

Sustaining innovations: schools, institutions and linkages in the Cuzco region, Peru

Jorge ChavezTafur



STELLINGEN

1. It helps, in order to have a clear and precise answer, to start with a clear and precise question.
2. "[Many] 'savages' worship the serpent because its whole body touches the ground and it must, therefore, know all the earth's secrets. It knows them with its belly, with its tail, with its head. It is always in contact or mingled with the Mother... We educated people are just empty-headed birds of the air."

Nikos Kazantzakis, 1961. Zorba the Greek. Faber and Faber: London.

3. Historians and lay persons are surprised at the failure of the Inca society to develop and use the wheel. They fail to recognize that wheels are useless in a vertical landscape where stairs predominate.
4. "All institutions are the same. They do something and it only lasts for a while; very soon it is over. Many times they just finish half-way, all of a sudden..."

The directora of the school in Umanes; this dissertation.

5. The advantages of establishing linkages between NGOs and the State are widely recognized. However, it is not always easy to determine where 'the State' is in the remote rural areas. Small or local NGOs have therefore less possibilities for contributing and for benefitting from these advantages.

This dissertation.

6. Everyday life shows that necessity is not always the mother of invention. More and more often, invention is the mother of necessity.
7. The major axis of the Americas is north-south. The same is also true, though to a less extreme degree, for Africa. In contrast, the major axis of Eurasia is east-west. "Its east-west major axis permitted many inventions adopted in one part of Eurasia to spread relatively rapidly to societies at similar latitudes and climates... That basic feature of geography thereby contributed heavily to the very different experiences of Native Americans, Africans and Eurasians in the last 500 years."

Jared Diamond, 1998. Guns, germs and steel. Vintage: London.

8. In opposition to what is described by theoretical studies, interventions are seldom oriented at facilitating an innovation process. Most frequently, the need to show immediate and concrete results shapes activities towards an innovation as a final product.

This dissertation.

9. A clear disadvantage of a sustainable activity is the unemployment it causes.

10. Dreams complicate life, though at the same time they also complement it.

From R.E.M., 1989. Get Up. Warner Bros. Records.

11. The role of the primary schools in the rural areas goes beyond carrying out the basic curriculum. Research, extension and development institutions working in these areas can greatly benefit by recognizing this fact.

This dissertation.

12. Writing these *stellingen* has shown how, especially when living abroad, it is much more difficult to follow traditions than to follow the rules.

Propositions presented with the doctoral dissertation

**Sustaining innovations: schools, institutions
and linkages in the Cuzco region, Peru**

defended by Jorge ChavezTafur on Monday, December 7th, 1998
in the Aula of the Wageningen Agricultural University

SUSTAINING INNOVATIONS:
SCHOOLS, INSTITUTIONS AND LINKAGES
IN THE CUZCO REGION, PERU

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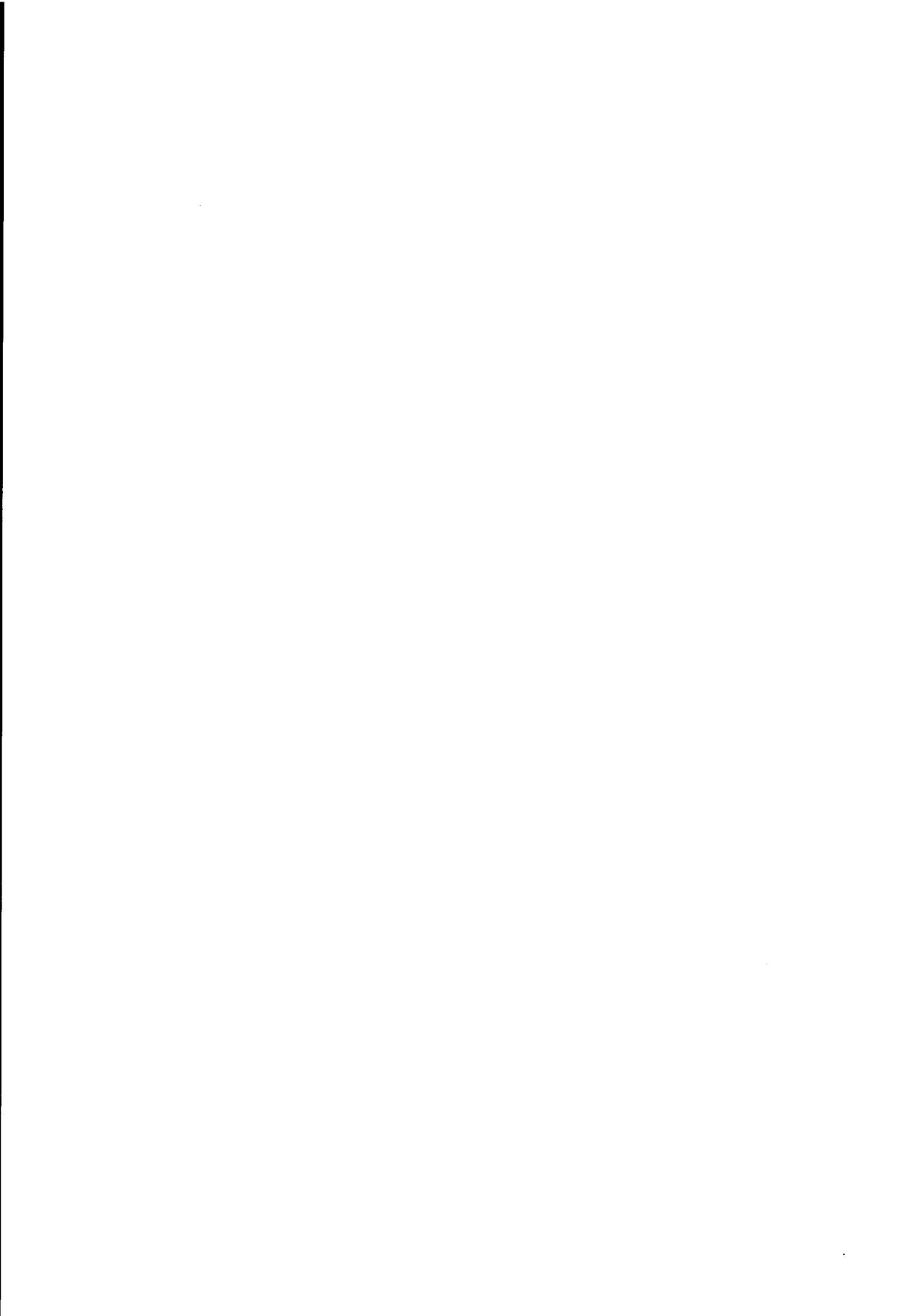
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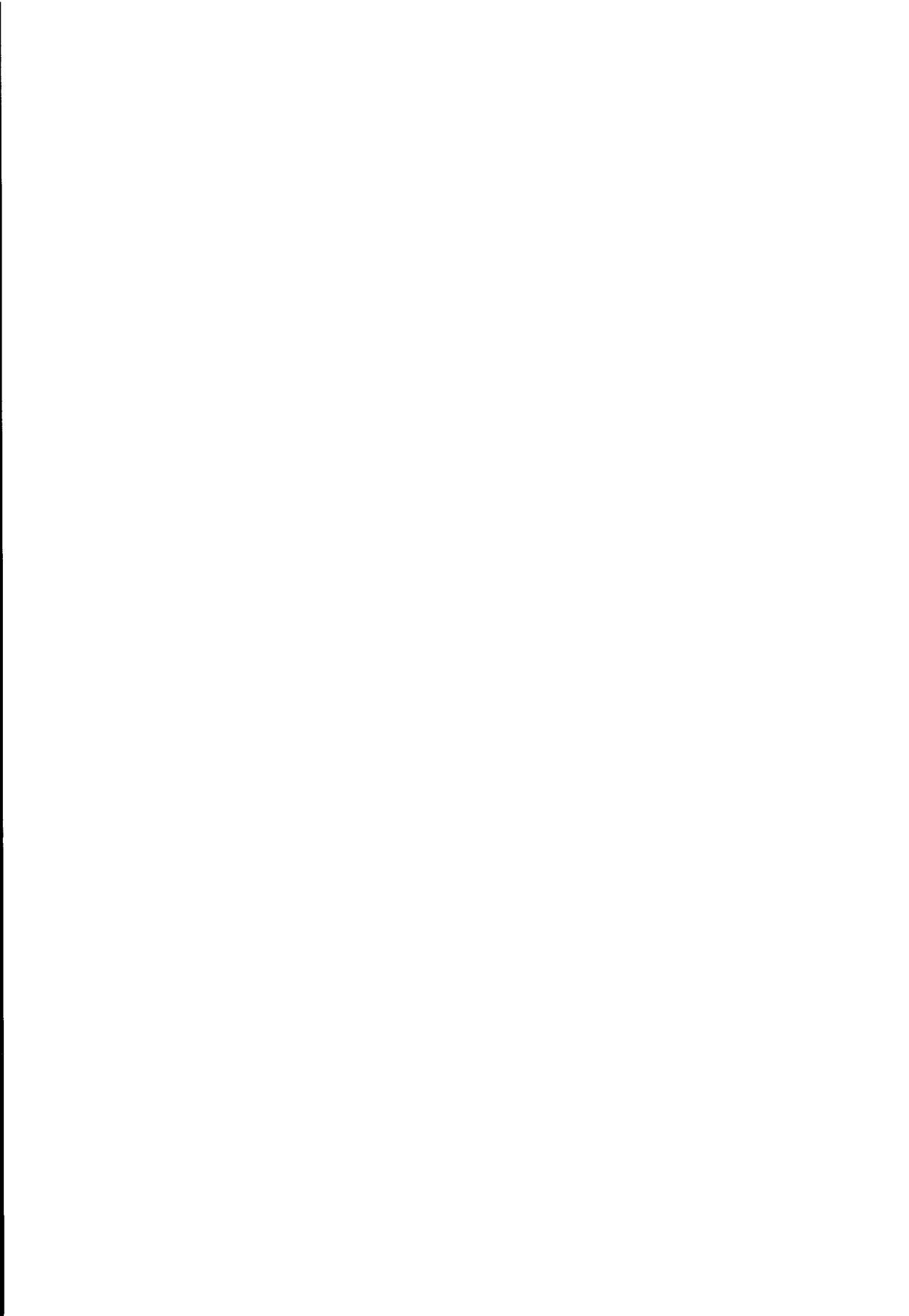
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INTRODUCTION

"[Due to the difficulties in the rural areas] it is essential that the rural extension services consider and obtain the effective participation and cooperation of other institutions... In a convergence of educational efforts, it would be especially convenient if the extension services work in close and mutual cooperation with the rural primary schools..."

FAO Regional Office (Lacki, 1995)

This study is about linkages. Hereby I refer to linkages between the different institutions operating in the rural areas. In particular, though, this study looks at the linkages between these different institutions and the rural primary schools. My interest lies in the contribution which these linkages can provide for sustaining the impact of the different educational interventions in these rural areas.

The Peruvian highlands, like many other parts of the world, are witness to many different development interventions. These interventions -however they are defined- aim at creating change and improving the living conditions of the population. Interventions are generally designed as short-term projects, and are planned and implemented with some specific objectives in mind. These projects vary in size, budgets and duration, and are run by public or non-governmental institutions. Some are designed around local organizations, others within the governmental apparatus. All of them, however, show two common characteristics: they are generally implemented in isolation, and their results are limited to a short duration.

This research gave the possibility to analyze these common characteristics in detail. In particular, it provided the possibility of looking into some general ideas which were for long on my mind:

- why do development interventions fail to consider the rural schools, even if these are present in almost every location?
- why do activities in these schools operate in general isolation from the general context in which they are set?
- why do interventions -however they are defined- generally fail to have a long-term sustainable impact?

Linkages between extension, development interventions and the formal education activities in the rural areas are not a far-fetched idea, nor something new. Many arguments were given in the past to consider rural primary teachers as change agents or *animateurs* (e.g. Dove, 1980; Watson, 1983). Currently, as shown above, calls are made for greater linkages between extension and the rural primary schools, on the basis of the many advantages found

in the schools themselves (Lacki, 1995). Among these advantages: primary schools are widespread and reach the majority of the population, or that in many cases primary education is the only service provided by the State to the rural populations. Additionally, primary schools are, in the majority of the cases, the only opportunity available for formal education in the rural areas.

Many advantages are recognized in theory. In practice, however, neither the teachers become change agents, nor are linkages frequently established between extension activities and the schools.

This study presents the results of the research carried out around these specific issues. Different studies have been carried on around the relations between non-governmental organizations and the State (Farrington et al., 1993; Bebbington and Thiele, 1993; Hulme and Edwards, 1997). This study, however, looks at the different institutions and the primary schools in the rural areas, concentrating on the innovation activities in which they are involved.

Several projects of different institutions were chosen for this research. They represent different innovation attempts, both in the non-formal and the formal education activities. Within the former group I consider the different extension activities, and their innovations in approaches or ideas. The latter group includes the innovations in formal education resulting from governmental attempts. I refer in particular to a project aimed at modifying the rural primary education curricula. In short, the analysis aimed to find if linkages between the different institutions are possible and if these, once established, lead to a sustained innovation.

Research involved many different actors, from *beneficiarios*¹ to representatives of the Ministry of Education. It evolved over a period of three years, concentrating on two very specific locations, looking at different case studies. The whole process is described and presented hereafter.

Chapter One starts with a description of the general situation in Peru. Here I specifically deal with the context around which the whole study is oriented: agriculture and the rural areas, the 'presence' of the State and its institutions and the role of the different private organizations operating in these rural areas. Additionally, I describe the general situation in which public education -in particular primary education- is found.

Based on the previous description, Chapter Two looks at the different educational innovations and the main difficulties which are thereby identified: an impact which is limited to the duration of a project and a general lack of linkages between the different institutions and projects. This

¹ Many Spanish words are used throughout this book. No direct translation is given in many cases, trying to maintain the richness of the meaning. Key words are presented in the glossary.

brief analysis leads to the presentation of the problem statement and further on to the research questions. These questions are the main guidelines which drove the fieldwork and analysis.

Chapter Three is presented as the conceptual framework. It includes the literature review, as an overview of the concepts and ideas relevant to the study. At the same time, this review provides the necessary theoretical framework, as the set of analytical tools required to analyze the assumptions and points of departure of the study. These tools are equally necessary to analyze the whole set of field observations and findings.

This literature review allowed for a further operationalization of the research questions. This is included at the end of the chapter.

Chapter Four looks at the research methodology itself, including a basic description of the areas which were selected for fieldwork and research. Based on the operationalized research questions, I describe in detail the methodological approaches used for the collection of data. This considers the instruments and procedures followed (in relation to the activities observed, or in relation to the institutions and actors present).

It continues with a description of the research itself in its different stages: preparation, fieldwork, and analysis. This section also looks in detail at the distribution of time during fieldwork. The chapter finishes with an analysis of the main difficulties met during fieldwork.

Many institutions, organizations and actors were observed in the field, involved in many different activities. Chapter Five presents the general context encountered: it is thus a description of these actors and activities. This description provides a general overview which is especially necessary before the next chapters. Chapters Six, Seven and Eight then concentrate on the main research questions outlined in Chapter Two.

Chapter Six opens the analysis by looking at the sustainability of the different projects, innovations or activities taking place in the field. I describe here the different factors which determine why innovations are seldom sustained in the long run and why their impact is limited to a short term. This analysis considers the internal factors in greater detail: the definitions and understandings used and followed by those running the main activities, and the time perspectives with the different institutions have. Finally, this chapter looks at the interventions themselves, in their design and implementation.

Next, Chapter Seven looks at the linkages in the field. Several examples were observed; this chapter starts with a description of the linkages which were identified between the different institutions. These linkages are then analyzed in terms of their different attributes, functions or general characteristics.

However, it was clear that not many linkages are established, especially when those observed are compared to the number of activities and institutions described. Various different factors were identified behind this general lack of linkages. These are described here.

Chapter Eight looks at the third research question, considering the advantages which emerge or are to emerge from the establishment of linkages. In particular, the analysis considers the links involving the schools and the non-formal education organizations, and the possibilities found in each case for the establishment of greater linkages. Finally, this chapter goes back to the main interest of this study: the potential contribution of linkages for sustained educational innovations.

Chapter Nine draws the last three chapters together and considers the main findings. At the same time, this chapter 'revisits' the theory, presenting the final discussion and conclusions.

It is necessary here to consider that this study was defined around one specific situation: that of the Peruvian rural areas. Fieldwork was carried out in different rural locations in the Peruvian highlands, a region with particular difficulties for agricultural production and for everyday life. The analysis draws heavily on the general context, so throughout the study I consider it thoroughly. Many detailed descriptions are given, presented here as a main component of a qualitative research. My intention is also to let the reader -even if unfamiliar with Latin America, Peru or the Andes- fully grasp the complexities within which the education-oriented interventions are set. Before going deeper into the subject, it is therefore necessary to begin by presenting some general background information.

PART I: SETTING THE STAGE



ONE

BACKGROUND

This chapter presents some general information about Peru, providing the context around which this study was set. This description concentrates on the rural areas of the country, and on the main difficulties found there. It focuses on the institutions or organizations which operate in these areas (both public and non-governmental) and on the activities which are implemented. Among these activities, special attention is given to rural education.

1.1 COUNTRY BACKGROUND

Peru is often described as one of the most geographically diverse countries in the world. This is attributed to the Andes mountains which divide the whole country into three big regions: the coast, the *sierra* (highlands) and the *selva* (the Amazon jungle). There is enormous diversity even within each region, depending basically on the altitude. While these differences can certainly be considered as an advantage - diversity in climates and geography and therefore diversity in resources and in possibilities for production (cf. Golte, 1990) - in fact over the years this has been seen as a barrier against national integration and rather as inconvenient for the purposes of national development. Large distances and poor communications make the differences seem even greater.

Not only is this heterogeneity geographical, but also social. Differences in regions and areas account for multiplicity and differences in ethnic groups and cultures. The country boasts a rich pre-hispanic history and culture which was greatly augmented and diversified with the establishment in the country of populations from all over the world. This has certainly enriched Peruvian culture, but it may also be seen as the lead to "Peru's central historical problem": the lack of national and political integration (Cotler, 1983).

"Human inequalities are manifested in the economic, political, social and cultural patterns of Peru; these in turn are deeply rooted in the historical, geographical and ecological dimensions of the country." (Garret, 1985:111)

"... Peru has not had a leading class with the capacity and will (towards the) unification of the population and the territory through effective government centralization, with the objective of ending the cultural fragmentation prevailing among classes and their ethnic correlates and enabling the establishment of a collective identity, the Peruvian nation..." (Cotler, 1983:4)

Lowenthal, analyzing Peruvian society after what he calls "the Peruvian experiment" (the policies followed by the reformist military government which began in 1968) concludes that "Peru is still unintegrated. It remains largely split ethnically, fractured geographically and divided by class" (Lowenthal, 1983:424). The same phrase can be used fifteen years later, though a new and comprehensive analysis would be required: the last two decades have been marked by particular phenomena and events, which have affected and influenced all aspects of Peruvian society. In brief, these phenomena include a series of natural disasters, the apparently unending and unavoidable rise of subversive terror, together with economic crisis and world-record inflation rates (amid governmental experiments with all possible sets of economic policies). Current political orientations could easily be described as a new "experiment": new economic policies, or nation-wide democracy and democratic-rule, though with the decline and discredit of political parties.

1.2 AGRICULTURE AND THE RURAL AREAS

Peru is a rather large country, with a (relatively) small population. But because of the geographic difficulties in each region, only 2.7 percent of the country's area is defined as suitable for intensive agriculture (cf. Alberts, 1983) . This results in a very low ratio between agricultural land (and production) and the population.

"While the coast is very fertile, it is also a desert; without irrigation it produces nothing. Since water has to be brought from the mountains, irrigation projects are expensive. The *sierra*, on the other hand, has a different set of problems. Its topography is mountainous, the land is poor (except for the valley bottoms) and the rainfall is often inadequate." (Lastarria, 1989:128)

The author concludes this description by saying that "These geographic characteristics mean that agricultural production in Peru faces a number of formidable natural obstacles". This is true for the whole country.

The whole Peruvian economy has for long concentrated on production meant for abroad (be it minerals, oil, guano, sugar). "The export market drives the economy forward" wrote Thies-enshusen (1989) referring to current times, and this phrase can be applied to any period in modern history. Agricultural activities have therefore been shaped by this model. Within this context, agricultural research and development has over the years concentrated - independently of the different political ideas of the different governments- mainly on export-oriented or intensive agriculture. Production has been expected to follow examples from abroad, implement modern techniques and achieve increasing outputs, in spite of the generally adverse conditions. Whatever their differences, the producers who could somehow fit in the model and produce what was expected benefitted from research, credit and extension.

But the majority of farmers have little chances of producing for export, in many cases not even for the market. Most farmers operate very small, soil-poor, and undercapitalized hillside plots (generally referred to as the *minifundios*) where a combination of subsistence and cash crop production takes place. Production uses mostly family work force, with low technology, little credit; with low productivity per worker and per hectare (Lastarria, 1989). These small-scale farmers or *campesinos*, together with their families, constitute 75% of the agricultural units in the *sierra* (Figueroa, 1990).

In 1969 the military government, aiming at intensive land redistribution and expecting to foster agricultural production, began "a sweeping agrarian reform (which was) extended rapidly and extensively until it became one of the hemisphere's most thorough rural transformations" (Lowenthal, 1983:421). But very little was done to approach the *minifundio* problem, basically because of 'administrative expedience'. As was written by Alberts (1983:269), "It was simpler to remove the landowner and hand over the land to the permanent workers (who worked on the large plantations) than to re-organize the access of land to the (whole) rural population". Almost thirty years later, production levels are by far lower than before the reform, even if more individuals have direct access to land and production facilities. Recent laws have eliminated all restrictions to property size and to the transaction of land as any other good; two of the main ideas of the 1969 reform. Most of the *minifundio* problems remain, while the reform is widely acknowledged as finished.

Most of these *campesino* families form part of and are organized within a *comunidad campesina*. This organization is a result of the historical processes which grouped rural populations together, both before and after the European presence. According to Nuñez (1995) there are up to five thousand *comunidades* throughout the whole country, grouping more than 500,000 families in total. Of these, about 50% are formally recognized by the State. These *comunidades* are described as a "corporate land group", with their own system of government and their own civil authorities (Caballero, 1981). They are a "social way of organization of production which combines collective and household elements" (Plaza, 1990). The collective or communal elements provide the families with a series of conditions and possibilities for (agricultural) production, and at the same time controls the forms and limits within which this production can take place. Following Nuñez (1995:3), there are three main features which give a particular character to the Andean communities:

- a) communal control and usufruct of a physical space (land and water);
- b) the maintenance of communal organization and collective work, based on reciprocity, cooperation and solidarity;
- c) the conservation of its cultural and social characteristics.

According to Nuñez, the nature, origins, significance and future of the peasant communities has been discussed and analyzed from two different perspectives:

"On the one hand there are those who think rural communities are obsolete institutions, lone survivors of the Inca or Spanish colonial past, and therefore obstacles to the real development of the country. This position is best described as the 'disintegrative' view. It calls

for the dissolution of the communities and for setting up the peasantry along different lines of social organization. On the other hand, there are those who argue that communities are, or should be, the real foundation of Peruvian society, the guardian of the cultural -and recently, ecological- heritage of the nation, and hence the fundamental backbone of national development. This might be labelled as the 'protective' position, although in many instances it has served only as an excuse for integrationist State policies." (Nuñez, 1995:xlii)

Recent laws seem to be based on the former perspective. With the idea of encouraging private investment in highland rural areas, communal land can now be distributed or sold if a determined percentage of the *comunidad*'s members vote for that. Further privatization is expected once new water and irrigation laws are approved.

1.3 THE STATE AND THE PRIVATE SECTOR

Over the last decades Peru suffered one of its most severe crises in history. Especially considering the rural areas, this situation led to an eventual withdrawal and absence of the State and its institutions. Even if nominally the government's policies were aimed at the low-income groups and *campesinos* in particular (with specific subsidies, cheap credit and extension, higher on-farm prices), because of the economic crisis and the recurring violence these activities could hardly be present or sustained in the areas where they were most needed.

New economic policies were followed after 1990, with the intention of lowering inflation and receiving loans and credit from abroad. These are based mostly on a general liberalization of price mechanisms and on a reform of the financial structures; calling for market laws and designing and expecting a 'modern and efficient State'. In short these changes meant free market policies, with a withdrawal of the State from either the production or the services sectors, without any subsidies and with very little social aid (cf. Dueñas, 1994; Bebbington, 1997). Though apparently new and in contrast to previous policies, in many cases these policies have only formalized a situation already existing because of the crisis.

Over the last decades, the absence of the State has been covered in many ways by the presence of many different organizations, all throughout the country. There are many names used to define these organizations (Padrón, 1982; Carroll, 1992) and there is much diversity between those grouped within one name. But the most commonly used name in Peru, and one that covers them all is simply that of 'non-governmental organizations', or NGOs.¹

¹ Carroll (1992) originally defines these organizations as 'intermediary NGOs', but as he explains, "the term intermediary is not felicitous in Latin America ... it evokes a negative perception of their role, akin to exploitative middlemen..." (1992:5). While he then uses the terms 'grassroots support organizations' (GSOs) and 'membership support organizations' (MSOs), I stick here to the widespread name of NGOs, even if this term refers to what the institutions are not, instead of referring to what they are or what they intend to be (Gianotten and de Wit, 1988).

Carroll, Humphreys and Scurrah (1991) describe the origins of these organizations in the movements taking place in the 1960s and 70s in the Church, in the University and within the State. Bebbington (1997) describes how Andean NGOs were created on the grounds that popular organizations were too weak (or too repressed) to be able to carry forward alternative development strategies. At the same time, it was considered that the State was failing to do this, and that the market, on its own, would never achieve such a change (1997:1756). Different groups of professionals lead to different institutions, with different objectives in each case. Quoting,

"The universe of Peruvian organizations appears very diverse in terms of coverage, clientele, activity, resource base, age and focus ... The most commonly cited specific activity is research, followed by training, popular education, communication (radio publications), technical advising, organizational promotion and financial assistance..." (Carroll et al., 1991:99)

In broad lines these organizations are private non-profit institutions - basically financed from abroad - which run their own programmes of development on a specific area². They work mostly with adults, in projects which are generally designed as short term ones (not longer than three years) after which the results are presented (to the foreign funding entities). These programmes have many advantages: they are in general small and easy to manage, and are run by highly qualified and motivated professionals. They operate with sufficient material and financial resources, and work on a relatively small and homogeneous area, in direct relation with the target groups (Gianotten and De Wit, 1988). Clark (1995) mentions two other advantages: their ability to reach poor people, especially in inaccessible areas, and their capacity for innovation and experimentation. NGO innovativeness is mentioned by Bebbington and Farrington (1993) as one of their reasons for success. This capacity to innovate reflects their institutional characteristics, such as smallness, flexibility, 'shallow' hierarchies and short lines of communication. These characteristics "facilitate effective collaboration among disciplines, rapid decision taking, quick response to eventualities and a work ethic" (1993:207).

Thus, in comparison to the public organizations and to governmental programmes or activities, NGOs are certainly effective. (According to Farrington et al. (1993:25) "much of the enthusiasm for NGOs has been motivated by crises in the State's performance over the last several decades".) Yet,

"despite the increasing scale of this sector, and the growing reputation that NGOs have won for themselves and for their work... their contribution to development on a global level remains limited... the impact of NGOs on the lives of the poor people is highly localised, and often transitory ... effective NGO projects (and not all are) remain 'islands of success' in an all-too-hostile ocean..." (Edwards and Hulme, 1992:13)

² At the moment the government is encouraging private enterprises to run other aspects of the economy: pension funds, social security, health provision, etc. These, as profit-oriented companies, do not fall under the category of NGOs.

Other studies are more critical. In their analysis of NGOs and the State, Farrington et al. mention how many times NGOs "end up working primarily as service deliverers, rather than as sustainable poverty alleviators" (1993:120). Edwards and Hulme consider that NGOs are not necessarily more cost-effective than other sectors, or that there is no empirical study that shows that NGO service provision is cheaper than public provision of services. Additionally, these authors consider that the "claims that NGOs reach 'the poorest of the poor' are often inaccurate" (1996:963).

From a study in the Andean region, Bebbington (1997) describes the current crises of legitimacy, identity and sustainability through which NGOs are going. In many cases, NGOs are nowadays implementing governmental programmes, drifting away from their original objectives. They are criticized by the groups they are supposed to serve, and they are unaccountable to society at large. And, above all, NGOs cannot take their funding for granted any more. However, following the same author, more and more is being asked of NGOs, "to assume some of the roles previously played by the State, and also roles typically performed by commercial organizations" (1997:1755). Thus, even if changes are due and necessary, NGOs remain a most important actor in the rural areas.

1.4 EDUCATION

Perhaps the greatest role which NGOs have assumed is in non-formal education programmes³. In Peru there is no public extension service in the way which can be found in other countries. Over the last years, the problems described above led to the disappearance of what was a centralized governmental service. Reaching the adult populations -in particular in the rural areas- has therefore become a basic attribution of the non-governmental organizations. Even though NGO activities are diverse, they are generally recognized as extension or non-formal education.

On the other hand, formal education remains as a governmental activity (according to the law, it is the State's duty to provide it). The whole system is run by the Ministry of Education from its central offices in Lima.

Because of local mobilisation and interest, the whole country has seen a rapid expansion of the schooling system in the last decades. Figueira (1990) mentions that today there are schools on practically all the population centres of the *sierra* and that this has resulted in a certain reduction of the illiteracy rates. Nevertheless,

"... the global levels are still humiliating. Today 29% (of the *sierra* population) are still illiterate, when the national average is 18%. The illiteracy rate in women is even more dramatic: 50% (vs. 26% nationwide). If complete primary is seen as a measure of literacy, then 90% of the

³ I follow here Dubbeldam's definition of non-formal education as "organized forms of education that have specific objectives, but are more geared to the needs and expectations of the learners. The subjects taught may be specific vocational or professional skills, but also other social, cultural or recreational subjects." (Dubbeldam, 1994:30).

Andean population older than 15 years is illiterate. The educative offer (required) for the *sierra* is therefore principally primary education." (Figueroa, 1990:314)

Ever since the first national Constitution in 1823, 'public instruction' was seen as a "common necessity which the Republic owed to all individuals" (Fell, 1990). Still, the rural areas benefitted little from these aims. "What will they learn to read or write for, those who are not yet persons?" was written as late as in 1904 (Montero, 1990). The movements for and against rural education were defined in terms of education 'for the Indians' or for the 'indigenous' population, as if a population different or separate from the rest of the country⁴. It is only late in this century that education is conceived as an equal right for all Peruvians.

The 'problem' of social diversity within the country was to be bridged through the national education policies. With the idea that the unity of the country depends on the unity and singleness of its educational system, this educational system has for long been thought of as one for the whole country. "The only way to guarantee that all Peruvians are formed equally as Peruvians has been by having all Peruvians doing the same things, following the same methods, at the same time..." (Trahtemberg, 1993:42).

This resulted in educational schemes which were meant to be implemented equally in the cities and in the rural areas, in the mountains and in the Amazon jungle. Educational programmes are designed in Lima, and are therefore generally based on curricula and methods meant for the cities. The result is a programme which

"... emphasizes on an urban character, propagating aspects of the 'modern' world like thermometer and electricity, which practically do not exist in the rural households. At the same time they do not include the thunder, lightning or hail, because these natural phenomena are of no importance in Lima..." (Dietschy-Scheiterle, 1990:430)

Over the years, curricula have been implicitly designed in such a way that rural children can compete in the cities when becoming adults. This leaves little room to include the particularities of the local areas, the issues related to rural life and the different rural activities. At the same time, many other difficulties are recognized. These include a general lack of materials, the low wages paid to teachers, an insufficient preparation, a lack of motivation, etc. Consequently, even though the formal education of the rural children is one of the main expectations of their *campesino* parents, the results are

"... serious problems of absenteeism, year/grade repetition, early drop outs, mostly related to the incompatibility between the school calendar and the agricultural labour calendar, [and to] the difficulty of being simultaneously a student and a *campesino* labourer ..." (Montero, 1990:16)

⁴ Quoting Griffin & MacKinley (1994:40), "The education system is no more egalitarian than the society of which it is a part".

Currently, these rural school's curricula are being modified through different ministerial efforts. These are part of an extensive programme for the improvement of the provision of education, which equally includes teacher training programmes (Min. de Educación, 1996a and b). The intentions to modify the curriculum constitute another attempt (following previous projects), with the specific objective of adapting formal education to the environment and context in which the rural schools are found.

1.5 CONCLUSIONS

It is not difficult to conclude that Peru is a country where living conditions are harsh. Because of historical, social and geographical factors, living conditions in the rural areas of the country are even harder, even if different (and in many cases drastic) measures have been taken to overcome such difficulties. Many national, regional and local-level attempts have been tried and many more are being tried at the moment. This involves public and private organizations, in particular many non-governmental organizations (NGOs). All these efforts aim at the solution of the difficulties found in the rural communities.

This study looks at these attempts focusing on their long-term duration, with the hope that this can contribute to a better implementation of the different activities and therefore to a greater impact. The particular context and the specific orientation which the study follows is described in the next chapter.

TWO

SUSTAINING INNOVATIONS? PROBLEM STATEMENT AND RESEARCH QUESTIONS

"Innovation and development often benefit from [a] certain degree of continuity and stability, which implies that development efforts should be directed to increase these. This means that, irrespective of their duration, interventions must be associated with a long term perspective." (Leeuwis, 1995:24)

This chapter presents the problem statement, as well as the basic research questions which guided fieldwork and the analysis. It starts with a description of the situation in the field, defining the main issues around which this research was designed. This leads to the problem statement, the formulation of the research questions, and their necessary operationalization. At the same time, this chapter presents the purpose and relevance of the study.

2.1 THE SITUATION IN THE FIELD

As seen in the previous chapter, Peru is a country of many needs and problems. Many activities are currently taking place towards the solution of these problems, both in the urban and in the rural areas. Most of these are the result of a specific intervention.

This section concentrates on the activities implemented in the rural areas, particularly those designed around education. It presents thus the 'problem situation'. While it is not necessary to describe again the institutions themselves, this section looks at the innovations which these institutions try out as part of their activities. This brief description is complemented by considering the two main issues of this research: the sustainability of these innovations, and the set of linkages which are established as part of their design and implementation.

Formal and Non-Formal Education Innovations

As I already mentioned, non-formal education is basically a responsibility of the non-governmental organizations. NGOs in Peru show an enormous diversity (Carroll et al., 1991; Caravedo, 1995): the activities these NGOs run are equally diverse. Back in 1988, Gianotten and De Wit wrote that the roles and functions of these organizations were broad and heterogeneous. "Without a clear definition of their role, NGOs are willing to implement any project or programme" (1988:63). Ten years after, the situation is similar.

However, this needs not be necessarily negative. According to different authors, perhaps the greatest determinant for NGO success lies in their capacity to innovate, reaching the populations they wish to serve with different approaches and ideas (Farrington et al., 1993; Clark, 1995). Among these: consciousness-raising, participatory approaches, empowering approaches, or advocacy on behalf of a certain group. Many different activities are equally followed in the promotion of (agricultural) production, from demonstrations in ecological agriculture, to credit and financial services.

Innovations refer to the technical and/or the social-organizational changes. In this sense, all the variations mentioned above represent innovations which have been introduced and are currently taking place in the field. The activities of the different NGOs, as organized forms of education with specific objectives (non-formal education), aim at innovations and simultaneously innovate in their procedures.

At the same time, many different projects and programmes have been set up to improve the provision of formal education in the rural areas. These can equally be defined as innovations. Back in 1946, the Ministry of Education launched a programme of *campesino* schools towards "a rapid and effective solution to the education problem". In order to be successful, "the formation of the educator had to go through a radical change. Every teacher had to know not only the elements to be introduced, but also the content of cultural life, in its elements and structure" (Valcarcel, 1990:187). An *escuela normal rural* (rural school for teachers) was to be established to train teachers according to the requirements of each region, together with an *instituto de experimentación educativa*, where appropriate educative methods were to be developed (ibid.:189). But already in 1947 it was realized that the Ministry had little resources and capacity to back such a programme.

A new programme was launched in 1970 by the *Comisión de Reforma de la Educación Peruana*, giving priority to rural education, "based on the need to back the processes of agrarian reform taking place" and aiming to cover the totality of the rural population (Ministerio de Educación, 1990:197). The whole reform was to be completed in five years, and its several different components and activities were to lead towards conscientization and liberation. All components were to be linked to an education for work, productivity, technological development and successful production (ibid.:200). Due to financial constraints and difficulties within the government, only a few changes were implemented. Little was achieved by 1975; even less remained after changes in the government.

New attempts have taken place over the last years as part of a general governmental effort for improving the provision of education at all levels. A new set of educational innovations is being promoted by the *Ministerio de Educación*. This includes teacher training courses, definition of new curricula, or specific projects by which the rural primary schools' curriculum and activities are modified so that they "suit better the environment in which these schools are found" (PEECC, 1990). This was the specific aim of the *Proyecto Escuela, Ecología y Comunidad Campesina* (PEECC), as one of the different projects in which the *Ministerio* has been involved. Just as those projects run by NGOs, most of these projects are basically funded from abroad, and then have to be implemented within an established time frame.

Sustainability¹

Many different attempts towards reform or change have taken place and are in full operation in the rural areas. Most of them meet the immediate aims and objectives which are set. But the specific activities which are part of a project or a certain programme -or the innovations as such- are seldom continued by the local population, by the local authorities or by another institution working in the area after the organization in charge finishes and retires. Even though there has been no study with this specific orientation, this lack of sustainability has been clear in the different attempts tried within the Ministry of Education in Peru: the different attempts hardly survived the Minister or the government which initiated them. A similar conclusion is mentioned by Farrington et al. (1993) when looking at NGO projects aimed at reaching the rural poor:

"In some cases, the sustainability of impacts was undermined by adverse physical environments. In others, the NGO paid insufficient attention ... to give (the local membership organizations) the capacity of carrying forward the work after the NGO withdrawal." (Farrington et al., 1993:98)

These conclusions can easily be applied to the majority of activities (and impact) of the NGOs operating in Peru.

According to Dalin, "The ultimate goal of the change process is the sustained application and integration of the innovation into regular classroom and administrative practices" (1994:102). Looking at formal education innovations, the author refers to the need for 'institutionalization', as the 'routinization' of practices or their continuous implementation for many years. The result is then the sustained application of the innovation. Similarly, sustainability is described as the ability to maintain services and activities without significant external support (Klinmahorn and Ireland, 1992), or as the capacity of a project to stand on its own feet when external support is withdrawn (Smillie, 1991). Following such definitions, it can be said that neither NGO projects nor the Ministerial attempts have been sustainable. There has been no continuous implementation, in spite of the benefits which that would provide.

NGO activities, like the specific Ministerial activities I have been referring to, are commonly designed as projects. These projects have a short life span, generally limited to three years².

¹ This is a term which may generate confusion. According to the dictionary, 'sustainable' refers to that which can be kept going or maintained (Oxford University, 1995). But 'sustainability' is frequently understood in relation to the environment or the conservation of natural resources. I refer here not to the noun as such, but rather to the adjective which defines an ongoing existence, in this case of the local level innovations and activities. This follows the way in which this term is used in previous related studies: the sustainability of development projects (Stockmann, 1997), the NGO sustainability crisis (Bebbington, 1997:1759), the sustainability of large-scale service provision (Edwards and Hulme, 1996:964), or innovations becoming sustainable (Clark, 1995:596). The term is similarly understood in Spanish (*sustentabilidad*). This is discussed further in Chapter Three.

² Thus, projects are designed with the 'apparent underlying assumption' "that one can solve -in many cases complex- societal problems with the help of a relatively discrete input at a certain point in time" (Leeuwis, 1995:18).

If the impact is limited to this short period, then a new project is necessary once the first one is finished. Thus, projects are replaced by new projects. This results in

"a high degree of discontinuity, because successive projects do not follow suit, and go along frequently with changes in staff, methods, goals, ideas or funding agencies... Many innovation and development efforts, under the influence of current project-thinking, are characterized by 'continuous discontinuity', even if one can safely assume that a degree of continuity and stability can be an important condition for development." (Leeuwis, 1995:18)

How much does this depend on the innovation programmes themselves or on how they are designed? Many different factors determine a possibility for continuation once the project is finished (see for example Edwards and Hulme, 1994, for the projects and activities of NGOs, or Lewin and Stuart, 1991, for an analysis of different case studies referring to innovations in formal education). Possibilities for continuation are clearly limited if the organization in charge of implementation has time constraints or if it goes through a shift in its mission or objectives (something that does happen with relative frequency). But it is widely recognized that funding is a most important factor. Projects are implemented while there is money available, and the activities stop if the money to sustain them is not there anymore. And if the funding stops before it is expected to, the end is more abrupt, and the possibilities for continuation are even harder. However, as different studies imply, there is more than only financial limitations. NGO activities, and the implementation of different educational innovations, are shaped by many other different factors (see Bebbington, 1997; Stockmann, 1997; or the critical observations of Gianotten and De Wit, 1988).

Whether it is by promoting participation of the *beneficiarios* or by specifically focusing on the local environment, formal and non-formal educational programmes and projects aim at quality, efficiency and therefore at successful innovations. The question is if such positive characteristics, or the results of the innovations, can in fact be sustained in time. Many are the factors involved and which need to be considered. A special emphasis is given here to the interrelations and linkages which are sought and established with other actors and institutions during the implementation. This research concentrates on the contribution which these linkages can provide for the sustainability of the different innovations taking place.

