

# LIVELIHOOD STRATEGIES AND DEVELOPMENT INTERVENTIONS IN THE SOUTHERN ANDES OF BOLIVIA: CONTRASTING VIEWS ON DEVELOPMENT

Paper for the LASA Conference 1998, Chicago, USA

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## **Abstract**

*Based on the characteristics of the livelihood strategies of farmers in the northern part of Chuquisaca and Potosí (Bolivia) on the one hand, and the features of development interventions realized in this region on the other, this paper analyzes the point of contact; in other words the coincidence between farmers' strategies and development interventions from the drought (1983) until the present. The conclusion is that in many respects there are considerable contrasts in trends and priorities.*

## **Introduction**

The aim of this paper is to make a contribution to the development debate by analyzing why the Southern Andes — in spite of many years of development policy — still belongs to one of Bolivia's poorest regions. Starting from the farmers' point of view, an attempt will be made to analyze to what extent there is a coincidence between livelihood strategies of farmers and the viewpoint of development organizations.

The analysis is based on the results of a two-year research project (PIED-Andino<sup>2</sup>), financed by the Netherlands government, and carried out by a multidisciplinary team of Bolivian and Netherlands researchers between 1995 and 1997. The objective of PIED-Andino was to "*enhance understanding of the internal logic of livelihood strategies (what do farmers do, how do they operate, and why?) in different agroecological zones in the northern part of Chuquisaca and Potosí*"; field research was carried out in 42 communities, followed by an in-depth study based on a representative sample of 136 families in 17 villages.

Chuquisaca and Potosí, forming part of the *valles interandinos*, accommodate a profusion of different external circumstances. Tremendous discrepancies in the context of development exist within a small area: each village has specific agroecological conditions (e.g. their altitudes range from 1,500 to 4,200 metres [see also Aramayo 1998]); market access varies, as well as their pattern of settlement (concentrated versus dispersed) and type of organization and culture (modern versus traditional). Other major differences concern infrastructure and the quantity and scope of the development interventions. Within the area of investigation the context of some villages is relatively favourable and the external conditions of others less favourable.

Notwithstanding the impact of the environment on agricultural development<sup>3</sup>, farmers should not

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<sup>3</sup>In the villages at high altitudes (high valley, pampa of the puna, low puna and high puna) the agriculture is obviously less varied than in the ones at lower altitudes (the lower moderate valleys, moderate pampa and low valleys). In the Andes the choice of crops and the use of inputs depends

be considered passive victims of their surroundings: they — and their families — take an *active* part in establishing their existence. Depending on the family situation and the decision environment, they opt for a certain combination and succession of activities and a specific distribution of roles among the members of the household.

An important characteristic of rural life in Chuquisaca and Potosí is that farmers' households at virtually every time and place engage in several activities simultaneously. The majority of the population are *minifundistas* with small plots who grow a variety of crops for their own consumption and for marketing, raise animals, sell labour (as bricklayers, mechanics, carpenters etc.), move temporarily to the city or a different part of the countryside, rent land or agricultural commodities, make by-products (e.g. milk or cheese) or work in handicrafts (e.g. weaving). Although many farmers still regard agriculture as their main activity, they derive most of their income from other sources in many villages. The tremendous importance of migration and non-agrarian activities has elevated their significance above that of a sideline.

Despite their common involvement in multiform activity, the farmers are far from being a homogeneous group. Strategies vary among communities and among families, and socio-economic differentiation is considerable. On average the wealthy families have 10 times as much financial capital as the poorest ones. Any class differences in the villages result in part from the distribution of production factors (land, livestock). Other discrepancies in income are attributable to non-agrarian activities and migration. Different levels of prestige arise from the previous status of families, while other distinctions concern level of education and participation in village organizations. The success of households in improving their situation is determined largely by the availability of labour (the family-life cycle); the timing of certain interventions and — significantly — sheer luck or coincidence.

The households adapt their strategies to the changing circumstances. In the course of their lives farmers with varying success seek to improve their standard of living (income-generating strategies), to maintain and perpetuate their current situation (stabilization and consolidation strategies), to survive (compensatory and survival strategies) and to spread their risks (security and risk-reducing strategies). Their goals and priorities differ according to the circumstances of the family and the surroundings. They pursue the strategies consecutively (and sometimes simultaneously), and often more dynamically than generally assumed. Their reality cannot be reduced to a fixed number of "development trajectories".

