that caused problems in the long run was paying for the workdays of community members assigned to agricultural tasks. This was not well seen by the others, who said: "Everyone here must serve the village without being paid. That's the deal. If one person gets paid, then everybody will want to be paid too and nobody will want to serve the community. As citizens, as children of our village, we must serve on a voluntary basis. That is our duty".

We will return to this particular problem later on. But first we will discuss the work done with the women's group.

4.2.4 *The women's group*

According to the national census, women in 1992 accounted for the majority of the population of Aranjuez (57% in all, 59% of the population over 5 years of age). These figures indicate the importance of women to the community's development. It is they who are chiefly responsible for agricultural work, as well as for the family, when the men leave temporarily or definitively in search of better economic conditions (the rate of emigration is higher among men).

This point was formally taken into consideration at the start of the project. It was concretely reflected in the objective "*to raise the standard of living of families by developing the role of women*", which corresponded to a concern felt very strongly in Bolivia at the time. But the idea was not to tackle this topic from too general

a viewpoint, such as *the place of women in development* or *gender differentiation in development*. A very practical approach was deliberately chosen and it was decided to work with a group of women in the use of an industrial bread-oven with a view to developing a community approach to bread baking.

The following statement by one of the women in the group illustrates the style of work that was adopted: "We were a group of thirty-two women. All of us together, we started making bread. The Rotary Club gave us the flour and the sugar. We made bread (...) first in a corner of the marketplace, using a wood-fired oven. Then we organized rounds to sell the bread in the village. Sometimes we even went as far as Liquinas to sell our bread. Afterwards (...) we bought a bread oven for mothers of families. We used it for baking bread in one of the rooms of the library. But by then we weren't thirty-two any more, only fifteen or sixteen. Then six, and in the end four. Between the four of us, we baked bread with what was left of the flour (five quintals and five of sugar). Once the flour was finished we didn't buy more. A little sugar was left over. The women weren't interested any more, most of them had too much to do at home".

"And then, there were quarrels within the community. So we split up for good. We sold the sugar that was left over. With that, and with the money we made from selling bread (...) we bought tables and chairs for the teachers at the school. The school belongs to everybody and will always do so, so it's best to invest in the school".

The women's group also received training in reproductive health, child-rearing and domestic economy, as well as in certain craft activities designed to increase family incomes. The objective chosen was very practical – it made no claim either to making an exhaustive analysis or to bringing about a profound change in the role of women within the community.



4.2.5 Training

The intention behind the training offered was to combine local skills and know-how with contributions by the participating institutions of the Simón I. Patiño Foundation so as to mobilize all available resources in the best possible way. Proceeding from the idea that education is the best way to promote development, the project was principally oriented towards training men, women, teenagers and children in several areas that were important to the community. These are shown in Fig. 7.

One of the main advantages of the training dispensed under the *Integrated Development Project* in Aranjuez was the low technical personnel costs involved. Use was made of specialized personnel already on the payrolls of the participating centres and other institutions having a great deal of experience in their respective areas. Unfortunately, difficulties arose over the planning of the work with the community. The programming was not very precise and did not take account sufficiently of cultural aspects (traditional holidays, periods of intensive work in the fields, etc.). Conversely, in some cases where the community was available and ready to participate, it was the technical staff that had other commitments in their respective institutions.

Generally speaking, the training staff did their best to transmit knowledge in a flexible manner so as not to tire the audience. But the courses were too short for an in-depth treatment of certain subjects. On the whole, the members of the community preferred practical work that they could do themselves, especially in the area of agricultural production.

Fig. 7
TRAINING SUBJECTS BY AREA

Area	Subject	Target group	Participating institution	Teaching techniques
Health	<ul style="list-style-type: none"> • Basic sanitation 	Whole community	Albina R. de Patiño Pediatric Centre	 Practical work Video Audio-visual Talks (<i>charlas</i>) Home visits 
	<ul style="list-style-type: none"> • Infant health • Reproductive health • Health & development 	Mothers of families	Simón I. Patiño Centre PDI	
Education of children	<ul style="list-style-type: none"> • Environment • Agriculture • Forestry 	Teenagers & children	Simón I. Patiño Centre	
Women	<ul style="list-style-type: none"> • Reproductive health • Education of children • Nutritional hygiene • Home improvement • Arts & crafts 	Women's group	Simón I. Patiño Centre PDI	
Agricultural production	<ul style="list-style-type: none"> • Gardening • Forage crops • Maize growing • Fruit-tree growing • Administration of production organizations 	Teenagers & heads of families	Phytoecogenetic Centre Model Farm Seed Centre PDI CORDECO-JITA IBTA	
Transfer	<ul style="list-style-type: none"> • Leadership & community management • Education in development 	Community leaders	IDP	