(A lack of) Linkages

There are many different institutions involved in many different educational activities. Looking at the rural areas, it is clear that education and training are far from being a monopoly of the *Ministerio de Educación*. Considering all the extension and non-formal activities which take place on any particular location, a great deal is nowadays found in other sectors of the economy and under an increasing variety of institutional sponsorships. Very little of it answers directly or indirectly to the Ministry of Education. As a result, non-formal education is highly heterogeneous. Hallak (1990) describes non-formal education as a term that applies to many fields, many activities and many audiences:

"[Non-formal education] is financed by various agents, public and private, and offered in varied forms. It can be very loose, or so structured as to look very much like formal education. But it can get to the most educated as well as to the most depressed sectors of the population -rural women, isolated indigenous populations, child workers- which the formal sector sometimes cannot reach." (Hallak, 1990:238)

There is, therefore, enormous diversity in the field. Focusing on this diversity, King quotes Coombs (1985) saying that "... non formal education is a motley collection of relatively ill-defined, unstandardized and unrelated activities, each aimed at quite a different goal...", concluding that "what was often loosely termed the non-formal delivery system simply did not exist" (King, 1991:166).

A lack of integration, networks, linkages or relations is clearly observed within the components of this 'delivery system'. In comparison to other Latin American countries, in Peru there is no central extension service or structure from which the interrelationships between the different institutions involved are clearly defined and established (see for example Bebbington and Thiele, 1993). Non-formal education (and as such all the extension activities) depends on the presence of an external organization (in most cases the 'private' and independent NGO) which mostly works on its own, isolated, on a particular topic or activity (cf. Gianotten and De Wit, 1988). Based on a previous study of the activities of NGOs in Peru, Carroll (1992) concludes that "many appear content to operate in a limited region, often with a very narrow focus".

To concentrate on a particular area and on a particular topic can be seen as an advantage for the establishment of good relations with the local population. This allows for a focus on the specific problems of the local community and on the special characteristics of the area. But this *modus operandi* also leads to a certain isolation from other organizations or institutions which could provide other advantages, and which could also benefit from the organization's experience. It thus limits the results or benefits to the specific 'favoured' locality where the organization operates (Korten, 1987).

Such lack of linkages or relations is equally found between the different and separate components of the overall 'education system', i.e. among the formal and the non- formal education sectors. Most non-governmental organizations see themselves totally unconnected and in most cases in opposition to the formal sector (to the government, to its policies and bureaucracies), in many cases "justifying their existence by an antigovernment stance" (Carroll, 1992). At the same time the rigidness of the formal sector, together with the little autonomy for decision making and operation at local levels, impedes a wider outlook or approach, remaining the "non-formal education as elusive a prey for the educational planner as it did some two decades back" (King, 1991:175). Focusing on the local level, the result is clearly summarized by Farrington et al. (1993:23):

"Retaining independence from any coordinating mechanism often leads to situations where within one region several organizations (NGOs and public) are each merrily working away duplicating efforts, replicating mistakes, using conflicting approaches and generally confusing the rural poor..."

Once again, the situation described by the authors above, as the logical consequence of the way in which projects are designed and implemented, is a result of many factors. What is done in each of the projects is determined by the objectives set by the organization itself and by the procedures and policies followed, and also by the time and place limitations of each organization during operation. Each one of these organizations and projects operates within a given social, political and economic 'space', something that inevitably shapes the results.

In sum, what is recognized in the field is that both formal and non-formal education activities and innovations are present and being implemented; though generally in isolation from each other. In both cases innovations follow project-type approaches, in both cases similar problems and limitations can be recognized. Though comparisons may not be directly applicable, it can be said that both cases show relatively similar overall results. These results lead us to the formulation of the problem statement and the main research questions of this study.

2.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS

The situation of the rural areas described above can be summarized as one in which different and simultaneous educational activities occur. These activities depend on public and non-governmental programmes (formal and non-formal education respectively)³. Within both cases, innovations are found following specific projects.

In similar ways, both formal and non-formal innovations -or both public and private, Ministerial and from NGOs- can be described as unsustainable: success and impact is achieved, though limited to a short time. Results and impact last generally only while with the backing or presence of those running the project.

At the same time, and because of different factors, each of these projects is implemented in virtual isolation from the rest of the projects, programmes and activities taking place in the same area.

But the situation described above needs not necessarily be seen as a problem situation. Every actor is fulfilling his or her role; institutions are implementing their projects, and the different educational activities are taking place. However, serious doubts remain on the long-term impact of such punctual and isolated activities. If, following Leeuwis (1995), innovation

³

Within formal rural education, special importance is given here to basic primary schooling, considering this is the level found most widespread and to which the highest percentage of the population has or has had access.

and development benefit from continuity and stability, it is certainly convenient to look for sustainability.

In general terms, the situation described above shows a societal problem: the contribution of the different interventions is limited. The different resources involved (human, financial, material, etc.) are not used to their highest potential. This research concentrates therefore on the meso level, focusing on the intervention institutions and on the activities in which they are involved. It looks at a possible optimization of these activities, something which is expected to lead to a greater impact.

The purpose of this research is to determine the possibilities for sustainability which the different educational innovations and activities have, considering basic rural education as one of the main input factors for development. This analysis wants to contribute to a better understanding of the factors influencing the lasting impact of the educational innovations. This is recognized as a first step towards enhancing long-term rural development.

I consider sustainable innovations as a basic factor towards rural development. This is not to say that the issue is not dealt with or considered by managers or implementors. But a specific analysis is necessary considering (a) the short time results which are generally achieved, (b) the large number of institutions and organizations involved, (c) their different perspectives and approaches, and (d) the specific conditions in which they operate within a rural community. Based on these ideas, the scientific purpose of this research is to conceptualize the character of institutional linkages, and make an analysis of the relationship between the (non-)emergence and quality of these linkages on the one side and the sustainability of the different educational innovations on the other side.

In short, this study intends to explore to what extent linkages and interrelations between the different institutions in the field can contribute to sustained educational innovations.

Consequently, the following research questions were formulated:

1. What are the critical factors influencing the sustainability of innovations within (a) basic formal education in rural areas and (b) NGO initiated non-formal educational interventions?
2. What are the reasons which determine the establishment or the non-establishment of such linkages?
3. What are the (potential) contributions of linkages for interventions and for the resulting innovations in education?

In order to facilitate the analysis the research questions needed to be outlined further. An initial operationalization was intended with the following sub-questions:

0. an identification of actors and institutions:
 - which are the institutions operating in the field?
 - what are their objectives?
 - what activities are actually being implemented and with what results?
 - what are the main constraints and limitations?
1. regarding the sustainability of innovations:
 - what factors are observed in the field (determining whether innovations are sustainable or not)?
 - how is sustainability understood by those in charge of the main activities?
 - what are the time-perspectives which the different institutions have?
2. on the establishment of linkages:
 - what linkages already exist?
 - what basic characteristics do these linkages show?
 - which are the factors which determine a lack of linkages?
3. on the contributions which linkages provide:
 - what are the advantages which are recognized in the field?
 - how are linkages to be implemented/improved?
 - which demands are put on linkages in order to enhance the sustainability of innovations?

These questions aimed to provide a complete picture of the situation in the field and serve as a guideline for the analysis, and for the recommendations for further action. Considering that linkages are to bring positive contributions, these questions were equally intended to lead to a linkage implementation strategy. This is, a set of recommendations on how to initiate linkages among the different parties, and/or on how to improve their quality.

This operationalization is detailed further in Chapter Three.

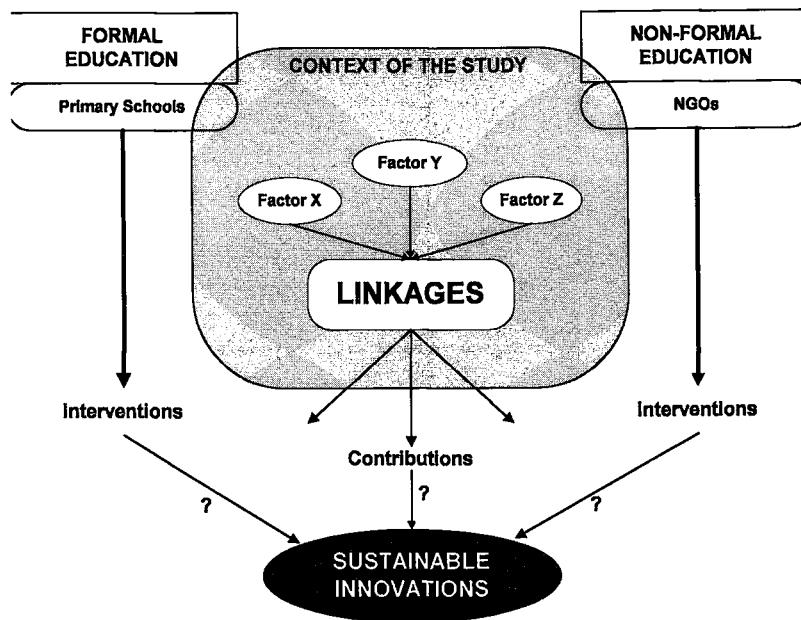
2.3 CONCLUSIONS

This chapter clarifies the identification of the problem and the main interest behind this research. It shows the purpose of this research, and the contributions it is expected to bring.

Interventions are, by definition, processes of short duration. Lack of sustainability is thus commonly equalled to a lack of money for longer projects, or for a continuous finance. But sustainability, as the given capacity for an ongoing process, must not be seen as an expansion or prolongation of projects in time. It is rather understood as the necessary creation of the conditions which maintain the achievements, changes or reforms in full operation. Looking at the potential contribution of linkages in this process is the main motivation behind this research.

The methodologies followed for this analysis are further described in Chapter Four. Before that, the next chapter concentrates on the relevant theoretical background, as the conceptual framework necessary for the collection of data, the further operationalization of the main research questions, the analysis and the discussion.

Figure 1
The context of the study



CONCEPTUAL FRAMEWORK

This chapter presents the main concepts, perspectives and analytical tools used during the fieldwork process, during data collection and the posterior analysis. In short, this chapter provides the general framework for this study.

This is divided following the research questions presented in Chapter Two. The first section looks at education and its relation to development, showing the different perspectives which shape the activities in the field. The identification of difficulties and limitations leads to the different attempts for generating change. The discussion here centres then on the interventions and the innovations which thereby result, both within the formal and the non-formal education activities.

The next two sections concentrate on the sustainability of these innovations and on the necessary linkages. Different perspectives are given, with specific relation to the different activities which are taking place in the field.

I draw next upon the knowledge systems approach as the necessary analytical tool for looking at the advantages emerging from the establishment of linkages. Following Röling and Engel, it can be effective to impose this perspective on 'real-world phenomena' and with it diagnose causes of malfunctioning, identify leverage points, suggest courses for intervention and provide tools for knowledge management (1991:10). It is this potential for designing (or redesigning) interventions which is of particular interest, together with its possibility of providing all those involved "with a useful approach to reviewing their interactions in the light of some stated objectives, in order to design more effective forms of communication and cooperation" (Engel, 1997:31).

The chapter finishes with a revision and further operationalization of the research questions, in the light of the 'tools' presented here.

3.1 EDUCATION, DEVELOPMENT AND INTERVENTIONS

Many different activities are taking place in the field. These are run by non governmental organizations or by public agencies (including in this last category schooling and the different projects aiming at an improvement of its efficiency). They all have different populations as target groups and are implemented in different settings. All these activities are grouped under the term 'education' if this is identified as learning, "regardless of where, how or at what age the learning occurred" (Coombs, 1985).

A special relation is recognized between these activities and development (even if 'development' is another term which lacks a single definition). How both terms come together is explained by different theoretical perspectives (cf. Drooglever Fortuijn, 1989). Without pretending to come to precise definitions, some clarifications are necessary, considering that these different perspectives will inevitably shape the results of the activities in the field. Three basic orientations are recognized here: the 'human capital', 'modernization' and 'conflict' theories.

'Human capital' theorists consider that for economic growth and development to occur an improvement and greater efficiency of technology is necessary (higher technology results in higher levels of production). 'Development' is identified as higher production levels and outputs, so education needs to focus on the human resources necessary for the creation and use of this technology. An investment in education is thus seen as an investment in the productivity of the population, which leads to economic growth. The improvement of the 'human stock' is seen as the cause behind the gains in productivity which are left unexplained after all the other known factors are taken into account (improvement in technology and other forms of capital investment).

More recent views on development are still based on human capital theories, though not limiting it any more to economic production. The objective is rather the development of the human capital per se. Authors such as Griffin and MacKinley consider that "the objective of development is not to produce more 'stuff', more goods and services, but rather to increase the capabilities of people to lead full, productive, satisfying lives" (1994:1). Education thus relates to an enrichment in knowledge and ideas, the stimulation of social capabilities and creativity, and the development of values and attitudes (Min. Buitenlandse Zaken, The Netherlands, 1992:6).

Human development is seen as a means towards overall development as it enhances the skills, knowledge, productivity and inventiveness of people through a process of capital formation. But more than a means, human development is seen as the end or objective of development. Quoting, "It is a way to fulfil the potential of people by enlarging their capabilities, and this necessarily implies empowerment of people, enabling them to participate actively in their own development" (Griffin and MacKinley, *ibid.*).

A second theory is the one which starts from the central idea of modernization, based on the works of Inkeles and Smith. This theory focuses on the individual values and attitudes, and concludes that becoming 'modern' is the basis for a society to develop economically and socially. To do so, the society must be composed of a 'modern' population, meaning 'modern' values, beliefs and behaviour. This theory was based on the assumption that there is a direct causal link between five sets of variables: modernizing institutions, modern values, modern behaviour, modern society and economic development. Education is seen as having a 'modernizing influence' on these values, beliefs and behaviour, and is therefore necessary. This idea can be recognized in the extension and educational ideals which have been widely prevalent, especially in relation to the rural areas. Quoting, for example,

"the *campesino* sectors (are) very valuable potentially, but actually they are still found in other steps of history and they live in a social and cultural exile which makes them a dead weight for the country. Only education can liberate them from this exile" (Salazar, 1964, quoted in Montero, 1990:22).

Such perspective is not only supported by theorists. Ansión (1994:40) describes clearly how, to *campesinos*, the school represents the channel for leaving their *campesino* condition and migrating to the city. This means, in other words, leaving their own culture and incorporating themselves into what is seen as 'progress'.

Both modernization and human capital theories are considered 'functionalist' theories: education contributes to socialization, following the established patterns of a society. Culture is transmitted and social functions and status are reproduced through education. Socialization is essential, as the integration of individuals into the society, fitting into the pre-established roles and requirements.

But such definition does not necessarily lead to development. Fägerlind and Saha, referring to neo-Marxist critiques to functionalism, point out that massive investment in education could in fact be detrimental to development, as

"education, as a tool of the capitalists state, operates to maintain the status quo, enabling those in power to reinforce their privileged position, and deprives those not in power, either by socialization into a passive role or by depriving them of the necessary cultural capital, from launching a challenge to the capitalist hierarchy". (1983:54)

The analysis of the relation between education and development can then follow other orientations, all grouped together as 'conflict' theories (differently described, for example, by Drooglever Fortuijn, op. cit.). Aiming at development, the established roles, power distribution and relations, and structures within society, call for change and for new patterns to be established. Thus education cannot limit itself to socialization or reproduction, but must concentrate in "forming citizens who are capable of transforming reality and guaranteeing equality in opportunities" (Grupo Inter-Institucional de Educación, 1991). In opposition to functionalist theories based on socialization, here education is to lead to change, as a precondition for development.

This was clearly the perspective of Paulo Freire, whose work led to the implementation of many programmes on *Educación Popular* in Latin America (see Gianotten and De Wit, 1987). Following these ideas, many adult education programmes, in particular those implemented by NGOs, were shaped by consciousness-raising, emancipation, organisation and participation.

In short, whatever idea is expressed about development, education plays an important role in it¹. But considering the activities which are being implemented, does education actually contribute to development?

The opinions on the contribution of non-formal education are diverse. According to Coombs and Ahmed (1974) schooling is in many ways unable to meet the educational or learning needs of the rural poor. Non-formal education, as its substitute or complement, can "with proper implementation, design and planning, alleviate this educational deprivation and thus contribute to rural transformation." Bock and Papagiannis (1983) put it differently: "if formal schooling can promote development, then non-formal education, through its ability to reach a broader range of people during a greater span of their lives, can do it better and cheaper" (1983:9).

In any case, the contribution of non-formal education is nowadays linked to the contribution of the non-governmental organizations, as these are the institutions implementing it. NGO efficiency and impact is acknowledged (Farrington et al., 1993) although, as it has been mentioned before, they currently face many challenges (Bebbington, 1997).

On the other hand, the contribution of schooling and formal education is equally considered. It is said that few other agencies have a development leverage that comes close to that of the school: "Its potential for reaching the rural masses is greater than that of most other governmental networks ... its potential for promoting rural development is unique" (Berstecher, 1985:53). A similar conclusion is described for a certain rural area, even though some conditions are essential:

"...the school had a far greater potential for promoting rural development than any governmental system. There were ten times as many teachers actually living in the villages as all other government employees combined ... If the focus could be shifted from trying to provide children with academic knowledge to creating opportunities for practical application, then schools could play a significant role in the transformation of the area." (Bennett, 1993:48)

Education, and particularly schooling, has for long been linked to change (if not to development), though from different perspectives. This can be seen in the specific case of rural education in Peru. The school is described as having a great meaning to the *comunidades campesinas*, as "it belongs to them and to their children. It guarantees a better future, a higher category and a greater power" (Bernex, 1988:44).

For decades, education was purposely not provided in the rural areas, based on the fear that it might weaken the control which *hacienda* owners had on their employees (Fernandez, 1990). Back in 1932, Encinas viewed the rural school as a 'revolutionary institution' needed

¹ Following Hallak (1990), the focus on the role of education must not be limited to the benefits for society. Education is recognized as one of the 'energizers' of human resource development (together with health, environment, employment, and political and economic freedom), and is therefore defined as a basic human right. "Education is a human right, and as such should receive priority in the allocating of national resources... A human right [which] leads to individual creativity, improved participation in the economic, social and cultural roles in society, and hence a more effective contribution to human development." (Hallak, 1990:45).

towards the complete redention and liberation of the Andean inhabitants (Montero, 1990). Such a relation is similarly seen today, as is shown by Ansión (1990), from the children's parents perspective. He mentions the remarks given by several parents, all of whom wish their children to go to school to study and learn to read, "so that they don't suffer like us", so that they are not *campesinos* any more. There is a clear relation perceived between school and change among all those involved, even if this change does not necessarily means progress or development.

The measurement of such change, or of the contribution of schooling to rural development, is quite difficult. It is easily generalized that "the rural school is not fulfilling its role"; schools are not contributing to rural development in the way they could, due to many reasons. Problem lists detailing such reasons can easily be found, such as in Brock and Lawlor (1985), or in Lockheed and Levin (1993), including such issues as an incomplete provision, low teacher quality, or poor correspondence between education and the occupational structure. These authors consider that the most serious problem is that even those who complete their scheduled education have at the end learned very little. This whole lack of effectiveness "is not a mystery, for resources sufficient to provide even the most rudimentary conditions for success often are lacking" (1993:2). Graham-Brown (1992) makes a detailed analysis of many of the causes of these problems, where she highlights the debt problems and the economic constraints of most developing countries. This goes together with the different economic policies currently taking place (the so-called structural adjustment policies). She describes existing problems in infrastructure, materials, working conditions, salaries, etc.

But naturally, there is more to it than just economic problems, however important these may be. Bennett considers that current school systems in developing countries are copies of foreign (Western) systems with "hidden middle class curricula" which "tend to alienate the disadvantaged even further from their own roots and from their potential for self-created social and economic advancement" (1993:42). Such an education tends only to favour migration to the cities, towards 'modernity' (Brock, 1985). Is this the 'modernizing' contribution of education to rural development?

Current rural education in Peru is described as "a change agent, though more exactly as a bridge which goes only in one direction: from rural to urban, from traditional to modern, from natural manure to synthetic fertilizer..." (Dietschy-Scheiterle, 1990). Prado (1994) has similar views when looking at the 'acculturating' and 'assimilating' rural education:

"'Education' does not, in effect, recognize or respect the right to be different, the right to ethnic traits that imply a cosmic vision, a scale of values, concepts of social justice, a system of ethics, or even a different language. Western culture isolates education from daily life and transforms it into an 'establishment'." (Prado, 1994:229)

Which way then towards a higher impact of formal education? The opinions are diverse. Lockheed and Levin, for example, mention different approaches, such as community involvement, or empowerment (of teachers, students and parents). Similarly, decision making at lower levels, active instead of passive learning, a specific focus in their programmes, high

teacher expectations, and also funding and resources (1993:16). The implementation of these different alternatives is generally designed as a project, as a collection of specific activities with some specific objectives. The attempts to change the provision of formal education are then equalled to most non-formal education activities: by means of an intervention.

Interventions

The term 'intervention' refers to the specific activities of external agencies in the field, as premeditated, planned, programmed, systematically designed, goal-directed and purposeful activities (Röling, 1988:39). Röling and De Zeeuw consider an intervention as "no more than a temporary additional force in a set of forces which determine the direction of the development process" (1983:8). It is implemented with the aim of establishing self-sustaining changes in development practice or achieving a permanent reorientation of the development process (and not some temporary change). Interventions are "a systematic effort to strategically apply resources to manipulate seemingly causal elements in an ongoing social process, so as to permanently reorient that process in directions deemed desirable by the intervening party" (Röling, 1988:39)².

Interventions are then seeking to permanently affect social processes, "stimulating development and innovation" (Leeuwis, 1995:16). However, the relation between interventions and development is not straightforward or direct. According to Long and Van der Ploeg (1989), the claim that intervention is the key to agrarian development is not only false, but part of the problem of development itself.

"Agrarian development is not limited to intervention practices. It is potentially everywhere and where it does manifest itself as a relative autonomous, diversified and dynamic process, this is probably because it has become impeded or obstructed in some way, and one of the mechanisms by which this occurs is through intervention itself ... Intervention aims to bring the dynamic of local initiative into line with the interests and perspectives of public authorities, and to reproduce the image of the State (or other agencies) as being the key to development" (1989:236).

To Long and Van der Ploeg the above definitions reflect a 'top down', 'externalist' and 'managerialistic' view. An intervention is, in fact, an ongoing socially constructed and negotiated process, and "not simply the execution of an already specified plan of action with expected outcomes" (1989, 1994). According to them,

"Intervention is visualized in existing models as a discrete set of activities that take place within a defined time-space setting involving the interaction between the so called 'interv-

² If intervening is equated with formulating objectives, designing and testing strategies, deploying resources, implementing and evaluating (Röling, 1988:40), then extension is clearly an intervention ("intervening... is the daily activity of the extension practitioner"). Following this logic, all non-formal education activities can be seen as interventions.

ening' parties and the 'target' or 'recipient' groups. Such an image isolates intervention from the continuous flow of social life and ongoing relations that evolve between the various social actors." (Long and Van der Ploeg, 1989:228)

On the contrary,

"Intervention is an ongoing transformational process that is constantly reshaped by its own internal organizational and political dynamic and by the specific conditions it encounters or itself creates..." (Long and Van der Ploeg, 1994:71)

These authors describe how the situation chosen for an intervention is generally deemed inadequate or needing change, so as to justify the intervention itself. Local bodies of knowledge, organizational forms and resources are thus de-legitimized. Consequently, external inputs are assessed as necessary and indispensable. They mention the 'underlying belief' that

"local situations, life-worlds or ways of organizing social life are no longer valid or somehow ill-founded and inappropriate, and hence need restructuring or perhaps even eliminating altogether if development is to take place ... Thus intervention becomes a way of reshaping existing social practice and knowledge and of introducing new elements (for instance 'miracle seeds') that either replace or accord new meanings to already established ways of doing things." (Long and Van der Ploeg, 1989:231)

Considering the general situations in the rural areas, it seems difficult to imagine that interventions need to justify themselves. However, they do need to be 'demythologized', thus looking for a more detailed evaluation of the 'external' change-agent's contribution towards a transformation of the conditions found. Thus, even though Long and Van der Ploeg do "not offer a recipe for 'getting development right'" (1994:83), I expect here that a deeper analysis will lead us to it.

The changes which result from an intervention are frequently referred to as innovations. This term refers to the expected outcomes of the projects designed to improve the provision of formal education. Similarly, innovations are recognized in the general non-formal activities, both in the procedures they follow or the objectives they want to achieve. It is therefore appropriate to look at this term next before focusing on the sustainability itself.

Innovations

An innovation is defined broadly as a technical or social-organisational change. Quoting Engel, "innovation is taken to refer to 'change-on-purpose', propelled by individual and collective intentions" (1997:11). It refers therefore to an intervention and the objectives this intervention has.

The term, however, can be used in two different ways. In "Innovation in Education" Bishop refers to the innovation as "the change itself" (1986:3). This is, a particular solution to a given problem. But this change, as a final product, is part of a process which equally involves the change agent, the user system, and the period of time over which the whole process takes place. In this sense, the technical or the social-organisational change is the final product. But this product is the result of a process, in which different actors are involved. Both the product and the process are referred to as an innovation, even if this difference is not always clearly defined.

There has been much discussion lately over the source of innovations. According to Röling and Jiggins, innovation emerges from the interaction of different (institutional) actors, "and is no longer seen, as was customary in the 'transfer of technology perspective', as the end-of-pipe product of a sequential process" (1998:304). Engel concludes that innovation "is a social rather than solely an individual process" (1997:126). The networks in which the different actors get involved foster the process.

Earlier theories such as the diffusion of innovations or the Transfer of Technology approach would concentrate on the final product: an idea, a practice or an object. The source of these innovations was scientific research: these were adopted by those requiring a solution to their problems. But innovations are not only adopted, they are also adapted. And they do not only originate in scientific research.

Later perspectives look at the interaction of social actors as the source of innovations, thus concentrating on the process of innovation and not so much on the final product. Engel (1997) describes the 'networking tradition' which emphasizes the importance of cooperation in creating opportunities for innovation. "Two-way communication and support, inter-dependencies, synergies and complementarities among participating actors are emphasized" (1997:128). Thus, in any situation,

"a multiplicity of social actors will be developing and managing interactive relationships, to improve their practices and develop new ones." (Engel, 1997:129)

In other words, all actors will be involved in an innovation process, a process which does not necessarily have to lead to one specific product³. The contribution of the intervention may be vital, but it will neither act on its own, nor result in a blue-print product.

Summarizing, this section has shown that there are different ways of conceptualizing the relation between education and development. This has direct implications to the activities which are currently found in the field, to the contribution they actually bring and to the attempts implemented to improve such contribution.

³ Thus, "local knowledge, business ingenuity, farmer experimentation and inventiveness are as important as expert knowledge and the role of specialized actors such as scientists and farm advisors" (Röling and Wagemakers, 1998:12). Their contribution leads not to one final outcome but to many and simultaneous results.

These attempts are defined as interventions, where the change itself is frequently viewed as an innovation. But this is not a straightforward process which leads to the desired product. It is necessary to consider these differences when looking at the different interventions and activities, and when considering what is expected to be sustainable.

3.2 INNOVATION PROJECTS AND SUSTAINABILITY

The elaboration of different projects responds to specific diagnoses of a situation. These projects generally lead to an intervention, with the intention of reforming or improving such situation.

Following Farrington et al. (1993:20), there are 'three broad motivations' behind the activities of all development-related NGOs. These motivations shape the different interventions:

- (a) restructuring the management of development. A search for new and more efficient ways of achieving orthodox goals of development. An easy example; the distribution of 'modern' technologies;
- (b) alternative development: governance, empowerment, human agency. Different NGOs present alternatives to the existing models, "questioning the dominance of economicistic thinking";
- (c) greening development: NGOs and the environmental imperative. Activities of this sort focus on the promotion of sustainable development and agroecology.

A clear separation between these groups is not always easy. Though many NGOs will have a particular preference, many projects are designed considering all three themes. This "represents the hope of a development that can empower, sustain the environment, combine new and old technologies in benevolent ways and respect diversity" (1993:21).

Different ideas are equally given regarding the formal education activities. Montero-Sieburth (1992) mentions that a change in curricula is viewed as the preferred model for educational reform. This involves the development of "plans or guides for specific subject areas and the delineation of classroom objectives, activities and their evaluation". But this is certainly not the only approach to change. Lewin and Stuart (1991) describe different attempts for changing the teaching methods, or towards modifications in the institutional context within which the educational processes take place. Dalin (1994) describes educational reforms which were successful in influencing student attitudes and teacher motivation. These were achieved by focusing on the teaching-learning process, on a new curriculum and new methodologies, or on the provision of new classrooms and free textbooks. Different attempts are the result of different orientations; it is clear that there is no recipe or uniform solution. Whatever way is chosen depends basically on the priorities or main interests of those in charge.

Having the course for action decided, the implementation of innovation projects depends on many different factors. Hallak (1990) mentions three main factors which need to be considered:

- (a) the general political and economic context. Any educational strategy needs to be integrated or at least related to it, "so that it can be adapted as and when its application points up its shortcomings";
- (b) the opinions of the consumers: students, parents, employers. Both demand and support play an important role;
- (c) the views of the producers of education: teachers, school supervisors and administrators through the highest levels. These are all seen as groups of power which exert a strong influence on the education supply.

To this factors he adds "the special type of inertia which is peculiar to education", considering that in designing educational strategies, inertia and resistance to innovation must be fought with real and effective incentives (1990:133).

Based on these factors, Hallak favours a multiple-phase strategy with two basic conditions: time and resources. Time must be ample ("a patience factor to give the changes time to work their way in"). And resources must be mobilised to finance (i) careful planning and programming of each phase, (ii) diffusion of information on the strategy adopted and its intended implementation, (iii) experimentation and innovation at each step of the implementation, (iv) incentives to promote initiatives and to execute governmental priorities, (v) wide diffusion of the modalities recommended to each sector or sub-sector concerned, (vi) evaluation and adjustment of the experimental phase, and (vii) monitored transition from one phase to the next.

All these different steps shape a project. But even if all these steps are taken into account, the implementation of educational reforms shows many difficulties. Rondinelli et al. (1990) identify the following causes of ineffective implementation:

- (a) complexity of the reform proposals, as projects that "place great strains on the management capacity of education institutions in developing countries";
- (b) unpredictability of the educational reforms. Large-scale reforms are not predictable, as many factors influence success. (It is considered that this is especially so when "environments are less certain and management capacity is weak");
- (c) inappropriate management strategies. Projects promoting change require different management strategies. Thus they need to be concerned not only with the substance of the innovation, but also with the complex process of introducing and institutionalizing change;
- (d) failure to focus on school level changes. No serious attention is given as to how are projects to be implemented in the classroom; and
- (e) failure to assess the capacity of organizations to manage innovations. Little attention is given to assessing the capacity of the educational institutions to adopt changes.

Additional reasons are the opposition of key groups in society, financial problems, or even problems arising from the personalities and behaviour of the personnel involved in project implementation.

Focusing on successful attempts for educational change, Dalin (1994) recognizes several components of effective reform strategies. Among these the author mentions that educational reform has to take place as a local process, where the school has to be the centre of change. Focus has to be placed on the classroom practices, where it is essential to have supporting materials of good quality. Central support is vital, from the highest office onwards. Effective system linkages are thus necessary, linking the different levels (and combining pressure and support). Similarly, it is recognized that commitment at all levels is crucial, where a special role is expected from parent and community participation and decision making.

Both studies, however, omit an additional factor: the implementors themselves. The definition of objectives, their translation into objectives, or the actual implementation will depend on the institutions and also on the individuals. Their interests and attitudes will always have intended and unintended consequences, which add up to all the above-mentioned factors.

Thus, implementing change is no easy task. All the factors mentioned above can easily determine an ineffective implementation. If any impact is achieved, this will hardly be sustained in time. However, having an effective implementation does not necessarily mean that the results and impact will be sustained. There are, again, many factors to consider.

Institutionalization and Sustainability

Referring to continuation, or to sustained results, a term which appears often in relation to formal education innovation projects is institutionalization. According to Bishop, to institutionalize an innovation is to "get it absorbed and structurally integrated into the system" (1986:7). Commonly, this requires an official approval, or being somehow accredited by the authorities.

Dalin considers that a certain attempt or an innovation has become institutionalized when "the reforms have been practiced for many years in a sample of schools and have been well 'routinized'" (1994:xi). The same study considers that the term may often mean different things in different circumstances, but that, in any case, some common elements are recognized:

- (a) the 'routinization' of a programme;
- (b) assistance and supervision available as a regular service;
- (c) community support;
- (d) teaching-learning materials and resources available.

These are all elements which show that, after the end of a project or intervention, the results are still influencing the social processes of a determined location.

There are many different factors which play a key role in the institutionalization of educational innovations. A long-lasting impact is not limited to the availability of money, or to the official approval, even if these factors may be essential. Two other factors are equally considered:

- (a) institutionalization is not a technical problem but rather one related to management (Rondinelli et al, 1990). Financial resources are necessary, but the capacity of those

involved to manage a continuous implementation needs equally to be considered if this continuous implementation is expected;

(b) such capacity to run or implement activities depends greatly on the motivation, willingness or interest of those in charge (or expected to be in charge). In the words of Hallak, "setting educational priorities that society will not allow to be implemented is an exercise in futility" (1990:98).

The study of Verspoor, quoted by Dalin (1994), recognizes three main factors: administrative development, in-service teacher training, and building and maintaining commitment. Rondinelli et al. (1990) add another point: generating demand and mobilizing political support. These are all factors which need to be considered during the implementation of a project if this, in time, is to lead to long-lasting results.

Institutionalization needs not necessarily refer to a centralized, fixed and compulsory implementation. "To institutionalize the innovation [the change agent] must make provision for continuing maintenance of the innovation, and for ensuring that the innovation can be adapted to changing needs" (Bishop, 1986:7). The process can thus take place at different levels. Still, institutionalization is a word which is easily associated with a central accreditation, norms and regulations. It is therefore not used outside the formal education.

The term sustainability is more frequently used when referring to the implementation of non-governmental organization projects and programmes. This is defined as the ability to maintain services in the longer run without significant external support. At the same time, sustainability is described as "the continuation of benefit flows to people or communities at the grassroots levels both after a development project or programme has been terminated and independent of the existence of an organization" (Schmale, 1993:8).

But Schmale prefers to refer to 'socio-economic viability', thus differentiating a long-term maintenance from sustainability understood as the relation between human beings and the environment. Other authors stick to institutionalization, persistence, continuation or other terms that refer to the same principle. I follow here 'sustainability' as the term which is most frequently used and as a word that encapsulates all the other terms.

Still, what is sustainable and sustainability? These are terms which have different meanings to different authors. According to Pretty (1998), a precise and absolute definition of sustainability is impossible, as this is a complex and contested concept. Thus, it is more important to clarify what is being sustained, and for how long, for whose benefit and at whose cost, over what area and measured by what criteria. Nevertheless, an interesting definition emerges from his analysis:

"A successful project that leads to improvements that neither persist nor spread beyond the project boundary should not be considered sustainable." (1998:28)

Thus, sustainability refers to the capacity to persist in time, and at the same time spread beyond the original boundaries. In greater detail, Stockmann presents four definitions, leading to four different types of sustainability (1997:1768):

- (a) project-oriented: the target population, or the implementing organization continues innovation in its own interest and for its own benefit (i.e. without external assistance);
- (b) output/production-oriented: the target population or the implementing organization has a structure at its command that enables it to permanently guarantee benefits not only for itself, but for others as well. This approach operationalizes sustainability into the "permanent flow of benefits to beneficiaries";
- (c) systems-oriented: the innovation encompasses not only the target population and implementing organization, but, by processes of diffusion, results in the improvement of the performance of the entire system (like, for instance, the school or health system);
- (d) innovation oriented: the target population or the implementing organization possess the innovative potential to be able to respond flexibly and appropriately to changes in environmental conditions. "This means that services are not simply reproduced in the same way, but instead that a given target population, implementing organization, or even a system, can adapt to changed environmental conditions" (1997:1771).

In this way, sustainability does not only refer to the continuation or persistence of a project without external aid. It may refer to a continuous flow of benefits (however these arise), or to a necessary spread within a broad system. Additionally, sustainability needs not be seen fixed to one specific output, but rather to a continuous process. Quoting,

"Sustainability does not equal fossilization or continuation of a thing or practice forever: rather it implies an enhanced capacity to adapt in the face of unexpected changes and emerging uncertainties." (Pretty, 1998:29)

Thus, while (a) and (b) above refer to innovation as a final product, Stockmann's last definition is linked to innovation as a process. Sustainability will have different meanings depending on the specific objectives of each intervention.

It has already been mentioned that the availability of financial resources is seen widely as the most crucial factor. Thus, sustainability is described as possible only if attention is given, from the initial design of a project or attempt, to the fact that donor funding is limited. Attempts must therefore be made to ensure that local capacity can continue with the development activities after donor funding ceases. Sustainability is not limited to an availability of financial resources; the need for institution building is just as important. From a different perspective, Archer (1994) mentions that many NGOs have "construed sustainability" by being involved in the provision of education and then handing over the responsibility to the State. A strong relation between both parties was therefore necessary. Pretty (1998) looks at three other factors which determine non-sustainability (or, as he puts it, non-persistence): imposed technologies, imposed institutions and expensive technologies. He looks thus at the orientations which many interventions follow (which rely on coercion or financial incentives, new institutional structures, subsidized external inputs, etc.).

An additional issue which needs to be considered here is the degree of success of an intervention. Success, efficacy or efficiency are difficult terms to operationalize and to measure. What is necessary to consider is whether the projects achieve their objectives or not, for only when objectives are achieved does sustainability become necessary.

Reaching the objectives implies more than financial resources for the implementation of a project. It is essential to consider how projects are defined and how they come into being. Two ideas need then to be considered in any analysis: 'relevance' and 'participation'.

The relevance of a project or activity refers to being appropriate to the context and circumstances. Thus, the search for 'relevant education' has been a central motive behind many innovations in formal education in the rural areas (Baker, 1989; White, 1990). Non-formal activities equally fall to this requirement: new imposed institutions (such as cooperatives) may prove as irrelevant as expensive external inputs.

'Participation' is similarly considered, even though many different definitions are given (Oakley and Marsden, 1984; Cornwall et al., 1994; Pretty, 1994). Whether it is collaboration or empowerment, participation is to lead to higher levels of success via a better definition of the objectives and activities and a better implementation. Consequently, this is to lead to greater possibilities for sustainability.

In sum, there are different motives behind the projects, resulting in many different attempts. The implementation of each of these attempts is not a simple process; there are many factors involved. Every one of these factors will influence the final results, and the success will determine much of the possibilities for sustainability. The availability of resources is necessary, though it is only one among the many different determinants.

There are different terms similar to sustainability, and even sustainability has different understandings. The way in which the term is used depends on the objectives of each activity, i.e. on what exactly is expected to be sustained.

Considering the different projects, interventions and activities, the next section looks at the establishment of linkages.

3.3 LINKAGES

Following Engel (1997), innovation can greatly benefit from networks and linkages among the different social actors. Who are these actors? The widespread presence of non-governmental organizations certainly needs to be considered. Other actors are those involved in research, specialized services, groups or study clubs. Additionally, we can include the schools and the representatives of the Ministry of Education, or the members of each *comunidad*. This last group includes the *comuneros* as beneficiaries and parents. In all, there are many organizations or institutions involved in education, resulting in many different approaches, procedures and activities.

It is recognized that weak linkages, or their complete absence, results in systematic 'bottlenecks' and in limited contributions to development. The analysis of Van Crowder and Anderson (1997) attributes to this absence the failure to perform certain tasks that are essential to successful innovations. Other studies consider that the absence of linkages leads to a "tremendous" duplication of efforts and therefore to a reduced development impact (Düvel, 1995). On the contrary, a greater impact can come out of greater interrelations:

"An integrated approach to research, education and extension attempts to link all system participants -researchers, extension workers, educators, input suppliers, farmers and others- so that they are jointly involved in the agricultural innovation process" (Van Crowder and Anderson, 1997:244)

Different definitions are given for the interrelations and coordination among the different actors. Düvel (1995) talks about institutional linkages as the structures that can facilitate self-help, self-determination, empowerment and the general promotion of development. Kaimowitz et al. (1990) differentiate between functional and institutional links. The former refer to "the activities which aim to form a bridge", thus relating actions being done. The latter relate the institutions and personnel which carry out such actions. Institutional links therefore refer to the exchange of resources (information, money, labour and materials).

The different linkage mechanisms are the organizational procedures used to establish, maintain or improve the linkages. These procedures facilitate the interaction of the different actors (Kaimowitz et al., 1990; Bebbington and Thiele, 1993). And the linkage strategies are those designed and implemented to overcome problems in linkage performance. "Linkage strategies are conscious attempts to articulate and focus the activities of relevant actors..." (Engel and Seegers, 1992).

Different characteristics are given, such as those which differentiate the linkage mechanisms. Following Kaimowitz et al. (1990:233), there are differences in:

- whether the linkage mechanisms are formal or informal, regular or ad hoc, mandated or voluntary, permanent or temporary;
- whether they are facilitative mechanisms (i.e. they provide resources) or control mechanisms (i.e. they determine how resources should be used);
- the amount and type of resources exchanged;
- the administrative level at which they operate;
- whether they focus on programming activities or are concerned with implementation or evaluation;
- the number of individuals involved.

Further, the use, relevance and possibilities which emerge from such linkage mechanisms are affected by many factors, which must equally be considered. Some of these are identified by Van Crowder and Anderson (1997:242):

- the institutional structures and boundaries;
- the competition among the institutions for scarce resources;

- a lack of congruence between the missions and agendas of these different institutions;
- budget cuts which reduce strengths and possibilities;
- the fragility of informal linkages which depend on key individuals;
- the over-institutionalization of formal mechanisms (which "take on a bureaucratic life of their own", thus becoming counter-productive).

Similarly, Kaimowitz, Snyder and Engel (1990) refer to the effect of the 'contextual factors' on the linkages and the linkage mechanisms. These factors can be both internal (those which can be controlled or influenced by the leaders of the institutions which engage in these linkages) or external (influenced by the institutions' broader physical, political and socio-economic environment). These factors are further divided into three big groups, which can be easily recognized within and around the different institutions. These are:

- (a) political factors: the institutional politics and the interest groups which play a role in them;
- (b) technical factors: the activities and methods associated with the processes;
- (c) organizational factors: the division of tasks, resources and authority between different organizations and individuals, and the internal management and informal dynamics of each organization.