This paper is *not* intended to analyze and describe the livelihood strategies of farmers (see for a detailed analysis of the results of PIED-Andino, Zoomers 1998). Its main objective revolves around the observation that despite many years of development policy, few improvements are apparent in the lives of farmers in the Andes. Between 1983 and 1997 large numbers of development projects have been carried out in the Southern Andes of Bolivia, but the majority of the population in Chuquisaca and Potosí still belong to the rural poor. Why has the multitude of development interventions achieved so little improvement in rural living conditions?

Insofar as attempts have been made to find an explanation for the disappointing results, most of the evaluations focus on deficiencies at the *supply*-side of development cooperation. Reference is usually made of the concentration of development interventions in more accessible regions (and neglect for the more isolated regions). Most interventions are rather patchy, and consist of isolated gap-filling activities which often do not have mechanisms to widen their impact beyond the locality.

Another criticism on the work of development organizations is the lack of continuity, due to, among other things, a lack of funds and their dependency on donor organizations. Technicians are usually contracted for short periods of time, resulting in job-hopping and lack of motivation. Development organizations, as a consequence of competition and shrinking funds, often have decreasing budgets and an increasingly precarious existence. Other problems often mentioned are the dispersion of activities, paternalism and the low professional level (see also le Grand 1998; van Niekerk 1994).

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largely on the agroecological conditions, the irrigation opportunities and access to roads (which determines the ease of selling products to merchants).

This as opposed to a group of authors who focus on the *demand*-side (i.e. the disappointing results are explained by the complexity of rural life and the difficulty to attune the supply to the needs of the population). According to the Andean Project for Peasant Technologies (PRATEC) founded in 1987 and consisting of a group of Peruvian development specialists of peasant background, development interventions — usually based on 'western notions of development' — will by definition not become a success due to the lack of neglect for the 'Andean way for doing things' (i.e., *seeing, feeling and living the Andean reality*). This group is convinced that *development itself is the problem* because its epistemologies and practices are alien to the indigenous peasantry. The Andean exists on its own terms and within its own cosmology. 'Here in the Andes, we feel that development is a symptom of senile dementia, which presented itself 40 years ago, of the plague that has infected us for five hundred years and that now finds itself in the last stages of its vital cycle' (Apffel-Marglin 1998: 138). Their main recommendation is to break with the world of development (see also Albó & Galo 1994; le Grand 1998).

In this paper, we will try to adopt a middle course, attempting to bridge the gap between development interventions (supply) and the farmers' strategies (demand). The main objective of this paper to encourage the development policy debate, and to contribute to the implementation of appropriate rural development policies in the Andes, taking into account the diversity and dynamics of the livelihood strategies.

### **Bridging the gap between farmers' strategies and development interventions**

Based on the characteristics of the livelihood strategies and recent development interventions in the southern Andes of Bolivia, this section analyzes the point of contact; in other words the coincidence between farmers' strategies and development interventions from the drought (1983) until the present. We assessed this coincidence by conducting a comprehensive evaluation of development efforts, which measured the impact of the entire "chain" of development interventions in 17 villages in the northern part of Chuquisaca and Potosí between 1983 and 1997 (see le Grand 1998).

An indepth analysis of the results illustrate that both farmers and development organizations operate according to their own logic and apply different principles. The perspectives of these actors differ in various respects, especially with regard to their ways of defining the area of intervention and selecting the target group, the prioritization of activities and the evaluation criteria. Development strategies and livelihood are, therefore, not always compatible. In the following we will attempt to analyse these contradictions in more detail, and to make a translation into policy recommendations.

#### ***The area of intervention of development organizations should match the area in which the farmers devise their strategies.***

Comparing the living environments of farmers with the area of intervention of development organizations reveals that the recent trends have been contradictory. Many farmers have expanded their area of operation via their network of relatives. Several (especially the poorest) have a limited involvement in their own area. Over time their livelihood strategies have evolved from a vertical orientation (using differences between agroecological zones [see also Murra 1985]) to a more horizontal orientation to broaden their means of support as much as possible. Many temporary migrants live and work in different places. Their area of livelihood stretches from the *Valles Interandinos* to Santa Cruz and Argentina (Vargas 1998).