4.3 Participation of the community

Participation of the beneficiaries is, for several reasons, essential to development projects. The first reason is that it is the beneficiaries who really know what their problems are because they suffer from these problems. Only with their participation can the choices adopted for dealing with the problems be evaluated. Their contribution towards the implementation of activities is also fundamental as a guarantee of these activities' efficacy and of the beneficiaries' commitment to the solutions adopted. Without such commitment, a sustainable effect cannot be achieved.

Accordingly, the *Integrated Development Plan* was predicated upon the sharing of responsibility between the participating institutions and the community organization in all matters relating to planning, funding, implementation and follow-up. The basic responsibilities were identified by the Steering Committee in the light of each centre's profile and institutional characteristics (i.e. availabilities in terms of time and personnel).

4.3.1 Participation in planning

Subject to the possibilities of each centre, the community (acting on its own responsibility) defined the outstanding stages of the project. The community assemblies and the technical team of the *Integrated Development Project* decided, without any fixed rules, what had to be done and how it should be executed.

4.3.2 Participation in funding

Without making any great financial investment, the *Integrated Development Project* was nevertheless designed on the assumption that outside contributions were necessary in order to mobilize local resources and activate the economy, thus contributing ulti-

mately towards the improvement of the quality of life of rural families. Accordingly, the community participated in the funding of all project activities. So far as training activities were concerned, the community took care of the food. As for the infrastructure, the community's financial contribution went towards building costs while, at the same time, ensuring that the buildings remained the community's property.

In rural areas of Bolivia, the community often participates in building and improving the school. In Aranjuez it supplied the manpower and the building materials (stone, sand, adobe brick). A contribution from the Canadian 2/3 Club made it possible to buy building materials which could not be obtained locally (bricks, cement, corrugated iron). The project, for its part, provided the necessary qualified personnel. Lastly, the technical supervisory body and the municipal authority in the provincial capital took charge of transporting the materials. A community member explains: "We built the school, too, and Simón I. Patiño also took part; they gave us benches for the school, for the children, who didn't have anything to sit on while doing their lessons or their homework. Also, they gave us chinks for writing on the blackboard. When we needed cement, the Simón I. Patiño Centre helped us out, too".

Fund management, which was done jointly by the project staff and the community, served as a source of experience for other negotiations that the community was to conduct later in order to obtain resources for its future plans.

The building of latrines was funded in the following way: 70% of the total by the *Integrated Development Project*, 20% by the population and 10% by the municipal authority in the provincial capital. The community's contribution was essentially made in manpower and cash. Its members took charge of installing the irrigation and

drinking water systems and of the construction of water tanks (up to 60% of the cost). The technical and financial execution of this type of project, in the form in which it was designed, is very difficult but the design facilitated the follow-up of the activities and ensured their sustainability, in particular thanks to a system of self-management adopted in respect of maintenance funds.

As to manpower, the community assembly generally decided how many man-days the community would provide and appointed one of its members to make sure the undertaking was honoured.

Rotating funds were not used, this practice still being relatively new to Bolivia. An expert study might have proved useful, however, in guaranteeing the results and helping to recover the initial investment capital, which could have been reassigned later to other families or communities.

4.3.3. Participation in the execution of the project

The execution of the planned work was a very important moment in terms of community participation. Speaking of the time when the library extension was being built, one of the community's leading members said: "First, we were working to get the library finished; we began by making adobe bricks. Every day we had to work with the people (...) you have to talk to them with a lot of affection, chat with them, make things attractive for them. Every day we worked together, (...) we also had to help carry the soil needed for improving the tree nursery. It had to be brought from Arbieto, from Tarata, you had to go and get it because nearby there isn't any. We carried the soil in the IDP van, (...) we had to help with the irrigating. It was great, everything looked so green".

Not only men were involved. "There was an organization of mothers of families. The mothers worked too, mothers organized in a



group. They brought sand when we ran short of it, women carrying heavy loads to make sure the work on the facade got done in time. Some women carried the sand on their backs, some in a barrow, some on a donkey, but mostly just in bundles, huckaback (*"q'epi"*). They fetched the sand, which had to be very fine. They brought us water, too. And they helped to prepare building materials, because here, the women work a lot. At the time there was a lot of interest in building a library, people all worked together, in a body, they didn't spare any effort, they were united."