The authors focus on this last category of factors affecting linkages when considering higher levels of integration. Integration is then equalled to higher levels of coordination, collaboration and communication, and is "facilitated by interdependence, domain consensus, domain correspondence, ideological consensus, competence and the capacity to deliver on agreements" (*ibid.*:267).

There can be no specific recipe for improving linkages and therefore achieving a greater integration between the actors and/or institutions. However, different elements or conditions are regarded as a starting point in the process. Among these elements, Kaimowitz et al. (1990) mention the specific preconditions for voluntary linkages within the parties, the use of liaison positions in the personnel in charge, and decentralization and delegation of responsibilities (1990:262). Some others are considered by Van Crowder and Anderson (1997):

- a realistic assessment of the opportunities and constraints within the institutional context;
- an identification of the 'linkage gap' (where and how can organizations overlap with each other);
- recognition of the importance of shared or complementary knowledge;
- a focus on functions and not just on organizational structures;
- promotion of interactions among internal staff and of informal networking at many levels ("with an incentive system that rewards collaboration");
- attention to the different levels which may be involved (farm level, regional, national or even international).

The authors consider it is necessary to foster linkage mechanisms, towards an 'integrative systems approach', although "it is one thing to observe that such approach should be taken but quite another thing to translate the observation into action" (1997:246). Difficulties can be found in the different political, technical or organizational factors.

And there is yet an additional factor regarding integration: external pressure. According to Van Crowder and Anderson,

"The internal organisational pressures and cultures of traditional research, extension and education institutions are often insufficient to assume that linkages take place. For these organizations to coordinate and integrate their activities pressure often must come from outside." (1997:246)

Who is to assume such a role and 'exert pressure' on the different actors and institutions? Engel (1997) refers to networking interventions, i.e. to managers or interventors who facilitate the process. Düvel (1995) talks of a central coordinating body, whose main function is "to identify, initiate, commission and coordinate all development priorities and actions" (1995:5). Kaimowitz et al. mention a 'higher authority', while Van Crowder and Anderson consider that the complexity of national agricultural technology systems requires that governments foster linkage mechanisms and play a coordinating role (1997:245). There is therefore a need for a certain management towards linkages and greater integration: the roles and activities will depend on who and which are the actors and institutions involved. This is a factor which is discussed in the next section. First, it is necessary to look at linkages and the presence of a group of actors and institutions which is rarely considered: the formal education sector.

Schools, NGOs and the State

Formal education is hardly considered when looking at linkages in the field. For example, Kaimowitz et al. (1990) concentrate only on the links between research and extension; formal education taking place in the rural areas is not mentioned. Still, their classification of the (possible) linkages and the factors which determine them seems applicable to the rural schools, if these schools are part of the set of institutions found in the field.

Are schools unnecessary for networking and innovation? Are they not a 'relevant institution in agricultural development'? The (potential) contribution of schools has already been discussed. Still, schools in the rural areas are not considered in studies on rural innovations and agricultural development.

Different factors can be identified behind this omission. The first is the gap between formal and non-formal education, and the priority given to the latter for agricultural education and development. The emergence of non-formal education programmes did "extend the horizons of many educators beyond the school" (King, 1991), though outside the Ministry of Education and therefore separated from the formal programmes. This meant, in short, with different objectives. In many cases, the result has been of 'parallel programmes' or 'dualism', as King

puts it (in particular in relation to the funding agencies), although each one implemented separately. The fact that non-governmental organizations are those generally running non-formal programmes, with formal education (still) in the hands of the State, may explain this division. This situation is directly related to the internal perception of NGOs as opposition to the government, and to the negative perception within governments of NGOs as foreign-funded organizations (cf. Carroll, 1992; Bebbington, 1997).

This leads to linkages between the NGOs and the State. The possibilities of governments participating with non-governmental organizations in the NGOs' extension programmes are limited: in many cases the sole presence of NGOs is explained because of the increasing withdrawal of the State. At the same time, not many NGOs are willing to participate in governmental activities and be seen as an accomplice of policies and regulations with which they disagree (Poole, 1994). Many NGOs consider that if they are to play a role in the implementation of a specific policy, then they should also have a role in the design and the decision-making, without losing their autonomy and identity (Bebbington and Farrington, 1993:212). Not many governments are willing to have additional actors in the formulation of their policies.

However, cooperation and interrelations do take place, to a certain extent, between NGO and governmental activities (see Bebbington and Thiele, 1993). An account of different cases is presented by Hulme and Edwards (1997), where the central argument is that "both donors and developing country states are taking a much greater interest in NGO activity, and are making greater efforts to influence it directly and indirectly" (1997:12). On the other hand, NGOs are equally more and more attracted towards coordination with the State. As Bebbington (1997) mentions, many NGOs see the necessity for some forms of relationship with the State. This is the result of new State programmes, the availability of financial resources in the public sector, or even because of NGO identity crises. "The difficulty is in knowing how to manage these relationships to avoid becoming instruments of other institutions' agendas" (1997:1758).

Establishing strategic relationships with governments is described as a scaling-up procedure for NGOs, as an example of a multiplicative strategy⁴. Edwards and Hulme (1992) mention 'sound reasons' for NGOs to enter into a positive and creative relationship with the institutions of the State: governments remain (still) largely responsible for providing health, education, and other services. And, "the State remains the ultimate arbiter and determinant of the wider political changes on which sustainable development depends" (1992:16). In spite of wide-scale privatization procedures, governments still control the wider frameworks within which

⁴ Scaling-up refers to increasing and widening the developmental impact (Edwards and Hulme, 1992). The authors describe three different strategies:

- (a) additive strategies, which imply an increase in the size of the programmes or organization, and an expansion in their operations,
- (b) multiplicative strategies, which do not imply growth but achieve impact through deliberate influence, networking, policy or legal reform or training; and
- (c) diffusive strategies, where the aim is to achieve impact through informal and spontaneous spread of ideas, approaches and methods.

people and their organizations have to operate, and are a legitimate authority which self-selected NGOs can never replace (ibid, quoting Palmer and Rossiter, 1990).

NGOs are generally excluded from the definitions of policies which model or determine the context in which they operate. Influencing policy reform can therefore be a positive approach, as "self reliant development [which NGOs aim to promote] will be sustainable only if the policy environment allows it to be so" (Clark, 1992:158). Such reform requires "complex institutional changes, the development of new capacities and new institutional roles and, most critically, changes in attitudes". Clark concludes that NGOs have an enormous role to play in securing such reforms: their relationships with the central government gains therefore importance.

It is considered that linkages between the different actors and institutions in the field provide specific benefits to the activities in which they are involved. There are, however, many different factors involved in the establishment of these linkages; the results are therefore diverse (linkages, and the linkage mechanisms, show many different characteristics). In general, all institutions are considered, although the (public) rural schools are omitted. Still, there is an increasing interest in establishing greater linkages with the government and its institutions, as this can lead to even greater benefits.

Based on all these observations, the next section looks at systems theory, as the main tool which facilitates the analysis.

3.4 A SYSTEMS PERSPECTIVE

In this section I focus specifically on the knowledge systems perspective and on its applicability for analyzing the linkages and the presence of schools as one of the various institutions operating in the field. This is especially relevant in relation to the projects which aim at improving its efficiency, the different extension projects or programmes run by the non governmental organizations and the expected sustainability of the different innovations. This analysis is complemented with a discussion on the required management of the (eventual) system.

Knowledge and Information Systems

Any rural/agricultural situation includes a wide and varied set of actors and institutions involved. According to Röling and Engel (1991), the different actors together form a whole that has properties which are not manifested by the set of separate individual actors. This is, they constitute a system, with properties as a whole which are 'more than the sum of its parts': an 'agricultural knowledge and information system' (AKIS). According to an early definition, an AKIS consists of

"the articulated set of actors, networks and/or organizations, which potentially work synergically to support knowledge processes in agriculture, so as to improve the goodness of fit between knowledge and environment, and/or the control provided through technology use." (Röling and Seegers, 1991)

The advantages of following this perspective are summarized by Röling and Wagemakers (1998:16):

- empirically, an AKIS helps to discover how social actors in agriculture are linked together in the creation, adaptation, sharing, storage and application of knowledge and information;
- normatively, an AKIS is as a mental construct, useful to design ideal links;
- analytically, this helps to guide interventions and "ensure that the actors do, in practice, interact in ways that give rise to desired emergent properties, such as innovation."

The AKIS approach is therefore described as especially relevant in relation to extension activities, where its 'offering' cannot be considered without taking into account the other conditions which determine the offering's relevance and availability, such as research, technology development, policy, etc. (Röling and Engel, 1991:10). Extension can hardly be improved without improving also research, the mechanisms linking research to extension and the control of farmers as users over these extension services.

Research, extension and utilisers are then easily identified as sub-systems within the AKIS. In the same way, agricultural education can be considered as a separate (sub-)system or, together with agricultural extension, as overlapping (sub-)systems, "since both are institutionalized ways of handling agricultural knowledge and information" (Jones, 1990:4).

Education in the rural areas consists of different knowledge processes. Though not necessarily agricultural, these formal education processes are inevitably influenced by the agricultural production activities and results, and therefore should be oriented at and related to them. But formal education as such (i.e. primary or secondary schools in the rural areas) is not mentioned as part of such agricultural knowledge systems in the same way as research and the technology transfer activities are in the conceptual definitions. Primary schools are not considered as part of the set of actors, networks or organizations working to support (or maybe obstruct) the knowledge processes in agriculture, while they are clearly the most commonly found institution in the field. While certainly little research has been done on the role of schools as such institutions, I consider that they cannot be left out of a comprehensive system perspective, and I assume the theoretical definitions as effectively, if not literally, considering them.

Later studies recognize different systems. Based on Habermas' distinction between instrumental, strategic and communicative rationality, Röling and Jiggins (1998) distinguish three types of knowledge systems. The first, based on an instrumental rationality, is recognized in the widespread Transfer of Technology approach, following the adoption of external innovations. Farm management, on the other hand, operates within strategic rationality. "Its aim is to support the practices of the farmer as an entrepreneur engaged in an

economic rationality" (1998:305). Communicative rationality is presented as the third framework, leading to a different set of knowledge systems⁵. As stated by Röling,

"The one avenue remaining is collective action based on communicative rationality. It means social learning, negotiation, conflict resolution, accommodation, agreement, collaboration, collective decision making, covenant, co-operation, participation and synergy. It means overcoming social dilemmas so as to move from selfish and mistrustful action to joint action. It means developing solutions which emerge from interaction." (Röling, 1997:14)

This leads to a knowledge system with distinctive features and with particular advantages. It is necessary however to look at those who actively participate in the processes mentioned above: the actors. Authors who follow an actor-oriented perspective (cf. Long and Long, 1992) consider people as active and knowledgeable agents participating in the different ongoing processes, and point their analyses to the negotiation and struggles over boundaries, to battles over images, and to the search for spaces for manoeuvre (Villareal, 1992:265). They consider it is thus essential to understand the peoples' life-worlds and their strategic actions so as to analyze how they -as actors- attempt to create space for their own 'projects'. The term 'agency' is seen "in the struggles that take place over strategic resources and in the attempts [of the different social actors] to create space for furthering their own cherished values or 'designs for living'" (Leeuwis et al., 1991:24). Hence, it covers the styles by which all these different actors embody, internalize and translate the influences of the State, market, technology, culture and, naturally, interventions⁶. The term attributes to the actor (individual or social group) the capacity to process social experience and to devise ways of coping with life, even under the most extreme conditions of coercion (Long, 1989).

As these 'systems' are comprising people and their activities, they have to be seen as a 'soft system', considering that because of the human activities involved in it, no definite or unambiguous purpose can be recognized. It must be noted though that a system perspective will not declare that there actually *is* a system involving certain definite actors in a specific situation in the field. It is rather "an intellectual framework, as an epistemology which can be used to try to understand and intervene in the rich and surprising flux of everyday situations" (Checkland and Scholes, 1990). These authors mention the problem in using the word 'system' for the name of the concept of a whole, and propose to use instead a 'holon'; in order to avoid confusing a possible plausible description of perceived reality with perceived reality itself. In this way, people using 'system thinking' are those who formulate the holons relevant to aspects of perceived reality which they are interested in, and then use the holons as a

⁵ These are called 'ecological knowledge systems' by Röling and Jiggins (1998:305), limiting the perspective to the environmental and ecological 'imperative'.

⁶ It is important to notice that actors are not responding only to one intervention or to a particular policy, but to a whole set of social institutions, of which an external agency activity or intervention is only one. Without excluding the particularities of each specific intervention, these need equally to be seen within the wide politico-economic context inside which interventions operate, something that will inevitably influence choices, strategies and responses (Arce, 1993).

methodology to find out about the world outside. Looking at this set of actors as an AKIS is in fact doing what they call 'system thinking':

"To do system thinking is to set some constructed abstract wholes (often called 'system models') against the perceived real world in order to learn about it." (Checkland and Scholes, 1990)

Again, this does not intend to show that the actors and institutions found in the field are necessarily functioning as a system, but rather it gives a perspective with which to look at them, and analyze their individual performance and the performance of the whole group towards some certain general objectives (either individual or communal objectives). It is a perspective to see things which might need to happen.

"A soft system is a social construct in the sense that it does not 'exist'. One cannot, therefore, say that such actors as research, extension and farmers are a system. In all likelihood, they are not... But by looking at them potentially forming a soft system, one begins to explore the possibilities of facilitating their collaboration and hence the possibilities for enhancing their synergy and innovative performance." (Röling and Jiggins, 1998:304)

'Synergy' is defined as an emergent property by which the system gets properties of one entity, greater than those of the individuals who form it. With it, Engel (1991) assumes that the actors cease to behave just like individuals and can be considered as part of a larger entity through the processes of integration and coordination in which they are involved. Quoting,

"Synergy does not imply the non existence of segmentation, nor the absence of conflict amongst system actors ... Synergy refers to the existence of a successful balance between adequate multiplicity and diversity, on the one hand, and effective integration and coordination on the other." (Engel, 1991:59)

Engel mentions that an effective AKIS exhibits high levels of integration with strong links among the core actors. The level of integration reached, together with the coordination needed between these actors (which can be based, for example, on a particular external incentive, on motivations or driving forces), are the necessary conditions to achieve this synergy. Emphasis is placed on the linkages between the actors, and the cases when the actors do not behave as part of a system are seen as due to a lack or malfunction of the linkages between them. These linkages facilitate the exchange of technological information and enable the coordination of activities between actors in the system. Thus focusing on these linkages gives way to improvement of the way in which this 'system' works, from which a better overall effectiveness is expected to be achieved (cf. Kaimowitz et al., 1990). The search for linkages leads the discussion to the management of the different activities and programmes taking place, and further to the management of the whole 'system' as such.

Management

Management refers to the processes oriented at achieving a certain improvement in the conditions found towards a desired (ideally common) direction. Focusing on these activities as knowledge processes, Engel then defines knowledge management as a supportive task; as "facilitation related to innovation and social learning, aimed at integrating individual efforts to achieve a joint innovative performance" (Engel, 1997:40). He considers four different levels of knowledge management. According to the definitions, these are activities which are differently taken care of by many different individuals at various levels of integration (Engel, 1991):

- (a) Individual knowledge management, looking at each person as an individual who manages and integrates knowledge from a large number of sources with his/her own individual competencies.
- (b) Knowledge management in networks, with focus on the information barter, the knowledge sharing and the exchange of information when the knowledge base is similar to a certain degree.
- (c) Knowledge management at the agency/organizational level, concerned with the relation between the organization and the external sources and users of knowledge in relation to the organization's success.
- (d) Knowledge system management, aiming at optimizing overall system performance. "It concerns interactions between autonomous or decentralized (sub)systems."

Without neglecting the importance of the first three categories for any field-level analysis, it is the last one which stands out when looking at the possibilities for better interventions. Knowledge system management is what aims at "optimizing overall system performance" by establishing a successful balance between adequate multiplicity and diversity, and integration and coordination (Engel, 1991:62). Facilitation aims at strengthening overall AKIS performance, creating 'added value' from cooperation, communication and networking efforts (Engel, 1997:41).

Management is also seen as the specific purpose for doing 'systems thinking', as a process with a purpose which may range "from engineering (in the broad sense of the word) some part of the world perceived as a system, to seeking insight or illumination" (Checkland and Scholes, 1990). This is the scope of the Soft System Methodology (SSM) developed by Checkland as an enquiring process, "for attempting to bring together actors with multiple perspectives and intentionalities" (Röling, 1992). The so-called 'would-be improvers' are then those using SSM in their managing process, involving in it the people in the situation in a learning cycle. This role can be seen as one starting in the analysis, i.e. formulating some models which are hoped will be relevant to the real world situation; models which are to be used later in a process of comparison that can then initiate debate leading to a decision to take purposeful action to improve this part of 'real life'. A similar approach is the 'Rapid Appraisal of Agricultural Knowledge Systems' (RAAKS) developed by Engel (1993, 1997) as a "soft systems methodology [designed] to enable stakeholders to engage in meaningful discourse about the social organisation of innovation and to design measures to improve it" (1997:214).

The problem is: who assumes this role? The same question emerges out of the soft-system methodology. This methodology, defined as 'a technique for participatory system development' (instead of as 'social engineering'),

"calls for an advisor to take a set of actors, who experience problems, through a series of steps that allow them to impose systems thinking on their problems and make joint decisions to enhance the emergent properties of the human activity system" (Röling and Engel, 1991:11)

Who is to function as the external advisor necessary for such management? In answering the question of who assumes the system management, Jiggins (1983) mentions the intermediate organizations, as those which "stand between the 'demand structure' (countervailing power groups and so on) and the 'supply structure' (the agencies providing services and resources), linking the two in ways which seek to maintain accountability and access and acting as a spokesman for the one to the other". She concludes that "it seems they can themselves play the role of overall system manager" (1983:228). Röling refers to local organizers within such organizations, as human resource developers involved in very different activities to those of the common agricultural extension workers and "other technical staff" (1988:173). He describes the possibilities of local NGOs in this job, in contrast to the 'technical' agencies which, receiving pressure from the local people, and being involved in provision negotiation, "cannot be expected to foster the strength of the opponent and to generate countervailing power over their own performance" (ibid.:174). Clearly, he does not see NGOs involved in the technical goods or resource provision type of intervention.

This is an issue which needs some attention. As shown before, in the field there is little difference between the non-governmental organizations and the 'technical' agencies. In fact, because of different reasons, NGOs and the technical agencies are generally one and the same. The argument that these agencies are not to generate countervailing power on their own performance holds (and may in part explain the set of results obtained by these organizations). But the question remains: who is to assume the role of system manager? If systemicity is a continuous and long-lasting possibility (and not just a temporary result expected from a specific set of activities) it sounds logical to argue for a further analysis on permanent institutions -such as the local community, the local assemblies or even the local school- as system managers.

However, it is considered that unified management is generally impossible. Engel argues that in the AKIS, "management interventions are made by many different individuals at various levels of aggregation" where components will have their own managers and responsible strategists, and the multiplicity in systems is reflected in a large variety of managers and management styles (1991:59). Similarly, Röling mentions that

"No one person manages the entire AKIS. The numerous institutes that make up the AKIS each have their own management team. Senior government officials may exert considerable

influence over both the AKIS and the policy environment in which it operates, but their influence, while crucial in some areas, neither can nor should be all pervasive."(Röling, 1990)

Thus, according to these authors, instead of concentrating on one management, the focus ought be placed in enhancing the synergy among actors (Engel, 1991:62). The following areas require then special attention: enhancing links and institutional articulations, developing a shared culture, enhancing the use of informal networks, enhancing strategic cooperation among key actors, enhancing user control, avoiding system isolation from external sources of knowledge and information or from non traditional target groups.

Systems theory provides a framework for analyzing the situation in the field, especially when looking at the interrelatedness of all the actors involved. When aiming at higher efficiency or impact -or sustainability in particular- as a future possibility, the need for linkages and interrelations proves evident.

The quest for linkages, or the objective of enhancing the synergy of the 'system', demands specific actions to be taken. The need for such managerial roles has been identified at different levels. Further research proves relevant in relation to the actors and institutions currently present in the field.

3.5 CONCLUSIONS AND FURTHER OPERATIONALIZATION

This chapter has shown the issues, ideas or observations which, from previous studies or analyses, prove relevant for this work. And it has provided the main theoretical framework necessary for the analysis of the findings and observations of the field research. The knowledge systems perspective proves relevant for the analysis of the situation described. Following this perspective, the analysis is not to be limited to a better understanding. It is expected to contribute to the solution of the problems identified.

Before describing the methodology followed, it is necessary here to show how the research questions were sharpened and further operationalized as a consequence of the literature review.

(a) Different factors are considered influencing the sustainability of innovations. Many have been mentioned in different studies. Further analysis proves relevant for determining additional factors, or the circumstances in which these factors are present (and actually influencing or determining the possibilities for sustainability). It is necessary here to compare the differences between the innovations around formal and non-formal education (or between public activities and those of the NGOs).

It is equally necessary to look at the implementors themselves: at the institutions and the actors involved. Innovations, and their sustainability, will depend on their specific objectives and interests, as well as on the different perspectives they follow (i.e. the theories on

education and development). Success will be influenced by what is understood by 'relevance' and 'participation'. Both terms need to be looked at, as a starting point for sustainability. Finally, it is important to consider if sustainability is actually intended. And if so, what type of sustainability is intended. This will be related to the objectives set, and therefore to the type of innovation which is expected to result from an intervention: a product or a process.

(b) Inter-institutional linkages facilitate further integration, leading to a higher efficiency in the different knowledge processes. Many advantages are recognized in the literature. But the establishment of such linkages is also determined by many different factors, which need equally to be recognized in the field. Many of these factors are found in the external context, which has to be seen as the environment within which interventions take place. But any analysis needs also to consider the factors found in the intervening agencies themselves; within the formal education activities and within the different NGOs. It is necessary to consider the different approaches which are followed, the objectives which are set, together with the different perceptions which the actors have.

It is equally necessary to distinguish between the different types of linkages. This will depend on the institutions or actors which are involved. But it will also depend on the type of linkages which are needed or sought. It is important thus to determine what type of linkages are established under the conditions found, and to find out if different types are sought and established under relatively similar conditions.

Under the conditions which facilitate this establishment, it is necessary to consider the external pressure. A comprehensive analysis has to look at whether such pressure exists and at whether it is deemed necessary by the actors. Such pressure can be seen linked to the (required) management of the situation.

(c) A focus on the contributions which linkages can provide to the sustainability of innovations requires a detailed analysis of the situation in which these innovations are implemented. Following an analysis of the existing linkages, it is necessary to determine if these linkages (or those sought by the different actors) effectively lead to synergy. At the same time, it is important to consider if linkages do lead to greater 'participation' or to a greater 'relevance' in the design and implementation of the different activities; or if communication, cooperation or collaboration are enhanced. It is considered here that the possibilities which linkages can provide are intimately related to how these terms are understood and how these understanding is reflected in the practice.

The advantages which are recognized in those cases where linkages do exist need to be considered when looking at the external pressure and management. A certain management is required towards better linkages, greater integration and higher systemicity. It is thus necessary to determine how this management takes place, and what possibilities exist in relation to roles, activities and interests. If linkages are to contribute to sustainability it is necessary to consider the role of managers, and the possibilities which the different actors and institutions show for such a role.

As a consequence, the research questions presented in Chapter Two are further operationalized as follows:

1. What are the critical factors influencing the sustainability of innovations within (a) basic formal education in rural areas and (b) NGO initiated non-formal educational interventions?
 - what factors are observed in the field (determining whether innovations are sustainable or not)?
 - are there differences between the factors influencing the formal education and the non-formal education activities?
 - what factors are identified in the interventionists themselves?
 - what are the objectives set? what type of innovation is expected (a product, a process)?
 - what are the time-perspectives of the different institutions?
 - how is sustainability understood?
 - is sustainability actually intended?
2. What are the reasons for the establishment or non-establishment of linkages?
 - what linkages already exist?
 - what basic characteristics do these linkages show?
 - what types of linkages are recognized?
 - what types of linkages are intended or sought?
 - are different types found under similar conditions?
 - which are the factors which determine a lack of linkages?
 - which are the internal factors (objectives, agendas, etc.)
 - is external pressure necessary?
3. What are the (potential) contributions of linkages to interventions and to the resulting innovations in education?
 - what are the advantages which are recognized in the field?
 - do linkages lead to 'participation' and 'relevance'?
 - do linkages lead to greater synergy?
 - how are linkages to be implemented/improved?
 - what roles need to be determined towards management? Is there a need for an external manager?
 - which demands are put on linkages in order to enhance sustainability?

Fieldwork was guided by these questions. The methodology followed is described next.

PART II: METHODOLOGY AND CONTEXT

FOUR

RESEARCH METHODOLOGY

In this chapter I discuss the techniques and procedures used during data collection. Even though the review of literature has been an important and necessary part of research, this chapter concentrates on the actions carried out in the field.

Research followed a qualitative approach. According to different authors (e.g. Leininger, 1994) the purpose in this type of research is not to produce generalizations, but rather in-depth understandings and knowledge of particular phenomena. Different qualitative methods were therefore used during the fieldwork, all of which derived from the general research questions. These were centred around some central core studies (two NGOs, the selected schools, the local authorities).

The chapter starts with a brief description of the locations selected as research areas. It looks at the instruments used and it includes a general description of the research process, showing schematically how research was planned and how it evolved over time.

4.1 RESEARCH AREAS

The Cuzco region¹ was purposefully chosen for research. Different factors were considered regarding this decision, among which the most important was that many different educational innovations are currently taking place there. The region is plagued with difficulties (see Box 1) and clearly much needs to be done. The fact that many different educational activities are taking place makes the research questions especially relevant. At the same time, the distance between the region and Lima (more than 30 hours by road) determines a certain 'isolation' from the central government offices. This region represents thus the limitations and possibilities to be found in remote rural areas.

The region lies in the southern highlands of Peru. This is mostly a high altitude region, where geographic and climatic conditions are harsh, although this is a region where agriculture is the main economic activity. The city of Cuzco is the region's political and commercial centre.

¹ Politically, terms may be a bit confusing. The whole country is divided into twenty-four *departamentos*; Cuzco is both the name of a *departamento* and of its capital city. A new national division was intended with the creation of administrative regions -hence, for instance, the *Dirección Regional de Educación*. This meant grouping together two or three *departamentos* into a new political unit, but the process is not yet fully operative. Even if such regional division was valid regarding local authorities, hereafter, when referring to the Cuzco region, I refer to the *sierra* or highland provinces, and not to the low altitude jungle provinces which are also part of the same administrative region.

It acts as the main consumer and distributor of the regional (agricultural) production, even though in general terms production is mostly oriented at small, local and regional markets, and also at self-subsistence.

Box 1**Cuzco**

The Cuzco region is Peru's most famous touristic attraction: Inca ruins and wildlife reserves attract tourists from all over the world. Still, the *departamento* lies in the centre of the country's 'poverty sector' (the *Trapecio Andino* or highlands in the south of the country). High migration rates existing in this region are explained by different factors: life expectancy is only around 50 years in average; infant mortality rates are higher than 100 per thousand born babies; 56% of the children younger than 5 years old suffer from chronic malnutrition; illiteracy rates are still above 25 per cent in average.

Agriculture is the most important economic activity, even if a high percentage of production is oriented at self-subsistence. Production levels are low, as a direct consequence of many different factors: the difficult geographical configuration, the poor condition of roads and communications, the lack of technical assistance and extension. Other factors which are similarly considered include the lack of credit, commercialization channels which favour the brokers or *intermediarios*, the loss of natural resources because of erosion, overgrazing and deforestation, the lack of land ownership records and the little inter-institutional coordination existing between the public and private agents of development.

Special policies and projects have been designed for the whole area by the national and regional authorities (such as e.g. zero-interest credit loans and intensive infrastructure projects). At the same time, the presence of non-governmental organizations can be found all over the region and the *departamento*, with diversity within the NGOs themselves and diversity in their objectives, programmes and activities.

Source:

Dueñas, 1994

Farmers in the region, better known as *campesinos*, are members of the traditional *comunidades campesinas* ("the main form of social organization in the country", quoting Nuñez, 1995:xiii). These *comunidades* follow the organizational patterns prevalent for generations, and basically consist of families living in and controlling territories based on ancestral, social, economic and cultural relationships. These relationships include land ownership, communal work, mutual help and democratic government (see Nuñez, op. cit.). Officially *comunidades* are recognized by the law.

Two different areas were selected within this region. Essentially, these had to be in the provinces where the different projects run by the *Ministerio de Educación* were being

implemented². At the same time, the presence of different non-governmental organizations in the area and locations was necessary. Other requisites to be considered were:

- possible access during research to the different educational processes taking place;
- the possibility of meeting the representatives of the different institutions. This included extension workers and NGO officers, in addition to officers from the different departments of the *Ministerio de Educación*;
- relative easy access to and from the city (considering that most of the top-level officials are based there);
- relative difference between these locations. Both areas were selected within the same region in order to facilitate transport and access, but also considering that both areas were to be compared. In this sense, both had to share some basic features, like e.g. be under the area of influence of the same authorities. Still, some difference was preferred, as in altitude, weather conditions, internal social organization, etc.;
- general facilities for lodging and transport;
- relative interest among the local population and institutions.

Two provinces were chosen, and within each, two different research locations. The selection of these locations was a process which began before this research had officially started, and which continued during the first weeks in each province. All the pre-requisites for research location definition had to be considered; the final choice was made in cooperation with the local institutions and authorities.

The first province was Urubamba, with its capital city some 50 km. to the north of the city of Cuzco. This province is shaped by the passing of the Vilcanota river, forming what tourists get to know as the Sacred Valley of the Incas. This valley, at less than 3000 metres above sea level, is optimal for the production of maize and a diversity of crops, where high yields are obtained ever since Inca days. But agriculture is equally found in the steep mountain slopes, though mostly rainfed and not so productive.

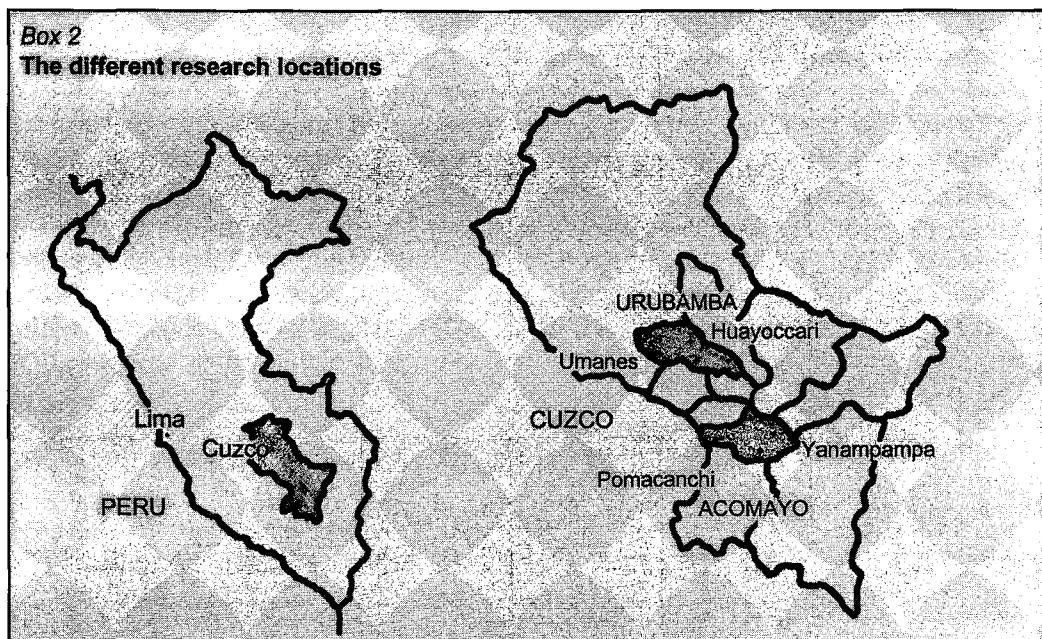
Locations chosen in this province were the villages of Umanes and Huayoccari. Both are relatively near to the city of Urubamba, even though the two locations are strikingly different. Huayoccari lies on the river side, where agriculture obtains high productivity rates and production is even being oriented at foreign markets. Umanes, on the other hand, is located on a small plateau near the Cuzco-Urubamba road, about 900 metres above the valley. Irrigation is difficult and yields are not so high. Still, both locations have easy access; flow of persons and goods is constant and regular.

The second chosen province was Acomayo. Research concentrated on a high plateau at about 3,800 metres above sea level. (The city of Acomayo lies much lower, though further away from the city of Cuzco.) This plateau is shaped by a small lake, the *Laguna de Pomacanchi*, around which the different *comunidades* are found. At this altitude agriculture

² Even though Cuzco was defined as a "top priority *departamento*" for the implementation of the projects (PEECC, 1990), not all provinces were equally considered. Only some were selected in each case.

is hard; climatic conditions make it even harder. The main products are potatoes and Andean crops (e.g. quinoa), though also livestock and (lately) even fish. Even though this plateau is found at less than 100 km. from the city of Cuzco, communications and transport facilities are limited, causing different constraints.

Locations chosen here were Yanampampa and Pomacanchi. Both are found around the lake, with similar conditions in each case. The difference is that while Yanampampa is only a *comunidad campesina* (thus having a small population), Pomacanchi is the capital of a district. It thus concentrates institutions and authorities not found in the other locations.



Primary rural schools were found in each location. Those in Urubamba are following the *Programa de Educación Ecológica* (PEE), while the schools in Acomayo follow the *Programa de Educación Forestal* (PEF)³. At the same time, NGOs and non-formal education activities are present in each case. One of these organizations was specifically chosen for research in each province: the Asociación Arariwa and the Instituto de Manejo de Agua y Medio Ambiente (IMA).

³ These *programas*, the result of different innovation projects, are described in the next chapter. Distribution of the *programas* within the *departamento* follows the distribution of the original projects: it seems provinces were selected at random.

Both institutions are described in the next chapter. Their activities, together with the activities and processes taking place in the primary schools, constituted the main subject around which this research evolved.

4.2 METHODOLOGY

Fieldwork meant the collection of data and information relevant for the analysis, specifically with regard to the implementation of the different innovation projects. This collection of information followed the three research questions as its basic framework. This considered the operationalization included in Chapter Two, together with those issues arising from the review of literature.

Fieldwork was designed as a qualitative inquiry. My interest was to discover 'in-depth meanings', 'understandings', and 'quality attributes' rather than to obtain quantitative measurable outcomes (Leininger, 1994). It was not my intention to test hypotheses, nor prove a given theory. On the contrary, I began with an area of study, where "what is relevant to that area is allowed to emerge" (Strauss and Corbin, 1990:23). A set of different instruments was used in order to cover the research questions. These all centred around some specific cases; those particularly chosen for this research. The formal education projects, the schools and the NGOs were thus selected for being 'sociologically representative' and not so from a statistical point of view (Hamel, 1993).

The different research instruments included literature reviews, semi-structured and unstructured interviews, observations (in particular 'participant observation') and group discussions. Multiple sources of information were sought in each case: both multiple copies of one type of source (e.g. various teachers) and different sources of the same information (not only teachers, but also directors, Ministerial officials, etc.). In some cases interviews were tape-recorded and then transcribed; the majority were written down directly. In general, logbooks were used to register all the data and information collected, together with my daily activities and the different events which took place⁴. All this information was classified later. (These logbooks were not shown to the interviewees. Feedback was received following my presentation of different diagnoses and analyses to the two NGOs.)

The different instruments were seldom used separately; they are only presented separately to highlight their specific characteristics. In short these instruments were:

(a) Literature reviews

Publications and reports were constantly sought, especially those dealing with the activities of the different institutions. Plans and evaluations were considered, together with the norms and regulations for these activities. The different documents which were reviewed included

⁴ These logbooks were similar to what Pretty (1994) calls 'reflexive journals', used to record many feelings and decisions. "These are essential in helping, at a later stage, to remember the immediate reasons for methodological decisions and interpretations" (1994:45).

national reports on education, national legislation booklets, regional and local plans and regulations, institutional documents describing their processes and activities, their annual plans and evaluations, and projects (as documents presented to foreign donors).

(b) Semi-structured interviews

These were interviews which aimed at some specific information from the interviewee. But only guidelines were drawn for each case (see Box 3), thus allowing for a flexible course during each interview. Following the observations of Strauss and Corbin, it is convenient to maintain flexibility and openness throughout the research process. To adhere rigidly to questionnaires or parameters "will foreclose on the data possibilities inherent in the situation; limit the amount and type of data gathered, and prevent the researcher from achieving the density and variation of concepts so necessary for developing a grounded theory..." (1990:180).

Semi-structured interviews were used with different informants, be they parents, school teachers, government officials or extension workers. Two different approaches were followed in order to get to these informants. The first was 'discriminate sampling' (Strauss and Corbin, 1990) or 'purposive sampling' (Bernard, 1988). This is a procedure where the researcher needs to rely on his/her judgement to find and select one or a few cases that reflect the specific things which he or she is interested in (Bernard, 1988:97). Informants which were capable of providing the necessary information were then purposefully selected. This group included public officers and top NGO-officials; basically those whose capacity to provide the necessary information depended on the position they hold. This group also included 'independent' actors: those who showed a minimum bias because of their position (old team members, expatriates working in the area, etc.).

The second approach which was followed is known as 'snow-ball sampling'. Quoting, "snow-ball sampling is very useful in studies of social networks, in which the object is to find out who people know and how they know each other" (Bernard, 1988:98). This method proved especially useful as a way of getting to know who does what. This was particularly necessary at the initial stages of research.

Additionally, many interviewees were selected at random. This included teachers, extension workers or beneficiaries. Selection was not a difficult process, especially considering the relatively small 'universe' of each research location.

(c) Unstructured interviews

Unstructured interviews consisted mainly of meetings and informal conversations with the different actors. Many of these conversations took place without any particular agenda; the purpose was to collect as much general information as possible.

In addition, these conversations were equally meant to cross-check information. In each of these unstructured interviews perceptions were openly discussed, opinions were given and exchanged. This was considered a necessary process for establishing trustworthiness and proved useful as such. Quoting, "If the reconstructions by the inquirers are recognized by these groups of participants as adequate representations of their own (and multiple) realities,

the credibility of the findings is established... Without participant checks, investigators can make no claims that they are representing participants' views" (Pretty, 1994:44). Unstructured interviews were held with all the actors.

Box 3**Examples of semi-structured interview guidelines**

With the schools teachers:

- the plans which are followed
- evaluations of achievements
- the existing linkages with other institutions
- the participation of parents
- the implementation of the *programas*
- supervision of their activities
- their own opinions or interests

With the extension workers:

- the evaluation of annual NGO activities
- the definition of plans for the coming year
- the existing linkages or work with schools
- participation of the NGO in the CDDs
- theories/ideas behind their work
- linkages with other institutions
- the role of beneficiaries in *capacitación*
- their own opinions or interests

With the *comuneros*

- their main interests as *beneficiarios*
- their opinions about the NGOs
- participation in the extension activities
- participation in school activities (as parents)
- opinions about teachers and headmasters
- basic problems/needs of their communities
- their perception of changes in the general context

(d) Observations

Actual presence when the different educational activities were taking place was continuously intended. This made possible the observation of both the formal and the non-formal education activities, focusing on the *in situ* implementation of the different approaches and methodologies which are followed in each case. Ample time was given to this method,

especially considering that "observation increases the depth of understanding and the breadth of perspectives and realities" (Pretty, 1994:44).

In any case, observations were not limited to the educational activities. Data collection aimed at getting a general impression of life in the research locations. According to Bernard, it is thus necessary not only to establish rapport in the community or setting, but to learn how to act "so that people go about their business as usual when you show up" (1988:148). This was constantly intended, recording general every-day life activities.

Special emphasis was placed on the process of 'participant observation'. This implied taking part, as much as possible, in the different processes taking place. Being an active player during some occasions (giving out specific lectures, designing extension courses or activities, etc.) provided insight into specific problems or situations. At the same time, a participatory approach meant getting actors and informants involved in the definition and understanding of the problems and the possibilities for action. The difficulties encountered are considered at the end of this chapter.

(e) Group discussions

This is a method which was not frequently used, as it was not easy to get the different actors together (even within one institution). Many times discussions were limited to informal group conversations. Nevertheless, this approach proved useful for explaining the purpose of my presence and the purpose of research, the intentions and results. It also proved handy for obtaining information and exchanging opinions with the actors within the two different NGOs and also within the different schools.

Fieldwork was based thus on diverse instruments. No specific programme was designed as to when to use what, except for the general research questions. Selection of these instruments was basically decided according to the circumstances, following the basic interest of covering the actions, opinions and perspectives of all the actors involved.

The following table shows the research questions, the instruments followed during fieldwork and the main sources of information for each case.

Table 1
Instruments and Sources of Information

Research Question	Instruments	Sources of Information
0. General identification of actors and institutions	Literature review Interviews (snow-ball)	<ul style="list-style-type: none"> - Documents; - Reports; - Evaluations - Education officials; - NGO officers; - <i>Comuneros</i>
1. What are the critical factors influencing the sustainability of innovations?	Literature review Interviews Participant observation	<ul style="list-style-type: none"> - NGO/Ministerial documents and evaluations - NGO/Minist. officers; - Parents/beneficiaries; - Donor representatives; - Extension staff; - School teachers - Extension activities (design, implementation); - Activities related to the <i>programas</i>
2. What are the reasons which determine the (non)establishment of linkages?	Literature review Interviews Participant observation	<ul style="list-style-type: none"> - Objectives, operationplans - Extensionists; - NGO officials; - Teachers; - USE/DRE officers - All formal and non-formal activities
3. What are the (potential) contributions of linkages?	 Interviews Group discussions	<ul style="list-style-type: none"> - <i>Comuneros</i>; - Extensionists; - Teachers - NGOs; - Schools

The different instruments were followed in the different research locations; in some cases even in the cities of Cuzco and Lima. This distribution is described next, together with a general distribution of fieldwork activities over time.