This trend contradicts the tendency of development organizations to reduce their area of intervention.<sup>4</sup> At present most development organizations in Chuquisaca and Potosí concentrate their efforts on the villages that can be reached easily and have good market access, a relatively favourable infrastructure (electricity, water etc.) and a concentrated population. In the more isolated areas, where the infrastructure is usually poor and the population dispersed, considerably fewer development interventions

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<sup>4</sup> ACLO and Proagro are organizations that have reduced their area of intervention to increase their efficiency (also see le Grand 1998).

are in progress.<sup>5</sup> The main reason for preferring areas of concentration over more spread-out regions concerns the reduced cost of operation (lower transport costs etc.) and the opportunity to consider local aspects (e.g. culture). In small areas results can often be achieved more quickly, especially in relatively large and easily accessible villages where the infrastructure is good (see also le Grand 1998). The boundaries of the area of intervention are contingent upon the available funds and staff. The same principle underlies decisions regarding the eventual departure from the area of intervention. Development organizations therefore usually choose their area of intervention on the basis of the *likelihood of success* rather than *sheer necessity*. Moreover, development organizations - despite their objective of participatory planning - often determine their area of intervention autonomously. They base their selection on their own criteria, with little regard for the demands of the communities. Nonetheless, some villages have played an active role in project acquisition (and in some cases in project exclusion).

The logical recommendation arising from this situation is that development organizations should do more to consider compatibility between their area of intervention and the area where the farmers operate. This holds true in particular for the projects formulated in the context of the *Ley de Participación Popular*. Current experiences reveal that most of the plans are largely local and reflect little consideration for relations between the different communities, especially if these relations transcend municipal boundaries. Plans for new interventions should therefore extend beyond village-based activities. In addition to addressing the local scale, the developers should consider whether the same population's interests might be better served by reinforcing the means for earning a livelihood in other places. Lack of interest in the external contacts of farmers is also apparent from the way the executives of popular participation draft the municipal budgets. Means are assigned according to the number of inhabitants with little regard for the tendency of a substantial portion of the farm population to reside in other communities (usually cities) for a few months a year. Given that agriculture is no longer the most important activity for many of the rural poor and the extensive ongoing migration between different areas, the existing population statistics (which do not reflect this "floating" population), are clearly not a representative data base for the implementation of popular participation.

***Definition of target groups and classes of farmers should accommodate heterogeneity. Such heterogeneity is both objective and subjective.***

Development agencies usually focus their programmes and projects on specified target groups. Generally, objective criteria (e.g. ownership of land or livestock) indicate different classes of farmers, which provide a basis for selecting potential beneficiaries (e.g. poor small farmers).

Development organizations focus primarily on differences in access to production means (i.e. material criteria), while farmers often tend to apply other, more subjective criteria. From the farmers' perspective the class distinctions extend beyond their current material situation. They also consider non-material aspects and past circumstances. Previous prestige significantly affects the way farmers acknowledge class differences. Farmers with little land and livestock (often viewed as the very poorest in development projects) are sometimes classified as the wealthier group by their own population, because they are descended from a wealthy family, are well educated, work for a project organization or have exceptional leadership abilities. Performing communal tasks - such as organizing a festival - can elevate a poor farmer within his village's social hierarchy. The reverse also occurs: farmers with a lot of land and livestock (the elite according to development organizations) are sometimes labelled as poor by their fellow villagers. Farmers who are unwilling to fulfil communal obligations or make improper or no use of their land often incur low social status.

The criterion of land and livestock ownership provides very limited insight into the poverty of the

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<sup>5</sup> Judgements about causes and consequences can be difficult to make. (Do development organizations gravitate toward the "easy areas", or are the relatively favourable conditions the result of interventions?) At any rate, most organizations focus on a relatively small area that often coincides with a province or community's administrative borders.

farmers' population. The smallest farmers (with little land or livestock) need not be the very poorest. Considerable differences may exist with respect to income, objectives and aspirations. In other words, extensive homogeneity of interests is often incorrectly presumed; insufficient consideration is given to possible differences in age, education and occupation.

Establishing realistic target groups requires subdividing the rural poor into categories with common interests and goals. Target groups should no longer be based on "what people have" (e.g. land or livestock) but on "what they do" (e.g. are they interested in acquiring more land, introducing new crops or migrating?). In addition, the *direction of the development path* should be taken into account in the definition of new target groups. Some groups are characterized by upward mobility, whereas others experience downward mobility.

***The hidden side of rural livelihood merits more attention.***

In development projects the tendency - as indicated above - is to focus on visible aspects of livelihood. Development organizations like to define target groups according to measurable criteria; at the same time farmers' livelihoods are heavily influenced by qualitative - and in some cases invisible - dimensions.