Generally speaking, the work done by the village people was of fundamental value to the project. A few difficulties arose, however, because the fieldwork calendar - which for peasant families is primordial - imposed certain time limits on community work.

"Now we're tired, there's no authority, we've drifted apart. There's no one here to persuade us to work, that's how it is and that's how it's stayed. We could lose everything. But we do want

the work to go on, we want more progress. The library, for instance, we want to keep that”.

4.3.4 Participation in project follow-up and continuation

The community assembly, held every month, monitored the progress of the project. It revived activities that weren't advancing properly. The community was responsible for continuing the project, but for various reasons to be explained later, that responsibility never really took hold.

RELATIONS WITHIN THE COMMUNITY

In this chapter we will discuss three subjects that proved very important in the context of the community: first, mistrust of outside interventions; second, differences between community members; and lastly, the divisions that arose within it.

Communities in rural areas of the Bolivian Andes often have difficulty in believing in the potential benefits of outside interventions. This is the result of a historical reality that lasted until the middle of the 20th century. Bolivian peasants have often been let down and deceived. Sometimes they lost their lands and were forced to live under a feudal caste system. The rise of trade unions accentuated the element of mistrust in their relations with other social groups and with the government.

The *Integrated Development Project* therefore had to win over the community's confidence. To this end it recruited the support of individuals within the community and was soon able to demonstrate its efficacy by the good results achieved. As often happens with other similar projects, the need for quick action led to the adoption of short-term decisions that ended up by harming the project's prospects in the longer term.

A community is never completely homogeneous; some groups are always richer or poorer than others. In trying to do good to the community as a whole, it was difficult to avoid the better-off people benefiting as well as the poorer ones. Moreover, it was not possible to count upon the participation of the whole community in all activities. In the end, the more an activity required strong participation on the part of the village families, the fewer beneficiaries

there were. As one of the persons who cooperated in the project puts it, those who got the most out of the project were “the most competent ones, people who were already the best trained, who had the best economic resources and so on. And so those who have given it some thought, those who have been well advised, they are going on with the project and the others are stuck with the *status quo*”.

As for divisions within the community, they are due to several factors – political allegiances first of all, followed by religious beliefs and personal or group interests. With regard to the first of those factors, mention must be made of the difficult relationship between the syndicate and the provincial authorities (the sub-prefecture). The “corregidor”, appointed by the sub-prefect, is the representative of political authority in the canton. This official is generally elected by the community’s syndicate and the election is then approved by the provincial authorities. That had not been the case in Aranjuez and voices were heard questioning the legitimacy of the appointment. Differences arose between those who believed that the syndicate should have autonomy and those who supported the “corregidor” appointed by the government’s representative in the province. A community member explains: “Politics are responsible for all this individualism. Before, such things didn’t exist, we were all united. The country people started meddling in politics without knowing much about it, without being well-informed, but still, they got mixed up in it. That’s what is causing the trouble in the countryside. In Aranjuez, everybody goes his own way. If there are problems (...) they come mainly from the political authorities in Tarata, from the Province. They’re the ones who are responsible because they sent us people in authority whom they’d already appointed, when these things ought to be done here, inside the community”.

Another community member adds: “This conflict started a long time ago, at the time of the last mayor of the canton. They want to

stand aside and do just what they want. They don't want to obey the syndicate any more. This split is due to personal interests. They were just about running the community and when people realized it, they didn't want to allow themselves be controlled by them any more".

And a last one concludes: "I believe there are some people who don't want to be dominated. They are people who don't want to be taught by others, they stand aside from the rest. This mistrust comes only from that. If somebody that's a little poorer is elected, then they say: why should it be him that dominates everybody? The result is, in a sense, they become marginal through their own fault, they don't do as they're told, they no longer respect each other. That's the problem, and it's still going on today. Let's hope it'll disappear once and for all so we can start over again from scratch".

Another factor that accentuated the divisions still further was the presence of a Protestant congregation that started working in the area. According to a member of the project staff, "politics and religion, that's what divides a community. When that evangelical church settled here, it started handing out free food to the children. It gave food to some but not to others. So the daddies started saying "why so-and-so's son and not mine?" That's how the divisions began".