4.3 FIELDWORK STRUCTURE

This research was designed following the 'sandwich' model. Thus, it consisted of a lengthy fieldwork period, together with a stay at Wageningen before and after it. The first months in the Netherlands were essential for drawing a concrete research proposal. At the same time, this period gave the possibility for an extensive literature research. My stay at Wageningen after fieldwork was necessary for additional literature research, and for the completion of the analysis and presentation.

Fieldwork lasted for twenty-five months. Time had to be divided between the different locations, taking into account the annual distribution of the activities taking place in the field (so as to have them all, as much as possible, fully covered in all the locations). The distribution of field activities throughout the year results from two main factors, both of which were essential for this research:

- the farming season which, depending on the rains, basically runs from September to April or May;
- the academic school year which, as in the whole country, goes from April to December.

The whole period was divided into two main phases. In order to cover as much as possible of the annual activities in each location, each phase was planned at different time periods, i.e. during different months.

Similar methodologies were used during both phases, though the first one required more time in getting acquainted with the situation and in establishing rapport with the community and actors (exploration). With the second phase I expected to confirm previous findings (validation). Research then concentrated on the *in situ* analysis of the data obtained, focusing on the necessary adjustments (following what was detected throughout the first phase). Each of these main phases was divided in two, aiming to cover the two research areas. Additionally, the whole process was complemented with an introduction, intermediate and a final phase. In short, fieldwork was divided into five main phases:

(a) Preparation

This phase was meant to prepare research; both in the cities of Lima and Cuzco. This included the design of interview guidelines, together with the establishment of contacts with the officials running the different programmes and projects, both from the non-governmental organizations and from the *Ministerio de Educación*. Interviews were held with these officials during the first months of the year, considering the time of the year was adequate: plans for what was to be implemented during 1996 were being made and discussed. Literature research was especially necessary here.

Once in Cuzco it was necessary to select the villages and communities where research was to take place. Two locations were selected in each province. Initial contact with the local authorities was established, as with the *comuneros* and the whole set of actors. Continuous presence in the research areas was intended, so it was also necessary to look after the basic logistics (where to stay during the next phases, etc.).

(b) First Research Phase (Exploration)

This phase was divided into two parts, each lasting for approximately four months. During the first part research took place in the province of Urubamba (on the two nearby locations selected there: Umanes and Huayoccari). This was followed by a similar period in the province of Acomayo (Pomacanchi and Yanampampa). The two parts of this research phase were later complemented with a similar period during the second year. (My presence in the field is described further in Box 4.)

During these first months it was first necessary to get acquainted with the social locations and the set of processes which are occurring, and to explain the general ideas and objectives of research. Research began with an analysis of the existing documents and records, followed by interviews and general observations. The different research instruments were designed and geared around the activities of the NGOs and around those taking place at the schools.

Box 4**In the field**

My stay in the field was divided between the two provinces, thus reaching the four research locations. It was not possible to permanently stay in the villages as interviews and different activities had to take place in the city of Cuzco. I tried however to stay as long as possible: while doing research in Urubamba I 'lived' in the city of Urubamba itself, and while in Acomayo in the *comunidad* of Yanampampa. The basic facilities were provided by the different institutions.

Such continuous presence facilitated contact with the different actors. It helped me build trust and rapport, and understand the context in which the activities are set. 'Doing' like the teachers and extensionists meant common dinners, travelling to the city after a fortnight, or simply being there without a determined agenda. This helped me understand their perceptions and their opinions.

An unlikely instrument proved valuable: a bicycle. It was so possible to go from one location to the other in areas where public transport is limited, without relying on the NGO teams.

(c) Intermediate period (Reflection)

This period was intended as a preliminary analysis. It was only a brief half-way break included in order to analyze the data obtained during the first half of fieldwork; to see what was missing and what was not clear from what had emerged. At the same time, a reappraisal of the interviewing guides was intended, checking whether the necessary topics were covered and if data and information was obtained as expected (reappraisal of instruments and samples). Based on these two issues, a plan for the second half was designed.

This set of activities took place in Lima, as a temporary retirement from the research region. Being in Lima, this period was also used for interviews with some high-level officials (basically from the *Ministerio de Educación*).

(d) Second Research Phase (Validation)

With this phase I intended to run a second round of interviews, at the same areas and locations as before, though at a different time of the year. This enabled thus to complete the 'full year' perspective. Research was based on interviews with those who were selected before through the 'snow-ball' and 'purpose sampling' methods; this time it was not necessary to select the interviewees but to follow those previously chosen in their actions (basically through meetings and semi-structured interviews). At the same time, participant observation also took place, on both the formal and non-formal education activities. Information resulting from the interviews was constantly compared and checked with what was observed in the field.

This phase thus included an analytical part, considering preliminary observations, main points and ideas as the basis for the final analysis.

(e) Conclusion

This last period of fieldwork ran from October 1997. The whole phase was intended for analysis of the data obtained, both in the field (research areas) and in the cities of Cuzco and Lima. The basic aims were to assess and check the data and information collected, and prepare the final discussion points. Interviews with specific actors were held, basically with those representing foreign donor institutions and -again- some representatives of the *Ministerio de Educación*.

A diagrammatic representation of the whole process is given next.

Preparation	Preliminary research ideas
Aug.- Dec. 1995	First stay at Wageningen Literature review
Jan. 1996	Presentation Research Proposal
Feb.- Mar. 1996	Lima / Cuzco: Preparation for research
Apr. 1996	Introduction to research areas and organizations Selection of research locations
<hr/>	
Exploration	First Research Phase:
May - Aug. 1996	Urubamba
Sep.- Dec. 1996	Acomayo (17 weeks in each province)
<hr/>	
Reflection	Lima: intermediate period
Jan. 1997	Round-up data and analysis
<hr/>	
Validation	Second Research Phase
Feb.- May 1997	Urubamba
Jun.- Sept. 1997	Acomayo (17 weeks in each province)
<hr/>	
Synthesis	Final analysis
Oct. 1997 - Jan. 1998	Cuzco / Lima Discussions, presentations
Feb. 1998	Outline design of thesis Preparation final discussion points
Mar.- Nov. 1998	Second stay at Wageningen Presentation results and analysis

4.4 REFLECTIONS ON THE RESEARCH PROCESS

Fieldwork and research in general took place according to what was planned: schedules and the general distribution of time was kept. Two years of intensive interaction with all actors and all processes, added to previous experience in the field, provided the possibility for grasping the social situations around the implementation of the different educational innovations. Nevertheless, different difficulties were met along the process. These are mentioned here, as a potential contribution to future research activities.

Research was not commissioned by any of the institutions involved. This was in fact a positive factor, as it allowed for complete independence: there was no specific interest or force driving research. But this independence was at the same time a negative factor: a complete lack of interest was frequently felt. Because of their multiple activities, some actors showed reluctance and were not willing to cooperate or 'give their time' for interviews or meetings. Sometimes it was difficult simply to gain access to some actors; many showed little concern for possible analysis or results.

Another difficulty was found in the research instruments. Structured interviews were also intended at the beginning, hoping to add uniformity and thus facilitate the analysis. But during a first attempt these proved useless: interviewees had always more to say, and the interviews had constantly to be reoriented. Printed questionnaires were equally fruitless: most actors refused to answer in that way, adducing both a small space provided for their (extensive) answers, and a general lack of time.

Regarding my presence in this region, it was necessary to find some sort of support during the initial stages. Being a stranger to the area may be regarded positive considering the strength of an outsider's perspective. But then, it was necessary to look for the basic logistics and also to be introduced to the local population. This was particularly important in Acomayo, an area which, as much of the southern highlands, suffered from terrorism and general political violence (no strangers are welcome when fear is everywhere and in everyone). Such help led to a certain dependence on the two NGOs at the beginning, something which was not altogether convenient (many *beneficiarios*, for instance, thought research was commissioned by one of the NGOs, and were therefore unwilling to express themselves freely).

Finally, it can be mentioned that two years gave sufficient time for the fulfilment of fieldwork. But the nature of the scholarship meant having to look for some extra paid work while in the field. This is not always convenient. In this case, interest in both organizations for some detailed analysis of their activities (something which was equally useful for research) facilitated completion of the research period.

Did these problems influence the findings and their trustworthiness? Many times interviews had to be postponed or continued later; appointments which were not kept had to be sought again, and it was constantly necessary to explain the objectives of research and its independence from any of the institutions. These issues may have caused difficulties during

fieldwork, but had no real implications for research itself: it is considered here that the findings reflect accurately the situation in the field.

It is now considered that "qualitative researchers should not rely on the use of quantitative criteria such as validity and reliability to explain and justify their findings... [This] violates the philosophy, purpose and intent of the qualitative paradigm" (Leininger, 1994:97). How to be sure then that the findings are trustworthy? Different sets of criteria are given by different authors (like, for instance, Pretty, 1994). Many of these criteria were incorporated into the methodology followed here: prolonged and/or intense engagement, persistent and parallel observation, triangulation by multiple sources and methods, participant checking and reflexive journals. 'Peer checking' (Pretty, 1994) was equally considered. The visit of my promotor to all research locations, the *in situ* discussions, the meetings held with my Peruvian supervisor, all served to explore aspects of the inquiry which might have still been implicit, and helped to diminish biases, clarify interpretations and conclusions.

Following Leininger, findings are therefore 'credible' (they were established through prolonged observations, engagement, participation) and they have 'confirmability' (many repeated affirmations of the phenomena under study were obtained)⁵. Fieldwork was an 'exhaustive exploration' in which redundancy and duplication of ideas showed that a 'saturation' point was reached. And finally, results show 'transferability': findings can be transferred to another similar context or situation (i.e. rural locations in the Peruvian highlands) and still preserve the meanings, interpretations and inferences from the complete study (Leininger, 1994:106).

This chapter has shown how research developed. What follows is the presentation of the findings which resulted from fieldwork, and the consequent analysis. Chapter Five is a basic description of all the processes which were observed in the field. Based on this description, the following chapters concentrate on each of the research questions, as a detailed interpretation of the results.

⁵ It must be mentioned though that even these criteria are not accepted by different authors. Just like validity or reliability, credibility or confirmability are said to originate similarly in the positivist paradigm (Lincoln, 1990). They are therefore considered inappropriate for specific qualitative inquiries or research. Quoting, "Certainty is only possible if we accept the positivist paradigm" (Pretty, 1994:44).



FIVE

SCHOOLS AND NGOs: EDUCATION IN THE FIELD

This chapter is a general description of all the institutions and activities observed in the field. It is thus the basis for the analysis which follows.

This description includes the formal and non-formal education activities. Both sets were observed in the four locations chosen for research. The former is basically limited (though not exclusively) to the primary schools found in each case; the latter regards all extension and training programmes. Each set is described here separately.

It is necessary though to consider first the context in which these activities are found. It can be said in short that the general situation in the rural areas remains very much the same over the years: agricultural production is the most important economic activity, though with enormous difficulties due to weather conditions, irrigation, or soil fertility.

Campesinos in the rural areas are all members of a *comunidad*. But important changes are observed here: in some cases this membership is only nominal. There are many *comunidades* where no communal assemblies are called anymore. Internal regulations are forgotten, and all production activities are determined and limited by household interests and possibilities. This difference is clear between Acomayo and Urubamba. While in the former province communities follow 'traditional' patterns of production and social relations, *comunidades* in Urubamba (especially those in the valley) are only so in name. All extension workers explain this difference in terms of the market: easier access and facilities from the city reorient production towards the Cuzco market, leaving the interests of the *comunidad* behind. Quoting an extensionist, "there is no community there anymore, they are all part of the market economy".

The same extensionists expect further changes if *comuneros* decide to follow the new legislation. New laws allow them to divide communal land into individual plots. *Comuneros* then cease to belong to a *comunidad* as such, but receive individual property rights, becoming eligible for credit and facilities.

Not only are changes the result of laws. Gradual incorporation into the market has, for good or bad, been facilitated with the opening of new roads and the improvement of communications and transport facilities. Over the last years the rural communities have seen their roads improved, public telephones installed and transport facilities to the city of Cuzco increased. All actors recognize a certain 'improvement', even if, according to *campesinos*, teachers or extensionists, wages are still very low and household income has not increased.

Since the early 1990s this 'improvement' particularly includes economic stability and the virtual disappearance of terrorism and indiscriminate violence. Put simply, this means the possibility of travelling to the field, staying and actually working there without problems nor fear. (Virtually all field extensionists mentioned the days when they had to take life insurance, when a certain mayor was killed, when the institutions themselves were an easy target.) But this new situation also means the emergence of a new problem: less money is provided by donors from abroad once crises are less severe. Economic stability and growth can therefore mean lesser funds for NGOs or for specific projects.

In any case, 'improvement' also includes a stronger presence of the State and its institutions: restructuring of the public apparatus seems in most cases to have been effective. There is consensus in saying that "the government is doing something". This is a factor which influences the activities of institutions or NGOs in different ways: there is money which is being spent, there are projects being designed and implemented, there is a certain interest for relying on the expertise and capacity of different institutions for putting new ideas into practice. In short, according to the head of an Urubamba-based project, "This is a new special conjuncture of which we have to make good use."

But this special conjuncture requires new approaches within NGO activities and within special projects. Quoting an Arariwa document,

"the old paradigms of social change are not a viable alternative against a model which takes to extremes the theories of free markets, competition and individualism, all of which widens the social differences." (Arariwa, Plan Estratégico 1997-2000)

Changes are then necessary within the NGOs. This new context may provide new possibilities for actions and programmes, but totally new approaches are required.

"Within this scenery, NGOs must determinantly consider the challenge of changing in order to respond to this new context. (NGOs can) contribute then to the emergence of processes and proposals for development from an alternative point of view, specifically centred in man and the sustainability of nature... All our ideas, strategies, methodologies and organizational structures are now in debate. Within this perspective we have started a process which we see as an institutional redefinition. This takes us to a complete redefinition of our work..." (Arariwa, *ibid.*).

If change is to occur, what is actually taking place? The processes observed in the field are described next.

5.1 FORMAL EDUCATION AND THE PRIMARY RURAL SCHOOLS

This section describes the formal education activities observed in the research locations. This description concentrates on primary education, as the main interest of this research. It separately considers the different factors involved: the Ministry of Education and its offices

in the region, schooling and the new programmes, the school staff, and the parents and their associations.

The four chosen locations have, as the majority of rural areas in the region, a primary school; known simply as *centros educativos* or *escuelas*. These are *Centro Educativo* (CE) 50605 in Umanes, CE 50590 in Huayoccari, CE 50056 in Pomacanchi and CE 50065 in Yanampampa. In each case, almost all local children attend, although dropouts and repetitions diminish attendance at the higher grades. Only Pomacanchi has a secondary school (together with two other primary schools); in the other research locations those students finishing primary education have to continue somewhere else.

All schools follow the same (national) schemes, curricula, guidelines and programmes; all dealing with the same set of problems. Differences are only observed in their size and number of staff members: CE 50056 in Pomacanchi has two sections for each grade, while those schools in Umanes or Yanampampa are '*multigrados*', with more than one teacher but where each teacher is in charge of two grades simultaneously. In Umanes and Yanampampa the *director* is also in charge of teaching two grades. Facilities and materials used are practically the same everywhere.

In general terms it seems easy to criticize the provision of public primary education, in particular in the rural areas. Quoting an NGO-made diagnosis of the region,

"One of the main characteristics of the educational system is that it does not reflect regional realities. This goes together with a low pedagogical quality and poor services... The majority of the schools in the region lack the necessary human resources to improve quality. In spite of the massive investment in infrastructure which the central government is doing, too many schools require new buildings. But above all, they require new curricula..."

The lack of an adequate educational proposal, oriented at the needs and economies of the rural communities, is a clear limitation of the educational system. This only favours migration." (Asoc. Arariwa, 1997)

The Ministry of Education is currently involved in a series of efforts to improve this provision. Among these, the *Programa de Educación Ecológica* and the *Programa de Educación Forestal* (see below) are only a small part. The greatest programme is perhaps the *Plan Nacional de Capacitación Docente* (PLANCAD), a nationwide teacher training programme aimed at primary school teachers. PLANCAD is particularly interesting as courses, monitoring and evaluations are run by many different institutions (universities, NGOs, etc.) which respond to (and are paid by) the *Ministerio*.

The *Ministerio de Educación*

As part of the national government, the *Ministerio de Educación* regulates, coordinates and evaluates primary education (and directly runs more than 85% of all primary schools in the country). Following new regulations,

"The role of the *Ministerio* is to look at how education takes place. Its current efforts therefore include a better management of resources and a modernization of its internal organization. In this sense the *Ministerio* manages, coordinates, promotes and provides incentives for the educational processes, and finances public education.

[But] the idea is not anymore to scrutinise or control, but to facilitate so that all educational projects are run with the greatest efficiency. The State is not to guide or monitor all educational activities, but to create a framework which permits the development of each school's initiatives, ensuring quality." (Ministerio de Educación, 1996a).

According to ministerial documents, "it is necessary that change takes place in our perspective on how to educate" (Min. Educ., 1996a). Emphasis is thus not to be placed anymore on the amount of educational contents, nor on the number of students attended. The Ministry considers it is rather in its quality where the value of education lays. The basic guidelines and objectives are shown in Box 5.

Box 5

The role of the *Ministerio*

Two general ideas lie behind the activities of the Ministry:

- education's *raison d'être* is the formation of children as the future citizens of the country
- education is a crucial factor in the fight against poverty.

Its current activities are guided by these ideas and by a set of objectives. Among these:

- Improve the curricula for all levels
- Train teachers and provide them with materials
- Transfer authority and decision-making capacities to *directores* and schools
- Facilitate the participation of community members
- Reorient the system's administration towards the design and monitoring of educational policies.

Source: Plan de Mediano y Largo Plazo, Ministerio de Educación, 1996a.

A core interest within the objectives of the Ministry is to provide the possibility for headmasters and local level officials to decide and implement their own ideas. This possibility was regulated by law in 1996.

According to law, the administration of the *Ministerio* is decentralized. The main offices in Lima take care of all political, technical and normative functions. At the same time, on every administrative region there is a *Dirección Regional de Educación* (DRE), whose job is to run and implement all educational policies, "relating them to their area of jurisdiction". The role of every DRE lies in the control and administration of all educational services within a region. Further, at a local level (generally in every province) all operational functions are taken care of by the *Unidades de Servicios Educativos* (USEs). These offices are in charge of the day-to-day educational activities in each province or area.

Even though functions are properly defined, the exact relation between the offices in Lima and those in the rest of the country is not always precise.

Rural Primary Schooling

Primary schools are widely found in rural locations throughout the country. Those schools observed in the research locations vary in size, facilities and number of students, showing the basic differences to be found in the rural areas. However, these are all shaped by a common characteristic: a lack of financial resources.

But problems are not limited to money. As described previously, the official curriculum, to be followed in all public schools, is severely criticized, even from within the Ministry of Education itself. Diversification was intended with the 1996 legislation, aiming at 'relevance' or at adaptation of school activities to local environments. Nevertheless, quoting the head of the Ministry's *Oficina de Planificación*, a curriculum is "a national basic set of contents, something which gives certain unity to the whole country". A list of courses is therefore given for all schools, to be followed in every grade.

There is one curriculum which has to be followed, but legislation allows the possibility of dedicating up to 30% of school time to projects and activities which are chosen in each school. Three factors are important here:

- (a) Insufficient information. Teachers and directors do not seem aware of the possibility they have for selecting and implementing projects and activities, or they do not dare to take it too seriously, wondering how they will be evaluated by superiors.
- (b) The lack of time. School days are short (see Box 6) and many extra-curricular activities take place. Though teachers are seldom late, there is little respect for timetables, leaving short time for the fulfilment of everything which is programmed.
- (c) Higher level requirements. Not much emphasis will ever be placed on diversification or additional activities when higher level requirements are minimal. As it is shown below, many USE officials (or even those at the DRE) consider that rural children need only to know how to read and write and do basic mathematics.

There are different opinions about the need to diversify. Top level officials in Lima expect all schools to "make use of the 30% opportunity", even if they recognize that changes take time in being adopted. According to some USE officials, courses and contents are adapted every day by the teachers themselves, modifying the objectives to be achieved in the short run. It is thus not necessary to 'add' activities nor to change courses or the curriculum. Other officials mention the need for running special courses in curricular diversification with directors and teachers (even though these have not been observed). At the same time, some educational officials are also of the idea that such diversification is to come from the implementation of the different *programas* (such as the PEE, the PEF or others), from which schools are to choose. Such *programas* constitute thus a set of alternatives.

Box 6**A school day**

School days begin at 8.30 every morning. There is generally a small assembly before classes, where children are encouraged to sing or express themselves, and where petty information is given. The whole day is then divided in three 'academic periods' of one and a half hours for courses and activities, with breaks in between.

The first of these periods finishes at 10 a.m. (or a bit later, depending on when exactly did it start), but then classes normally take long in re-starting. This second period is then shorter. During the second break children receive some cereal and biscuits, something prepared either by themselves or by some mothers (distributed by the DRE). Teachers equally spend some time having lunch. The third period may start close to 1 p.m., leaving little time before 1.30, when children and all teachers leave. Special activities such as practicing for parades or celebrations (something very common), sports competitions or staff meetings, normally take place during the second period, practically using the rest of the day.

Basic texts are distributed through the *Dirección Regional*. These are basically reading books, which in some cases parents may have to buy. These books are not always appropriate. Children show great difficulty in going through complicated Spanish texts, described by some teachers as "foreign readings which are not understood", "complicated and inadequate". Some schools have received new books now, especially designed and edited for the implementation of the new *programas*. But distribution is slow and most class teachers do not get them. Few other materials have been reported, except those which make up a special part of a *programa*: seeds, some tools or plastic bags (for seedlings).

The *Programas*

The different schools selected for this research are part of those where the *Programa de Educación Ecológica* (PEE) and the *Programa de Educación Forestal* (PEF) are now being carried out. Both *programas* resulted from two separate projects run over the past ten years by external organizations and finance (FAO, the Dutch and Swiss cooperation) in conjunction with the Ministry of Education (Box 7). Both were designed with the aim of adapting the formal education in which rural children participate to the environment and context in which rural schools are found. Quoting,

"this means leaving behind the existing urban-based curriculum and designing and implementing one which not only considers but is based on the aspects of rural life, agriculture, and the peculiarities of the Peruvian rural areas." (PEECC, 1990)

The project which gave birth to the PEE finished at the end of 1995, and the resulting approach was to be assumed completely by the Ministry as from January 1996. The PEF, having started earlier, was made official in 1993, but only for those schools where it can be

practiced: where the schools have the required conditions and whose teachers have been trained for it.

The result of each project was a set of activities identified as a programme, which is "ready and available as it has already been validated". According to the head of the project which gave birth to the PEE, it is now up to each *Dirección Regional* to follow it.

"The Ministerio does not intend this to be compulsory. That would be contrary to what we are trying, if what we aim is autonomy and self-management. What we present is an alternative, available for diversification..."

Box 7

The Programas

The *Programa de Educación Forestal* began as part of a big project whose main objective was to promote forestry plantations in the Peruvian highlands. It aimed at alternative sources of energy, and through that at the development of the highland communities. Activities in the schools were then an important component, oriented at the same objective: supporting the plantations taken care of by the adult population. The programme aimed thus to "create a forestry conscience in rural children" (PEECC, 1990) preparing them to participate in the set of forestry activities through basic techniques in nurseries and plantations. The programme, to be run in all schools, was not to be covered with all courses, but only through one: *Formación Laboral* (a course which "aims to provide a certain training for manual or practical work", *ibid.*).

While looking at the possibilities for continuing with such a project some years later, it became clear that problems in the rural areas were not limited to forestry but actually cover all the highlands' natural resources: soil, water, energy, etc., "and it was thus necessary to design a programme which would refer to them all, with an ecological orientation". The result was the *Proyecto Escuela Ecología y Comunidad Campesina* (PEECC) and from it the *Programa de Educación Ecológica*, programme which "is to provide children with a better knowledge of their own social and economical reality, from a direct contact with the environment, the natural resources available and their communities' social and productive life". The *programa* is not anymore limited to one course but theoretically seen in all, articulating contents and methodologies.

This alternative is not to replace the official curriculum. Even if the original objectives of the projects were to design a different and specific curriculum for the rural areas, the new ministerial interests aim at incorporating technological and methodological ideas and proposals in the existing ones. In short, "we do not intend a new parallel curriculum". The result of the projects is thus viewed as a new component or ingredient, to be included in existing regular programmes.

As both projects were run only in some areas and regions, top level officials in Lima consider it is now up to the local authorities whether the *programas* are implemented or not. The country's different *Direcciones Regionales de Educación* are described as being able to take care of local implementation, with the required budget and personnel for it. The Cuzco

Dirección Regional has decided to continue with implementation of both the PEE and the PEF, though only in the schools which took part of the original projects.

Implementation and results

Both the PEE and the PEF are viewed as positive by almost everyone involved in their implementation. These appreciations are not limited to the agronomical or productive aspects around which these *programas* are designed, even if these certainly influence opinions (a greater production is a clear sign of feasibility and efficiency). Even schools with very little to show recognize mostly positive aspects in such approaches.

Comparing classes with the regular curriculum to those which now follow the PEE, the *directora* in Umanes considers that with the previous system it was all verbal, while now children observe and participate. The learning process is much better, resulting from practical activities and processes where "the child is the author of its own learning". Production and manual work is a key ingredient, but the whole programme is "much more pedagogic than productive". Quoting other teachers, with the new programme "education is much better, children learn much more"; "it takes longer, but it is more participative". The director in Huayoccari showed a book with the school's general objectives, together with statistics of what has been achieved during the last years. According to these, as a result of the implementation of the PEE there are less children repeating the grade, and less children who leave the school.

Naturally, not everything is positive. Among the negative opinions heard, one school teacher mentioned that in general terms objectives take longer to achieve. The programmes rely heavily on outdoor activities, discussions and the interaction between 'theory' and the environment around the school. Following the programmes requires thus more work and more preparation, and in some cases "we just have to run through, or we would never finish all there is to do". Follow-up of the complete methodology, together with field visits and outdoor activities, seemed in many cases to take place only because of the presence of a stranger in the school.

(Other teachers compare actual results with those achieved when the original projects were taking place, and consider that nowadays results are not as good as before, as "we receive no more facilities or aid", or because "we haven't been interested, we have left the *programa* behind and need now to go back to it". This is analyzed in the next chapter.)

Some parents, on the other hand, complain that their children are working instead of studying, and thus "do not learn anything". Practical activities do not fit with the general idea parents have, that education is meant to make a difference between them and their children. Children go to school so that "they are not anymore like us", so approaches as those of the PEE or the PEF are not really necessary in the eyes of parents.

Those parents who do see positive aspects in the *programas* consider that children from the rural areas need to learn about plants and agricultural production. It seems, though, that they point at what they themselves do not know and at the advantage of having an additional source of information:

"(What they learn at school) is always more technical than with us at home"
"it is stronger (better) when they see and learn from their teachers.."

All schools and teachers are supposed to have a manual and also '*Guías Metodológicas*', with which implementation is supposed to be made easy. But it is not always clear if these are available to all teachers; several of them complained that all materials, books or manuals would remain in the principal's office. As a result, contrasting opinions were heard regarding teachers' own possibilities. Some teachers consider that "we don't need any more training or the visit of a specialist, as we have these manuals", referring to the quality of the printed material. On the other hand, many teachers do ask for further training:

"I am not sufficiently trained, I would like them to come from the USE, to bring some news..."
"This approach depends heavily on the motivation teachers have. I would appreciate if someone could come here..."

Training and preparation for the new programmes stopped once the projects were over. But each of the *programas* considers, as part of its regular activities, the organization of monthly meetings of teachers and representatives of the schools involved in each area. These take place alternately in each school, generally with the presence of USE officials and a certain 'expert' invited on purpose, with the idea of discussing different issues. The Acomayo province has the *Grupos de Interprendizaje* (learning groups) with the PEF, but its meetings are not compulsory, so they are therefore quite irregular. In contrast, Urubamba and the PEE still organize the *Jornadas de Intercambio de Experiencias* (experience exchange days). These are aimed as a work-group where teachers are "to organize ourselves and improve the educational activities in relation to what we see (in each of the schools and meetings)". Teachers are expected to behave as an independent study group and positively criticize how the *programa* is going on in each school, "with the idea of strengthening it" (see Box 8). These meetings are compulsory and generally appreciated, even though not all teachers participate.

Box 8**A monthly meeting in Urubamba**

Teachers and directores meet in one of the schools of the province. There they are addressed by the USE representative, who defines the day agenda. This will start with a visit to all the classrooms and to the school's productive areas, followed by a general discussion of what is seen.

Negative impressions are analyzed in a short workshop, finding reasons or explanations as to why things are so. Group dynamics are generally used, and virtually everyone participates.

Education officials also make use of the meetings to present recent regulations they have just approved (like e.g. declaring of local interest the celebration of the World Environment Day), or they hand out materials such as specific books. There is almost always a guest speaker -like a child psychology specialist or an agronomist- and specific topics are dealt with and later discussed. This is organized by the hosts.

The day finishes at about 1 or 2 p.m. No specific conclusions are drawn, except for the common compromise of continuing with the different activities, taking into consideration all the issues discussed and analyzed.

Teachers and school staff

According to an USE official, all schools should close for two complete years and intensive teacher training courses should take place (where children wouldn't suffer as "they would learn more at home than what they do right now"). Most teachers do require training courses, though many would participate fully if only these would be given. Many mention a lack of training as their main problem, with very little time and facilities for it.

At the same time, a lack of motivation among some teachers is easily recognized. Most allude to the low wages they receive, even if others put it clearly that they knew what they were getting into when they decided to become a rural teacher. Often teachers are not interested professionally, taking school activities just too easily. According to a field extensionist, "they have nothing to worry about, whatever they do they have a monthly wage anyway". Still, it is not possible to generalize. It is the parents who best recognize the differences among teachers, identifying motivation and interest:

"The good results seen in Umanes, in comparison to the nearby school in Huatata, have to be caused by the teachers there, with their interest, because the curriculum is the same in all schools..."

"It seems that teachers here in Yanampampa are a bit tired, some do not really feel willing to work..."

"Results depend on the persons involved, that's all."

Parents can do little about this or other specific problems. Conversations with different members of the *comunidades* showed that parents have little knowledge about how to proceed, or even if it is their right to do anything. In any case, teachers and headmasters "are

closer to the USE officials" (those to whom parents could go to and complain): any attempt is thus regarded as useless. And in fact, not even *directores* can do much against non-motivated staff. Teachers are appointed by the USE; only at the USE can any corrective measures be taken.

Box 9**Rural teachers**

Rural teachers are easily described as being teachers only as a way of escaping from their otherwise unemployed condition. Such descriptions are recognized by the teachers themselves and accepted with no guilt-feelings: "in this town everyone becomes either a policeman or a school teacher", the two occupations without considerable study problems and which later guarantee a monthly wage.

It is generally teachers who live in the locality who show most interest in their work. Not surprisingly, a friendly relation with all pupils is evident, together with a special concern for new ideas or approaches. Many express their willingness to attend teacher-training courses, even if they have to pay these themselves and attend during their holidays. In most cases this means an expensive trip to Lima.

Only a few teachers follow 'old' methods; some -including one nun- were even observed whipping children. But they are spared from any sanction as "they were raised in the old ways, thus it is not possible now to change them". Headmasters recognize the problem, but consider they must wait until these teachers retire or the authorities ask them to.

Almost all teachers express their willingness to move closer to the city. This is natural, considering the facilities and possibilities found there (and the fact that, in many cases, their families live there). But it also reflects their dislike towards the *comunidad* and its people. These feelings are reflected in their everyday opinions: people in the *comunidades* are always lazy, alcoholics, indifferent to their own children, uncooperative or unwilling to do anything. A high teacher mobility is frequently the result. Some USE officials see in this process a possibility for informal diffusion of the new ideas or the methodologies implemented with the *programas*. But having new teachers in one school requires new training and preparation courses, and time spent in adaptation and in getting acquainted.

Supervision

Supervision and evaluation of daily educational activities is one of the main functions of the *Unidades de Servicios Educativos* (USEs). These, as decentralized dependencies of the Ministry of Education, are theoretically in charge of three basic functions:

- (a) administrative: appointing teachers and school personnel, contracts, etc.;
- (b) distributive: allocation of personnel according to the available resources and to specific needs; and

(c) supervision: assessment and guidance to all educational activities.

Time and resources limit USE activities to the first two functions. While some teachers consider that all USE officials are "just sitting there, in their offices, instead of visiting the schools", these officials mention that it is simply impossible for them to visit all schools. USE supervisors are supposed to go at least three times per year to all the schools in one province: lack of facilities results in only a few visits in all. According to a field extensionist,

"USE members have both their hands and their feet tied. Because of financial limitations they simply do not go out of their offices. Otherwise they would have to spend their whole salary on that..."

But surely what bothers teachers most is that supervision visits are limited to controlling daily presence in each school. Quoting the opinions expressed by two teachers,

"they never come to look at the way we run a class or at what we do. They are mostly concerned with the administrative side."

"Nobody's perfect; we could all benefit from their advice on teaching. But they only appear sporadically and look at the papers..."

Such type of supervision was seen clearly during a USE visit to Yanampampa. The representative of the USE spent no more than 30 minutes in the school, looking only at the books and registers kept by the *director* and quickly filling in a report. He only looked at the 5th and 6th grade students present there at the end of his visit, telling them that,

"We have changed a bit our job, now we don't take too long (with these visits)... Please study, that is all you have to do. Those of you finishing 6th grade need only to read and write and do properly the four basic (maths) operations. That's enough, so keep on with it. I will come back in one or two weeks..."

Ministerial officers at Cuzco and Lima were genuinely surprised with this case, declaring it is not representative. The case is presented here as it shows clearly that there is no specific training or preparation for supervisors or supervision; it is just a job done by whoever is in charge and/or has the time and facilities for field trips. At the same time, this example shows how little is expected from education and the rural students.

In sum, there is very little monitoring or evaluation of what has been done or achieved. The different *programas* receive no special attention during regular supervision (except in the case of PLANCAD, where supervision is a responsibility of the institutions running the training courses). Motivated teachers recognize then the need to continue with the monthly meetings, considering these are the only moment where they receive feedback on what they have done.

Parents and their association

Teachers and *directores* complain constantly about the lack of interest shown by the parents. They do not buy the necessary books or materials, do not attend meetings and do not help their children with their homework. The concern shown by parents towards academic activities and what goes on in the school is clearly not very high. But it must be considered that many of them did not receive such education, therefore they have a small base on which to compare, criticize or demand.

In any case, their satisfaction with the fact that their children are going to school is general: all parents show strong interest in their children studying. They only do not seem well informed in relation to the educational contents, courses or activities (or specifically the new programmes). Nevertheless, most of the parents interviewed do have their opinions: "that teacher lacks experience", "they do not teach properly", "we want to get rid of that *director*", "the school works fine because the teachers work fine, they come on time", "all the credit goes to the *directora*, she works a lot".

All parents are members of an association, the *Asociación de Padres de Familia* (ASPAFA). According to a booklet printed by the Ministry, these organizations -one for every school- are theoretically meant to:

- represent all parents in a single body;
- collaborate in the day-to-day management of the school;
- control and supervise activities. (This includes the work of teachers and the money which comes in and is spent);
- defend each other or their children against possible abuses.

In fact, very little is done in practice. Parent assemblies take place only once or twice per year, and attendance is scarce. It is generally the men who attend and take decisions (according to one of them, "women are always only criticizing, they do not fully understand, they are clearly not like a man"). Meetings are generally limited to the time when a certain activity needs to be done (like e.g. raising the school wall). Even so, this results in extra work, for which *comuneros* do not always have the time.

There is consensus in saying that general parent participation depends on the head of the ASPAFA, or on having somebody calling all parents to attend (as it was expressed by a *comunero*, "who is going to come, if nobody tells us to?"). Some parents consider it has to be the *director* who tells them what to do (and they will immediately do so). Or otherwise they need to have as president of the ASPAFA somebody who likes talking and getting involved. Therefore, according to one *director*,

"they normally pick as president the parent which talks and complains most. In that way they know that something will be done, but everyone else is free from any responsibility.."

Due to a lack of time, interest or willingness, parents seldom give more than their work-force for school activities. But two other factors can be distinguished here. The first is a lack of information of what they, as parents, can do. Many interviews revealed that parents simply

do not know what to do, or how they should express their interests and concerns. (Women have more difficulties: in most cases they are not supposed to have an opinion. If they have something to say they are seldom heard even within ASPAFA meetings.) At the same time, interviews equally showed the teachers' desires to purposefully keep parents out of the schools. As a result,

"We don't intervene. If we do, the *director* simply says no. If we insist, he may cast his revenge in our children. To avoid that we prefer to keep our distance."

These factors were identified in all the schools visited. The intention here is just to provide the reader with a general idea about the conditions which shape primary schooling in the rural areas of Peru.

There is naturally no perfect homogeneity: differences are found among the various schools and locations on practically every issue. But these differences are determined basically by the varying degrees in which each factor is observed. Among these, for example, are the differences resulting from the relative distance from the city of Cuzco. While schools in Urubamba are within easy access to and from the city, those in Acomayo are relatively isolated. Supervision visits take place with greater irregularity; teachers spend more time when they need to go to the city (to get paid, for instance). Just being further away means less visits from the DRE and more time wasted. At the same time, climatic conditions are harder in Acomayo, resulting in greater limitations in production. Both the distance and the cold weather are considered to highly influence the motivation and interest in teachers and educational officials (resulting in less meetings, less supervision, higher teacher absenteeism, or lower motivation towards work).

Another difference is found in the size of the school. Schools like the one in Pomacanchi, with more students, have much better infrastructure than those in Umanes or Yanampampa, where one teacher is in charge of two or more years at the same time. Size determines the number of teachers; having more teachers can facilitate the implementation of new ideas, or even improve the relation with parents.

Finally, there were also some differences observed between the implementation of the two programmes. While the PEF is older, it has clearly lost much of its impetus when compared to the PEE. General interest and motivation in teachers and authorities proved less in those schools running this programme, with less meetings among teachers and less materials available.

The differences are outweighed by the similarities. The educational processes are similar in the four research locations, showing at the same time many of the factors which are mentioned by previous studies (for example Ansión, 1994, or Bernex, 1988). All these factors prove relevant for the implementation of new approaches: the difficulties for a continuous implementation are described further in Chapter Six.

5.2 NGOs AND NON-FORMAL EDUCATION

The non-formal education or extension activities were equally observed in the four locations chosen for research. As mentioned before, these activities are generally run by different non-governmental organizations. Umanes and Huayoccari are part of the areas covered by Arariwa, while Yanampampa and Pomacanchi are similarly served by IMA.

Official ministerial documents mention little regarding the provision of non-formal education. Quoting the country's *Informe Nacional* (Ministerio de Educación, 1996b),

"As to educational opportunities, non-formal education has registered a notable growth in the last decades, though it must be recognized that little is known about the areas and ranges it covers, or about its methodologies..."

There are many institutions operating within or outside the *Ministerio de Educación*... Although there are only partial studies on the impact of these types of education, there is a growing interest in the possibilities they provide. Such educational innovations do not only supplement the formal education system, but are a new and essential element in the development process."

The provision of non-formal education is only recorded within each NGO or institution, referring to its own particular activities. Contents and methodologies are specific for each case, even though similarities can easily be recognized. IMA and Arariwa, like almost all non-formal education institutions, orient extension towards agricultural production and irrigation, but also in relation to health issues, local organizations, etc. Both have, as part of their internal structure, a *Línea Educativa*, through which all training and extension courses and activities are organized (see below). Those activities dealing with schools are also part of such *líneas*.

What follows is a basic description of these activities. It starts with definitions of what these activities are, together with the specific role of non-governmental organizations in the field. Based on the two organizations observed, the description focuses on the approaches followed and the role played by the field extension workers. The whole section finishes with a set of additional issues.

Training and extension

Non-formal education is limited to the set of training and extension activities carried out by the different NGOs or institutions (programmes run by the Ministry of Education, like the *Alfabetización de Adultos*, are limited).

These activities are recognized as education¹. They are referred to as '*capacitación*', and cover all the other activities these institutions undertake towards development. *Capacitación* is present in all programmes, or in all specific projects, as a sort of supporting function. Thus, certain documents refer to it as a set of tools which help achieving the objectives aimed, or "the methodological and logistical support provided to the institution's set of activities" (Arariwa, Plan Operativo Anual 1992)

A strong emphasis is placed on a transfer of technology among the definitions found. As such, *capacitación*,

"aims to transfer the capacities, skills and knowledge (technical, productive, social, organizational) which allows the population solve efficiently their problems" (IMA, Capacitación Ambiental, n/d)

Such theory is reflected in everyday practice. In many cases courses are limited to handing out specific information. But other documents talk of *capacitación* as the exchange and increase of knowledge and experience, or as the extension and promotion of social, political or productive proposals towards development. Thus, according to the head of one of the institutions,

"If we talk about transfers we'd be pretending we possess something. But in fact it is the *campesino* who knows. What we aim is to design and build an approach together, starting from their knowledge, but also from ours."

The specific orientation which *capacitación* takes depends in fact on those in charge of the activities and the programmes of which these activities are part. 'Technical' courses such as crop protection or soil conservation (generally aimed at men and run by male extensionists) are practically limited to a transfer of technology. But those activities dealing with health issues, local organization, small enterprises or others basically aimed at women (and run by women extensionists) are different. Participatory methods are preferred, and even the definition of what is done is open to discussion. Quoting one *beneficiaria*, "we decide what to discuss and see, and we get their help and advice..."