While development organizations base household production potential on quantitative criteria (e.g. availability of land, capital and labour), actual production capacity proves to be determined largely by qualitative aspects, such as fertility of the soil, access to land in several agroecological zones, the health of family members, level of education and literacy. Depending on these factors households may or may not be able to escape their poverty or live up to the expectations of development organizations. Subsistence from agriculture is dependent upon the location of the land (including the degree of fragmentation) and fertility rather than its sheer size (see also Aramayo 1998; Bebbington 1993; Herve et.al. 1994; Morlon 1996; Zimmerer 1996). In addition to the theoretical labour supply (i.e. the number of persons in a household), its availability - or absence - and level of expertise - or lack of education - are relevant; not everybody can be assigned to the same tasks.

Establishing the production potential and the level of affluence of households according to "visible criteria" is also dangerous, because of the risk of overlooking the importance of exchange relationships (which are generally invisible). Households designated by the statistics as having very little land often manage to subsist by "borrowing" plots or exchanging land for labour (including a wide range of services [see also de Morrée 1998; Alberti & Mayer 1974]).

Simple, visible indicators can thus cause confusion and a misleading interpretation of the reality of farmers. For example, traditional dress, festivals and language often serve as indicators of "culture" and the measure of "traditionality." In development cooperation these aspects are sometimes misconstrued as a fixed pattern. Little or no consideration is given to the fact that dress and language may be heavily contingent upon time and place, which are decisive in functionality. Farmers who wear ponchos in their villages find modern attire more convenient in the city.<sup>6</sup> Although they speak Quechua in the countryside, some farmers use Spanish in the cities.<sup>7</sup> Development organizations show little concern for such functional matters. Although festivals are considered a nuisance by project organizers because they interrupt the project activities, they are viewed as a very useful pastime by farmers because of the wealth of opportunities for establishing contacts, trading and procuring information. Rather than stereotyping the

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<sup>6</sup> In some cases traditional dress is discarded only temporarily, since the farmers wear modern attire only to go to the city or to migrate. If they go to the city wearing traditional dress they suffer extensive discrimination and humiliation; upon returning to their respective communities, they resume their traditional customs.

<sup>7</sup> Quechua is widely spoken. Throughout the area addressed by the study, both children and adults speak Quechua on a daily basis. Schools are not very effective in disseminating Castilian Spanish, especially when they have few different grade levels. Temporary migration, especially for prolonged periods, frequently leads to adoption of Castilian (military service, Argentina).

cultural aspects of rural life (reciprocal relations, shared poverty), project organizers should devote more attention to cultural life's functional attributes.

***In addition to defining target groups, the target moment's dynamics and definition merit consideration.***

In development projects the distinction between - for example - wealthy and poor farmers tends to be viewed as a structural difference; target groups (e.g. "the poor") are therefore viewed as fairly permanent categories. Lack of sufficient land and capital lead to the assessment that the need for aid is permanent.

Farmers, however, often view poverty as a stage; they associate opportunities for improving prosperity with specific stages of life. As indicated above, as their children grow up, the labour potential increases and results in higher income and upward social mobility. As their children marry, labour capacity will gradually diminish. Inheritance will fragment resources as well. The basic idea is - in other words - that households tend to progress along this scale of relative wealth. The farmers experience various degrees of poverty (or wealth) throughout their lives. They need the most support when their children are too little to contribute to the family income.

The tendency of poverty alleviation programmes to overlook chronological factors (i.e. the timing of development interventions) is remarkable. The seasonable and variable nature of rural life render the time factor more important than usually assumed. Specifically, aid during a crop failure or illness can be more important than at another point in time. Accordingly, development organizations need to consider not only the definition of the target group but also and especially the *target moment*. Addressing the target moment requires focusing the programmes on the households with the most urgent needs and relatively favourable prospects for change. Opportunities for upward mobility (the chance to escape poverty) seem to depend largely on the availability of labour (life cycle) and capital, as well as on access to knowledge and information. New opportunities are usually taken at moments when families possess sufficient labour and capital and obtain access to certain information and contact networks.

***Scarcity of household labour restricts the ability to participate in projects.***

The tension between the everyday reality among farmers and development practices is reflected in the frequent assumption by project organizers that farmers' households may lack land and capital but have an abundance of labour. In many cases they think that poor households will be able to participate in projects by contributing labour (and consequently plan for zero opportunity costs). Households may, however, have very limited means available for development because of their labour shortage, especially during their start-up period. Ironically, especially the very poorest - whose labour reserves are smallest - are expected to participate in project activities. Obliging popular participation in heavy digging for an irrigation project excludes single mothers from the project activities virtually automatically, due to the scarcity of labour (see also le Grand 1998; de Morrée 1998).