It was in this atmosphere of nascent disunity that the decision was taken to hand the project over to the community.

THE COMMUNITY TAKES OVER THE PROJECT

In this chapter we will deal with the handing over of the project's responsibility to the community, the results achieved, and the continuation of activities in the years that followed.

6.1 The hand-over

In January 1995 the community met in order to receive the project from the hands of the Simón I. Patiño Centre. As on other occasions, the community and the project team shared the costs of the meeting. The official serving as "corregidor" at the time remembers: "They handed over all the equipment that's still here, in the library: keys, lengths of pipe, kitchen cookers, kitchen tools, other kinds of tools. Even the pump for the well is still in there. Jugs for the kitchen, too. All this equipment is stored in the school. An inventory was made and then everything was just left behind".

Two points deserve to be mentioned in connection with the handing over of the documents and equipment. First, the People's Library is still in operation today and it still forms part of the Libraries Network of the Patiño Centre. The dynamics of the community are not such as to warrant its being taken out of the network and made autonomous. Second, the Albina R. de Patiño Pediatric Centre, for its part, had already withdrawn in 1994. (It should be noted that the handing over of a health project would, in any case, have required two preconditions which could not be met at the time: the presence of specialized staff and sufficient economic resources to pay them proper salaries.)



During the last year, special training activities in project management were organized. Their goal was to ensure that the project activities would be continued after the transfer without assistance from the external technical team. According to the project coordinator, the training process preceding the hand-over should probably have been a little longer. The chief librarian of the People's Libraries Network thinks the same: "The project was handed over before reaching its maturity. I told the institution here: "It's a toddler that's barely starting to walk: it must learn to stand on its own two feet, it must gather momentum". Yet good results had really been obtained: the kitchen gardens, the practical work in the tree nursery, growing beetroots, onions, carrots, all of them on small plots; the work with children's groups, too. I think the worst thing to do was to abandon the baby when it was only just starting to crawl on all fours".

The factors that influenced the continuation of the activities were not all connected with the level of preparation and autonomy

acquired by community members. Other factors also played a part, as will be seen later.

6.2 Results of the project

The efficacy of a project must be measured by its virtues, the reality of its results and its ability to last over time. A rigorous evaluation of all aspects of the *Integrated Development Plan* cannot be undertaken in the absence of sufficient information on the situation *before, during* and *after* the interventions. Nevertheless, it is clear that the resources of the four participating centres were utilized efficiently and that the activities carried out together with the community certainly contributed towards the achievement of the project's objectives. The fact remains that those objectives could not be fully realized because of factors we shall discuss later.

As regards health, the maternal and infant mortality rate was reduced by about 40% owing to education and the improvement of basic infrastructures, and in particular a better access to water.

In education, the results are more difficult to pinpoint because of their longer-term nature. However, the utilization of the library by the school will surely prove a most useful educational tool. Furthermore, the education in environmental matters and the training in agricultural production given to teenagers will undoubtedly be of great value to their respective families.

The role of women was not viewed from a specific angle either at the preparation or at the implementation stage, the *Integrated Development Project* being more concerned with poverty than with the status of women. (It should not be overlooked that in Bolivia, women's development indicators are lower than those of men.) Nevertheless, thanks to the participation of women, training

given in arts and crafts and in nutrition significantly improved the food intake of families in the community.

As a general rule, the training given sought to combine traditional methods with new technologies. As members of the community have pointed out, given the necessary tenacity, innovations can be integrated in everyday life: "People here mostly have their own customs, their way of being. They apply some of the things they were taught under the project; it has become part of the routine. A lot of new things were introduced, but one gets used to them, too."

In order to assess what the *Integrated Development Project* has done for the community, we can have recourse to the well-known concepts of *natural capital* (renewable and non-renewable natural resources), *constructed capital* (created for production purposes: financial resources, tools, equipment), *human capital* (population and educational and training possibilities), *social capital* (rules, practices, usage, social interaction networks) and *institutional capital* (laws, incentives, organizations, cultural elements).

The forestry training and tree planting activities were an important contribution towards maintaining and expanding the *natural capital* of Aranjuez, which is suffering from a process of deforestation due to intensive use of plant resources (heating wood) and from over-exploitation of the land.