In any case, whatever the specific orientation *capacitación* takes, it is not directed at everyone in a *comunidad*. NGOs are not in the capacity of reaching all the members of a community, so *capacitación* takes a special shape. Following the opinions of different field extensionists,

¹ Education "constitutes itself as the fundamental motor towards development" (Arariwa, Línea Educativa Fase 1994-198). Quoting the same document, development is then a process of human realization which results from

- the exercise of the population of its capacities and rights, so as to accede to the satisfaction of its material and spiritual needs
- the strengthening of the political and social institutions
- economic growth, understood as a process which generates opportunities.

"Our institution works now only with those who show interest, with those who produce efficiently..."

"Sadly, we cannot reach everyone with our proposal. We don't do *asistencialismo*, our objective is not to fight extreme poverty..."

Thus, a big difference is made between *asistencialismo* and *capacitación*. Institutions who follow the former (a provision of goods or services) are looked down at by field extensionists. These institutions are scorned for not having changed their methodology, and disregarded because they are still 'spoiling' people. *Capacitación* is one step forward, a different type of activities which institutions must follow if they expect to obtain results. But no rules are set; activities are defined by the perspectives each organization follows (see below).

Many discussions take place as to how to implement the training and extension activities. What is clear is that *asistencialismo* is not the road to development. *Capacitación* is considered to be effective, but needs to be aimed at those beneficiaries who can show results and show that the whole enterprise is worth. Opinions within the NGOs reflect the idea that development can only be achieved through the training of certain members of a population: those who, with their results, will be an example to the rest. This is analyzed further on.

The role of the NGOs

This research covered the activities of two institutions, referred to here as non-governmental organizations, or NGOs. (This is not totally correct, for one of them is not entirely 'non-governmental'. But the name holds because of compatibility between what both institutions do and what is commonly understood by the term.) Both institutions show very broad aims, in both cases directed at the long-term development of the operation areas (see Boxes 10 and 11 for a detailed description of each). Among these aims: to increase agricultural production and productivity, to develop the human and cultural values and the technological capacity of the population, contribute to the access of adequate information for decision making, achieve modifications in the discriminatory social patterns, increase the coverage of the health, nutritional and educational conditions. *Capacitación* plays an important role in achieving all these objectives.

According to a census carried out by the University of Cuzco, there are more than 230 similar institutions in the Cuzco region (Gómez, pers. com.). Some of these institutions consider themselves strong on the methodologies they follow; others rather on the issues they cover. Diversity within the group is big.

It is therefore difficult to generalize. Considering the two organizations observed, their objectives are broad and their activities are many. Both show many different results. Staff members take pride in the huge amount of projects and activities which have been implemented over the years, and in the strong relation established with the communities. Their presence has provided these *comunidades* with infrastructure (roads, terraces, water canals), specific services (credit facilities, tools or inputs for production), or has presented

new issues or ideas relevant to communal life and production, such as soil conservation techniques or communal organization.

Extension consists of different components: the selection of the *beneficiarios*, the relation with the donors, etc., all of which shape the results obtained. Most of these components depend directly on the way these institutions (and their members) define *capacitación* and the activities which need to be followed. These factors are mentioned at the end of this section. But in order to establish whether results are positive or not, one of these factors needs to be highlighted here: evaluations. This is clearly the component of *capacitación* which receives less attention. (Field extensionists complain that they have little time "even to look back at what we are doing".) Although detailed evaluations do take place, mostly numeric results are shown when any report is presented.

As a result, it is difficult to draw conclusions in relation to the role which NGOs have fulfilled. Additionally, critical observations abound. In spite of their widespread presence and coverage, critical opinions (for example from the public sector) consider that NGOs may have been justified in the days of severe crisis, but not anymore. Results achieved with their presence are, after several years, in many cases still modest. Among the critical observations heard and recorded in the interviews:

- NGOs' main concern is *protagonismo*, to see their names written down everywhere, to be easily recognized;
- their *modus operandi* is not really different to that observed in public dependencies;
- NGOs only do what is fashionable. They very easily switch from ecological agriculture to gender issues to participatory appraisals;
- their presence in the field only responds to one objective: justify (in the eyes of donors) the existence of an office and having many professionals working together;
- NGOs lack representativeness. Nobody elected or appointed them for the job.

Critical observations were equally heard within these organizations. Perhaps the most important opinion is that there is not a clear idea of what is best understood as *capacitación*, so NGOs do not really know how to proceed. Several extension workers complained about sudden changes in their programmes, new methodologies and approaches, or lack of definitions of what needs to be done.

Other opinions suggest that there is very little time for extensive evaluations or for measuring impact, that very little is done in relation to extreme rural poverty, that much of what is done depends in many occasions on a certain amount of money which is available and needs to be used.

Although the role of NGOs may not always be clear, they themselves consider their activities to be crucial. An observation which was heard on various occasions is that rural production systems have not yet reached their technological potential, so external support, aid and advice are essential. There are urgent needs to be covered towards a better quality of life. At the same time, there is a gradual incorporation of *campesinos* into the market-economy, something which, for better or worse, needs to be considered. NGOs see their role here, a

role which will still be necessary in the near future. According to the former head of one of the institutions, NGO projects and actions represent a sort of subsidy to the processes and activities in which *comuneros* are involved. Their presence then is to last "for as long as the people in the North have a dirty conscience". That is, for as long as there is money coming from abroad to finance all the things NGOs do.

The question is then whether NGOs are to remain operating in the same areas. According to several extensionists, "we are temporary-presence institutions", where the duration of their presence in a given area is determined by different factors. Some mention the presence of other institutions in the area (or even more coming soon, as "all organizations have to expand themselves in order to justify their existence"). Other extension workers state that "it is clear that the *beneficiarios* have become tired of us". This is reflected in their failure to be present during courses or their unwillingness to participate in the set of activities run by the organizations.

Presence of an NGO in one area is then to last only for some time. But fulfilment of aims and objectives does not seem to be a motive for leaving the area, probably because the broadness of the aims will prevent them from ever being achieved. In general terms, culmination of a particular project, and the eventual withdrawal from a determined area (totally or considering only one project or line of activities) seem to depend basically on whether there is money or not to continue.

The *Líneas Educativas*

Despite the changes in their internal structures over the years, both IMA and Arariwa maintain a *Línea Educativa* as one of their internal structure divisions. Within this *línea, capacitación* is organized as a specific programme or set of activities, although in each case directly related to all the other *líneas*, programmes and activities.

As a tool which helps achieving each institution's general objectives, *capacitación* is directed at the general population. But other target groups are part of these divisions as well. Both *líneas educativas* include internal training ('*capacitación a capacitadores*', or training to trainers), with courses which are sporadically implemented. At the same time, part of the functions these divisions have to fulfil includes diffusion, understood as the preparation of different publications and the use of media, with different purposes. With the preparation of audiovisual and printed material these activities are oriented at facilitating extension work. Activities are equally aimed at showing what each institution has achieved.

Box 10**The Asociación Arariwa**

The *Asociación Arariwa para la Promoción Técnico Cultural Andina* is defined as a non-profit organization with educational aims, set up in 1984 by a group of people linked to the Catholic Church. Over the years since its foundation, Arariwa has always placed a strong emphasis on educational activities, considering that "education is the basic component for the development of capacities, both in management and in leadership. It is equally necessary for the generation and innovation of technologies, as it equally is for strengthening cultural identities."

Early institutional work was strongly modelled by the notions of *Educación Popular*, as "class education which parts from the organized action of the people". Activities were frequently defined as *concientización*, referring to creating a conscience, letting people become aware of their situation and position in society. Dealing with technical issues -as e.g. agricultural production- was only a way to achieve these greater aims. But changes were observed as from the early 1990s. Ideas and approaches which were described as 'politically-tainted' were gradually left behind, reorienting activities towards "men and women as the main factor of development". Further changes led to a greater emphasis on technical needs and on the areas' productive potential, on the better use of local resources and knowledge, together with the incorporation of universal science and technology, towards the solution of local problems.

Current institutional objectives are summarized in four:

- improve the capacities for management and for the appropriation of productive technologies
- promote and consolidate local organizations, participation and inter-institutional coordination
- increase agricultural production and productivity, reversing the loss of resources
- augment and diversify the opportunities for income.

Arariwa is internally divided in four *Líneas de Acción*, following different orientations, where each division or *Línea* runs a few specific programmes. These are: Agricultural Production (with programmes such as Andean crops, soil conservation), Animal Production (sheep breeding, alpaca herd management), Women (health, communal banks) and Education, the division which "covers the other three". Through its *Programa de Capacitación*, this last division coordinates all courses, seminars and extension activities in general. Even if the current institutional objectives do not specifically mention education (in contrast to previous definitions), *capacitación* is understood as part of the general set of activities.

Arariwa operates with four different teams in the provinces of Calca and Urubamba. Much has been achieved there over the years, regarding production levels, productivity rates or diversification. But results are not limited to a greater agricultural production: with *capacitación* people are more capable and competent, "not only in technical abilities but also in local organization capacities, in self-esteem, in participation and motivation, etc."

Sources:

Plan Estratégico, 1997

Sistematización de las Experiencias de Capacitación, 1997

Box 11**The Instituto de Manejo de Agua y Medio Ambiente**

IMA is not technically an NGO: it officially depends on the regional authorities, though running specific projects and programmes which are financed in a high percentage from abroad. Its origins go back to 1991, when the regional authorities decided to continue with part of the activities which had been running for over a decade under a region-wide project.

Its general objectives include:

- to develop management capacities in the population and its organizations towards a better productive use of ecosystems
- strengthen the institutional role in environmental issues
- promote a sustainable management of water resources
- promote a general environmental management, strengthening coordination and cooperation between local authorities, organizations and institutions
- intensify the execution of educational and *capacitación* activities, "aiming at extending an environmental conscience".

Few changes have been observed in the definition of objectives over the years. Changes have taken place instead in IMA's internal structure. Because of its special status IMA is a big and complex institution, involved in many different activities and covering a wide area. It operates with six different field teams, in different provinces within the region.

The whole institution is divided into five *Líneas de Acción*:

- Institutional management: planning, administration, evaluations
- Studies: diagnoses, projects, environmental impact studies
- Resource management: soil conservation, agricultural production and productivity
- Water management: utilization and management of water as a resource
- Environmental education: education and *capacitación* in particular.

Activities in the field fit within the last three *línneas*, with *capacitación* (and education in general) as an important part of both the resource and water management activities. Through the activities of this last *línea* it is expected to foster a new attitude in the population, especially in relation to a rational use of the natural resources available. The *Oficina de Capacitación y Difusión*, in charge until 1996 of organizing courses, seminars and educational activities, was to re-open this year.

In contrast to other institutions, the different *Líneas de Acción* are not similarly reflected in each of IMA's field teams. Activities are decided and designed for each specific location, resulting in even greater internal diversity. Activities in the province of Acomayo follow therefore a specific project. During the first years, this "Proyecto Manejo del Ecosistema de la Laguna de Pomacanchi" (the Pomacanchi lake ecosystem management project, PROMEP) aimed at improving the levels of production, occupation and income of the population of the lake's watershed. Project PROMEP II, running since 1997, similarly aims at intensifying and widening the productive use of resources, consolidating and validating a model of sustainable development for the conditions of the area. *Capacitación* plays an important role here, even if not much is officially mentioned.

Sources:

Plan Operativo Anual, 1996

Evaluación PROMEP, 1996

Ánalysis y Propuesta de Capacitación, 1997

Each *línea educativa* is also in charge of designing and implementing activities around formal education. Both institutions showed the intention of working with (primary) schools and students, even if each case was basically limited to a specific project.

For several years Arariwa ran its "Support to Formal Education" programme, which aimed to promote the management of productive projects (and tighten the relation between education and manual work), improve the general teaching-learning process and contribute to the design of educational proposals (especially in relation to health and nutrition, as components of learning). In short the programme aimed to "validate an educational proposal which considers the needs for development of the community, implementing a basic school model as a centre of formation and integral attention of children" (Arariwa, *Informe Anual*, 1995). Activities ceased as the programme finished because of a lack of funds. Still, Arariwa's activities with schools continue, as one of the institutions running the *Ministerio de Educación's* PLANCAD.

In a similar way, IMA has shown interest in working with schools. But throughout the years IMA has lacked a single unified programme oriented at rural schools, so actions have been diverse. These have depended mostly on the interest shown by each of the field teams. In all, IMA has organized contests between schools (on the preservation of the environment) over many years, and assisted specific activities on different *centros educativos*. It also established strong links with another local institution, the Centro Andino de Investigación Pedagógica (CAIP), with the intention of designing curricula for both primary and secondary education. But the agreement eventually finished and was not renewed, before results were fully implemented.

Both examples are described in Chapter Seven, as part of the linkages established between schools and institutions.

The importance of these *líneas* within each institution is obvious. If *capacitación* and education are the main institutional interest, then each *línea educativa* is to play a big role in determining what is done, and how it is done. This is not an easy job, especially considering the diversity in activities within each organization and the difficulties in determining how *capacitación* is to take place.

Field extension workers

The members of each of the field teams of an organization are the ones in charge of implementing the organization's policies and activities. These are professionals from different disciplines who come together to run a particular project or programme in a given area. Thus each team generally has an agronomist, a zootechnician, an economist, a social scientist, in some cases even a nutritionist.

The job of each of these professionals goes beyond their specific field, for each is to implement a part of a project and become an extensionist. This means establishing a relationship with the *beneficiarios* and putting into practice a set of activities designed with a specific objective. Their job therefore includes determining what needs to be done, and

planning how it is to take place. This includes schedules, preparation of materials and selection of extension methodologies. Each extensionist is then in charge of specific activities, be they courses, field trips, or general extension meetings. Further, a report is always needed, detailing how each activity went.

A first problem extension workers face is the huge number of activities required and the broad area covered by each. This makes fulfilment of all activities and a proper monitoring physically impossible. Many of the activities required, such as evaluations or certain meetings, are not even scheduled, causing further time constraints. Quoting one field team coordinator,

"It seems to me that since a couple of years all extensionists are so saturated with activities that *capacitación* has somehow been affected in its quality."

Complaints from the *beneficiarios* refer not to the extensionists' experience or to the activities each one runs in a community, but rather to what extensionists do not do: complying with schedules or programmed activities. Quoting,

"They have experience, but they seldom visit our *comunidad*..."

"I wish they would come more often. That would be good."

Visiting the *comunidades* more often seems virtually impossible if one takes into account all the activities which are simultaneously intended.

Box 12:
Field Extensionists

A clear characteristic of field team work is the large amount of activities of which every extensionist is responsible. But in spite of such difficulties, most extensionists mention a personal interest and motivation for the activities in which each is involved, and for work in the *comunidades*. Most seem interested in building good relations with the beneficiaries, something which is recognized and appreciated. Quoting a *comunero*, "they are just like members of my family".

Extension workers are regarded as experienced people who know what they do. Complementing their professional studies, their experience is built on years of work with different communities, in many cases with different NGOs. Most show willingness to participate in courses, workshops and seminars.

Practically all extension workers live in the city of Cuzco, so plenty of time is spent on coming and going. IMA team members are to stay for 10 consecutive days in the field (something that theoretically allows them closer contact with the *comunidad*) but their families and main interests are in the city, so they go and return as often as possible. Arariwa requires team members to stay overnight only twice per week. All other days people are to travel -in some cases- for up to 2 hours one-way.

In spite of motivation and willingness to work, almost all extensionists mention the low wages they get, which even diminish when the organization goes through financial problems. (Many compare the actual situation with that of previous years, when not only wages were higher but many other facilities were also considered.) Others complain about the administration and bureaucratic procedures: a surprising amount of paperwork is required as part of most actions.

A general preoccupation, recognized within the different teams in both organizations, is the uncertainty as to for how long the organization will require somebody's services. This need is supposed to be measured in terms of efficiency, but field team members believe that decisions are rather based on the availability of money and/or the donor's demands (in some cases contracts are renewed every three months). Extra efforts may then seem unnecessary, as medium and long-term personal prospects are uncertain. In many cases, team members are openly considering new job possibilities, as if getting ready for any eventuality.

Constant changes within teams are frequent, due to either job changes or internal rearrangements. This is widely regarded as negative as any possible continuity is lost. According to one *beneficiaria*, "there are too many changes. When we already get along with one (extensionist), a new one comes and takes over..."

The arrival of new members requires time and effort in getting acquainted with the area, the *beneficiarios* and the team. Problems are worsened with inadequate transfer procedures: "I am still wasting my time trying to put things in order here."

Other *capacitación* issues

The way in which extension and *capacitación* takes place is defined by many different factors. Several of these were identified in the field, in fact determining many of the procedures and approaches followed by an NGO. These are both internal and external factors.

(a) Financial constraints

All NGO projects are approved and financed for a limited period of time, after which results are to be shown. Except in extreme cases, money is therefore not a problem during the implementation of a project. Problems begin when time is over, and additional finance has to be sought. Therefore relations with foreign donors are carefully cultivated, and sufficient time is allotted to writing and presenting projects.

The question is whether the money is available because interesting projects are designed and planned, or whether projects and activities are implemented because there is money coming from abroad.

"There was so much money and we had to spend it..."

"There is money now which has to be spent before the end of the year... We have to decide how."

(b) Internal field-team problems

These were reported in both the IMA and the Arariwa field teams. Mostly because of personal disputes, in some cases these problems seemed to go out of hand, seriously influencing the normal development of activities. It was not uncommon to hear some team members talking without respect of others; or to hear small trivial discussions (generally related to the use of team facilities). Some team members seemed to be constantly displaying their authority over others. Other extensionists mentioned the need to "be constantly on guard", taking special notice of what they do or say.

Many of these problems seemed to depend on poor coordination. All teams in both institutions have a coordinator or team head, but managing personnel and coordinating and running field work proves to be no easy job.

(c) The relation between field teams and the central offices

Both organizations have their central offices in the city of Cuzco. Field extensionists regard those working there as bureaucrats whose only job is unnecessary paperwork (but they all would seem to prefer to be transferred to the city).

Field teams are supposed to execute decisions taken "at higher levels". What these teams resent is feeling isolated, not being visited frequently enough. Differences between the offices and the field are reflected in an all-too-frequent lack of knowledge of what is going on in the field.

(d) Lack of time

As it has been mentioned already, extension activities are many and diverse. Much of this is not exactly fieldwork, but rather administrative paperwork: registers, budget analysis, definition of specific aims and objectives, etc. Lack of time is therefore reflected in the quality of everyday activities: quoting both a *comunera* and the head of one of the teams on different occasions,

"They very seldom come to our community. It must be that they have a lot of other work to do..."

"This meeting needs to be quick. We have all these records and questionnaires to fill..."

But lack of time is also observed from the side of the *beneficiarios*. The huge amount of activities in which each family is involved is seldom considered when extension activities are planned. Courses are then programmed for a certain date and presence and participation is scarce. This is even more serious when more than one institution operates in a same area, as in Yanampampa.

(e) Selection of the *beneficiarios*

Staff members from both IMA and Arariwa members mention clearly that their institutions work only with those who are interested and with those who have the possibility of showing immediate results and who do so. But no guidelines are written; most day-activities take place with those *beneficiarios* who show up, out of personal interest. According to documents as the *Plan Operativo Anual*, attendance to field trips and longer courses is generally determined

within each community. *Comuneros* choose who is to participate among themselves, and participants are later supposed to return and explain to everyone else what they have seen or learnt. Those selected are generally the *comunidad*'s authorities, or those who have had the highest education. As a result, it is basically the same people who benefit from the set of activities run by one team. While some extensionists consider that in this way they are promoting new leaders within a community, this approach is resented by those who are not real *beneficiarios*. The words of a *comunero* reflected these feelings: "We are not all equal here... They only work with those who have money."

(f) Selection of topics or activities

The selection of the topics covered depends on diagnoses and on a detailed identification of the specific needs of each location, together with the opinions and perceptions of the *beneficiarios*. (Every year IMA runs its *Planificación Participativa* process, from where these opinions are collected and openly compared with diagnoses and previous activities and results.) But it is not clear just how much are these opinions considered. According to two *comuneros*:

"Everything comes already decided, they decide it their own way."

"Those from the institution need to come, and really see what the problems are."

Perhaps too much emphasis is placed on existing diagnoses and analyses. Quoting one extensionist, "Are we only going to do what *comuneros* ask or decide? We have analyzed the situation; we know what the problems are." This approach certainly lowers the status of the opinions of the beneficiaries. But even if it is recognized that the diagnoses and analyses through which extensionists determine the problems are not always precise, a *planificación participativa* process takes time, and resources may not always be available.

(g) Donors

These prove a very important component of all NGO activities. Foreign donors provide the money for the fulfilment of all projects and activities, as part of their own interest of contributing and collaborating in the process of development. Most of this contribution consists on the allocation of a certain budget, though collaboration with one or several 'experts' (with a specific mission) also takes place. Every agency has its own set of priorities (in areas and project themes); these are the basic requisites which each NGO must comply with.

Cooperation is generally initially intended for a three year period, but is often renewed. Cooperation is generally designed around a specific project, which may continue if results (or what has been achieved) show it is worth. Not surprisingly, NGOs aim at maintaining good relations with all donors.

Even though some field extensionists consider that donor agencies exert pressure on their activities, representatives of these agencies mentioned their constant search for dialogue and consensus on aims, objectives and activities. But at the same time, emphasis is put on their own perspectives, and on the fact that "it is our responsibility where we invest the money".

These are only the basic factors influencing the presence of an NGO in the field and the activities it implements. Non-formal education consists of different and complex activities, and generalizations are difficult. This section only intended to provide a basic description of the organizations in charge of such activities, as the basis for the analysis which follows in the next chapters.

5.3 FINAL OBSERVATIONS

This chapter has shown the different educational activities observed in the field. The description included only a small sample of all the processes and activities which are actually taking place. Anyhow, the cases represent the different projects implemented around both formal and non-formal education.

Two terms need to be considered here: innovations and interventions. Innovations, as the introduction of new ideas, techniques or methods, were observed in both cases. Ministerial activities include the different *programas*, as new attempts which aim to 'improve' the provision of primary education in the rural areas. At the same time, NGOs are running their extension programmes, within which new designs, topics or procedures are constantly considered. In both cases these innovations are the result of an intervention.

The final outcomes, both in schools and in NGO programmes, are shaped by many different factors. Implementation of the different activities depends very much on the availability of money and resources. In the rural areas these resources are minimal, reducing the possibilities for optimal implementation. But other factors are equally important, such as the motivation shown by the different actors, their willingness to take part in new attempts, or the specific interests they may have.

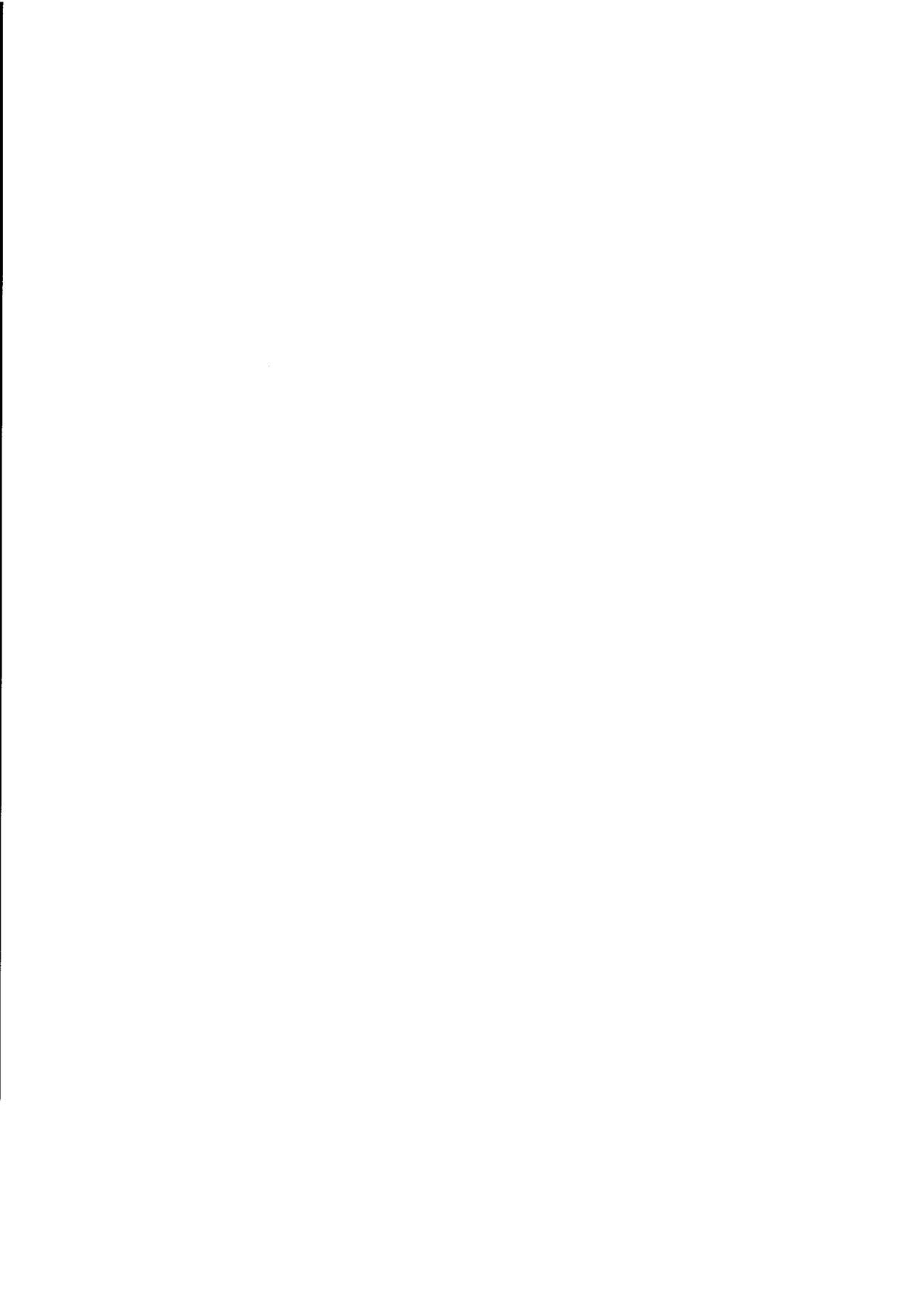
There is always, in each case, more than just teachers and students, or extension-workers and *beneficiarios*. Educational innovations involve many different actors, including public officers at all levels, NGO bureaucrats, representatives of donor agencies, and *comuneros* (who are at the same time *beneficiarios* and parents). 'Isolation', even in the most remote village, is never complete. All these actors play important roles in the definition of objectives, activities, and therefore in the final outcome of each case.

Schooling and non-formal education consist of two separate sectors, and do not conform a comprehensive 'educational system'. Even if the different educational activities take place in one same location, each follows its own specific orientations, objectives and target groups. Activities, management procedures and funding are all separate. As a result, two separate non-related sectors are found.

Nevertheless, some linkages were observed, as is shown in Chapter Seven. These linkages were not many, and in every case depended basically on the personal interest of one or a few individual actors. But these linkages represent the possibilities for integration between the separate sub-sectors.

The following chapters analyze these issues as an answer to the basic research questions. Based on the observations presented here, I look in Chapter Six at the factors which determine the sustainability of the different educational innovations. Chapter Seven describes the linkages observed and the factors behind their establishment, and Chapter Eight considers the specific advantages which these linkages provide.

PART III: RESULTS



SIX

"IT ONLY LASTS FOR A WHILE...": THE SUSTAINABILITY OF INNOVATIONS

"All institutions and projects are the same. They do something and it only lasts for a while; very soon it is over. Many times they just finish, half-way, all of a sudden..."
The directora of the school in Umanes

Remarks similar to the above mentioned were frequently recorded during fieldwork. These confirmed previous observations and the basic motivation for this research: interventions follow project-type approaches and their impact rarely goes beyond the duration of the project. Following the first research question, this chapter analyzes the possibilities and constraints which determine a sustained implementation of the different innovations observed. This analysis begins with the different factors which were recognized as directly influencing the possibilities for innovations to last. These were several, identified both around the formal and the non-formal education activities. Next, the discussion aims to determine whether such continuous implementation is in fact expected, or if sustainability is regarded as necessary by those running the different projects. The analysis is based on the perspectives each actor or institution has, and the functions and the duration of each intervention (the time-perspectives for each case). The chapter finishes with a detailed look at the interventions themselves, in their design and initial implementation.

6.1 A LIMITED SUSTAINABILITY

It is easily observed that projects, or the specific activities within each project, last for a limited period of time. Interventions are not to last for ever, so it is only logical that the specific actions which are part of each intervention have a time limit. But regarding the results achieved with each intervention, it is clear that the duration of the different innovations is equally limited to a short time. Results are seldom sustained after the project is finished. This has been recognized in the field, as is shown in Box 13.

The examples mentioned in the box are all cases where the institution behind the activities (the intervening agent) is still operating in the area. Different factors determine that no more attention is given to the objectives which were set or to the activities which were implemented.

Among these factors: a failure to assess the capacity of local organizations to manage innovations (Rondinelli et al., 1990), or the reliance on 'expensive technology' (Pretty, 1998). In many cases priorities shift and new activities begin.

But continuation is even more difficult if the institution in charge leaves the area. The Acomayo area, for instance, is full of infrastructure -like storage rooms or animal bathing facilities- which were built by previous projects. Most of these facilities were never used again (the intended beneficiaries of such facilities criticized their size, or location, the difficulties to operate them, etc.). Similarly, some of the organizations fostered by Arariwa (like local trade unions) disappeared when this NGO changed its policies or when it decided to stop operating in a certain area. The results of each intervention were limited to the duration of the intervention itself.

Box 13

Non-lasting innovations: some examples

One of the institutions surveyed decided to try fencing communal lands and thus foster local organization for grazing and tending animals. Fences were granted to the different communities and *capacitación* courses were organized. But due to small results in communal organization, it was decided during the following year that only individual fields would be fenced. Soon fences were not granted at all anymore, not even to individual *beneficiarios*, as results were far from those expected. Most of the metal fences remain in the field, useless, waiting to be collected back.

The other organization used to provide cheap medicines to schools, as part of a bigger project around health. Due to diminishing resources in the project, during the second year of implementation each school had to pay for the medicines, even if symbolically, as "nothing goes for free nowadays". Provision finished as the schools lacked the funds.

IMA's agreement with CAIP finished in due time. That meant the end of the alternative curriculum which the agreement aimed for, for even if the proposal was complete (curricula were ready and approved by both institutions) little was done to put them into practice.

Specific activities within Arariwa's "Support to Formal Education" programme, like a ceramic art workshop in Umanes, required an expert and specific materials. The school was unable to find either, and eventually the room that was built for the workshop was just turned into a warehouse. During 1997 the whole project stopped because of lack of funds. Severe discussions with those funding the project meant first a reduction of activities, which later just stopped altogether. "It finished, and that was that. It could have continued, but those at the top were not interested".

The *programas* from the Ministry of Education fall equally into this second category. The projects which started these *programas* are over, and implementation depends now solely on the different offices of the Ministry itself. But a continuous implementation of the *programas* is difficult. Staff members of the two schools visited in Acomayo recognized that

little is being done regarding the PEF because of many reasons (lack of interest of those in charge, bad weather conditions, lack of materials or resources, etc.). The same reasons may be seen as limitations to the implementation of the PEE elsewhere.

Different factors have been recognized behind this limited duration. These factors are similar to those described by previous studies, including more than just the availability of financial resources and materials. Among those factors identified were the definition of roles, the lack of autonomy, an insufficient preparation (for further implementation), the specific selection of the activities to be implemented, or the motivation and interest of the actors involved. These factors are described and summarized next.

(a) Non-defined roles

A series of reorganizations have been taking place within the *Ministerio de Educación*. This has been a thorough process, as part of the general governmental reorganization plans (reduction of personnel, internal restructuring, etc.). As from March 1996 there have been new bodies, new offices, and new functions for each. This, only a few months after the *Proyecto Escuela Ecología y Comunidad Campesina* finished, resulted in a situation of "general uncertainty", according to different ministerial officials. Nobody knew for sure which of the new units was to be in charge of the different activities.

Among the new departments is the *Dirección Nacional de Educación Inicial y Primaria*, which includes the Unit of Curriculum Development and the Unit of Bilingual Education. Another department is the *Dirección Nacional de Formación y Capacitación Docente*, with different units related to the training of teachers. Theoretically all functions are clearly determined in each case, yet it seemed not certain who and what was to assume the activities or *programas* which resulted from different projects. In relation to the PEECC and other projects, representatives of the *Direcciones* did not seem to know for sure who was to take care of what, or simply how these activities were to be continued. The head of Primary Education in the Ministry considered that projects such as the PEECC "have not received due importance". As a result, no specific department was assigned.

It was frequently mentioned that this responsibility lies directly in the ministerial offices in the provinces. Officials in the Ministry in Lima put it simply: "it is now their responsibility."

"Regarding that project [the PEECC] the Ministry offices in Lima have very little to do, as it has been totally transferred to the *Direcciones Regionales*".

Those at the *Dirección Regional de Educación* in Cuzco do recognize direct responsibility with the implementation of both the PEE and the PEF in their jurisdiction. But at the same time, they consider that "there is clearly a legal vacuum" as regulations given out in Lima for activities during a school year say nothing about these *programas* or activities. Other officials

mention the lack of funds and qualified personnel required for proper implementation, something which, again, needs to be decided and regulated from Lima.

A similar case was observed regarding NGO projects. Many activities are designed, implemented and carried out successfully during the presence of the organizations in the field. But if changes occur (e.g. if the organization leaves the area or if the funding for that specific project finishes) then the distribution of roles and responsibilities seldom takes place. Several extension workers mentioned that local organizations, like the *comunidades campesinas* or the parents associations, need to take over the activities of the NGO so that these are continued. But little can be done if the roles and responsibilities are not specifically defined and determined. Quoting an official from the Ministry,

"NGOs are always pretending to extend projects as much as possible, without ever handing them to others, so that all activities always depend on them, on their presence."

Whatever the amount of truth in such a phrase, it is evident that a proper definition of roles is missing. Having participation limited to the presence of the *beneficiarios* during implementation only makes this more difficult.

(b) Insufficient Preparation

Specific training is necessary in order to have a set of activities in full operation, both during and after a project. Training, as *capacitación* in particular, is always present in the design and implementation of a project. But results seem to show that *capacitación* is not always sufficiently provided or designed in the right direction.

Many times NGOs run *capacitación* activities which do not really follow a sequence, nor seem to be part of a wider and complete set. How are these activities decided? What reasons does each activity follow? On many occasions, reported courses were organized all of a sudden, following a given observation in the field or responding to a very specific problem. This was observed in Yanampampa, for example, with the outburst of some cattle disease which showed that vaccinations are important and necessary. The reaction of team members was immediate:

"We have to organize some *capacitación* courses about that. How about next week, just after the vaccination itself?"

But few of the members of the *comunidad* could attend on such a short notice, and no further importance was given to the issue by the team afterwards (lack of time, many other scheduled activities, etc.). *Capacitación* was in effect carried out, but the question is if it considered the necessary roles and responsibilities for vaccinations to continue, without the presence of the institution.

This is linked to the previous point. Is *capacitación* really oriented at capacity-building and autonomy, at providing capacities for management, or rather at solving specific technical problems? Some of the activities which were observed seemed directed at the former objectives, in particular those activities with women. But much more would be required for capacity-building or local autonomy to effectively take place¹.

Regarding *capacitación*, another Spanish term is frequently used when referring to positive results. This is '*internalización*', freely translated as internalization. It refers to becoming convinced of whatever is seen or discussed, translating this conviction into action. It is frequently mentioned that the only way in which innovations can be sustained is by achieving their *internalización* in the population. Results from current *capacitación* activities would seem far from that objective.

Once again, problems are greater once a specific project finishes or the organization leaves the area. As it occurs in the specific case of the PEE and the PEF, other persons are in charge of implementing the proposal which resulted from the projects. Those in charge now may very easily feel that their training and preparation has not been enough. Even top-level officials from the Ministry of Education consider that in most cases the Ministry lacks trained personnel and therefore cannot continue with the implementation of the results of certain projects. Put simply, "That is why they finish".

Classroom teachers are those who directly implement the new approaches in their everyday activities. Opinions about their own training are diverse. Some consider that they have been sufficiently trained and need no further courses (they need only to receive materials). Others would highly appreciate it if some more courses would be organized. Some see in their monthly meetings an opportunity to learn something new, or to observe (and learn from) a different experience. At the same time, others consider that everything they see in those meetings has been seen and discussed previously, and that they are therefore wasting their time with "things that we already know by heart".

USE officers recognize that apart from these meetings there are few or no courses organized nowadays. The problem is that the USE does not have the capacity to organize further courses. Further *capacitación* is necessary, but only available through the monthly meetings and the supervision visits to the schools.²

¹ It would always seem that women need to get organized and increase their participation and decision-making. This is not at all negative. But in most cases, by concentrating only on women, this type of activities then leave behind a large section of the population: those who actually take the decisions regarding everyday life in the *comunidad*.

² A special issue considered to be missing here is the capacity to integrate the regular contents and the official curricula with the approaches and procedures resulting from the programmes. Even if the original ideas were different, the PEF and the PEE were not meant to result in a separate programme or curriculum, but rather to have their technological and methodological proposals incorporated into the regular curricula. This becomes then a (new) role for teachers, as they are in charge of local implementation. Once again, *capacitación* for this could only come from the meetings or from supervision. In neither case was something similar observed.

(c) The selection of activities

The specific activities which are defined as part of the implementation of a project are also important here. As it was shown before, many activities seem isolated from a general programme. There are many different factors which determine the decision to run them: a specific interest or orientation within the organization, certain demands from the population, etc. Objectives and aims may be properly defined, following the general 'motivations' for intervention described in Chapter Three. But the way in which these objectives are to be reached, or their translation into specific activities, is not always precise. NGOs seem in many occasions not to know the best way to reach these objectives, defining activities as a sort of experimental route.

Many activities take place only because they respond directly to a certain immediate goal. '*Metismo*', from '*meta*', goal, is recognized (even within NGOs) as a way in which many NGOs operate: focusing on goals or very precise aims. This is a problem, as plans and activities are then only oriented at achieving a specific goal and at showing that it has been achieved. There is little concern about impact or interrelations between activities towards a general objective. Once a year is over, new goals are set, preferably those which can easily be measured. (If *capacitación* is considered within such specific aims it is frequently limited to a numeric goal: so many courses have to be organized in so many months, attendance must consider so many *beneficiarios*, of which so many must be women, etc.). If these specific goals are reached in time, then new ones are necessary, for the next period of time. If the goals were not reached, then the chosen methodology was not adequate or correct, and a different set of activities is necessary. Either way, new goals are defined and tried. This only shows that (a) there is no real certainty of how to reach the NGOs' general objectives, and (b) short term perspectives dominate.

Very often the general aims and objectives change; organizations change their main policies or orientations. Changes have been observed considering both the NGOs' general objectives and the formulation of methodologies or approaches, as is shown in Box 14. The two examples show that long-term perspectives are necessary so that activities are, from their initial design, more than temporary attempts.

On the other hand, the selection of activities around the *programas* is not unrestricted. In spite of the decrees which conferred local autonomy, all schools involved in either the PEE or the PEF have to follow the guidelines and the activities determined beforehand (some specific topics have to be covered, a certain number of seedlings have to be grown, etc.). How adequate do these activities prove to be? In those schools where supervision is non-existent and where no meetings take place, the activities and the whole *programa* simply fade away. This shows that the activities which were selected were not really appropriate to the conditions where they had to be implemented, and illustrates how far the programmes were from real *interiorización*.

Box 14**Changes in the general aims**

Arariwa's shift out of *Educación Popular* meant a different relation with the *beneficiarios*. Local organizations which were fostered then (such as potential trade unions) received no further support. The institution preferred then to work with specific committees, for e.g. the production of a certain crop. In most cases this meant working with a different segment of the population, on completely different activities.

IMA's Acomayo team meant to foster communal organization through grazing. When little results were achieved after one year, the attention shifted away from the communities and local organizations. Some team members openly stated that it was not their interest anymore to work with the *comunidad* or any local organization, as "what belongs to everyone in fact belongs to no-one". It was mentioned that individual efforts lead to better results, so team activities would prove better if aimed at individuals.

(d) Delays in *Oficialización*

Several projects similar to the PEECC have appeared in the area over the years, run by different institutions or organizations. Ministerial officials at all levels consider that these efforts should not be wasted. But how this is to happen, or how the resulting approaches are to be continued or implemented further, is not addressed. Among the possibilities mentioned:

- turn the resulting approaches into official programmes, i.e. compulsory to be followed in all or a pre-determined number of schools;
- incorporate new ideas (orientations or certain activities) into the existing curricula and programmes;
- continue with the project, even if under another sponsor, working with some selected schools.

Whatever approach is chosen, decisions have to be officially regulated ('*oficialización*'). It is all too often that phrases like the following, expressed by USE officers, are heard:

"We must only follow norms or regulations already approved"
"Regulations from the *Ministerio* are necessary."

When related to the formal education sector, all projects require such *oficialización* in order to continue, but this is not always easy or simple to achieve. The PEF, having started earlier than other projects, was made official by the Ministry in 1993. This decision meant an obligatory programme, but only for those schools which allow for a proper implementation (which in practice means only those which took part in the original project). But for other projects, these regulations have not been given. Some mention this was because the projects were not properly transferred to the Ministry of Education. Internal changes within the Ministry

itself, and lack of clarity as to who or which office is to take decisions, are also part of the answer.

In any case, it has been decided that *oficialización* for the whole country is not going to take place. The opinion of the head of the Ministry's *Oficina de Planificación* was that making a programme compulsory would go against the new ideas of the Ministry, which are now oriented at diversification and specialization according to each area, the needs and interests of its people, etc. In short, "Such a project is not going to become official for the whole country, as it is not applicable everywhere."

As projects like the PEECC were designed for certain regions or areas, and only run and validated there, some top level officials in Lima consider it is up to the local authorities whether the resulting *programas* are implemented or not. Local *oficialización* could be possible if local authorities see it is necessary and worthwhile. According to *Ministerio* officials in Lima, it is up to the different *Direcciones Regionales* to take care of local implementation. Some local USE members agree:

"In this region, the DRE should adopt the proposals resulting from the PEECC, and make them official and general. Then all schools would be obliged to follow them, and then there would be no more problems."