Project implementation efforts fail to acknowledge that laying claim to household communal labour (possibly under the guise of participation) often affects other activities. Where women are encouraged to spend some time on alphabetisation, this will almost automatically be at the expense of goat-herding or other (related) practices. In many cases, requiring contribution of labour in development projects tends to overlook the labour calendar and life's periodic nature; development organizations are quick to identify the slow season in agriculture as a suitable moment for launching projects. Frequently, however, the slow season in agriculture is the peak season for households to engage in other activities.

***The idea should be abandoned that agriculture is the sole occupation of farmers and every other activity a peripheral or back-up operation.***

Rural development programmes should support a broader range of activities. Thus far, they have afforded priority to agricultural development, environment, infrastructure and activities of social value. Little attention is devoted to migration or other non-agricultural pursuits.

This study revealed that migration by large groups of farmers in Chuquisaca and Potosí for several months a year has not led to recognition of the practice as a problem-solving or opportunity-generating activity. Migration has yet to be widely accepted as a regular part of daily life. Donors are loathe to support

this activity as a strategy for poverty alleviation. Whereas development projects usually pursue agricultural improvement as a means of reducing migration as much as possible, many of the rural poor see migration as their only opportunity to accumulate capital and escape the vicious cycle of poverty. They view it not as a necessary evil but as an ongoing part of their existence (see Vargas 1998; also Paerregaard 1997). The problem is not migration but the fact that many farmers become ill or are deceived at their migration destinations (they are insufficiently informed of what to expect). In determining the type of activities to be supported, agriculture should no longer be perceived as the sole official or chief activity of farmers, with all other activities as peripheral or back-up operations. This situation no longer applies in many places.

***Consideration should be given to mutual cohesion and interaction between activities (complementarity or competition), as well as differences in the division of labour.***

The way of life that development organizations often perceive as fragmented (farmers work on several different activities at once at various locations) actually comprises a collection of related and carefully balanced activities from the household's perspective. Seasonal change is an important factor of consideration (i.e. the agricultural calendar), as well as the mutual relations between the various activities. Some are facilitating or complementary, whereas others are competing; some necessarily occur at the expense of others.

Project realization efforts tend to overlook the fact that intervening in certain activities severely affects other pursuits, due to mutual relations. In many cases a simple intervention unleashes an unforeseen chain of events. The introduction of livestock will make great demands on a person's time (migration is no longer possible), land (fodder) and capital (vaccinations etc.), while influencing the room of manoeuvre of other activities.

Households differ markedly with respect to internal distribution of labour. In some every member of the family has his or her own responsibilities, whereas in others specialization is virtually non-existent. Labour distribution and gender relations play a role in the flexibility of labour's availability and the resulting ability of households to adapt to changing circumstances. A very rigid distribution of labour and a high degree of specialization confine rather than broaden the options.

Research on distribution of labour within households usually addresses gender relations. The distribution of tasks between men and women varies considerably among villages and does not always correspond to the conventional impression. In some villages men rather than women are responsible for washing and weaving (see also Morales 1998). Within individual households the distribution of labour is determined largely by age differences. Young people in all classes usually devote their time to other activities than their elders or grandparents. Thus far development organizations have exhibited little interest in the age criterion (i.e. the distinction by age group) in formulating their target group.

***Investments in education, health and sanitation must be regarded as productive investments.***

With respect to productive and non-productive investments, the farmers' perceptions are quite different from the views of development organizations.

Myriad farmers spend much of income on their children's education and health. They perceive their children's education (often a reason for migration) as an important vehicle toward improving future prospects. Prevention and eradication of diseases averts unforeseen loss of labour. Improving the health of family members increases the time available for productive activities and consequently the family's income. Accordingly, investments in education and healthcare should be viewed as productive investments that pay off either quickly or over time.<sup>8</sup>

Development projects often start from a different point of view. Frequently institutions try to

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<sup>8</sup> Infant mortality is extremely high in the isolated communities that are not integrated in the market. In Llavisa over half the children die in most families. This trend seems to be declining in recent years. Families in high-altitude communities are far smaller than those in the valley; the discrepancy appears due to differences in mortality rates.

influence productive aspects without considering the corollary effects of their social interventions (see also le Grand 1998). Calculations of the costs and benefits of development projects rarely include the increases in income attainable through investments in education, healthcare and the like, especially when such increases are noticeable only over the long term. The income effects that can be realized by saving time are therefore virtually overlooked. In fact, many social projects have unforeseen economic effects that can exceed the impact of the productive projects.

***Opportunities should be sought for coalition building between NGOs, farmers' organization, middlemen and the commercial sector.***

The commercial sector is not ordinarily considered a potential agent of development, since its motives cover a limited scope that certainly does not encompass local participation and *campesino* welfare. Nevertheless, the commercial sector has been a driving force behind rural change, leading affluence to rise in some places.