As for *constructed capital*, there have certainly been financial losses as well as profits, but these cannot be attributed to the project alone. For example, heavy financial losses to farmers were caused by drought. The training provided under the project helped to raise the technical level of production and, consequently, to limit the losses. At the same time, certain costs that were introduced by the project, such as payments for water for irrigation or domestic use, now have to be borne on a permanent basis. Many

new facilities were built: water storage pools, mini-dam, water tanks, irrigation and drinking water systems. As one of the villagers puts it, “the water pools are still in use. Our people get their water from the well; those who have pools can water their plants and their animals”.

The contribution in the area of *human capital* was probably the most significant, especially in terms of education – both formal and informal – of teenagers and children. However, the project failed to reverse the migration flows and many of those who received training left the community. With regard to training in agricultural production, here is the view of one of the participants: “What they explained to us, we’ve still got. It’s very useful to us in the community, especially those of us who are in farming. What was explained to us has always been useful”.

By acknowledging the assembly’s decision-making capacity and by involving the community in many different activities, the *Integrated Development Project* also contributed towards the revival of the community’s *social capital*. On the other hand, the practice of paying the villagers for their work proved counterproductive.

Despite legal reforms in support of community organization (in particular the People’s Participation Act and the Educational Reform Act), the *institutional capital* of Aranjucz has been depleted in the last few years. But the project was not a determining cause; as will be seen, the divisions that have arisen were principally due to political and syndicate factors.

6.3 Continuation of activities

Comparing the community’s manner of proceeding before and after the execution of the project, the People’s Libraries coordina-

tor observes: "Generally I would propose activities I was going to undertake with the women a week or two in advance so that they could organize their schedules accordingly, but sometimes there were unforeseen events that had to be faced. Then we used a megaphone... we called people and they came. If an urgent meeting had to be held, for example, we would ring the church bell and everybody came to see what was happening. Today you could ring the bell and use the megaphone all you wanted, no one would budge an inch".

Several factors have prevented the continuation of the project. The constraints have been *natural, structural, organizational, cultural* and *related to the method of transfer of the project*.

One of the region's main problems has been the prolonged drought that has affected Cochabamba in the past few years. An inhabitant reports: "The great problem is water; if there was a lot of it, like in other places, everything that was done here would still be intact. We still have some seeds, some produce (...); there still are some in a few houses. Trees, too, there must still be some. I've seen lemon trees in many houses. They probably came from the Foundation".

A woman adds: "What we need more than anything else is water. We've got land and we, the women, we water it, that's our job. We plant onions. Me, for example, I haven't got time to talk to you, I must water my peach trees; they need more water right now".

Another villager invokes other factors, such as emigration and the economic crisis. "Today, a third of the plots haven't been sown. Because of lack of water and lack of manpower, for the men have gone. And people today are complaining because prices have dropped: potatoes are cheap, maize too. But the price of tractor fuel, petrol, diesel, it keeps rising. What's the use of working if

what you get for a *fanegue* of wheat or maize will only pay the tractor?"

The activities launched by the *Integrated Development Project* have seen but little continuation. Emigration and the low level of development of Aranjuez are the main causes of this. As a woman member of the community puts it, "Those who did the work and learned something aren't there any more, they've all gone and the new lot don't know anything about it; I think that's the reason why everything has disappeared. The young people need to be led in the right direction".

If some of the project's successes have disappeared, divisions within the community are to blame. While convinced of their harmfulness, the community has not taking any steps to eliminate them. A current community leader says: "We've worked, we put up these library buildings, but people had more awareness at that time, we all helped each other. Our library was beautiful, then. Today we've drifted apart a little because of problems inside the community, that's why we've neglected our library. But hopefully, if we get on together as we used to, it will mean as much to us as before, or even more. Aranjuez was better organized before, it isn't the same today. In that sense, we've been neglectful. We should pull ourselves together, get on better with each other, for we've lost many projects for this reason".

Bearing in mind the divisions within the community, the method of transfer of the project also played a certain role. Some community members complained of not receiving enough support. One of them said: "We strongly want the Foundation to stay here. We don't want to let it go. We want it to stay and help us a little more. That's really our wish. We want it at least to teach something, no matter what, once a month or a little more".

And the local doctor: "Our project came to an end and was handed over (to the community). But there was no one to lead us, to provide guidance, to keep things moving, to say "let's do this" or "let's do that", Me, too, because of my work, I paid less attention to things. We neglected things and so it all stopped. Some people got something out of it, a little, but they don't know how to take advantage of what they've got, so no advantage is taken".