However, local *oficialización* has also not taken place. Some consider it is not at all necessary, because then the *programas* would become compulsory, and, even at the local level, this is not the aim of diversification and the new Ministerial ideas. Local autonomy and decision making would be limited. Other officials mention it would not be good to widely expand implementation, as not all schools stand in the capacity to follow the *programas*: schools require certain materials and facilities, and teachers have to be trained for it. Others put it simply: local *oficialización* would be meaningless, as the DRE lacks the financial means with which to try implementation in all the schools of the region.

What the Urubamba USE did was to print its own regulations, through which the PEE was made compulsory in all the schools of the province which took part in the original project. This aimed to "guarantee its implementation, promote the help of the *Ministerio de Agricultura*, and strengthen the processes of teacher training". A similar regulation was issued from the Cuzco DRE in 1997 for the whole region, making both the PEE and the PEF compulsory in all the schools of the region which participated in the projects.

Both moves ensured continuation, at least in some of the schools of the province and the region. Does this facilitate a continuous implementation? It does, at least theoretically. The problem is that, quoting the officer in charge,

"This move is not really legal. Except for the PEF, *oficialización* has not been decided yet in Lima, so legally we cannot make the PEE compulsory. If teachers find out that this is so, maybe they do not follow our rules..."

This is linked to the next issue.

(e) Lack of autonomy

New ministerial orientations talk of local autonomy and decision-making, even within each USE and in each school. Educational activities are thus supposed to follow local needs and conditions. But how much of this is actually taking place? Those in charge of the *programas* in the Cuzco DRE put it clear that "we only follow orders from the Ministry, in Lima". Similarly, USE officials consider that

"We have no authority to broaden the implementation (of the *programas*). We have to follow administrative norms..."

Could regional or local educational authorities decide on their own on the implementation of a programme? As seen, regulations issued at a regional level for this particular case are "not really legal". These decisions cannot be taken if they are not backed by a similar or specific regulation given out in Lima. The same would apply to any project linked to the Ministry of Education: implementation requires an authorization, which in most cases has to be decided and approved in Lima.

Lack of autonomy is typical of a hierarchical system like that of the Peruvian *Ministerios*. Even though new regulations foster decentralization, these will take time in being implemented and followed. According to the head of the *Oficina de Planificación*, local autonomy is not something which is given, but which has to be assumed by those interested. Laws, as the necessary framework, have already been issued, so it is now up to local offices (and those responsible in each case) to make good use of them. Thus, "People need to stop being afraid, and start assuming their responsibilities."

However, is it actually possible to assume such responsibilities? Those at the lower hierarchical levels consider they cannot. Difficulties and problems are even greater when different units at different levels are involved. And this is complicated further if roles and authorities are unclear. Autonomy at the local level is limited.

Autonomy within NGOs is also limited, especially when considering the activities taking place in the field. IMA teams operate on their own, following projects which are specific for the area in which each team works. Similarly, internal restructuring in Arariwa aimed at granting a certain degree of independence (and autonomy in decision making) to each field team. But in both cases all projects are looked for and approved centrally; decisions to continue with a particular project or stop altogether can hardly be taken by the field teams. (What teams do decide is what specific activities are followed, and how they are implemented in order to reach the objectives.) Field extensionists regret that many decisions are imposed, especially when "those in Cuzco don't know how things go on here".

(f) Financial constraints

Virtually all the projects designed around basic rural education eventually finish because of financial limitations. This is not to say that such projects finish abruptly, but all the members involved seem to consider that such projects could go on for longer and thus have better overall results, if only they had the money.

A constant lack of money is generally described as the most serious problem with which the different departments and offices of the *Ministerio de Educación* have to cope. Even though proposed budgets are slightly increasing, the lack of financial resources seems to be behind all problems. Constraints are greater when considering an 'additional' project. The *Ministerio de Educación* does not have the capacity to spend money in the same way as projects financed from abroad. As a result, the continuation of activities is limited once these become entirely a responsibility of the *Ministerio*.

These problems are the same as those occurring when local organizations (like the *comunidad campesina*) are supposed to continue implementing the activities of a project run by an NGO, even if they did participate in it. *Comunidades* can hardly spend the same amount of resources as an NGO (especially regarding money and time).

In contrast to several previous projects, the PEE and the PEF were actually assumed by the Cuzco *Dirección Regional*. But even though the *Dirección* has approved a certain budget for these activities, this is much smaller than what all those involved in the projects were used to. Its officers feel now that "they have cut our wings": there is now no more money for printing books or manuals, for cars with which to visit the schools, etc. This was plainly expressed by an Urubamba USE official:

"To me it is clear that money is a fundamental factor for the continuation of a programme. It requires materials and a special stimulus to teachers and those in charge - we cannot do anything having only a small tip as a salary. And all training and courses require a special budget, just as it was before, in the days of the project..."

She and others at the USEs of both Urubamba and Acomayo consider it is the Ministerial offices in Lima who should provide the needed money. In contrast, officials in Lima mention that if implementation is a responsibility of each DRE, then it has to be part of its expenses. Programmes to be implemented locally are to depend on the existing funds. The problem is then that money for the DRE is almost completely allocated by the Ministerial offices in Lima. Are regional offices authorized to spend this money differently to how it is determined in Lima? Not so easily.

NGO activities, like all projects, are approved and financed for a limited period of time. At least in theory, money is not supposed to be a problem during that period. Once this period is over, the objectives or goals are supposed to have been reached. The organization becomes then involved in a different set of activities (however these are determined) which demand its time and resources. Financial resources are received from donors to run these

new activities, not to look at what is already finished. Financial constraints are observed once a specific project is over, if any attempts are taken regarding its continuation, as resources are not anymore available from the donors (or from other sources).

(g) Lack of materials

Financial restrictions are strongly linked to limitations in the materials needed for implementation of the *programas* and the general results of projects. Again, this is seldom a problem while a project is implemented (and therefore in most NGO activities): budgets specifically consider all the required materials, and these are provided for. But once the project finishes everything seems to lack.

According to *directores* and school teachers, the implementation of the PEE and the PEF requires tools, books and manuals, seeds, plastic bags (for seedlings), together with training courses, visits to other schools, etc. These are currently not provided in sufficient quantities, limiting the possibilities each school has for efficient implementation. Some things like seeds have to be bought by the schools themselves, or be produced locally. In many cases children and parents are asked to provide what is necessary, something parents do not always agree with.

Many times implementation is not possible because of local conditions. Often schools lack a fence against invading animals, or security during weekends, when all teachers leave. Teachers are then unwilling to continue working with an approach of which its core materials (seedlings, small animals) are easily lost. At the same time, the lack of basic working materials needs always to be considered. Petty things such as chalk or paint have to be bought by each school, out of the little money which each school obtains (generally out of small productive ventures, such as potato production in the school premises, with the participation of parents) or received from the Ministry. To be worried about seeds or plastic bags seems illogical when even chalk can be difficult to obtain.

Lack of materials is also regarded as a limitation for the continuation of other activities. Animal-bathing infrastructure found in Acomayo was to be used with the necessary anti-parasite products. Nobody paid for such expensive products once the project stopped providing them. Again, this lack of materials seems to be a problem only once a specific project is finished. Transfer of roles and responsibilities would have to go together with a transfer of means or possibilities with which to find resources.

(h) Lack of interest / motivation

Lack of continuation is frequently referred to as a direct consequence of lack of interest of those involved. Even if justified (low wages, no training, no materials, etc.), everyone mentions the lack of interest shown by others as the sole explanation for problems. It is quite difficult to generalize here. For if some persons do show a clear lack of interest, others show motivation and concern for what is being done and for their own personal roles. What follows can be seen as a collection of opinions, only reflecting how all those involved see their counterparts.

According to several teachers, interest has to be shown from the highest ministerial office downwards. From their own experience they conclude that the whole government is not interested at all in education. Such indifference is reflected in the low wages they receive as teachers, in the little provision of materials and resources, and in the general situation in which public education is found in the whole country. Quoting one of them, "What do they care, in the government, when they appoint a civil engineer as Minister [of Education]?" Efforts in which the Ministry is involved are not recognized, probably because in most cases they are not even well known.

Ministerial policies are reflected in the activities of its offices. But while these regional or local offices cannot raise teacher wages, it is argued that they could show more interest in what teachers do and in the problems they face. Teachers consider that these officials have forgotten that they were also teachers once, and that they are now comfortably sitting in an office in the city. Those working at the DRE recognize the limitations in every USE, adding another factor:

"A serious problem is the responsibility each official assumes. There is a lack of resources, but personnel in the USEs are trained and capable. The problem is that they don't assume their responsibilities."

Lack of interest is easily linked to difficult working conditions: bad weather, isolation, low wages, lack of materials, etc. But according to the same officers,

"It is true that the areas are far away and poor and isolated. But perhaps these are only excuses. If they don't do anything it is because there is nobody to control what they do. What is missing is the human factor itself."

Teachers and *directores* show varying degrees of interest and motivation, both in the new approaches and in their day-to-day roles. Some show interest in their relation with other teachers and with their students (and their parents), in their desire to attend teacher-training courses and willingness to try new ideas. At the same time, many consider that their salary does not justify any extra effort, and besides, any effort is wasted, as children will not learn anything anyway. Some teachers at least seemed to pretend a certain enthusiasm in front of a stranger to the school and the area; others would clearly care little about what this stranger

might see. This is more serious with *directores*, as those who, according to the new regulations, are supposed to decide about curriculum diversification and the implementation of programmes such as the PEE. The attitude of two of the *directores* showed that, in their eyes, not much of that really matters³.

The role played by the *directores* is very important here. Both parents and teachers recognize that the overall results which a school can show depend greatly on its head. It is the *directores* who supervise what teachers do, who control their assistance and fulfilment of their monthly programmes, and who establish a working relation with parents or with other institutions. These roles are augmented following the new regulations. Curriculum diversification is to be decided by the *director*, following a detailed plan for the management of the school. This creates further responsibilities which unmotivated persons are clearly not eager to assume.

Even teachers themselves recognize their own lack of interest. One who felt her training for the PEF had not been enough mentioned that maybe this was so because generally teachers show little interest in courses. One of the limitations all schools face is "the little interest we teachers have".

Parents and *beneficiarios* are equally described as not interested or motivated. Teachers constantly complain of their uncooperative behaviour; some of them even blame parents for all the problems found in the implementation of the different *programas* and the lack of results observed. Similar observations were frequently heard from field extensionists. But it is very easy to blame parents for not cooperating and then simply not letting them to do so. As seen, ASPAFAs have generally a very limited role, mostly resulting from the desire of teachers and *directores* of keeping parents out. In relation to many NGO activities, real participation seems only a distant utopia.

Interest and motivation must not be confused with capacity or knowledge of what can be done. Many of the actors described above seemed, on different occasions, not to know how to proceed, or if it was actually their role to do something. This is all linked to *capacitación* and a proper distribution of roles.

Summary and Discussion

This section has shown the common factors which influence the sustainability of innovations within basic formal education and of those innovations initiated by the NGO interventions. All the above factors are summarized in Table 2. The differences between the two cases reflect two main aspects:

³ While *directores* are easily criticized or praised by parents or their staff, they rarely expressed their opinions on other teachers. One possible explanation is that it would be their responsibility to correct any possible malpractice.

- (a) Innovations within formal education means implementation within the nation-wide structures of the Ministry of Education. There is no such structure for the non-formal activities.
- (b) Innovations in both cases follow project-type approaches. However, whereas the *programas* resulted from projects which are already finished, the activities of the NGOs basically responded to projects being implemented at the time.

As part of the Ministerial structures, the implementation of the *programas* in the schools is influenced by the changes taking place in Lima (reorganizations, new regulations, etc.). At the same time, *oficialización* is necessary, and when these norms are given the activities become compulsory (institutionalization). In spite of the new regulations towards autonomy in schools, the continuous implementation depends then heavily on factors outside each school.

Each NGO operates virtually on its own, without external regulations. Their activities are determined by their own aims and objectives: a continuous implementation then depends basically on how these activities are defined and carried out (for example, whether local organizations are considered, or whether activities follow only short term perspectives).

Financial constraints and the lack of materials, are recognized in both cases, though only after the culmination of a project. Similarly, both cases showed insufficient preparation for the necessary continuation: courses were absent or did not tackle these issues. Small results are achieved regarding the internalization of the ideas, aims or intentions of each project in the target groups. Lack of interest or motivation was also similar in both cases. This lack of interest is directly related to insufficient preparation and to little *interiorización*.

All these factors are not different to those mentioned in previous studies. The work of Dalin mentioned in Chapter Three considered materials and resources as a critical factor, though not on its own. Resources go together with assistance, supervision and community support. Similarly, field observations showed that problems are not limited to a lack of resources. Assistance and supervision proved necessary as part of the preparation of the *beneficiarios* for the moment when the project is over. Community support can only be obtained with an adequate selection of activities, such as those which actively involve the *beneficiarios* as participants.

Specific structural limitations -like the need for *oficialización*, or the lack of autonomy- have not been described by previous studies. However, Dalin mentions the need for 'routinization'. It is clear that this routinization can only take place if the wider context allows it (if *oficialización* is required, then it has to be legislated and approved). And in contrast to the result of previous studies, no specific complexities were recognized in the cases observed (as a factor that would limit their continuation). It was rather the structure in which innovations are set (which determines, for instance, a lack of autonomy) and the internal policies and guidelines in each case, which lead to inadequate activities or insufficient preparation.

Table 2
Factors inhibiting the sustainability of innovations

	Formal education programas	NGO interventions
non-defined roles	<ul style="list-style-type: none"> - reorganizations within the Ministry - new offices, new responsibilities 	<ul style="list-style-type: none"> - local organizations are not considered (little participation)
insufficient preparation	<ul style="list-style-type: none"> - of teachers or USE personnel - nobody to run new <i>capacitación</i> courses - no <i>interiorización</i> (in teachers) 	<ul style="list-style-type: none"> - of the <i>beneficiarios</i> - improvised <i>capacitación</i> courses, no real sequence - no <i>interiorización</i> (in <i>comuneros</i>)
selection of activities	<ul style="list-style-type: none"> - the activities are compulsory - there is little or no supervision 	<ul style="list-style-type: none"> - no certainty as to what is best (experimentation) - short term perspectives (<i>metismo</i>)
delays in oficialización	<ul style="list-style-type: none"> - schools as part of a nationwide structure - <i>oficialización</i> is necessary 	<ul style="list-style-type: none"> - each NGO operates on its own - no laws are required
lack of autonomy	<ul style="list-style-type: none"> - administrative norms required; most need to be issued in Lima 	<ul style="list-style-type: none"> - only between the field teams and the central offices
financial constraints	<ul style="list-style-type: none"> - not during the duration of a project; yes afterwards 	<ul style="list-style-type: none"> - not during the duration of a project; yes afterwards
lack of materials	<ul style="list-style-type: none"> - not during the duration of a project; yes afterwards 	<ul style="list-style-type: none"> - not during the duration of a project; yes afterwards
lack of interest / motivation	<ul style="list-style-type: none"> - in teachers and USE officers (those in charge of implementation) 	<ul style="list-style-type: none"> - in the <i>beneficiarios</i> (those who benefit from the activities)

Management proves to be a most important issue, as one which covers the factors mentioned above. Following Rondinelli et al. (1990), the capacity of all those involved to manage a continuous implementation is essential. Management refers, during the intervention itself, to a selection of activities which ensure interest, motivation and commitment. At the same time,

it refers to the definition of future roles and the purposeful and specific preparation of the *beneficiarios* (teachers, school directors, parents or *comuneros*) as future managers and implementors of the innovations once the projects are over and the interventors are gone. It refers thus to the possibilities for sustained innovation processes.

Considering that innovations are the result of specific interventions, it is necessary to discuss an additional issue: whether the sustainability of the different innovations is expected or specifically intended.

6.2 ARE INNOVATIONS EXPECTED TO LAST?

Virtually all interviewees mentioned that they expect the activities in which they are involved to continue over the years. But except for the availability of money and resources, little is considered in relation to the factors described above: if there is enough money then all activities are expected to continue. This section looks at whether the sustainability of the innovations is actually aimed or expected, considering two aspects: (a) the definitions presented by those elaborating and running the projects, and (b) the time-perspectives which the different institutions have. The set of indicators which are (or can be) used are also discussed here.

Definitions and understandings

Sustainability is understood differently in every case. Regarding the projects which gave birth to the *programas*, the original intention was to design a new and parallel curriculum. Institutionalization was to result from their *oficialización* (PEECC, 1990); a move that would ensure their sustained implementation. Now that no national *oficialización* is to take place, the long term maintenance of both the PEE and the PEF is expected to result from (a) local norms and regulations (in some specific areas or provinces), and/or (b) out of their intrinsic benefits - teachers and headmasters are to consider them as an alternative for diversification. In any case, not much thought has been given as to how either case is to go forth.

To Arariwa, sustainability refers to having the qualitative and quantitative changes (which are aimed at and achieved with the presence of the institutions) remaining in time, with positive growth rates ("Sustentabilidad y Transferencia", Arariwa, 1996). But a specific condition is given:

"In order to be sustainable, projects which require of cooperation and finance shall necessarily generate their own resources".

Pre-eminence is given to the availability of financial resources as a determinant of sustainability. Thus, if the NGO is the only source of finance which is available for activities

in the field, its continuous presence is welcome and necessary. Innovations need financial support; it is so much better if this is provided by those who originated them. (Other possible sources of finance or support are not mentioned, nor how projects are supposed to 'generate their own resources'.)

To IMA, sustainability is determined by two variables: replicability and participation (Vera, 1996). Replicability is defined as the capacity which an activity has of showing results and success, allowing other population groups to adopt it and adapt it. This is, depending on this other groups' own possibilities, without an external intervention. (How replicability is to be achieved is not mentioned.) Participation refers to the involvement of a population group (as *beneficiarios*) in the design and implementation of activities.

Different interviewees mentioned the need for local organizations to assume most of the responsibilities of a project and thus continue with its implementation, following their own interest as *beneficiarios*. The problem is that the moment for this assumption is seldom defined. Most of the times institutions do not have it clear until when are they going to be operating in an area. It is therefore difficult to tell when will they have to transfer roles and responsibilities, and to whom in particular (see (b) below).

In general, the term sustainability is not elaborated further. No description is given in project documents as to how it is to take place, who is to be involved or what exactly is expected. Some differences can be established, however, following the categories of Stockmann (1997). Innovations within the formal education structures are to be institutionalized. The final objective is therefore to reach the whole 'system'. Either via *oficialización*, or via a diffusion of the intrinsic benefits of an innovation, sustainability in this case is 'systems-oriented', even if no time frames are given.

Differently, NGOs concentrate on the sustainability of a certain output, i.e. a "permanent flow of benefits to the beneficiaries". This is based either on the resources provided (such as those which the NGO itself provides) or on the specific interest of the target population. The problem is that projects rarely indicate who is going to be in charge and how the innovations will be financed once the project is finished.

Additionally, there is a certain interest in a continuous innovation process. The definition presented by IMA (above), together with the *capacitación* objectives on capacity-building or empowerment, point this way. Thus, if an institution aims to "develop capacities in the target groups" (Arariwa), or to "strengthen the capacities of the population" (IMA), it is equally referring to the capacities of these populations of implementing the activities, managing and continuing the innovation processes. Once again, this is implicit: no further detail is given.

Time-perspectives

A sustained innovation refers especially to the time after the project or intervention has finished. It is thus important to determine how long are these interventions expected to last.

Projects like the PEECC had a definite time duration. After a few years the *programas* had to be ready, tried and implemented; all responsibilities were passed on to the Ministry of Education. On the contrary, virtually all NGOs expect to remain in full operation in the future. No deadlines are set, even if many extensionists and institution members consider that their presence in the area is only meant to be temporary. NGOs are self-defined as institutions which meet needs which are permanent, and therefore require a continuous (and indefinite) presence.

If *capacitación* is only based on a transfer of technology, then its logical end as a process (and of the activities designed around it) would arrive once the technology identified as necessary or relevant is completely transferred. But the activities of NGOs are not limited to such transfer.

In all, *capacitación* is an ongoing process, with no definite end. The presence and actions of the NGOs are many times defined as '*acompañamiento*' (going together), where the whole process is to be complete when the *beneficiarios* are capable of building and implementing a proposal on their own, without the need of an external agent. But again, no limit is given as to when (or after how long) is this to be achieved. '*Autonomy*', or any similar condition, is not a finish-line which is easily reached. *Acompañamiento* refers to activities which need to be done (as nobody else assumes them), although as activities which are part of a continuum, with no specific beginning or end. In short, NGOs have assumed roles which are permanent.

Still, and in spite of such a permanent role, NGOs are not capable of remaining in full operation in all the areas where their projects have taken place. Different factors (e.g. the need for scaling-up or the implementation of other projects) determine changes in project locations. The problem is that permanence or withdrawal from a certain area is not planned or defined in advance, and therefore there never seems to be a specific plan. Most of the times the culmination of a specific project seems a good moment to retire from an area, however successfully the project finished.

As described, most projects are generally planned for a three year period. Finance may be renewed if certain results are shown, so activities continue for another similar period. But either within NGOs or the *Ministerio*, project definitions pay little attention to the time when they are to finish. It would seem that, if the institution in charge is still going to be around, it can then sort things out so that some activities continue, or it can itself 'make use' of some of the results incorporating them into the implementation of a new project. And if the institution is not going to be around anymore, then it is not their responsibility anymore. Autonomy is supposed to have been reached.

This leads to the use of indicators. If sustainability is expected, a set of indicators is necessary so as to measure how, when (or if) it is achieved. In correspondence to the observations above, fieldwork showed that the definition and use of indicators is not a category generally taken care of by projects or interventions. Different interviewees mentioned the difficulty in defining such terms: all types of evaluations are preferably based

on numbers or on easily verifiable data, where sustainability, as a parameter, does not really fit.

Another important reason is that these indicators, in order to measure whether innovations are sustained, would need to be used some years after the projects finish. Who is going to use them or to measure anything if the project has finished and those who implemented it are long gone? And then, is there somebody who actually cares what are the results shown by these indicators? If they show that innovations are not sustained anymore, there is nobody to punish or no modifications to do, as no activities are taking place anymore. Using indicators would seem a completely unnecessary effort; worrying about a future situation which is not really part of the intervention as such. Additionally, there never seems to be a doubt, in all projects or programmes, that whatever is designed and implemented is not going to remain functioning efficiently over the years.

Still, some ideas emerged from the interviews and the discussions. Some of these are mentioned in Box 15.

All these terms could be used for the examples mentioned at the beginning of the chapter. Without having to give a numeric value, these parameters show that innovations were not sustained. But these negative results were not intended. In all cases, innovations are expected to remain over time. Sustainability is expected to occur, but no definition is given as to how or based on what. Projects and interventions concentrate on the moment in which they are implemented, here and now, and not on the future. It is thus essential to look at the factors which are taken into account during the design and implementation of the interventions.

Box 15**Some parameters to use as indicators**

- Continuation of a given practice. If referring to an educational approach, continuation can easily be measured by counting the number of schools which, after some years, continue following it.
- Replication. Implementation of a certain activity or approach in an area which was not part of the original project.
- Time allotted. The percentage of the time allotted to a particular action or procedure within a period of time (day, week, month) in relation to all the activities taking place within the same period.
- Interest. Even though this is a very subjective term, the interest shown by the different actors can be observed. This, of course, has to be compared with the possibilities each actor or office has, and the roles it assumes accordingly.
- Money available. The provision of money implies (a) that no financial constraints are felt, so implementation is theoretically not limited by this factor, and (b) satisfaction and trust in those in charge of implementation -whoever these are- and in the set of activities designed.

6.3 THE DESIGN AND IMPLEMENTATION OF INTERVENTIONS

Innovations, as the outcome of a particular intervention, are expected to continue after the intervention itself. This section looks at the set of issues which define an intervention, as key factors in the sustainability of the results.

The specific objectives of each of the projects have already been mentioned. In the majority of cases, projects and interventions respond to a particular need. These needs are reflected in specific diagnoses of the situation in the field, on an identification of the main problems, or on the set of demands or particular interests which the involved actors may express. In any case, whatever is defined as the core of an intervention will inevitably influence the possibilities for the results to continue in time.

The process of implementation is equally important. It has already been shown that much depends on the roles that are assumed (or not assumed) and on who does what in relation to what needs to be done. This is particularly important when institutions at different hierarchical levels are simultaneously involved, dealing with issues such as local decision-making and autonomy.

This section analyses some of the criteria which determine the way in which interventions are designed and implemented. These issues are: (a) the intended educational relevance, (b) the structural pre-requisites, (c) the implementation strategies, (d) participation, (e) evaluations, and (f) the general context.

(a) Educational relevance

All educational programmes designed around the rural areas are expected to be 'relevant', referring thus to the relation of their design with the life and work of the community or the *beneficiarios*. A detailed analysis of each field situation is supposed to give insight as to how projects are to be designed and what exactly must they cover during implementation. Such analysis is an activity of which most field extension workers are very proud (as something which leads to 'relevant' or appropriate programmes).

The problem is whether educational relevance in projects and activities does in fact lead to better results. The failure of 'relevant education' described by Baker (1989) has been confirmed here: parents are not particularly interested in having their children following a 'relevant' or vocational programme related to agriculture. To them, education is the door to a stable, urban and well-paid job; their chance of getting out of a *campesino* life. This has already been shown by other studies: why would anyone be interested in working with plants

or around ecological issues, when all this will never be useful for higher studies and for a later life in the city?⁴

Even though some parents showed certain interest (looking at the *programas* as a new source of agricultural information), the majority of them showed very little concern about the approaches followed by the PEE or the PEF. This was mostly observed in their lack of knowledge on the *programas* themselves (after an implementation of several years) or in their indifference regarding their implementation.

At the same time, many teachers and educational officers were equally not interested. It is true that to most of them following either the PEE or the PEF meant more work (which is not paid extra) so it is understandable if they were not particularly enthusiastic about it. But many saw that such programmes were quite irrelevant in relation to rural children, their expectations and their possibilities. USE officers considering that rural children finishing 6th grade need only to know how to read and write and do some basic mathematics are a patent example.

Are 'relevant' programmes then really relevant? Can they be expected to be sustainable over time when in the eyes of many of the actors involved they are not so interesting, necessary and adequate to their expectations and needs? If 'relevant' education programmes are not really relevant, then their efficiency is limited, as well as their possibilities for replication and sustainability.

The same can be said of NGO projects and activities. Constant complaints of the extensionists and NGO officials referred to the lack of interest shown by the *beneficiarios*, their constant failure to attend to courses and seminars, or even their disregard to anything which comes from the institutions. Can it be said then that all extension programmes are irrelevant? *Beneficiarios* hardly ever admit this, as that would probably mean his/her exclusion from any possible further participation. But negative opinions were heard, showing a lack of adequacy to the needs and interests of the *comuneros*.

"They make us believe they are helping us, but in fact it is not so... I realized this and therefore I am not participating anymore."

Once again, it is not possible to generalize here. Not all programmes and projects can be described as non-relevant; much depends on what is being dealt with and how it is being done (the selection of the activities described above).

This needs then to be seen in relative terms. What is relevant in some situation or for someone may not be so relevant for another population group or under a different context. Analysis, needs assessments and community diagnoses are therefore essential. Field

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Some opinions reported: "My son will keep on studying, then he'll find a job. In the city, not here. Here, we don't earn anything, we are only sadness", "With their studies they have to go away, there are too many problems here with agriculture", "She is studying for her future, so that she becomes a professional", "We don't want them to remain like us".

observations showed that these are not always precise (as it is frequently considered within NGOs), leading to project definitions which later, when implemented, are not eagerly followed. The search for 'relevance' proves then to be particularly relevant to the possibilities for sustainability.

(b) Structural pre-requisites

This is a phrase mentioned by Foster (1989) referring to all those factors which are necessary and essential to be provided (or to have in full operation) before educational projects can achieve their objectives and show their full potential towards development. (Following Lillis (1984), education, or even 'relevant' education, needs to be accompanied by structural changes in order to be effective.) How much of this is taken into consideration before the design of a project? Related examples are easy to show: many projects are designed aiming to promote production, but no consideration is given as to what will happen to the output once results are obtained. In a similar way, the courses or activities designed around local organizations, participation and mobilisation of the local population would seem far-fetched when these local populations are more interested in food production for everyday consumption.

Many different pre-requisites are mentioned in the literature, such as incentives, transport facilities or even credit. The provision of these pre-requisites is many times considered as the specific objective of NGO projects and activities. It would seem then that projects are aiming not at the educational aspects but rather at the pre-requisites which are necessary beforehand. The different projects which result from the presence of an institution in the field aim then at facilitating the general (production) processes in the *comunidad*, as if preparing it for further activities at some later stage.

In contrast, projects such as the PEECC, or the subsequent *programas*, are not oriented at such pre-requisites. The question is whether these pre-requisites, as conditions which have not been yet attained, are a limitation to the normal development of the *programas* and a limitation to higher efficiency in the performance of the rural school⁵.

Whether around formal or non-formal education, interventions need to be tailor-cut. They have to fit precisely to the situation in which they are to be implemented. If the social, economical and technical situation of the community is not considered in the design of the intervention, the chances for success, and for its results to be sustained, are smaller.

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Reflecting on the opinions of teachers and USE officials, these pre-requisites would include the provision of different materials, transport facilities or infrastructure.

(c) Implementation strategies

A big difference is seen between the implementation of formal education projects and those on extension and *capacitación*. Implementation of NGO activities cannot be compulsory (perhaps the source of frustration of many extension workers), but must rely on the merits of the innovation itself so that *beneficiarios* participate and so that the idea is copied, diffused, or simply put into practice by those who are to benefit from it. NGOs in the field follow a combination of different approaches. *Capacitación* activities are aimed at those members of the communities which hold key posts and whom, because of their position and influence, will then be able to facilitate implementation at a wider scale within their community. Many courses or field trips were reported to which only senior members of the *comunidad* were invited (causing many unnecessary feelings of discrimination) with the hope of wide-scale implementation later.

A second approach is recognized in the use of field demonstrations and the subsequent implementation once the positive qualities and appropriateness have been shown. This approach is equally popular within *capacitación*. The extension workers -or in some cases the same *comuneros*- are the ones in charge of putting an idea into practice and showing it.

In opposition, the formal education projects, being implemented as part of the public sector, have the advantage that they can become compulsory to be followed if such a move is deemed desirable. Perhaps this is the only way in which they can become implemented after some time⁶. In practical terms, schools lack the autonomy and the capacities to choose from different approaches. There are little chances for setting up specific demonstrations and then showing what each particular project is achieving. Further, it is even less likely that any potential *beneficiario* would have the time or possibilities to see these demonstrations, recognize advantages and then try them out.

Further distinction is found in the different target groups and final *beneficiarios* for each case. *Capacitación* projects and all extension activities are directed at the members of a community (as a population group). Differently, projects such as the PEECC have as final target group the children, but the projects are designed and implemented around teachers. These teachers may feel that no direct benefit reaches them, as a distinct group, if these *programas* are implemented. Any possible benefit is seen (or is to be seen) after a considerable period of time and in another group of the population: the students.

In short, the way in which implementation begins (dependent on the characteristics of the project and the context in which it is set) will have a strong impact on the possibilities for a sustainable process. Roles and responsibilities need to be assigned, facilitating a proper establishment of the intervention within the general context and environment. This is,

⁶ Many other different projects have been tried in relation to school efficiency in the rural areas. Being run by institutions outside the *Ministerio de Educación*, these had very little chances of diffusion, further implementation or continuation once the project finished. Being part of the public sector is then not only an advantage, it can mean the only possible way for sustainability.

considering who the *beneficiarios* are, the presence of different actors (at different levels), the allocation of resources, power relations, autonomy, etc.

(d) Participation

This is a complex term, which can have different meanings to the different actors involved. According to various descriptions, participation can even refer to shifts in power and, specifically, to the strengthening of local capacities. Just how much of these goals are feasible and/or actually achieved as a result of the interventions? Even if the theory mentions many benefits if 'participation' is considered, it is evident that many times the definitions given and the benefits which are expected represent very ambitious goals which as such are rather unreachable.

Even if no clear definition is given, 'participation' is in the mouths of everyone, in practically all programmes and guidelines within every intervention. But this participation is basically limited to a collaboration sense (involvement through the use of a service or attendance to an activity). This only shows the difficulty of putting the ideas into practice.

Most NGO activities intend to follow participatory methodologies, something that is accepted and appreciated by the participants. But participation in the selection of the activities themselves, or in the selection of the issues to be covered, is limited. It has already been shown that many of the participants consider that everything is 'pre-determined' and that they have little say in the definition of the activities of the organizations. Most of the times everything is determined from an analysis or diagnosis of the situation (realized by the organizations themselves at the beginning of their intervention), from where the courses for action are decided. Just how accurate are these if participation is limited? Further, the definition of what to do is in many cases hurried, unclear or imprecise. The '*metismo*' approach dominates - something needs to be done within a time period to show the results, whatever these are.

Participation within the formal education projects is also limited. How much were teachers involved in the design of the *programas*? Very little. Similarly, not even an opinion is asked from the parents during their implementation. This can only lead to programmes which are not appreciated or seen as relevant.

However, participation is not only a regarded as a means, but is also an end in many interventions. Activities towards local organization and institutional building are also part of the projects. Within *capacitación*, many activities were observed regarding the strengthening of the local *comunidad campesina* (like discussions on their internal regulations). At the same time, participation in district councils or in other local authority bodies is encouraged. *Capacitación* even aims at the promotion of local enterprises (e.g. to produce and sell fish, or potato seeds, or other crops). Similarly, positive aspects are recognized in the organization of the monthly meetings as part of the *programas*. Teachers are asked to express their ideas

on the implementation itself, to show what are the strengths and limitations and to orient the course they follow according to the conditions found in each school. Even if autonomy and decision making is limited, such study groups can be seen as the basis of local capacity: teachers who adapt the *programas* and implement them according to their needs and possibilities (with the possibility of eventually reaching the autonomy which the *Ministerio de Educación* itself intends).

Participation is a difficult term to operationalize. It is clear though that it has a direct relation with the success of a project (e.g. services which are more relevant, a greater demand, etc.). Its definition and how it is followed is thus directly related to the possibilities for sustainability.

(e) Evaluations

Monitoring and evaluation is another aspect relevant to the implementation of projects. Here again, it is an issue which is almost always considered in the plans and supposed to be part of all the activities. The general objective of an evaluation is to obtain feedback and information of the activities themselves, and thus correct the course of action.

How often do evaluations actually take place? Within NGOs, filling forms and writing reports is a constant activity, in which almost all extensionists take part. But it is arguable whether these effectively correct the course of any project. Rather, these evaluations seem basically oriented at showing numerically what has been done (and not precisely what has been achieved). 'Metas' are set as specific objectives, then evaluations have to show that these were reached and that the activities were in fact implemented. This was clearly shown by the remarks of the project director of one institution:

"If our plans say 20, then evaluations and reports have to give a number which is near to 20 and show that we are on the right track. Not too much and not too little..."

It must be mentioned though that numbers generally do fit. So much money is spent, so many courses are organized, so many participants attend; very much in accordance to what is planned. It is not that figures have to be made up; the problem lays rather in the utility which such evaluations provide for the efficiency and the later continuity of the projects.

Big-scale projects like the PEECC have always a big scale evaluation, where all details are shown, much in the same way as a specific project within the activities of an NGO (like for instance the *Proyecto Manejo del Ecosistema de la Laguna de Pomacanchi* within IMA). The problem is that such an evaluation takes place after the project is finished, leaving little time for any corrections to be made. Annual or half-year evaluations seem, in the same way as with NGOs, only a report of numeric advances, a reflection on the concordance between the plans and the results. And local evaluations -referring to the implementation at the local level- are seldom considered. In the particular case of the PEE and PEF, those involved in their day-to-day implementation carry out no evaluations: no time or resources are assigned for

this. It is difficult then to know where exactly are the bottlenecks found and what is necessary to be done during the implementation itself.

In short, evaluations are limited to a measurement of a product, not of a process. Frequent and detailed process evaluations are necessary so as to ensure, from the implementation practice itself, that the innovations are effective, relevant, appropriate and can be, as a consequence, sustainable.

(f) The general context

As last factor, it is necessary here to consider the general context within which interventions take place, and the possibilities which this provides. Even though the general situation in the rural areas remains very much the same over the years, some factors in the general context have changed particularly during the last years. Perhaps the most important of these has been the gradual 'recovery' of the State and the reassumption of many of its roles. In many cases there has been a total redefinition of what these roles are and how they are to come into effect.

This has left many local NGOs -or many externally funded projects- with no clear perspective as to what has to be their own particular role. If they are to remain in constant opposition to the government they can very easily be left behind, seeing their own guidelines and programmes being followed by others. But if they continue operating in the same areas and around the same topics, they can easily end up being 'incorporated' into the official apparatus.

This recovery of the State and its institutions has come together with a certain ideological crisis in many non-governmental organizations. It would seem that if the government is granting top priority to efficiency, productivity and production in general, then NGO activities are also to head in the same direction. According to some members of the NGOs, *Educación Popular* and *concientización* are nowadays seen as abstract and politically-tainted ideals which fit no longer with the higher production and efficient management preferences of the electorate and the population in general. This has all resulted in shifts in general objectives and in working around activities which can show rapid results. (Sometimes it is even considered that NGO activities need to result in financial returns, considering the increasing difficulty in finding specific funding from abroad.)

This has meant a different role for NGOs and projects in general: one as facilitators of production (not necessarily a transfer of technology role). Human resource development activities are still found (like e.g. self-esteem seminars with young women from the *comunidades*) but these are in most cases left as a side-line, a small reminder of days gone by.

Few more changes are expected to occur regarding government policies and approaches. Looking at recent Peruvian political development, one tends to conclude that whatever the changes in the government, general policies will remain unaltered. NGOs are thus to

consolidate their own presence in the field within this context, something for which their own relation with the government and its institutions acquires special importance. The 'new' context means greater difficulties for external finance, together with increasing facilities for getting involved in the government's programmes (like becoming contracted for a particular job, as with PLANCAD). Therefore, NGOs may see this latter possibility as the only way for their own institutional maintenance.

Projects can then be designed around this option. Becoming part of the governmental apparatus can mean a smaller degree of independence, but at the same time a smaller degree of uncertainty. Medium and long-term plans can be drafted if commitment is shown for long lasting activities, both from the government and from the NGOs themselves.

If NGOs see their role in a permanent provision of goods and services, then it is their own resources and their own possibilities for such provision which need to be ensured. Relations with the donors need to be carefully looked after, be them from abroad or not. But if interventions are not to be limited to a mere provision, the relations with the other actors and institutions gains even more importance.

Either way, a definition of roles and activities is essential, and this needs to come with a definition of each institution's position. This refers to the relations established (or to be established) with all the other actors and institutions: the donors, the community members, the local organizations and, in particular, the State.

Summary

One of the factors which were mentioned at the beginning of the chapter as directly influencing the sustainability of the different educational innovations was the selection of the activities which define an intervention. This last section showed that it is not only the activities per se, but rather the complete orientation which is given to each attempt and what is intended with each intervention project. The main issues to be considered are summarized in Table 3.

Many are the factors which shape an intervention. Based on the observations in the field, this section has shown the criteria which have a direct influence on the innovations which result in every case. How each of these issues is considered during the design and implementation of an intervention will determine the specific orientation which the intervention will follow. This orientation will in turn determine the response of the different individuals, as actors with specific interests. This all will shape the possibilities for a sustainable innovation.

Table 3

Criteria influencing the design and implementation of interventions

Criteria	Characteristics
Educational relevance	<ul style="list-style-type: none"> - in relation to the needs and possibilities of each community - determined by teachers, students, parents or <i>beneficiarios</i>
Structural pre-requisites	<ul style="list-style-type: none"> - prior provision of incentives or facilities? - preparation for a later stage? - precise adequation for every situation
Implementation strategies	<ul style="list-style-type: none"> - definition of roles and best approaches: compulsory (<i>officialización</i>) <i>capacitación</i> to holders of key posts demonstrations (showing possibilities)
Participation	<ul style="list-style-type: none"> - identification of problems - definition of what to do
Evaluations	<ul style="list-style-type: none"> - towards a (re-)definition of activities - measurement of a process, not a product - at the local level
The context	<ul style="list-style-type: none"> - the internal structures of the <i>Ministerio</i> - relations with the (foreign) donors - relations with the community members - relations with other organizations - relations with the State

6.4 FINAL REMARKS

The sustainability of the different innovations depends basically on the ability to cope with adverse conditions (or to adjust the implementation to a new situation), while at the same time maintaining the services, actions or activities as such. This is something which is expected, but which can only be verified in time. It is thus not always a top priority in a short term project which needs to show results within such short time.

Field observations show that the results of the different interventions seldom last for long. Many factors have been recognized behind this lack of sustainability. The specific orientation which is given to each intervention and the basic aims which are defined prove to be crucial factors.

Many times it would seem that a long-lasting duration is purposefully not wanted, as that would eventually mean that no more interventions are necessary (or that the presence of the institution in a given area is not any more needed). Regarding NGOs, it is frequently heard

that becoming unnecessary should be their ultimate goal: institutions should orient their work so that they become irrelevant and unnecessary in a given area after some time. But things look differently from the inside, especially when considering the NGOs' own institutional building and their internal achievements during the last years (experience, capacities, reputation, their own 'place' within a community or society. etc.). NGOs may feel that they have not yet become fully established and it is already necessary for them to leave. At the same time, it is considered that much more is needed to be done in each particular location, and that there is no-one who would otherwise take care of that.

The formal education sector on the other hand faces different challenges, perhaps more similar to those of the *beneficiarios* of an NGO project. The *Ministerio de Educación* and its departments are not directly involved in the design or trial, but they rather 'receive' the experiments or intentions of a particular project. Innovations will only be sustained if whatever is intended is properly internalized. This, as with any group of *beneficiarios*, is a difficult task.