Analyzing the changes between 1983 and 1997 reveals that many farmers' families have benefited from the new market opportunities. In recent years demand for food products has risen markedly in the cities as a result of rapid urbanization. Moreover, road building and purchasing of trucks by a select group of farmers have noticeably improved access to the market for many communities. In many locations new market opportunities have influenced crop patterns and have boosted sales in recent years. Trips by llama to exchange high-altitude products for valley ones are diminishing; many *llameros* now travel by truck or purchase maize on the market. In various communities farmers have become merchants, or cooperatives and producer associations have been established. Market forces and the commercial sector have played an important role in these changes, determining sales opportunities for farmers, as well as prices and new varieties of crops (see also Guerrero 1998; Figueroa 1984; Gonzales de Olarte 1994).

In other words, the commercial sector is more important for development than is generally assumed. Together with the producers' organizations, it largely determines local opportunities for delivery, storage, processing and transport of supplies. The commercial sector is a major force in marketing and in establishing the market outlets for farmers.

One of the shortcomings of the NGOs concerns their inability to improve the farmers' ongoing production environments (input supply, infrastructure for transport, storage and processing capacity). NGOs have little experience with industrial and non-traditional export crops. They often lack up-to-date market information and are in no position to provide the farmers with new market outlets. These skills are, however, present in the commercial sector (i.e. agroindustries, middlemen and farmers' organizations), which can complement the efforts of NGOs in rural development. Closer collaboration is needed.

***Evaluations should avoid undue emphasis on the "average" situation; risk should not be viewed as a temporary abnormality.***

Farmers' livelihoods are based largely on a succession of positive and negative incidents dominated by coincidence and timing. Crop failure need not drag households into a downward spiral. Compensating measures are often possible, including temporary migration. The ability of households to take such measures often depends on the availability of labour. If crop failure coincides with some other type of disaster (sickness or the death of a family member), the means for coping will therefore be limited. Lack of savings may force people to seek alternate sources of income. Even if farmers' households improve their situation, the moments at which such adversity strikes deeply influences development opportunities. Coincidence of the moment of capital accumulation with a favourable investment opportunity may initiate one or more positive changes. Less auspicious timing of this moment, however (e.g. during a festival), reduces the likelihood that the money will be used constructively.

Development projects devote little attention to such matters. Any consideration of coincidence -or chance- is often translated in terms of risk: the probability that an unforeseen turn of events will necessitate a

temporary digression from the planned course. The risk analysis presumes the normal situation and calculates the additional cost of adversity accordingly.

Circumstances regarded by development organizations as a deviation from the standard situation (crop failure, drought etc.) are often viewed by farmers as the normal situation. Because crop failure and drought are rather commonplace, such incidents are not considered bad luck or an unexpected disappointment. Sudden hailstorms are experienced by farmers as normal, whereas they are labelled by development projects as a risk that causes project results to deviate from the norm. In practice standard situations are non-existent (see also Apffel-Marglin 1998).

Although the average situation is frequently mentioned in development projects, actual practice is extremely varied. Crop productivity is very difficult to indicate precisely, as it varies according to the year, the agroecological zones and the plots of land. The variation is attributed to differences in climate, soil and the agricultural knowledge of farmers with respect to crop rotation and combinations, use of inputs and the like (see also Aramayo 1998; Bebbington 1993; Herve et.al. 1994; Morlon 1996; Zimmerer 1996). Wide fluctuations preclude generalization of average production figures or yields. Clearly, no single technological package can be a panacea for all production conditions. As results differ considerably from one farm to another, calculating the average yield is pointless. In fact, the average yield may give rise to erroneous practical recommendations.

### ***Evaluations should incorporate the farmers' criteria***

Whereas project evaluations are usually based on the original project objectives, farmers assess the interventions according to their own - independent - standards. In some cases the assessments by the beneficiaries are surprising. Whereas project evaluations often revolve around the increase in the income of farmers accomplished by the project, the villagers base their opinions on whether the technicians have kept their word, and whether the project has been of any use to them. Even if an irrigation project is officially considered a failure, it may receive a favourable evaluation from the population, possibly because the training received enabled people to earn additional income through construction work.