One of the cultural factors is that the villagers are attached to the traditional crops they've grown for decades. This made itself felt, for example, in the cases of *aycha sara*, which proved very difficult to introduce because it doesn't lend itself to the local ways of using maize.

Lastly, notwithstanding the failure to continue the project, we should note the priorities the community is currently attaching to certain problems. Several members list them as follows: drains, irrigation wells, three-phase electric current, improved refuse collection, a multi-purpose sports ground, a staffed medical station, reforestation. "The community needs many things. We really need drains - that's something really important - and there are other needs, better paths, for instance. The sub-prefect promised to pave the one that goes to the Méndez Marmata road. He let us down. Another time he said they would pave the path that leads to the cemetery. They make promises and then they don't keep them".

Having discussed what the project has contributed to the community, the reasons for the project's discontinuance and the community's present needs as reported by its own members, we will conclude with reflections of a more general nature on the project, the problems with which it had to contend, and development in general.



CONCLUSIONS

First, let us recall the essential goals of the project were to promote development in Aranjuez, to contribute towards the community's stability and to slow down migratory flows. We also want to draw attention once more to the conflicts that arose in the course of execution between the project's philosophy, on the one hand, and the community's more "production-oriented" approach on the other – or, more precisely, between reading and education seen as the essential preconditions of development and, on the other hand, between development goals such as improved health and nutrition.

Having recalled these points, let us now try to see what lessons can be drawn from the years of the *Integrated Development Project's* execution. In the first place we will consider the validity of the objectives achieved in the light of changes that have taken place in

the context of Bolivian rural communities. Some reflections on problems that had to be faced throughout the process will follow.

It is perfectly true that the proposed innovations did not have a very long life, but there can be no doubt that they will constitute an important contribution towards the management of development, especially considering the changes in State structure that have taken place over the last decade. The contents of the training activities can readily demonstrate their usefulness in the framework of the process of popular participation and educational reform that began just as the *Integrated Development Project* was being handed-over. For example, the new health model that the Bolivian Health Ministry wants to promote places the emphasis on primary health care and preventive hygiene. That was the spirit in which the Albina R. de Patiño Pediatric Centre intervened at Aranjuez. Similarly, the promotion of reading – designed to encourage comprehension and thought – that has been and still is being developed by the Simón I. Patiño Centre through its people's libraries network coincides with the educational reform being implemented throughout Bolivia today.

For its part, the Popular Participation Reform recognizes the importance of the social organizations that exist in rural areas. The development of production potentials inside the communities is seen to be a genuine need in rural communities (the contributions of the Pairumani Farm and the Phytoecogenetic Centre are important in this respect). The truth is that the social advances of the past few years have not sufficed in achieving substantial and permanent improvements in the population's quality of life.

The practically non-existent presence of the State was also an important element throughout the process. The problem was not so much the project's failure to coordinate its activities with regional State bodies as the questionable efficacy and stability of

those bodies. At that time, municipal administrations concerned themselves exclusively with urban settlements. In the smaller provinces, their limited economic resources prevented them from asserting their position as an institution and consequently from responding to the population's demands.

In addition to successes achieved, difficulties met with and the present status of the activities undertaken, we can identify some problems and dilemmas that are, in the last analysis, characteristic of all development projects.

1. The concept of "integrality"

While undoubtedly enjoying considerable prestige in their respective areas of activity, the participating centres had never previously worked together as they were required to do at Aranjuez. The challenge consisted from the start in concerting their efforts and in recognizing that while it was, of course, impossible to meet all the demands of the community, the latter could be helped to grow stronger by means of coordinated activities conducted in a concerted manner in several fundamental development areas. So far as broad guidelines were concerned, the Steering Committee was the guarantor of the project's consistency, the technical team and the community bearing most of the responsibility for operational decisions.

Leaving aside the question of the community of Aranjuez and of the *Integrated Development Project*, we can define the concept of "integrality" as the capacity to respond in a consistent and unified manner to the main problems and needs of a specific community. This depends, of course, on the participating institutions (and, in particular, on whether they are in contradiction or in harmony with one another) and on the community itself. If this "integral" aspect is not given sufficient attention, there is a great risk of failure of

the project as a whole. For example, efforts made to resolve a problem of agricultural production could be completely incompatible with environmental or health considerations.