It has already been said that there can be no recipe to follow so that innovations are sustained. This chapter has shown many limitations and issues which need to be considered towards sustainability. It is expected that, taking these into account, the *beneficiarios* of the different projects and attempts are to benefit from an intervention; not only while it takes place, but long afterwards. The following are the main ideas considered:

(a) Projects and NGOs need to make explicit their time perspectives and their specific role, from the beginning of an intervention. If their role is to provide a specific service, then it must be clear who is to benefit and for how long will such provision last. If their role is to prepare a community for a next stage (i.e. taking care of the structural pre-requisites), then it may help determining when is such a condition achieved, and then determining how to do so. If their role is to facilitate the emergence of local institutions or organizations, then new roles have to be defined (for these), together with indicators which determine whether the objectives are reached.

All these requirements demand the establishment of a relationship with the government and its institutions. The State is not anymore an absent or passive actor.

(b) A proper identification of roles is essential. But this cannot be limited to the NGO or the intervening agency. NGOs must see clearly which is their own role within the context; at the same time all other actors must equally have clear the role each plays and the motives behind each case.

But roles also imply responsibilities. As such, the local population or the members of the formal education sector have to cease being passive *beneficiarios* (who 'receive' the results of the project of an external agency). The different actors need to become active participants. A sustained innovation can only be ensured if such a project stops being an external activity or an intervention, becoming the role and responsibility of the internal actors themselves. *Interiorización* and commitment can only result from effective participation.

(c) All interventions need to be tailor-cut, so diagnoses and analyses are essential. The structural pre-requisites need then to be considered (where 'preparation' of the community for a next stage may be necessary). These pre-requisites must not be limited to infrastructure or general facilities, but also include local capacities and organizations, as a condition to achieve the above mentioned ideas (e.g. capacity building for increased participation and for a continuous innovation process).

All activities, especially those oriented at these pre-requisites, need to be part of a wider plan. This needs to consider the broad aims and objectives, when and how are these objectives to be reached, and the ways each actor can contribute to reaching them. Frequent and recurrent observations and evaluations need to be a part of this, as an essential component of the on-going implementation. It is necessary that evaluations reflect the processes which take place.

(d) The huge amount of roles, activities and functions which are necessary result in high expectations or demands from a single institution or from one group of actors. Possibilities and limitations must also be considered, especially those regarding time, human resources and finance. Hence, it is essential to aim at a clear and precise division of labour between all the actors and institutions involved, with roles that complement each other towards common objectives. Not only are relations necessary with the government (as part of the general context), but also among the different institutions involved around formal and non-formal education. These interrelations, preferably, have to go beyond a mere cooperation or a distribution of tasks.

A greater integration between the different institutions, and the necessary linkages towards this, are discussed in the following chapters.

SEVEN

THE SITUATION IN THE FIELD: LINKAGES AND ISOLATION

*"Integration, working together, yes, it's
all very nice. But it is not easy.
Every institution has its own ideas,
and its own strategies for intervention.
Each one goes on its own..."*

The former head of IMA's Oficina de Capacitación

It is not difficult to distinguish isolation and a lack of linkages in each of the projects and programmes surveyed. Each of these would seem to operate on its own, with very little contact with the almost 250 other institutions operating in the same region. This chapter looks at the linkages between the different institutions in the rural areas, following the second research question: What are the reasons which determine the establishment or the non-establishment of linkages? The next pages analyze the general situation in which formal and non-formal education is found, especially considering the projects and interventions in each case.

The chapter begins by describing and analyzing the linkages which were observed in the field. Common work, collaboration or communication does take place, even if this seems the exception rather than the rule. Each case shows particular results, as well as difficulties worth mentioning. The analysis continues by focusing on the differences between these linkages, considering the different characteristics in each case.

But if the existing linkages are the exception rather than the rule, it is equally necessary to distinguish the factors which determine this general situation. Different reasons were found behind the modus operandi of most interventions, the lack of integration between the two educational sectors and the general isolation in each intervention. These factors are analyzed hereafter.

7.1 THE EXISTING LINKAGES

In spite of the different problems and constraints observed in the field, some linkages do exist between different institutions. Common work does take place in some particular

circumstances. The following is a brief description of these cases, as a starting point for the analysis which follows. It considers three specific cases where interrelations and common work was established between the formal and the non-formal education sectors: PLANCAD, CAIP and Arariwa's 'Support to Formal Education', together with other minor links or agreements. The section finishes with a special look at municipalities, as local government bodies around which specific linkages were identified.

(a) PLANCAD

The *Plan Nacional de Capacitación Docente* is the Ministry of Education's national teacher training programme. With funds from the World Bank, the Ministry has designed a thorough programme for the training of all primary teachers, for which certain guidelines have been set. Through workshops and seminars, the whole programme aims to reach more than 125 thousand teachers and around 18 thousand *directores* in the whole country before the end of the year 2000. It is not the Ministry of Education itself but different institutions who are in charge of implementing the guidelines and the complete programme all through the country. These institutions are either NGOs or universities, and are contracted by the State to run the programme in a given province.

Having institutions contracted by the State is recognized as one of the most important possibilities for dialogue, coordination and collaboration between the public sector and private institutions (Encuentro Latinoamericano de ONGs, 1994). The relations which are established, however, are in most cases limited to "an instrumental type" whereby institutions execute a set of actions defined and determined by the State, implementing what the State cannot -or is unwilling to- do. This is not altogether negative. Many institutions consider that this is a good opportunity to put their theories and ideas into practice without having to rely on foreign funding. Homogenization of policies and practice is also regarded as positive. In this specific case, the *Ministerio de Educación* relies on the abilities, interests and expertise of the different institutions, something positive if what it looks for is diversity.

But this diversity can lead to very different results according to who is in charge. Primary teachers in Acomayo could hardly name the institution in charge of PLANCAD in their province. At the same time, Arariwa has been in charge in the province of Urubamba for two years, and is identified and recognized for its work. Arariwa officers see the whole process as a good opportunity for the validation of its own ideas, based on their expertise in the field of adult training. Simultaneously, many possibilities arise out of having a direct relationship with all the primary teachers in the province. This is a particular condition which can result in further activities with schools. Quoting Arariwa's head responsible for PLANCAD,

"not even the USE can reach schools the way we do. The result is a high degree of trust, better relations, more friends."

But not all members within Arariwa have similar views. Different interviews showed that there is no consensus regarding its role and main interests within this programme, how to make the best out of it, or how is it going to continue in the future. The same head officer quoted above recognized that top officials in Arariwa are not sure yet how to proceed. Internal definitions, particularly regarding its relation to the State, are essential.

(b) CAIP

IMA's agreement with the Centro Andino de Investigación Pedagógica (CAIP) allowed for specific activities with schools in the different areas where both institutions operate. Quoting the head of CAIP, it was considered, when the agreement was signed, that "there is no possibility for education to play an important role if it is not inserted in an ample proposal of regional development". The definition of a new curriculum for both primary and secondary education was thus part of IMA's perspectives on development. This new curriculum was to come as the final result of all the activities emerging from the agreement. The experience and capacities of CAIP as a regional institute specialized in pedagogical research were sought purposefully.

Following the agreement signed, the different schools in the area were visited by members of both IMA and CAIP. Fieldwork and different activities were run with both teachers and students. Some teachers who were interviewed remember this as an interesting experience, through which they received the advice and help of 'experts' on agricultural and livestock issues. These experts were constantly around, in some cases even running some specific teacher training courses. Their advice led to 'alternative' approaches for school activities.

All these activities, however, seem not to have been planned in detail. No documents remain on how visits were to take place, what topics were to be addressed or what was specifically to be done. At the same time, little attention was paid to other (similar) projects being implemented in the area, and no further relations or collaboration was looked for. Work with primary schools was left behind as the Ministry's PEECC was already running. Both institutions concentrated then on secondary education, even though some manuals for primary schools were produced and distributed. Eventually the agreement between IMA and CAIP finished and was not renewed.

(c) The 'Support to Formal Education' programme

This was a specific programme within Arariwa's *Línea Educativa*. Part of it ran for some years with funds from a Lima-based educational institution, aiming to implement a series of 'productive projects' in several primary schools in Urubamba. This project was designed, quoting its former head, "so that students develop specific abilities and attitudes towards labour or technical activities". Additionally, schools were supposed to generate an additional

income of their own by producing a certain good. Several schools presented their own ideas, of which 18 different projects were selected and implemented. These included bee-keeping and honey production, a carpentry, ceramic art and even a hair-dresser. Credit was granted for each case, to be given to another school when the first one paid back.

But Arariwa's interests ran further. According to different documents (like 'Línea Educativa Fase 1994-1998') the implementation of productive projects went together with curricular innovations, teacher training and even health courses and seminars within schools. In addition to the specific aims of the programme, the main objectives were to:

- support and coordinate the implementation of educational proposals;
- support the improvement of the schools' infrastructure and their basic conditions;
- promote and support the capacities for organization and management within schools.

How much of this was achieved? The different productive projects ceased to receive further support because of differences of opinion between Arariwa and the donors. Each experience, even the most successful, was abandoned. According to the projects' former head, problems were not limited to money: aims were not adequately defined, there was no proper analysis of the situation, nor was it clear how the whole project was to go on. Monitoring and evaluations were also insufficient. It was thus no surprise that it all finished abruptly. Further, Arariwa's interest with PLANCAD reoriented its activities.

The whole experience, even if short and not fully successful, did show some results. Specific activities were designed for some schools, and these received funding, support and specific training from an NGO. This was not limited to the technical side, but -at least in theory- was part of a wider plan. USE and other educational authorities approved and welcomed Arariwa's involvement, as a pilot experience which could later be expanded.

(d) Other linkages observed

Similar to the linkages found as part of Arariwa's programme, other links were observed between the NGOs in the field and the schools located in their areas of influence. These did not respond to a specific project, but were rather the result of a determined interest, coming from one of the actors involved. At the same time, linkages were also observed between different institutions. Examples from both sets are given next.

The visits of some of IMA's *ingenieros* to the schools:

IMA team members used to visit many of the schools in the Pomacanchi lake area. Even though these visits were part of the agreement established with CAIP and the local USE, some visits and cooperation continue to this day, though limited to specific cases. In Yanampampa, for example, the school received a small plastic greenhouse from IMA and now produces some vegetables. One of the Acomayo team members makes regular visits to see how production is going on. Similarly, many tree seedlings were given during 1997 so that the school takes care of them before granting them to the *beneficiarios*.

Teachers from the Pomacanchi school, on the contrary, regret that IMA is not visiting them anymore: "I wonder what happened, they are simply not coming". Some teachers mentioned their interest in writing a formal request to IMA, but never came to do it. Collaboration between IMA and the Yanampampa school showed the difference: the *director* there did write and send a letter.

The visits of the Arariwa extensionists:

Arariwa team members were not frequently seen visiting rural schools outside their regular activities. But some exceptions were observed. During 1997 members of one of Arariwa's teams visited the school in Umanes. There they gave a lecture on the production of horticulture crops and nutrition, which was attended by the whole school. But this was not a regular activity; the visit observed responded to a specific request presented by the *directora*. According to her, she decided to invite some 'experts' following the new ideas and regulations within the Ministry. Staff members mentioned their personal interest in improving the activities related to the PEE.

Different aspects were mentioned as positive results from this meeting. Among these, receiving specific information about certain technical issues, or the fact that "it is always positive if the children get used to working with other people, apart from their teachers". Arariwa members were equally satisfied, mentioning their desire for working with the *comunidad campesina* and the importance of working with its children, who "are the future of this *comunidad*". But even though team members mentioned their interest in returning frequently, this did not happen. Visits to this or other schools were not included in the team's plans, so this case was not repeated. It was the *directora*'s interest and request which made the visit happen.

A similar case was reported during the visit of members of another team to a distant *comunidad*. The *director* of the school there asked the members of the team to return and work during one day with the staff and the school children, showing them how to produce and take care of seedlings. Quoting his address to the extension workers, "you work with adults and (as a result) they know how to, but the children don't and thus cannot take care...".

Both cases showed that cooperation and common work is possible, and it does take place. Still, it is not an easy process, and more than interest is necessary in any case. A formal written request had to be presented, and teams had to have the necessary time within their busy schedules. The *directores* interviewed mentioned that schools can look for their own agreements with other institutions; but this requires the will and the time to put these agreements into effect.

Specific relations were also reported between different institutions operating in the research areas. As it has been mentioned before, virtually all institutions consider the need of establishing links and collaborating with each other. Putting it practically, a member of the *Dirección Regional de Educación* considered that interrelations are necessary so as to make better use of what little resources or facilities there are. As a result, quoting Arariwa's *Plan Estratégico*,

"All the programmes and projects need to establish -and they have done so- relationships with other institutions with similar experiences, interests or common projects. In most cases it has been possible to formalize an agreement, oriented at an exchange of experiences, a definition of common methodologies, and the execution of common projects."

Arariwa is a member of COINCIDE, a regional NGO network interested in discussion fora and homogeneous intervention methodologies. Additionally, its documents mention the existence of an agreement with both the Ministry of Education and the Ministry of Public Health, together with agreements which establish working relationships with another NGO in one district and with the municipalities of several others. IMA has equally signed specific agreements with municipalities and was mentioned to be part of a consortium of organizations dedicated to the study of environmental issues. But in any case, is there more than just a paper signed? Common work and actual coordination was seen in Arariwa's *capacitación* activities on health issues: people from the Ministry play an active role, and courses and activities do seem to be planned together. In all other cases, relationships would seem only necessary as an administrative procedure (e.g. for obtaining authorization from the USE to work with schools) or leading only to a mere distribution of work (e.g. agreements with municipalities, whereby NGOs commit themselves to a specific activity).

Similar agreements were reported between the USE and the local offices of the *Ministerio de Agricultura*. In Urubamba this meant having an 'expert' attending the monthly meetings, helping teachers and school staff with any problem they may have, and bringing issues to discuss and analyze (and providing them with some necessary inputs such as seeds). In Acomayo it was directed at the production of a certain amount of seedlings to be distributed later among *campesinos* from the surrounding communities. In both cases the established links resulted from a specific interest of someone in charge.

Individual interests and actions were necessary for all the above cases to take place. Linkages are regarded as necessary within institutions, schools and organizations. But except for the particular case of municipalities, no general policy was recognized towards them within any of the institutions. This section thus finishes with a description of the linkages observed around these local government bodies.

(e) Municipalities

Every district and every province chooses its mayors via direct elections. Municipalities constitute local government bodies, with their own budget and personnel. Their responsibilities are diverse, though most activities revolve around infrastructure needs: roads, bridges, restoration of the main square, etc. New governmental regulations concede an increased amount of the annual budget to district municipalities: as a result these currently dispose of greater resources to finance their programmes.

Special linkages have been observed involving district municipalities. Generally, these refer to a specific agreement, in relation to a determined activity. Among these examples, the production of seedlings mentioned above: an agreement was signed between IMA and the Pomacanchi mayor by which IMA was to produce the seedlings on a municipal plot, with the help of two employees paid by the municipality. Other cases dealt with specific training for all council members, or help in infrastructure construction (for example, from Arariwa in Urubamba).

Perhaps the most serious attempt at coordinating the work of the different institutions is represented by the *Comités de Desarrollo Distrital* (district development committees, or CDDs). CDDs were first implemented in a few districts by a government-sponsored project. Following these first examples, different districts within the region are now establishing their own CDDs. In each case, all the institutions operating within a district meet with a relative frequency under the auspices of the mayor and the district council. These meetings are meant to define the activities to be implemented or to be put into practice in the near future. Institutions are grouped according to their main interests or functions, and different plans are designed, be it for health issues, agriculture, education or trade.

CDDs in the research locations started their activities with a complete diagnosis of the district, trying to identify the basic problems and the possibilities for action. From such analysis, districts then define their own plan, as a set of activities which respond to all the problems identified. For example, quoting the '*Plan de Desarrollo del Distrito de Chinchero*' (the development plan for the district of Chinchero, in the province of Urubamba):

"This plan is to guide all the activities of the local government (the municipality), of all institutions and organizations... This plan is the result of common work, undertaken by all authorities, institutions, *comunidades campesinas* and the population in general. It contains all the aspirations and pre-requisites for development of the people of Chinchero, of its *comunidades* and organizations."

Every chapter in this document includes a brief description of a specific situation. Next, it includes a set of objectives and the activities necessary to achieve these. Regarding education, these objectives include:

- improve the quality and conditions of the educational services, diminishing negative indices (repetitions, dropouts), and providing the necessary infrastructure;
- use the local mass media for the diffusion of information, culture, values and general development ideals to all the population.

The specific actions which are expected to be followed include the provision of infrastructure, and also the promotion of teacher training courses. They also include the organisation of different contests between the schools of the district, the promotion of the participation of parents and the *comunidad*, etc. Two specific factors were observed regarding the actual implementation of these policies and ideas: the projects described in the plan dealt only with infrastructure (new rooms, a central library, etc.) and none of the cases mentioned which

institutions are responsible or are to implement the activities. Participation is observed in the definition of problems, but difficulties arise once something concrete has to be done.

Are CDDs only oriented at a distribution of activities? Documents and interviews mentioned much more, aiming at consensus building, collaboration and effective integration. But results of meetings and the activities being implemented show how difficult it is to get the CDD going. In any case, a distribution of activities is surely a good start towards better linkages and further integration.

The different factors which determine the establishment of linkages and the integration of the different educational institutions are described further on in this chapter. Suffice to say here is that CDDs show many possibilities, but at the same time show some basic difficulties. Motivation and willingness to participate is essential, but these are not always present. Members of one institution mention frequently the lack of interest observed in other institutions, together with a lack of time available for meetings and discussions. (Meetings then take place sporadically, "so that nobody gets tired of them".) In some cases, it would seem that even the mayor is not particularly interested in the success of the CDD, fearing competition with the municipality itself.

In spite of the difficulties, CDDs present a possibility for at least bringing together the different institutions working in a particular area. Success depends on all those involved, though basically on the willingness and determination of each CDD's head: the municipality and the mayor. It is necessary thus to consider the special role of each municipality and its pre-eminent position among all other institutions: municipalities are local governments which are chosen by the population, with direct responsibilities which no other institution can assume.

The cases mentioned above show that linkages can be very diverse. What type is best when looking for specific benefits? Who is to be involved? This certainly depends on what needs to be achieved, or on what is expected in each case. The next section looks at the different types of linkages and inter-institutional interrelations, as a general classification.

7.2 WHAT TYPE OF LINKAGES?

Looking at different field situations, Engel and Seegers (1992) conclude that the different linkage characteristics depend on two main factors:

- the context, as "situations which have historically developed their own linkage patterns", and
- the appreciations of the different actors of what effective linkages look like, and of where can they lead to, if used in a specific situation.

Each field situation will therefore have different linkages. This section looks at some basic differences, as a starting point for defining what type of linkages are necessary. This is essential for defining a strategy for action.

Differences in linkage types have been mentioned before. I will mention here some of the differences observed, concentrating on the basic attributes and on the specific function these linkages have. The discussion continues by considering which of the actors are involved.

Linkage attributes

I refer here to the different characteristics which linkages can show. Box 16 shows the different attributes, based on the work of Kaimowitz, Snyder and Engel (1990). These are not mutually exclusive, nor are the terms always applicable. Still, they facilitate a first differentiation.

Box 16

Linkage attributes

Linkages between different institutions may be:

- regular or ad hoc: if established for general or only for one particular purpose;
- permanent or temporary: referring to a pre-determined length of time, as might result from the signing of a contract between two parties;
- mandated or voluntary: depending on whether they can impose their decisions on the parties, or if they can only suggest or influence;
- compulsory or optional: if their establishment depends on higher orders;
- formal or informal: based on contracts, signed agreements, or if they are just defined verbally, between two or more individuals;
- horizontal or vertical: depending on the level of authority and decision making of those involved;
- simple or complex: depending on the number of individuals involved in each case.

Based on Kaimowitz et al. (1990)

These parameters are used to describe the linkages observed in the field. The PLANCAD programme, for instance, is based on formal linkages between the Ministry of Education and the different institutions, in order to fulfil a specific set of activities during a pre-determined period of time (generally for one year, renewable). These agreements involve a huge number of individuals, from top level officials in the institutions and in the Ministry, to the teachers who attend the courses and the institution members who facilitate them (the *capacitadores*).

The interrelations established due to Arariwa's 'Support to Formal Education' programme, or those between IMA, CAIP and the schools, were equally formal, ad hoc and temporary. They were meant for specific activities, to be fulfilled within a limited period of time. They involved, at different levels, a large number of individuals: teachers, extensionists, USE officials, NGO representatives, donors, and school students. (For those in the schools, these linkages were compulsory: teachers had to comply and attend the courses or follow the activities being implemented.)

Formal linkages were equally established between different NGOs, or between NGOs and other institutions. Linkages of the first category were observed, for example, between Arariwa and other organizations, as part of COINCIDE. Similar examples included those links between IMA or Arariwa and the local health authorities. All these interrelations were based on a formal, signed agreement, with specific purposes.

Similarly, NGO activities in the different *comunidades* require a formal agreement. A contract is signed with the *comunidad*, mentioning the responsibilities of each party. These, however, reflect only the basic intentions. Field activities are defined informally, depending on the moment's facilities, interest shown, or possibilities.

The visits of extensionists to the different schools reflect the opposite attributes. These visits resulted generally out of informal conversations between the *director* and the team members (even if this had to be 'formalized' with a letter to the NGO), out of a specific interest in the school itself (and not at the USE or elsewhere). Collaboration or common work was intended in every case with concrete objectives or purposes, to last for a limited period of time (e.g. one visit, during one day, which could later be repeated). Linkages thus involved a very limited number of individuals, acting voluntarily.

Finally, different examples of linkages were observed with the municipalities and the CDDs. Even in the cases where CDDs were not operative, municipalities require formal agreements whenever any other institution takes part in their actions. These agreements, generally, require the approval of the district council and of the head of each of the institutions which is to participate (and not just the team members or representatives). CDDs, on the other hand, establish their own guidelines, defining roles and responsibilities for each and every institution involved. These consist also of formal agreements, but show other additional attributes: these are complex linkages and, in general terms, regular and permanent.

The establishment of the different linkages always had a particular objective. It is therefore necessary to look at what purpose was intended, or at the specific function of linkages, as additional parameters for differentiation.

Functions

Linkages can equally be differentiated according to the function they fulfil, or according to what is expected from them in the first place. Kaimowitz et al. (1990) established a first difference: the focus on programming activities in opposition to the implementation or evaluation of these activities.

The same authors mention two other criteria in order to distinguish linkage mechanisms: whether they are facilitative mechanisms or control mechanisms. The former are established to provide the necessary resources for a given set of activities. The latter determine how these different resources are to be used.

CDDs are basically oriented at defining a situation and programming what needs to be done. The other interrelations which were observed refer basically to the implementation of different activities.

At the same time, those linkages sought and established between schools and the different NGO teams were clearly meant to provide resources. Whether these advantages are tangible materials or a *capacitación* course and specific information, these attempts constitute facilitative mechanisms. Control mechanisms were observed within PLANCAD (the different institutions need to follow the guidelines set by the Ministry), or, in many cases, in the relationships established between NGOs and the *comuneros* or the schools: either one has to comply with its part of the deal in order to continue benefitting from an NGO project.

Bebbington and Thiele (1993) make a different categorization. They refer to operational linkage mechanisms (those which coordinate or support the implementation of specific functions by the two parties), and structural linkage mechanisms (those which function at a general planning level to create more linkages). Going back to the field, CDDs are clearly a structural linkage mechanism, in the same way as COINCIDE or any other NGO network. These are either coordination units or permanent committees, with the specific function of coordinating activities between the parties. Their role in facilitating interaction and the potential emergence of new linkages between the different institutions is looked at in the next chapter. It is necessary here only to highlight the difference with the operational linkages identified: collaboration between NGOs and the schools, the provision of certain resources, or the implementation of specific activities.

Who is involved?

The next differentiation to be considered refers to the actors or institutions which are involved in each case. Much of this depends on the level at which linkages are addressed (Van Crowder and Anderson, 1997). This can be: at the farm level (or involving one *comunidad*), at the district, province or regional level (involving municipalities or different level authorities), at the national level (the different Ministries, the central government), or even internationally (the donors). Field observations showed some basic differences. Linkages established in the field include those involving the *comuneros*, school teachers or extensionists. Those determined and established 'higher up' were found at different levels. Many were established in the provinces or in the city of Cuzco, like those involving the NGOs, the USEs or the *Dirección Regional de Educación*. But lack of autonomy means that many linkages can only be addressed in Lima by higher officials within the Ministerial structure, such as those related to the PLANCAD programme. All definitions and decisions are given out in Lima.

Linkages between the schools and the NGOs, as the main concern of this thesis, reflect these different levels. Teachers and *directores* look for linkages as they can so benefit from additional resources and certain facilities. Attempts are therefore made at the local level, by referring to the local NGO teams. At the same time, the NGOs may want to consider the

teachers as part of their target-group for *capacitación*. Linkages need then to be addressed at the USE or the DRE, where NGOs obtain a 'permit' for working with some schools. Other attempts by the public sector also originate at higher levels: the USE may look for certain 'allies', or even the Ministry looks for institutions which can fulfil its programmes. The possibilities are numerous.

Just what linkages are necessary? And among whom in particular? It is necessary to consider all the different characteristics described (summarized in Table 4). In particular, though, it is necessary to consider what is expected in each case.

If schools -or actually any of the institutions- require a greater provision of resources or facilities, then ad-hoc and temporary linkages could be sufficient. Most of these would not even need to be formal. These are linkage mechanisms oriented at a specific implementation: they are therefore 'operational' mechanisms which need to be fostered at the local level.

Coordination and a distribution of activities, or the possibility of reaching an institution's global objectives, require a greater degree of complexity. Linkages cannot be limited then to bilateral agreements but must include diverse parties: two or more NGOs, local authorities, public offices, the *beneficiarios* themselves. This leads to the need for structural mechanisms, from coordination units to permanent committees.

Are operational mechanisms better suited than the structural mechanisms? This depends on the advantages which are expected to result from the establishment of linkages. It is these advantages which determine what type of linkages are to be sought. Anyhow, before looking at the advantages and the implementation which can therefore be intended, it is necessary to consider the basic difficulties recognized in the field, as factors which limit the establishment of all linkages.

7.3 THE DIFFICULTIES IN ESTABLISHING LINKAGES

Linkages and common activities were observed in the field, both between NGOs and between an NGO and the formal education sector. However, considering all the activities and interventions taking place simultaneously, these linkages are not many.

The formal and non-formal education activities constitute two separate sectors, with limited links between both. While the former sector depends directly on the Ministry of Education, the latter consists of the activities of many 'independent' organizations. The difficulty therefore does not lie in interrelating what is formal and what is non-formal education. Rather, it lies in the huge distance between what is public and what is non governmental.

Table 4
Linkage types

	attributes	functions	actors
PLAN CAD	<ul style="list-style-type: none"> - formal - temporary (renewable) - ad hoc 	<ul style="list-style-type: none"> - focus on implementation - control mechanisms - operational 	<ul style="list-style-type: none"> - Min. Education (Lima) - NGO officers - teachers
CAIP	<ul style="list-style-type: none"> - formal - temporary - ad hoc 	<ul style="list-style-type: none"> - implementation - control mechanisms - operational 	<ul style="list-style-type: none"> - extensionists - 'experts' - teachers
Support to Formal Education programme	<ul style="list-style-type: none"> - formal - temporary - ad hoc - compulsory (for those in the schools) 	<ul style="list-style-type: none"> - implementation - facilitative and control mechanisms - operational 	<ul style="list-style-type: none"> - donors (Lima) - teachers - NGO extensionists
Field visits	<ul style="list-style-type: none"> - informal (later formalized) - simple - regular 	<ul style="list-style-type: none"> - implementation - facilitative mechanisms - operational 	<ul style="list-style-type: none"> - NGO extensionists - school staff
Inter-institutional linkages	<ul style="list-style-type: none"> - formal - horizontal - permanent? 	<ul style="list-style-type: none"> - focus on programming and implementation - structural 	<ul style="list-style-type: none"> - NGO officers - local authorities
Municipalities CDDs	<ul style="list-style-type: none"> - formal - complex - regular - permanent 	<ul style="list-style-type: none"> - focus on programming - control mechanisms - structural 	<ul style="list-style-type: none"> - local authorities - representatives of all institutions - extensionists

Established links between the different NGOs are also scarce. Even though NGO networks are slowly but gradually moving towards concerted activities among its members, membership is naturally not compulsory, and it is not always clear what the specific benefits of belonging to such a network are. Critics from the public sector consider that isolation and independence remains, in spite of the rhetoric in all NGO approaches and activities. This is basically a consequence of many reasons (*protagonismo*, differences in perspectives, etc.) which lead, according to a Ministry representative, to limited results and impact. "NGOs have not been capable of getting together and present a comprehensive regional development proposal".

Different reasons have been identified for this general lack of linkages and as limitations for integration. Some of the opinions expressed by the different interviewees are shown in Box 17. A detailed analysis follows, based on some general factors identified in the field: the difference in aims and objectives, the lack of a common body, a lack of autonomy, lack of information, and a general inter-institutional competition. These factors refer to the lack of linkages between NGOs and the formal education sector, as well as to the lack of linkages between the different NGOs.

Box 17**Some opinions at the local level**

"The people from Arariwa simply do not come to us offering their services, when they should, in their own interest" (Urubamba USE officer)

"Those from the NGOs should be interested and come here, but they aren't.." (Huayoccari school director)

"They used to come quite often, but then there were problems with the people in charge" (School teacher in Pomacanchi)

"With all institutions you only have to ask and they work with you and support you. But we don't ask. We are used to having somebody telling us what to do". (Another school teacher in Pomacanchi)

"There are many agreements already signed, we just have to make them operative" (DRE official)

"It depends on each institution's representatives. Some are willing, some are totally opposed and make everything so complicated..." (Urubamba USE officer)

"Every institution has its own working dynamics. It is difficult to get over that and come together..." (field extensionist)

(a) Different aims and objectives

The two surveyed organizations showed a particular interest in working with primary rural schools, as is reflected in their annual programmes and objectives. But it is clear that these aims are not part of their general training or extension aims, but a separate component. *Capacitación* is directed at the adult population, covering the topics in which the organizations are strong - be it irrigation or agricultural production. Activities with schools are not part of this but rather a completely separate activity within NGOs; they represent some sort of support

to local institutions which does not necessarily reflect the organizations' current main interests¹.

An explanation to this difference may be found in the strong emphasis on technical activities and on physical aims and results which has been observed in NGOs. Production and productivity has taken the place of *Educación Popular* and *capacitación* per se, leaving these, as it has already been shown, as sidelines. This is recognized by Arariwa's head of its *Línea Educativa*, as a negative result of internal changes:

"We could increase our work with schools, but there is no strategy for that. We would have to propose something... The problem is that there is now no institutional willingness. With all these changes at the top, and all those who were interested have already left..."

According to another institution member,

"There is some interest within our organization to work on educational aspects. But to work with the USEs, and further with the *centros educativos*, would require a complete change in our (new) institutional policies."

Such a phrase also reflects IMA's position, whose former head of its *Oficina de Capacitación* considered greater linkages could only be established after "a change in the paradigms" which are currently being followed.

Those at the public sector do not go as far as asking for a change in NGO-policies, but do consider that objectives are different, and it is therefore difficult to establish relationships. Quoting an USE officer,

"We could try to establish links, of course. Maybe that would help with the diffusion of our proposals and objectives. But every sector has its own objectives and goals. Perhaps ours are then not reached..."

A similar fear was shown by the representative of the *Ministerio de Agricultura*:

"Working together may result in one of the sides not fulfilling its own objectives. And I have to comply with mine and show my results, or otherwise I lose my job at the end of the year..."

It is thus not only that objectives are different, but also that these have to be achieved. Searching for interrelations and links could mean putting aside their own objectives, something which must not occur.

¹ It must also be mentioned here that most NGOs have as their main aim to fill a gap, or to run activities which would otherwise remain undone. There is no central or public organization for *capacitación* or extension, while in contrast the presence of the *Ministerio de Educación* is -in spite of all its problems- found widespread. Formal education is therefore not assumed as one of the NGOs' top priorities or responsibilities.

Different aims and objectives also cause difficulties for establishing linkages between the NGOs. In broad terms these organizations are not strictly different; all NGOs follow the same general guidelines and patterns. But their priorities and approaches clearly are, resulting in different programmes and interventions. In most cases these different approaches respond to specific local peculiarities, to certain demands of the population, or to institutional (and even personal) histories and preferences. Some interviewees even mentioned the set of demands put upon organizations by the different financing agencies or donors (even if this was not easily accepted by the representatives of these institutions). All these factors result in different activities, in broad organizational diversity and in "differentiated working strategies, in many cases in contradiction".

(b) Lack of a common entity

Diversity in aims, objectives or methodologies could somehow be bridged with the existence of a body or entity that draws the different institutions together. This was clearly put by the representative of the *Ministerio de Agricultura* in Urubamba. He was very willing to cooperate with the implementation of the *programas*, but considered that schools and institutions "need to be organized together in some way, or to have somebody that summons up all of them. It is simply not possible to go (and work with) each one by one, separately."

This was recognized by several institution members: "what we need is to get organized together". Representatives of most of the institutions (from the *Ministerio de Educación* and from NGOs) working on similar topics within the region constantly meet in workshops or seminars organized by one or the other. But there is not much more. Quoting two top level officials from the *Ministerio* in Lima,

"There is a bit of coordination and certain mutual support, but no common work [as] there has been no organization that would put them all together."

"There is nobody who would call these different institutions to sit at the same table."

Such an office would then facilitate coordination and cooperation with any possible third party, or among all those actors and institutions involved.

But then it must be recognized that in many cases common work or coordination is purposefully not wanted. Organizations and projects generally want to show their own specific results, making it clear that what they have achieved in their area of influence is the result of their own methodologies or strategies (see point (e) below). At the same time, it was also mentioned that if different organizations all go their own way in a same area, then each will try to surpass the other in qualitative terms. This competition is something from which the population is supposed to benefit, as it receives a better service (a theory that seems to follow or adapt the economic ideas currently in vogue).

And then, if such a common entity would eventually be sought, who could assume such a role? NGOs on their own, because of their small size and their focalized presence, have small chances to do this. The two existing regional NGO coordinating bodies show also limited possibilities. Both lack representativeness; they do not cover all the existing organizations but only a handful in each case, and do not seem particularly eager to diversify membership nor broaden their responsibilities. Maybe COINCIDE, the most influential of these bodies, stands in a better position to call other NGOs and also government representatives: it has achieved some results with fora for discussion and the organization of different seminars. But COINCIDE also runs projects of its own, and has the specific interest of the member organizations behind its moves (like e.g. showing impact in their selected areas). It is easily regarded as a selected club.

The *Oficina de Cooperación Internacional* of the Ministerio has been thought as a possible candidate for such a coordinating role, because of its special relation with the entities that finance educational projects (foreign donors), with NGOs which implement such projects and with the education sector itself. But at the moment this office is only involved in monitoring and evaluating specific projects, especially in relation to their finances (analyzing what money has come into the country and how it has been spent). Any new role would have to be determined within the *Ministerio's* new structure.

A similar thought has been given to the *Direcciones Regionales de Educación*. Quoting an USE officer, "If we want to make good use of all the existing NGOs the DRE would have to summon them up." With enough resources, either the DREs or the USEs (or in fact any specific office within the Ministry of Education) could facilitate the integration of projects and activities at a regional or local level. But current reorganizations represent a serious limitation. If it is not clear or certain what dependency is to assume the existing activities within the Ministry, there is much less certainty in relation to activities which are still to be established.

Attempts for such a body can be recognized in the province of Urubamba with the implementation of the *Comités de Desarrollo Distritales* (CDDs). All institutions (public and private) are grouped according to their fields of action (v.g. health, education, trade) under the mayor and the district council. CDDs have not been implemented (yet?) in Acomayo, and in Urubamba they have had different results in each district. Success is determined by the interest and leadership of the mayor, and simultaneously by the willingness to participate which the different institutions show. Financial resources are an additional need.

Comparing the different possibilities presented, few institutions stand parallel to local municipalities and the mayor for the role described here. In spite of financial constraints, democratic elections ensure representativeness, legitimization and authority over all the institutions in a district or province. This is a must for this role, something which neither NGOs nor ministerial departments can show.

(c) Lack of autonomy

In all the research locations the local-level offices showed very limited possibilities for decision making without 'higher-level' authorizations. Regarding the need to establish contacts or links with other institutions operating in a same area, this proves to be a serious constraint. Even officers working at the DRE considered that they would require legal norms in order to establish links or simply to call other institutions within their own region. These norms can only be given at the top offices of the *Ministerio de Educación*: "We can only put into practice orders from Lima". The process is then much more difficult further down at the hierarchical ladder.

Lack of autonomy was observed clearly in the *centro educativo* in Pomacanchi. In this particular case, described in Box 18, neither the USE nor the *Dirección Regional* had a say in the decisions or in the whole process. Neither office could even advise parents on what to do. Even though the *director* didn't seem to care very much, he could have done very little, even if he had wanted to, against a decision taken by the country's president himself. Parents, wanting to complain about this all, were told they would have to go to Lima.

Other *directores* complained about the new norms and regulations issued by the Ministry. The autonomy which was theoretically granted with these new norms is actually non-existent. Schools still depend directly on the USE; the roles which *directores* were to assume (like deciding what programmes to follow, appointing new teachers, or deciding the year schedule for activities) depend still on decisions taken by those at the USEs or even at the DRE. In spite of the difficulties, some decisions are taken by schools without having been told to do so - like that of seeking help in institutions operating nearby for setting up a school nursery. But according to USE officers, these

"are positive and good decisions, but they are not authorized by the DRE. And they have to be. Even though we would have to congratulate them [these schools] on their initiative..."

Those at the USEs consider similarly that they do not always have the power to decide what to do. Particularly in relation to the implementation of the new *programas*: "the USE is autonomous, but we still need some legal regulations."

NGOs have an advantage here. Their small size and relative flexibility permit a rapid access to all (internal) offices where, if deemed necessary, specific norms are given for specific activities to take place. Internal staff meetings are frequent and participation of all members is encouraged.

This is not to say that field teams are totally autonomous. Many decisions cannot be taken by the field team members themselves, but must be approved by the Cuzco offices (especially those related to money and the way in which it is to be spent). In many other cases an excessive amount of paperwork is required. And participation in the NGO's decisions may not be all that high: several former team members mentioned that in fact only a few dare to assume additional responsibilities or express themselves openly, fearing they

Box 18**Local autonomy in Pomacanchi**

When I arrived to Pomacanchi, new classrooms were being built in the premises of the *Centro Educativo 50056*. But these were not meant for the CE, but for the secondary school operating nearby in Pomacanchi itself. Some of the primary teachers thought that these new rooms would end up being used by the CE, others mentioned that the whole CE would have to find another place and move out, and that their old rooms would even be demolished. Nobody had it clear, as nobody knew exactly why such construction was going on. The only clear explanation was that

"It was a decision taken by President Fujimori. He came here and saw that there was some space which could be used for classrooms. The secondary school needs more rooms, so..."

Construction continued, in spite of the opinions of parents, teachers or local authorities. When I left the area part of the secondary school was already there installed, as an island surrounded by younger children and their teachers.

may lose their jobs. On many occasions decisions are taken in Cuzco -sometimes without the field teams knowing- and must be implemented: "These are orders..."

In some cases, a simple lack of will can look like a lack of autonomy: decisions may be taken but are not, as an easy way out. An expatriate former head of Arariwa's *Línea Educativa* constantly complained that people always prefer just to follow orders which are already established, without daring to take their own decisions. An explanation to such attitudes can be found within the broad set of evaluations through which NGO and ministerial personnel frequently go, for which it is always better to remain 'in line'. In other cases, it is simply a matter of keeping life simple, a desire identified even within the regional authorities. An example is the case when procedures and responsibilities for the approval of an NGO project in Urubamba were unnecessarily transferred to Lima, as "the *Dirección Regional de Educación* in Cuzco simply did not want to get into the fight."

(d) Lack of information

An important reason for a lack of linkages, and the consequent lack of integration between the different institutions operating in the field, is the simplest: there is a general ignorance of what is going on in the other institutions working in a same area. Lack of information has been noticed at all levels, in all organizations and departments. It has even been seen within the two surveyed NGOs: both started taking part in a broad Participatory Technology Development project, but field team members -and at a moment even the heads of the *Líneas Educativas*- had little notion of what it meant or of what was actually being done.

Directores and school staff know very little about NGO projects and activities, except those in which they have taken part themselves (as *beneficiarios* in one way or another). But even then the information received on their specific objectives, or on the future plans which the

NGOs may have, is scarce. Similarly, NGO extensionists have no idea of what exactly is going on in the *centros educativos*, or how the *programas* are being implemented. Box 19 shows one example in Huayoccari, where this mutual lack of information was evident.

Box 19**Field activities in Huayoccari**

One of the very first visits to Huayoccari coincided with two different activities taking place simultaneously. In the *centro educativo* children were having an open air class on the importance of natural fertilizers, soil and the growth of small plants. For these activities, the teacher in charge was using the small vegetable plots inside the school compound. At the same time, virtually the same issues were being dealt with in a small *capacitación* course with women. The course was run by Arariwa, in a nearby house. The school and the house are less than 50 m. apart. Neither group knew what was going on in the other place.

Both the teachers and the extensionists expressed later their surprise that similar work might have taken place so close to each other. In fact both groups were surprised that the other ones would even know something about the same topics.

In general, everyone concentrates on his/her activities. If NGO activities with schools are minimal, extensionists have very little ways of finding what is going on in the schools. But even a member of Arariwa's *Línea Educativa*, in charge of supervising the small projects with schools, recognized that she did not know much about the PEE or the project which started it: she seemed to realize only then that knowing this could have been an advantage for her work and the impact of her activities. Similarly, IMA team members in Acomayo showed they knew little about the PEF being implemented in nearby schools.