Evaluations of agricultural projects also exemplify differences in perception. In this respect development organizations often consider the yields per hectare. Aside from the difficulty measuring the yield (how does one measure the quantities consumed by the livestock before the harvest, how are differences in quality taken into account etc.), farmers' interests may concern entirely different matters. The yield relative to the area of land is not necessarily the farmers' greatest concern; yields also need to be calculated according to other criteria (such as the volume of water used, the time required and cash investments with respect to the risk of losses). Finally, a farmer's expression of the yield of his crops varies according to his interests and perspectives. In an economy based on self-consumption, the quantity of seed represents an investment from the food reserve. In this situation, farmers are especially interested in the number of potatoes harvested in comparison with the amount of seed planted.

From the perspective of development organizations, farmers base their project evaluations in part on improper criteria ("the project was never intended for that purpose"). In addition, the organization's staff are unlikely to evaluate the development result as part of the development efforts in their entirety, but will evaluate the results of individual project interventions. The chain of effects rather than the individual interventions is important for the ultimate results.

### ***The problem-solving approach should be replaced by one that is more opportunity-driven.***

A great many development organizations focus primarily on solving *current problems*. The causes of poverty - rather than the opportunities for wealth - are points of departure in development projects; the projects are intended to alleviate or eliminate problems rather than to identify opportunities. Exploring uses for the "strong sectors" (i.e. sectors with development potential) rarely elicits much attention. The effort to realize development

processes would, however, benefit from the search for new *opportunities*. Making such strong sectors accessible to the rural poor will probably generate more positive results than linking them to the stagnant and traditional problem sectors.

While most development organizations currently support *participatory* planning, they would probably do well to focus on *strategic* planning. In many cases participatory planning prioritizes the most broadly-based projects rather than the more strategic ones. Those with the broadest bases (i.e. projects supported by the majority of the population) are not always the most urgent or the most relevant to development. Populations that lack information about new crops, technologies or markets are unlikely to conceive innovative ideas but will request more of things they already know.

The new approach also means that information provision should be highlighted. Without adequate information, the farmers - or rural poor - will have little idea of how to cope with changes: which crops to plant, where to migrate, which products to sell. Moreover, daring innovation projects are more likely than conservative ideas to meet with opposition from the majority. The more conservative ones are a known quantity; in the other cases people do not know what to expect.

### **Concluding observations**

Concluding this paper requires returning to the original question (PIED-Andino's point of departure): why has the multitude of development interventions achieved so little improvement in rural living conditions? One of PIED-Andino's main conclusions may be that much has changed in the countryside but that these changes have taken place beyond our horizon (see for a detailed analysis, Zoomers 1998). Though the situation initially appears unchanging and the population homogeneous, it proves to be dynamic and heterogeneous upon closer examination. The Andes population - as well as development interventions - are difficult to capture in straightforward categories.

The development organizations easily overlook the measure of change affecting the countryside, both because their presence is temporary, and because they usually apply "hard" criteria. One reason for the complexity of identifying the reality and the corresponding changes concerns the lack of adequate secondary data. The official statistics shed insufficient light on the reality. Population statistics convey an incomplete picture of migration's significance. A major share of the farmers registered in the village spends most of the year "outside" the picture. The population should therefore be expressed both in numbers and in "people months." In addition, statistics on land ownership inadequately convey the land's suitability for agriculture and the measure of fragmentation. All figures on land (but also livestock) ownership are unreliable almost by definition, because farmers fear that the information provided will be used for assessing taxes. Finally, also the statistics about production and agricultural productivity are misleading, because they often provide averages; they convey a highly distorted impression of reality.

Improving our awareness of the way of life in farmers' households in the Andes and their dynamics helps us understand the population's reasons for being less than enthusiastic about and supportive of certain development projects. Projects where the executory agents feel they are making a "fresh start" are often perceived by the villagers as a repetition of past experience: the umpteenth ambitious organization that may or may not keep its word. Moreover, satisfying the conditions imposed by development organizations can be difficult. The poorest farmers are especially likely to lack the labour capacity to participate. Even project activities planned outside the peak season for agricultural operations may affect the income they ordinarily derive through other activities during that period. Moreover, project appreciation (and the willingness of the population to participate) will also depend on the reliability of the project staff (i.e. fulfilment of commitments), remuneration structure (level of salaries, availability of food for work etc.), and the distribution of the benefits. Projects that foster inequality are rarely appreciated.

The characteristics of livelihood strategies among farmers' households call for reassessment of the role

of and interventions by development agencies. At present - given the concentration of development organizations in villages with relatively hospitable external conditions - the development policy debate emphasizes donor coordination and the need for improved distribution throughout the region. Virtually all interventions now occur in areas with a favourable agro-ecological system, good road access and a concentrated residential pattern.