2. Local knowledge versus technical or scientific knowledge

From its inception, the *Integrated Development Project*, while recognizing the value of knowledge existing within the community, accentuated the technical dimension. This approach was imposed by certain aspects of the context – the close proximity of Aranjuez to the city of Cochabamba, the preponderance of commercial relations, the poverty levels in the rural area, deforestation and the agricultural activities' low productivity level.

The question of the respective values of the competences of technicians from the outside and of the know-how of the local population continues to provide a subject for debate. On the one hand, it can be thought that communities possess centuries of experience of making the best of their resources and that the introduction of new cultural models may have unforeseeable negative consequences. The answer often given to this is that technical knowledge, too, has been developing for centuries and is based on indisputable scientific advances. Both these points of view are supported by arguments which, though self-evident, are relative. It can then be said that *the slow rhythm of changes that ancestral knowledge has undergone over the ages bears no relation to the acceleration of the exploitation of resources to which that knowledge has to be applied*. Forest resources are a good case in point: as a result of interaction between the communities and their environment, these resources have been depleted. New groups wanting to derive a profit from these resources have emerged. Moreover, economic activities and a market that demands an ever-increasing supply have grown up around these resources. In such a situation, forests can no longer be managed in a sustainable manner by

ancestral knowledge. New solutions are clearly called for. Is local knowledge always better than that of technicians from the outside? Or is it the other way about? That is not the essential question. What matters is to determine, for each activity, the techniques and know-how that are the most suitable, profitable and useful

3. Paying community members for their work

The *Project* provided for the payment of a daily wage for certain kinds of work done. In the end, this practice created problems for other activities because such payments for work of collective value were regarded as a precedent. On the one hand, community members stressed the need for disinterested commitment; on the other hand, none of the participating institutions had ever paid wages before.

Leaving aside once more the particularities of the project, there are different ways in which the fact of paying for work can be perceived. From the point of view of social dynamics, relations of a commercial nature have become established in rural areas long ago, and remuneration for work done would therefore seem normal in the context of a development project. But from the point of view of the relations that the project sought to establish, such remuneration could have dire effects. The basic philosophy underlying the project – the existence of a fundamental agreement within the community to participate in the activities in a disinterested manner – risked being falsified.

Moreover, the very fact of paying money is ambiguous. Of course it can be argued that exchanging work for money is economically just and would dynamize the local economy. But it should not be forgotten that relations of power exist within the community and that any remuneration plays a role, however involuntary, in those relations.

In some cases these relations determine situations of dependence between the community and the project team. The latter, in fact, plays a preeminent role, which is not always desirable (an extreme case is when a community member comes to regard himself as the technicians' "employee"). The social prestige of some people may be increased simply because they have been working more closely with the technical team, and this may open a breach between community members or enlarge one that already exists. In either case the results may prove negative: collective commitment to the project may yield to personal interest and cracks may begin to show in the unity of the community, jeopardizing the execution and continuance of activities.

4. Taking over the project objectives

The *Integrated Development Project* was conceived in the hope of working with a reliable partner; it saw itself as a stable organization recognized by a socially coherent community. The community's unity was to guarantee the satisfactory execution and follow-up of the activities. Unfortunately, that unity was destroyed by various problems (in particular, personal interests of a political nature and internal socio-economic differences). As a result, the knowledge acquired was used by each producer to advance his or her own personal interests, and the collective activities came to an end.

This aspect of the story has obvious connections with the preceding point. It is related to the cultural factors that determine the community's profile. Proximity to the city and its markets, as well as individual ownership of the land, create discrepancies between ancestral traditions of reciprocity, on the one hand, and individual ambitions on the other. It was essential that this factor be taken into consideration because of its influence on the project's objectives – which, in the light of this factor, could be seen as more or

less community-oriented or more or less individual. Moreover, the existing social, economic and political interests have to be taken into consideration in every case.

5. Relations with the community

At the start, the *Integrated Development Project* had to face prudent skepticism on the part of the population of Aranjuez. Two relational strategies were chosen in order to overcome it: first, to establish contact through universally trusted persons enjoying a certain prestige within the community, and later to use the practical work as an important means of backing up the training activities. At the outset, the respectability of the persons chosen for the purpose of establishing contact indisputably had a favourable impact. Unfortunately, as a result of divisions within the community, some of these persons came to be no longer trusted by everyone and this proved harmful to the project. In other, fortunately more numerous cases, the community's relations with the technical team were very close and friendly. As for training, the communal practical activities in the fields considerably helped the farmers' acceptance of the innovations proposed.