Though the effort to improve donor coordination and harmonization of activities is certainly important, its necessity should not be exaggerated. Intervening in the smaller communities that are poorly accessible and have a dispersed population is rather complicated (the development potential is lower) and derives less support from the work of other organizations, thereby restricting the opportunity for cumulative effects. In areas that do not satisfy the minimum criteria, rural development will be hard to accomplish. In addition to being costly, the projects are unlikely to yield good results. Provided the development interventions continue to address the least privileged groups (which exist in every village), continuing in the relatively "convenient" villages seems justified with respect to efficiency.

Moreover, the current plethora of development projects and their concentration in a select number of villages should not be viewed exclusively as a direct consequence of the conduct of development organizations. Villages have also done their share to recruit development organizations. Within PIED-Andino's area of intervention many villages have recruited projects through an ambitious acquisition policy. In some cases this process began with the land reforms of 1953. The population organized as a syndicate and adopted a concentrated residential pattern to become eligible for a school. In areas where development organizations have long been active, the population tends to be sufficiently familiar with the spoken (and written) development terminology to contact the headquarters in Sucre independently. Conversely, the scarcity of development organizations in the least accessible areas is not merely attributable to lack of interest on the supplier's part; in some cases the reserve and even animosity among the villagers has contributed to the dearth of projects.

In addition, the concentration of development interventions in a select number of villages need not always lead to unwanted results, as it might generate a chain reaction. Although an individual project's results are not always visible or tangible in the short run, its actual impact will become clear only over the long term once a 'chain of results' has crystallized. Given the population's heterogeneity, a fragmented and partially contradictory package of measures is not always a bad idea. Villagers have proven active in selecting the elements that interest them most, while competition can also bring about quality improvement. While the villagers will obviously find constantly dealing with new organizations and ideas tedious, they will ignore the projects if they are truly disinterested. Better donor coordination and more equitable distribution among "weak" and "strong" villages mainly serves the interests of the development organizations: they cannot afford to allow projects to fail. The means are scarce and the donor organizations demanding (projects must meet efficiency criteria).

Ultimately, opportunities need to be examined for making the development interventions and livelihood strategies more compatible. How can future development efforts be harmonized with the livelihood strategies of farmers. To summarize this study's findings, we recommend adaptation of the area of intervention of development organizations to the living environment of farmers; greater consideration for the target group's heterogeneity and the invisible and subjective aspects of farmers' lives (often difficult to quantify); better timing of development activities and optimal attunement to household needs; increased interest in the *target moment* and the availability of labour (a scarce commodity). Moreover, non-agrarian aspects in farmers' lives (including migration) should no longer be regarded as a sideline, and their relation to and interaction with the different activities merits greater consideration. Finally, we advocated following the example of the farmers by emphasizing investments in health care and education (i.e. productive investments); attributing greater importance to the commercial sector's role as a development agent; directing development projects toward activating changes and avoiding focusing exclusively on problem resolution.

The ephemeral quality of living conditions in the countryside and farmers' lives render the search for "sustainable" solutions unrealistic. Current policy acknowledges insufficiently that temporary help at the right

time can enable farmers to achieve lasting improvements in their lives. Farmers are interested in adaptation and flexibility, whereas project planners pursue sustainability and permanent solutions. The dynamics of farmers' lives lead them to regard sustainability as a low priority. Farmers may view projects without lasting results - despite their brief duration - as beneficial to progress.

A more realistic approach might involve abandoning the idea that development problems can be resolved by a fixed selection of programmes and projects. The diversity and dynamics of the farmers' strategies preclude adapting any single selection of development projects to general demand. No one model will yield the desired results, as farmers' needs vary both from one village to the next and within individual villages. Priorities differ by socio-economic class, as well as by gender and age. Moreover, needs change over time. Instead of working with a fixed selection of programmes, they should adopt a supermarket approach (a fixed selection is not realistic).

Given the farmers' reality, target groups will come and go, and projects will elicit varying degrees of interest over time. The conventional idea of traditional target *groups* should make way for one of target *activities* (supporting a certain activity implicitly leads to the selection of a certain target group) and the target *moment* (household needs will remain varied).

Finally, it is important to discern that the impact of development programmes on the rural poor should not be overestimated. Rural development and poverty-alleviation programmes are sometimes not even felt by the rural poor. Farmers may view development projects merely as details in their environment, thereby overlooking their impact on livelihood strategies. The rural poor go their own way, often unaware of new trends in development co-operation. Accordingly, development co-operation should be perceived from this somewhat disappointing perspective.

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