The mistrust, already mentioned earlier, originated essentially in the tradition of peasant organizations in Bolivia, which from the early days of the Republic had learned to be skeptical of outside interventions. These, it is true, have often proved harmful to rural populations, first by depriving them of their lands and subjecting them to servile working conditions and later, by denying them advantageous conditions on the markets. This initial mistrust was fanned by strong claims on the part of the trade unions. Lastly, these relational difficulties were compounded by the constraints of communal work and by factors inherent in the community's co-participation.

6. *The handing over*

From the outset, the *Integrated Development Project* sought to promote the development of the community by giving its members the central role. In that sense, the final decision to withdraw was no doubt pertinent. Relations of dependence were certainly avoided, but, on the other hand, the project was not continued. In hindsight, now that a few years have elapsed, it may be thought that a different solution might perhaps have been possible. But in the case of Aranjuez this no longer has practical value, and it is more to the point to consider the benefits enjoyed by the community today as a result of its participation in the project. There can be no doubt that as a result of this experience, the participatory processes that are developing in the borough of Arbieto today stand a better chance of success.

7. *Commitment to development – solidarity with the community*

The technicians of the *Integrated Development Project* at Aranjuez showed an extraordinary degree of commitment not only to the project's objectives as such but – still more important – to the community as well. The friendships and comradely relations formed and the visits that continue to be exchanged bear witness to this fact.

Besides the essential professional qualities, personal commitment to the central concepts of development is a must in a project such as this. At the same time, a constant vigilance is needed to ensure that the work done is viewed with objectivity. That, too, is one of the keys to a development project's success.

The thoughts set down in this document concern some of the main problems that arise in the course of outside interventions aimed at the development of a community. They lead directly to the ques-

tion raised, by way of conclusions, in this final paragraph: are such outside interventions appropriate?

There can be no doubt that the changes taking place in the world today necessitate change within individual communities. Unless they adapt to changing circumstances, communities will be caught forever in a situation that is hardly likely to improve. Experience acquired over the ages probably does not equip a community to face such major change. In that sense, external contributions seem to be essential. Yet, as the promoters of the *Integrated Development Project* understood very clearly, their object must be to develop and accompany local efforts, not to replace them. To this end it is necessary to accentuate an "integrated" approach that promotes interaction between local and external competences. A direct and authentic commitment towards the people of the community is fundamental in this respect.

As has been seen, the obstacles are great and efforts may not yield the hoped-for results. Nevertheless, in situations where a peasant economy is directly threatened by poverty, coordination of the activities of all organizations concerned (development agencies, State bodies and community organizations) is fundamental and indispensable.

In conclusion, we would like to quote the words of an inhabitant of Aranjuez who participated in the project from the start: "I always take the opportunity to say thank you to the Patiño Foundation for stimulating us in every area of our life".

ANNEXES

CHRONOLOGICAL OVERVIEW

- 1990 The *Integrated Development Project* goes into execution at Aranjuez
- 1991 The project in action:
- People's library, individual vegetable gardens
 - Study on health, education and agro-pastoral activities in the community
 - Construction of drinking water supply system.
- 1992
- Introduction of growing of improved maize, beans, grazing land
 - Production of market-garden crops for commercialization
 - Development of the school infrastructure and encouragement of reading with special literacy programmes
- 1993
- Construction of a spray irrigation system
 - Orchards and forest plantations
- 1994
- Development of the orchards
 - Commercialization of market-garden produce
- 1995
- Construction of water tanks and a mini-barrage for irrigation
 - Completion of school infrastructure
 - Handing over of the project to the community.

PROJECT STAFF

Coordinators:

Víctor Zelada
Sandalio Sánchez

Staff members:

Edwin Terrán
Hugo Quispe
Raúl Aguirre

SIMÓN I. PATIÑO

EDUCATIONAL AND CULTURAL CENTRE

Directors:

Ernesto Bolle-Picard
María Angélica Nogales
Oscar Tavel

PEOPLE'S LIBRARIES

Coordinator:

Carmen Morales

Staff members:

Orlando Castro
Augusto Parra

ALBINA R. DE PATIÑO PEDIATRIC CENTRE

Director:

Pierre Léonard

**PAIRUMANI CENTRE FOR PHYTOECOGENETIC
RESEARCH**

Director:

Gonzalo Avila

PAIRUMANI MODEL FARM

Director:

Edmundo Serna