Lack of information is directly linked to the relative personnel instability in both NGO teams and in schools. All members take time in getting acquainted with an area, receive very little information of any previous activity and then remain for a relatively short period of time. At the same time, lack of information has to be linked to simple lack of interest. If many *directores* and teachers have little interest in running the different *programas*, there is consequently even less willingness to look for what other activities are being implemented and establish linkages. NGO members may feel there is no need to obtain further information: objectives are set and activities are defined - it is only necessary to put into practice what has to be done.

(e) Inter-institutional competition

Another serious factor here is what is known as '*protagonismo*'. All projects need to show their results, and all those in charge want to show what they have achieved. But to make it clear

that their approach is a correct one and that what they are doing is good, they have to operate from the beginning on their own (with no interference from others). Proving this, a teacher from a school running the PEE proudly stated that "we have kept all institutions out", so that it is clear to everyone that what they have achieved is because of the PEE and not because of what those other institutions could have done.

USE officials recognized that the activities run by Arariwa in some schools were interfering with their own, especially with the implementation of the PEE. Between the two "a certain competition process developed". As a result the USE had to select different *centros educativos* for Arariwa to run its projects. Such attitude may seem necessary during the trials and validation of an experiment, but is it logical during the implementation of a development programme? To Arariwa's responsible officer it only showed that

"there is always jealousy, as if we were in some sort of competition to see who has the greatest impact on a school..."

Similar conflicts are present between other institutions, even between different NGOs. Sometimes even the differences in methodologies which each institution follows constitute a serious obstacle. Quoting an IMA extensionist, referring to another institution starting to operate in the area:

"Now those guys are going to start working here, giving out food or whatever. How can we convince people of our approach, to work with us and do what needs to be done if they are around?"

If approaches and objectives are different, then the *beneficiarios* naturally prefer one or the other, especially as working with each institution demands time, which *beneficiarios* do not always dispose of. This makes the feeling of competition greater, therefore increasing the difficulties for establishing linkages.

In other cases, problems which reflect inter-institutional competition seem only to depend on the persons in charge ("it is not in the institutions as such, but in their personnel", as it was expressed by an extensionist), on the lack of interest shown, or on certain attitudes which these representatives assume. This is reflected in the ideas expressed by the representative of the *Ministerio de Agricultura*, referring to an agreement established with IMA:

"It didn't work. I don't know why they started behaving so strangely. I don't get it, when we both work for the *comunidad*. It must be because the *coordinador* and all of them always like to show off... Now we work separately, and it even seems we are in some sort of competition..."

Projects go on, each on its own. In general, institutions are dedicated to their own programmes, aiming to achieve the objectives which are set, and showing that they are in fact fulfilling their obligations.

Summary

Looking at the different interventions, it is clear that all institutions are busy with their own aims and objectives. All of these objectives are to be fulfilled within a limited period of time. There is hardly time enough to do what is required in the annual or monthly programmes, and, quoting an extensionist, "we cannot even sit to analyze and see if what we are doing is right or not". With no time and a shortage of personnel for immediate objectives, there is naturally much less time and willingness to look around at what else is taking place, or to look further for linkages and integration. Table 5 summarizes the factors described here, all leading to the lack of linkages observed.

Table 5
Factors inhibiting the formation of linkages

Factors	Characteristics
Different aims and objectives	<ul style="list-style-type: none"> - different target groups - need to reach own objectives - institutional preferences
Lack of common entity	<ul style="list-style-type: none"> - nobody to summon all actors (purposefully not wanted?) - problems within CDDs
Lack of autonomy	<ul style="list-style-type: none"> - hierarchical structures - Ministerial regulations not being implemented - advantages within NGOs, though field teams are not autonomous
Lack of information	<ul style="list-style-type: none"> - insufficient information about field activities - personnel instability - lack of interest
Inter-institutional competition	<ul style="list-style-type: none"> - 'protagonismo' - different approaches - personal conflicts

7.4 CONCLUSIONS

Even though all institutions express their desire for coordination, collaboration or cooperation, only a few linkages are observed between the different institutions in the field. Following the observations in the field, this lack of linkages depends on many factors. These factors are all directly related to the design and implementation of the different interventions and the general orientations which the different institutions follow. Much depends on the priorities which are assigned in every particular case, or on the personal interests of those involved. The need

to follow specific aims, or the need to show concrete results, seem to go against the need for linkages.

These factors were observed exerting a simultaneous influence, and at various degrees (the difference in aims between the NGOs may not be as striking as those between an NGO and a *Ministerio*, while lack of autonomy is greater within the ministerial structures). My intention was not to measure or categorize, but to show the issues which determine the situation in the field. These are the issues which need to be considered if greater linkages are to be established.

In spite of the difficulties, a few linkages were recognized between the institutions surveyed. These showed that the implementation of linkages -with the subsequent advantages they bring- is feasible.

These linkages are divided according to the different characteristics they show. Linkages are thus qualified according to their attributes, to the function they fulfil, and according to the individuals who are involved. The linkages observed were mainly established with a specific purpose, on a temporary basis and in a formal way (a signed agreement). NGOs, schools and other public institutions are involved, through their representatives at different levels.

Based on this analysis, the following chapter looks at the possibilities for further linkage implementation, together with the advantages which emerge from the establishment of such linkages.

EIGHT

ON THE CONTRIBUTION OF LINKAGES **"THE MORE ALLIES WE FIND, THE BETTER..."**

"Since the project finished, we have not received any help any more for the implementation. We have had thus to find some allies..."

The more allies we find, the better."
Urubamba USE official, referring to the PEE

This chapter continues with the analysis of the linkages between the different actors and institutions in the field. Based on the third research question, the chapter focuses on the contribution which linkages provide (or can provide, in the future) for interventions and the innovations which result in each case.

This analysis begins by looking at the advantages which are recognized when linkages are present. The advantages described by previous studies are then compared with those which are recognized by the different actors and institutions themselves (based on the different perspectives which each of these actors has). This section also looks at what the different actors expect to result out of greater linkages.

It is necessary next to consider how can such linkages come into being. If linkages are necessary but at the moment are non-existent, then they need to be designed and implemented. If linkages do exist but do not fulfil their role completely, then they need to be improved. This section looks at these issues, focusing on the limitations and possibilities each of the groups of actors shows.

Finally, the chapter goes back to the main interest of this research, as considered in Chapter Six: the sustainability of the innovations. If adequate linkages between the different educational activities are designed and implemented, this final section looks at the demands which are put on them in order to enhance the chances for sustainable innovations.

8.1 THE (POTENTIAL) ADVANTAGES

The advantages of establishing linkages between the different actors and institutions are mentioned with relative frequency. Summarizing them all in a few words, Engel (1997:136) refers to the need for linkages and networking on the basis of performance: linkages are

necessary because individual (or isolated) performance cannot be successful. Considering the set of activities taking place in the field and the general lack of linkages distinguished, it is arguable whether isolated interventions are in fact successful or not. The argument here is that interventions, or any of the activities in which the different actors are involved, can certainly improve with linkages.

Engel (1997) describes in detail the possibilities for joint learning and innovation when different parties come together. Other authors mention the exchange of relevant information or, in general terms, the positive interaction between the different actors operating in one area (Düvel, 1995). Linkages can provide the opportunity to overcome financial constraints, while at the same time help to fulfil the objectives which are set.

Additionally, the costs of interventions may diminish as a result of greater linkages. And a duplication of activities or competition between the different intervening parties can certainly be avoided, leading to higher intervention efficiency. Linkages lead to integration, referring to higher levels of coordination, collaboration and communication (Kaimowitz, et al., 1990). And linkages can be the basis for scaling-up and increasing the impact of any intervention (Edwards and Hulme, 1992).

Greater linkages can result in benefits for both the design and the implementation of interventions. Linkages facilitate coordination and the interaction of the different actors. If this leads to an increased participation then the result is a better assessment of needs, leading to more relevant planning and programming (Schaeffer, 1994). Specifically referring to schools, the same author mentions improvements in policy making and governance. These benefits, though, could equally refer to the design and implementation of the activities of any of the NGOs or municipalities. In every case, linkages and a wider participation can lead to a more adequate definition of what needs to be done and how it is best achieved. In a detailed analysis, Hart (1997:71) shows how children participation (via activities with the schools) can provide greater information about the situation or needs of a community when these children are involved in diagnoses or analyses. NGO projects benefit, while at the same time the teachers and the school activities improve.

The positive aspects of linkages in the implementation of the different projects or programmes include the possibility of having a greater access to resources or facilities. At the same time, the instructional processes can improve via the educational context (the curriculum and teaching materials) as well as via the teaching and training (Schaeffer, 1994).

The opinions of the different interviewees reflect these perceptions. For example, some of these interviewees mentioned that schools could make good use of the NGOs know-how on different issues (both technical and organizational). The whole community can benefit from what children are learning with the PEE and PEF. Or, in simple terms, the implementation of the *programas* could be improved with an additional provision of specific materials.

These personal ideas are reflected in documents and in the specific orientation which most institutions now want to follow. Even the *Dirección Regional de Educación* included, in its regulations for the implementation of the PEE and the PEF for 1997, the need to look for

'support' from different institutions, to "dynamize and enrich" the *programas*. The heads of the different NGOs consider that collaboration, linkages and integration are issues which are now on all the institutions' agendas (where a difference with previous policies is clearly distinguished). According to top NGO officials,

"there is always a certain fear or suspicion, but the new way to operate is to concert, to collaborate..."

"new institutional ways have to include coordination among the different NGOs. Strategies have to be harmonized..."

"the time of mutual distrust is over. It is not proper anymore to say that we are *the* institution; all NGOs now dialogue and concert their policies."

As it was described before, both IMA and Arariwa consider linkages and a certain integration as part of their general objectives. These aims are included in their documents as inter-institutional coordination, or as the necessary cooperation between authorities, organizations and institutions.

But if linkages are intended, is integration actually aimed at? The Spanish word *concertación* was frequently met, referring to concerted actions (those mutually planned or arranged with a common purpose). But the specific activities observed in the field do not necessarily lead to it. The 'new way to operate' which the NGOs mention would seem oriented instead at facilitating a certain implementation. This means, oriented at making their own day-to-day work easier. Integration, as the combination of two or more processes towards one common aim, is then one step further, a step which may not necessarily be desired. Quoting,

"The usual practice has been that of coordination. This has been limited to coordinating actions so as to respect the areas of influence and the specific orientations of each of the institutions or NGOs. *Concertación* is understood as a deeper process, centred in specific goals. It consists on reaching an agreement, with consensus around the desired aims to be reached with the actions planned with the different social actors".

(Encuentro Latinoamericano de ONGs Sobre Educación Para Todos, 1992)

This difference may not be obvious to everyone. The objectives which are defined do look for *concertación* and further integration between the different institutions. But the results from the practice have been limited -and continue to be limited- to simple coordination. (These difficulties are greater when even the linkages and interrelations are limited.) Many times the actual need for linkages results from simple operational motives. It was frequently mentioned, for example, that there are other (similar) institutions operating in the same area where one NGO works. This is a fact that will remain so whether all those involved like it or not. Thus, "we would have to coordinate, so as not to duplicate our actions...".

Still, all the different actors recognize the need to establish linkages and enhance inter-institutional interrelations, as this provides specific benefits. Table 6 summarizes the opinions expressed by the different interviewees.

Table 6
Reported Advantages

Institutions	Advantages
Schools	<ul style="list-style-type: none"> - further <i>capacitación</i> for teachers (e.g. for the <i>programas</i>) - provision of materials (seeds, books, etc.) - a better distribution of activities (from USE, NGOs) - schools as 'meeting place' for the activities in one <i>comunidad</i>
USE / DRE	<ul style="list-style-type: none"> - wider diffusion of their <i>programas</i> (to other schools or other areas) - better infrastructure facilities in schools - <i>capacitación</i> / advisory work with teachers - greater possibilities of reaching out to parents - may facilitate curriculum diversification in schools
NGOs	<ul style="list-style-type: none"> - facilitate reaching the institution's general objectives - better <i>capacitación</i> activities - facilitates definition of objectives and proposals - facilitates monitoring and evaluations - allows reaching out a wider audience / target groups
Comunidades	<ul style="list-style-type: none"> - could facilitate a better distribution of all activities (so that <i>comuneros</i> have time for all) - facilitates participation of all members - avoids conflicts and competition (even within each <i>comunidad</i>)
Municipalities	<ul style="list-style-type: none"> - provide mutual support for specific activities (regarding resources or facilities) - results in a better definition of problems and alternatives - definition and distribution of responsibilities within the district - greater participation in decision-making and in the definition of what is done

The opinions within the different institutions reflect the advantages which could take place, if linkages were to be implemented. For example, *comuneros* mentioned their interest in greater coordination so that they can fully participate in all the activities which take place in their community. Similarly, ministerial officials see that if linkages are established, then schools may have more success in curriculum diversification. Both cases look at linkages and greater interrelations as a future possibility.

But advantages are also recognized within the current situation, based on the different linkages which are already established. The PLANCAD programme as a whole, for instance,

benefits from the specific experience of each of the institutions which are taking part in it. The experience in methodologies or procedures around formal and non-formal education which these institutions have adds to the diversity which the top-level officials in the *Ministerio de Educación* are looking for. At the same time, by working within the programme, the NGO representatives recognize the possibility of reaching out to more teachers and thus having a greater impact in their region. The global institutional objectives are then achieved in a better way.

The support which the different schools get from the NGOs is also evident. These benefits are easily recognized as tangible materials: books, seeds, seedlings or other necessary inputs. School teachers and directors showed their interest in writing letters and obtaining such support from the nearby NGO teams. Additionally, other benefits were obvious and were also mentioned: the visits of some extensionists to the schools and their work with children, or the *capacitación* courses which were implemented for teachers (such as those which resulted out of the IMA-CAIP agreement). These activities provided training and specific information which benefitted the formal education processes. Even further, in one case a specific project was designed and implemented by an NGO around the needs of the primary schools (Arariwa's 'Support to Formal Education'), leading to income-generation projects and health courses, as a necessary addition to the curriculum and to everyday activities.

Linkages with other institutions have also provided the NGOs with greater possibilities for achieving their long-term development objectives. This was reflected in the opinions of many interviewees and in the activities which were consequently implemented: their interest in working with children ("they are the future of this *comunidad*"), or in working with the ASPAFAs ("its role in the development of the district is essential..."). Additionally, all the mayors and the municipalities showed their interest in cooperation, recognizing the benefit of mutual support. Furthermore, the different CDDs showed that diagnoses and problem definitions can be more accurate when the different institutions participate simultaneously. This leads to a better understanding of what needs to be done and to a better allocation of roles and responsibilities.

Summarizing, communication, collaboration and coordination between different parties prove beneficial, in spite of the difficulties found. Even if these linkages are not specifically meant to lead to greater integration, the opinions heard reflect three basic advantages:

- a better provision of materials, resources or facilities;
- a better distribution of all the activities taking place in one particular area (coordination); and
- greater possibilities for reaching the long-term objectives: widening the target groups and improving the interventions.

These ideas represent the basic advantages resulting from linkages and interrelations among the different programmes and activities at the local level. But there is one big difference which needs to be considered: the schools, the USEs or the whole *Ministerio de Educación* are part

of the public sector. They represent thus a much greater actor: the State. Does this lead to further advantages? This is discussed next.

NGOs, schools and the State

Any discussion on the linkages and interrelations between schools and the *capacitación* activities leads to the linkages between the non-governmental organizations and the State. Even in the cases where interrelations are purposefully not sought, neither side can ignore the other (Clark, 1992). The establishment of linkages and the advantages which result from them, depend then almost entirely on the perception each side has of the other and on the roles which are assumed in relation to the other party.

The relationship between the State and the NGOs has changed over the years. NGOs have filled the gaps left by the gradual withdrawal of the State (by working in those locations where the State was absent, with different target groups, or by following distinct methodologies). Their specific characteristics have proved effective in reaching the rural populations. It is therefore considered that governments could see many advantages in working with NGOs. Following Clark (1995), NGOs can be cost-effective, and they can deliver their services to difficult-to-reach population groups. Additionally (and principally), NGOs are able to innovate, trying out new ideas as part of their regular activities. These are all advantages from which the government, and its specific programmes and activities, could surely benefit.

On the other hand, the State -in spite of its shortcomings, and in spite of its current policies- remains as a necessary actor from the NGO point of view. It is the State which defines the basic guidelines or policies which determine the context. The State remains as ultimate arbiter and represents a legitimate authority (Edwards and Hulme, 1992). It is thus easily concluded that NGOs, on their own, are not self-sufficient. On their study on NGOs and the State in Latin America, Bebbington and Thiele (1993) mention three basic reasons to avoid NGO isolationism:

- (a) the limitations of the NGO model: NGOs are small, their presence is patchy, their methods can easily fail due to a poor understanding of local situations;
- (b) the political cost of isolating: according to the authors, the outcome of any development intervention "depends far more on a wider policy environment than [on] the participatory methodologies [NGOS] have used in their projects" (1993:205). It is clear that this environment is determined by the State and its regulations. Thus, some form of engagement with the State around these policies is essential, based on the NGO perspectives and experiences; and
- (c) the reality of past NGO practice: NGOs have, for many years, filled the gaps left by the State, "subsidizing public sector programmes" with their presence. It would be necessary, in order to be consistent with their own approach to development, to get involved directly in arguments about policy.

The authors conclude that "structural adjustments, donor pressures and decentralization are all generating more government interest in NGOs, and the return to democracy as well as the urgency of rural poverty challenges NGOs to rethink their relationship to the State" (1993:57). This is especially valid for the Peruvian context, as seen in the first chapters of this book. Thus the need for interaction between NGOs and government institutions; interaction which, according to the authors above, is to aim simultaneously at complementarity and critique.

Regarding the first term, NGOs have been described as alternative service providers (e.g. Poole, 1994). But as Clark (1995:596) points out, 'alternative' reflects the possibility of choosing one or the other. This is clearly not the case in the field: the population in the rural areas cannot choose whether to work with the government or separately work with NGOs¹. It is necessary thus -if both sectors operate simultaneously- that they complement each other, facilitating each others' work (via planning, communication procedures or resource allocation). Complementarity can therefore lead to an improvement in the actions of both sectors. However, both sectors do not stand parallel. In spite of the changes in policies and its general 'withdrawal', it is the State which basically defines the environment in which interventions operate (laws, regulations, economic policies). Thus the need for a different type of interaction and an additional role for NGOs: a critique of what the State does and of the way it models the intervention environment (policies, regulations, provision of services, etc.). This critique aims at influencing this environment and achieving impact on the policies themselves (using lobbying or advocacy as a strategy for scaling-up; Edwards and Hulme, 1992; Clark, 1992). This influence is even expected to lead to further democratization (Reilly, 1995).

Are these advantages recognized in the field? The opinions of the different actors seem to concentrate on the operational advantages (in most cases limited to simple coordination). Public institutions such as the USE or the DRE recognize the potential advantages of working with NGOs. These organizations can provide some specific resources, or they can help reaching the parents as a target group (otherwise difficult to reach). But the ability of NGOs for innovation is not widely acknowledged, except in the methodologies which are followed by those running the PLANCAD programme. In general, NGO participation is welcome if it follows the parameters or regulations already established: the *programas*, the specific needs which have been determined, etc.

On the other hand, NGOs would equally seem to concentrate on the operational advantages of establishing additional linkages: improving their own *capacitación*, or reaching a greater population group. NGOs can complement the State, and are therefore necessary actors. But advocacy, lobbying or criticism is a difficult part of their field activities. In general NGOs do show criticism of the governmental economic policies. There is, however, very little chance of influencing these policies at a national level. Working with schools, with the USE or even with the *Dirección Regional* can hardly lead to changes in policies when most of these are

¹ In most cases, *comuneros* are involved in whatever activity takes place, public or private. If both are present, different objectives and different activities means that it is not necessary to choose from one or the other.

determined, as it has been mentioned, in Lima. It is then argued that a focus on the local level should be intended, similarly focusing on advocacy or lobbying. Following Clark (1992:158) NGOs should orient their work aiming at policies, attitudes and institutional capacity-building at the local level. This is defined as 'micro-policy reform', leading to "complex institutional changes, the development of new capacities and new institutional roles and, most critically, changes in attitudes." In order to be effective, this takes NGOs back to the institutions in the field: schools, USEs, the *comunidades* and the municipalities.

To conclude this section, the advantages of linkages are recognized by all actors in the field. The opinions of those participating in the different activities are based on their observations of what is actually taking place. Other opinions reflect a potential situation, where the advantages which linkages can provide are wide and many. Interventions can therefore improve, both in their design and their implementation.

Based on this conclusion and on the different types of linkages which can be considered, the next sections look at the possibilities for linkage implementation.

8.2 TOWARDS LINKAGE IMPLEMENTATION

It has already been shown that there are many advantages, but at the same time many limitations to the establishment of linkages. The previous chapter described the different factors which were recognized as limitations in the field, such as the differences in objectives or the lack of information. Most of the times, these are factors against which the individual actors can do little.

Apart from these factors, the design and implementation of linkages needs to consider other problems as well, such as those recognized by Bebbington and Thiele (1993:176):

- a range of linkage mechanisms is needed to perform different functions. A different mechanism will prove appropriate in different circumstances, even if the same institutions are involved;
- linkage mechanisms do not function automatically. These need to be established and then carefully adjusted to the needs and capabilities of all those involved. The difficulties in having an operative CDD, for example, have proved this point: careful management is necessary (and much more complicated than the initial setup of a CDD);
- linkage mechanisms are not cost-free. These require resources and time, neither of which is readily available. Once again, CDDs have shown these difficulties: municipalities lack the financial resources to finance meetings, while to all the participants these meetings are just one of many other programmed activities.

Getting over these limitations requires more than the allocation of a certain amount of money or the appointment of a general manager. To start with, the general environment has to be carefully considered. This context will determine much of the possibilities for establishing any type of linkage and for keeping it operative in time. This is divided in two: the internal and the

external environment². Small institutions willing to benefit from the establishment of linkages can clearly start by looking at themselves.

Referring to the internal organizational norms, Schaeffer (1994) mentions the need for institutional willingness. The different institutions need to recognize the (potential) advantages in the establishment of linkages, and then they need to show determination to reach them. As a first step, this was recognized in the field: virtually all institutions showed willingness to interact with others.

But Schaeffer goes further, mentioning the need for a higher level of commitment within the institutions. This is to lead to ideological, structural and administrative changes. Such changes would then include the identification of tasks and the distribution of new roles to the personnel, and the necessary allocation of resources.

These changes would also have to include greater levels of participation, from the onset of every activity. Thus the different *capacitación* courses could be more 'participative' in their design and implementation, allowing for greater roles and responsibilities in other actors (teachers, *comuneros*, etc.). This requires changes within the entire NGO, and not just in the procedures followed by the field extensionists.

In particular, this commitment is to lead to greater professional autonomy, the delegation of authority, and to empowerment at the local level, allowing those in the field to make their own decisions. Engel (1997:151) describes how hierarchical structures with central control are not necessarily ideal when looking for coordination. On the contrary, "central authorities would have to draw back from control over day-to-day operations". Schaeffer talks of the necessary "legal or quasi-legal frameworks for participation" (1994:207). The new regulations inside the Ministry of Education, which give *directores* the possibility of assuming greater responsibilities in the management of their schools, represent then a positive move. Equally positive are the attempts to grant greater autonomy to NGO field teams.

Additionally, Engel recognizes another internal factor: the skills of the members of an institution. Thus it is not just willingness: "networking can only be effective when network members have acquired the skills needed to effectively communicate with each other..." (1997:137). This is a difficult factor to measure.

What possibilities are recognized towards linkage implementation? These depend on the different actors and institutions. The establishment of effective and efficient linkages requires an implementation strategy based on the possibilities and limitations which all the institutions or groups of actors show. It is considered here that several of the institutions found in the field show conditions that can positively influence the emergence of linkages, and at the same time influence the integrative quality which these linkages can have. This does not necessarily mean the emergence of a new body, nor the creation of new roles and functions, but the

² This division follows the 'contextual factors' mentioned by Kaimowitz et al. (1990:228). These are equally internal (those which can be controlled or influenced by the leaders of the institutions) or external (influenced by the institutions' broader physical, political and socio-economic environment).

opportunities for further communication, coordination or collaboration among the different parties.

What follows is an analysis of the constraints and possibilities found in each case, as the internal factors.

(a) The non-governmental organizations

It is not necessary here to describe the NGOs once more. Their basic characteristics have already been mentioned, in particular those observed in the case studies in IMA and Arariwa. Nevertheless, some factors need to be highlighted, considering that they determine much of the possibilities for the integration between formal and non-formal education:

- NGOs operate around specific projects, in particular fields, on a particular area;
- many of their activities are defined by '*metismo*': the need to show results (which correspond to the objectives set);
- in spite of their interest in working with schools, NGOs lack a unified programme with objectives which remain constant in time;
- NGOs do not always know how to proceed in relation to the State.

It is clear that working with schools requires consistency in objectives, a condition which is not frequently found. Such consistency is needed among the different projects and activities which are implemented at the same time by one organization. Consistency is equally necessary in time: it is easier to achieve long term objectives with a long-term implementation.

In spite of the limitations, NGOs can foster further linkages, and therefore aim at further integration with other institutions and activities. NGOs, for instance, base their activities on diagnoses and analyses of a particular situation in the field. These are increasingly based on the opinions of the *beneficiarios*. These diagnoses can therefore identify the need for other interventions, or contribute to the definition of other projects and programmes (even if the NGO does not play a main role there).

Additionally, NGOs have an accumulated experience based on the activities implemented over the years. Many times this is wasted (because evaluations are limited, or because the results are not available). This experience can be used as a guiding factor, entitling each NGO to assume a leading role in the work around a particular community.

Similarly, NGOs have the possibility of canalizing resources. Because of their special relations with donor agencies, NGOs have the possibility of running specific projects. Well-defined, these projects can attract the attention of other institutions and actors, which could well be invited to take part.

It has already been mentioned that NGOs need to figure out where they are going and how they intend to do so. NGOs need to determine precisely what are they doing, and with whom are they working. Such strategic planning, which is many times lacking, can be the basis for new links. Further, this plan needs to take into account the position of each NGO in relation

to the governmental apparatus. Deciding to complement the activities which are now sponsored by the government, like for example, taking part of additional PLANCAD-style programmes can result in more linkages, with benefits for all those involved.

(b) The schools

The cases described in Chapter Seven showed how many of the linkages established between schools and other institutions resulted from a specific interest from either the *directores* or the teachers. Schools asked for the presence of the extensionists or for specific collaboration, resulting in some determined activities.

"Schools have to find their own allies". This was mentioned by *directores*, teachers and USE officers in the field, reflecting on their own particular needs. This is an approach which fits with the new ministerial ideas on autonomy and local decision-making.

But the positive results seen in some specific cases reveal at the same time some difficulties. Except in very specific cases, the NGOs which operate nearby are not going around offering aid or assistance; it is the school which has to approach the NGO. The difficulties here are several: lack of interest, or no clear understanding of what to do or whom to approach. Teachers feel that they have to follow a certain guide, thus wait to be told what to do. And both teachers and *directores* may feel that it is not really necessary to add extra work to what they already have to do (looking for contacts, writing letters, etc.), especially when:

- they are not going to stay working there for long (most teachers expect to be transferred to the city);
- their efforts are not really appreciated by parents or their superiors;
- additional activities exceed their responsibilities;
- additional efforts are "not really legal".

What possibilities does each *centro educativo* show? Schools -or their staff- have little chance of defining or even influencing NGO policies or projects. Resources, personnel and time are all limited. And (in spite of the intended autonomy) activities have to follow the requirements established by the USE or by the Ministry. The possibilities then depend on the specific interest shown by the teachers and *directores*, on their own individual initiatives. This is, on their willingness to 'look around' and benefit from what there is nearby.

'What there is nearby' does not only refer to NGOs. Schools need to become part of the local community (leaving behind, as much as possible, their image as external institutions). Initiatives need then to be directed at the *comunidad*, the production committees or any other local organization. Two different factors may contribute here:

- the positive reputation which schools have, as institutions, within the *comunidades*;
- the existence and full operation of the ASPAFAAs, as a direct link with the community.

It is necessary though that a certain framework allows for this outlook. Local initiatives need to be encouraged so that the school-staff follow them. This includes supervision and assistance from those at the USE or the *Dirección Regional de Educación*.

(c) The USE and the *Ministerio* offices

Perhaps the greatest limitation which all the departments and offices of the Ministry of Education show is a lack of financial resources. This seriously limits supervisions and visits to schools, as well as a direct contact with the different activities which take place in the field. But another serious limitation which is recognized by top officials in Lima is the bureaucratic procedures and the lack of flexibility which the regional and local offices show. According to the head of the *Oficina de Planificación* of the Ministry, the interest in granting further autonomy to schools is based on their desire to by-pass the slow and inefficient structure of the offices in the different provinces.

Still, the USEs and the *Dirección Regional* remain in charge. As local authorities, either one can provide a framework for cooperation or coordination based on what is taking place in their jurisdiction and based on what needs to be done. This provision requires a detailed analysis. On the basis of some specific analyses or diagnoses, the local ministerial offices can provide an inventory of what is going on and what has been attempted. This can determine what additional activities need to be run, as new projects.

But if some specific needs are identified, can the USE determine who is to work where? There is no possibility of telling an NGO what to do, or where to run a project: NGOs are only bound or restricted by their own projects. But USEs could try reaching out. Even though both the USEs at Urubamba and Acomayo recognize that coordination with NGOs has simply not been established or sought, officers mention that by talking to the person who is responsible within each NGO, and discussing the possibilities for mutual support, they could achieve some coordination and common work. This could take place in every province. In the words of an official, "the USE could try, we need no authorization from the *Dirección Regional*."

PLANCAD-style relationships with different NGOs have equally been thought of. Activities would then follow some common goals. But local officers consider that they lack the authority to implement such an effort, even if at the local level. Above all, both the USE and the DRE lack the money. Decisions would then have to come from Lima. The mandate of a specific aim provided by the Ministry in Lima would be a necessary pre-requisite for this (which could, for instance, be the wide-scale implementation of the PEE), together with the political will for its implementation. This is not simple, and then it escapes the possibilities of the USE or the DRE. Nevertheless, "it would be interesting if an NGO tries implementing the PEE in other schools. They have money and resources, so they could..." This interest, expressed at the USE in Urubamba, would need to be guided and supported.

In short, both the USEs and the DRE can provide local frameworks for cooperation in each province, based on the identification of local needs and facilities. The possibility of lobbying for resources or specific activities could also lead to some results.

(d) The *comunidades*

The *comunidades campesinas* are corporate bodies around which the families and individuals are organized. These are local organizations, with their own system of government and their own authorities, institutionalized long before the different development interventions began. Still, as institutions, the *comunidades* show many weaknesses. The first is clear: the interest of its members in actually taking part in the necessary activities. Stronger links with the market has meant the virtual disappearance of many of the *comunidades* in the rural areas (and *comunidades* can now, by law, cease to exist). There are therefore many differences: from *comunidades* where meetings and activities are frequent, to those where authorities are not even elected or appointed anymore. It must be mentioned though that it is not only a lack of interest in the members. Most of the *comuneros* have little time for attending meetings or for communal work.

An additional problem is that, in many cases, the institutions (the *interventors*) are not any more interested in working with the community as such. *Comunidades* are then relegated behind the interests or needs of some individuals (generally the needs of only a few), or relegated behind new organizational structures, such as the specific production committees.

Nevertheless, *comunidades* represent all the *beneficiarios* of one area. Participation is open to all families, and its authorities are recognized and respected. Its internal organization (like communal control and use of land and water, collective and reciprocal work) determines most of the activities which take place. It is necessary then, in each particular case, that *comuneros* define the situation of their own community. If these *comunidades* are maintained, the authority and the collective ways and traditions can prove valuable in linking all the members around specific interests. Linkages can then be tried with outsiders, based on the interests of each *comunidad* as one entity.

(e) Municipalities

The four district mayors in the research locations considered that it is one of the roles of the municipalities to supervise and control the provision of primary education in their districts. The mayor of Pomacanchi, for example, mentioned as one of his duties to frequently visit all schools and give out some recommendations: children must study, teachers must not be absent, and they have to show a proper appearance (i.e. not drink). But only recommendations can come out of such supervision and control. Mayors recognize that education is a basic attribution of the Ministry of Education and the central government. Therefore, "that escapes our own role", "the municipality has no authority there".

According to public law, the functions of the district councils include:

- inspect the way in which education is provided, informing the respective authorities at least every six months all the issues which are related to the capacity, security, hygiene and maintenance of all premises.
- collaborate with the maintenance of local primary schools, coordinating with the authorities in charge. Collaborating for improving or increasing the number of schools is also stated.
- promote and maintain municipal schools.

Municipalities are to collaborate and cooperate, but have no real authority over teachers and *directores*. The 'authorities in charge' which the law mentions (the USEs, or the DRE) are those who are responsible. At the same time, primary education and schools are only one of the municipalities' many concerns. As autonomous local governments, municipalities are instead busy with sewage, energy supply or the remodelling of plazas. Their participation in education would seem limited to infrastructure.

On the other hand, mayors recognize the need for working together with other institutions. NGOs and other public offices are not only a source of money for additional infrastructure, but also a possibility for *capacitación*. (One of the district mayors reported: "we make good use of the institutions and their projects, aiming at the integral development of our district".) Still, establishing relations with the NGOs is not simple. In some cases the mayor resents if the NGO backs another candidate during elections. In other cases there is direct competition, or feelings that NGOs are interfering with the responsibilities of the municipality (NGOs have more resources, so municipalities even feel that this competition is not fair). In all cases, the general problem is that there is not enough time.

The *Comités de Desarrollo Distrital* (CDDs) represent an interesting example of some first steps taken towards *concertación*. Some common objectives are set, and activities and responsibilities are then distributed among all the institutions involved (NGOs, representatives of the ministries, or even the *comunidades*). Every institution has -at least in theory- a role to fulfil.

But CDDs are not easy to install. All institutions lack the time to attend meetings, and not many would like to be told what to do. And willingness to participate is not always present, sometimes not even in the mayors themselves. However, the possibilities which CDDs show are immense. A common statement of objectives is clearly the starting point for linkages and integration. Frequent meetings provide the possibility for information exchange. Competition and *protagonismo* can then be limited to the minimum.

Beyond the internal factors

This section has looked at the factors which, within each of the institutions, determine much of the linkages observed (or the lack of them). The main limitations and possibilities observed and discussed in this section are summarized in Table 7. This table shows the constraints

and possibilities recognized within each case. These reflect the specific conditions which each institution showed in the field. It is around these conditions that the activities which are to lead to further linkages can be defined and implemented.

Are additional factors necessary to be considered? Going beyond the internal characteristics, Engel (1997) considers three factors as basic determinants for coordination. The first of these factors is the allocation of resources. This has already been discussed: institutions need to show their commitment to linkages and interrelations by providing the necessary resources. This is money, facilities or time (looking for linkages, and playing an active role in the mechanisms which are established, has to be a core component of the daily activities). This factor applies at all levels, and to all institutions.

Next is the need for 'strategic consensus'. The difference in aims and objectives has been identified as a strong factor limiting the establishment of linkages. But even though "a healthy relationship is only conceivable where both parties share common objectives" (Clark, 1995:595), Engel shows how consensus or unanimity is rarely or never reached. Nor is it completely necessary: "Nothing could be worse than a contented network of social actors who agree on everything" (1997:151). The challenge is to find common background and interests (convergence) and around it build upon the natural diversity.

According to Clark, "where the government has a positive social agenda (or even where individual ministries do) and where NGOs are effective there is the potential for a strong collaborative relationship" (1995:595). In spite of the difficulties found in the field, it can be considered that this is the situation in the field. It is thus possible to find a common objective and around it determine the participation of the different actors and institutions. It is convenient here to identify which are the common interests, and at the same time identify the potential sources of conflict.

A third factor mentioned by Engel is the need for a strong institutional leadership, as one which can then enrol the others in its 'project'. Kaimowitz et al. mention the role of a higher authority as one which "intervenes to convince the staff concerned of the need for integration", or which has adequate power and sufficient information to impose its will (1990:262). This leadership then necessarily leads to the issue of power. Not all institutions stand in the same situation considering power and influence, and clearly not all can 'convince' the others or enrol them in their activities. Thus, while the mayors may call for a CDD-type meeting, this could hardly be achieved by the *comunidad* or by the school.

Van Crowder and Anderson look for the potential role of donors as leaders or as a 'higher authority'. It is said that because of their position and influence, they could provide certain leadership. However, as the authors mention, "the pressure donors can provide to encourage better integration of [the] institutions is useful, but it is often temporary" (1997:247), for it is related to their funding, which is limited and specific.

Table 7

Constraints and possibilities within the different institutions

	Constraints	Possibilities
NGOs	<ul style="list-style-type: none"> - specific projects (each organization on its own) - <i>metismo</i> - no definitions in relation to the State 	<ul style="list-style-type: none"> - accumulated experience - diagnoses and analyses - canalization of resources - decision to complement the government
Schools	<ul style="list-style-type: none"> - no time to look out - teachers want to move out - specific efforts are not legal - remain as 'external' institutions - no supervision or assistance 	<ul style="list-style-type: none"> - interest and motivation in teachers and <i>directores</i> - appreciated by most <i>comuneros</i> - a permanent institution
USE / DRE	<ul style="list-style-type: none"> - lack of financial resources - bureaucratic institutions - no authority over NGOs - lack of autonomy 	<ul style="list-style-type: none"> - local authorities - provide local frameworks - inventories of what goes on / what has been done - validate / diffuse local experiences
Comunidades	<ul style="list-style-type: none"> - some are disintegrating - institutions do not work with them - lack of interest in members - lack of time 	<ul style="list-style-type: none"> - represents all the <i>beneficiarios</i> - participation of all - permanent institution - local / recognized authority
Municipalities	<ul style="list-style-type: none"> - short governmental periods - lack of financial resources - competition with NGOs - cannot interfere with schools - cannot assume the responsibilities of the Ministry 	<ul style="list-style-type: none"> - local authority / elected - represents interests of all the district or province - CDDs, which <ul style="list-style-type: none"> group all institutions define common plans define common strategies

Two other possibilities are given, as groups which can provide this pressure and assume a leading role. The first one consists of the farmers themselves. The necessary pressure on all other institutions and actors would then have to come via the *comunidad* or via the ASPAFAS, enrolling them all around their specific needs and interests. But even though the *comunidades* or the ASPAFAS represent the *comuneros* as parents or *beneficiarios*, neither group showed much power; in many cases these are not even articulated as groups. And not even NGOs find it easy to get 'involved' around a community's own project.

The second possibility which is considered is the government. Quoting,

"The complexity of national agricultural technology systems requires that governments foster linkage mechanisms and play a coordinating role." (Van Crowder and Anderson, 1997:245)

The same argument is presented by Clark (1995), who mentions several policy instruments as ways through which the government defines its role as a higher authority. Among these:

- 'good governance', using policies to encourage a healthy civil society (promoting participatory development, or fostering a strong NGO sector);
- regulations and fiscal legislation, striking a balance between nurturing NGO growth and guarding against corruption;
- operational collaboration, 'utilizing' specific NGO actions (organisation, mobilisation, provision of information) as part of wider governmental programmes;
- coordination, aiming at avoiding NGO duplication, attending geographic or sectoral gaps, encouraging training of NGO staff, etc.;
- funding, providing certain contracts.

These are roles which only the government can fulfil (as an authority with power and resources). The problem is the distance between the central authorities and the field. If the institutions which are operating in the rural areas are to wait until the central government takes the initiative, then a long time may pass before any of the advantages of establishing linkages are recognized. It is thus necessary to focus once again on the local level, and on the possibilities of the local authorities (in particular, the municipalities).

The operational mechanisms can -and need to- be fostered by any of the institutions, based on the specific possibilities each one has. Schools, for instance, can try to benefit from inter-relations with the NGOs. Teachers and *directores* need to identify some common objectives and common grounds for discussion, and then allocate time for communication. NGO teams can go forth similarly.

On the other hand, the establishment of structural mechanisms meets different challenges. In his search for institutional linkages, Dûvel (1995) defines a framework to operate at the community level. It considers all the institutions in the field around a "central, coordinating body, representing and serving as mouthpiece of the community". The author goes on to say that its main function would be to identify, initiate, commission and coordinate all development priorities and actions. However, the lack of such a body has already been mentioned as one of the main factors limiting linkages. Who is to assume such a role? NGOs may have resources, but lack authority and representativeness. *Comunidades* represent all the *beneficiarios* but at the same time lack the sufficient power. In spite of some constraints, it is the municipalities, and the further implementation of the CDDs, which show the greatest possibilities. These are local governments, with the authority to call all the different institutions and, to a certain extent, fulfil the roles of the government mentioned above. On their own, or via the CDDs, municipalities can try 'good governance', even if their specific roles are limited. They can look for operational collaboration, coordination and even provide funding by contracting others for some activities. Further, the roles of CDDs can be strengthened, as the structural linkage mechanisms mentioned before. This calls for strong commitment from the mayor and the district council, but also from all the institutions participating in it.

With all these factors and conditions in mind, it is clear that there can be no recipe. The establishment of linkages depends on very specific circumstances, and each case is different to the others. But what is also clear is that this establishment, or the improvement of the mechanisms already established, requires the commitment and full participation of all the actors, at all levels. Among them all, the municipalities show special importance. The role and responsibilities which they assume can prove beneficial to all.

8.3 TOWARDS SUSTAINED INNOVATIONS?

The establishment of linkages and interrelations between the different institutions in the field allows for a series of advantages. Most of these advantages are recognized by the actors themselves, who thus show interest in going after further linkages or in improving the mechanisms which already exist. I discuss hereafter the possibility of an additional advantage, as the main interest of this research: that of enhancing the long term sustainability of the different educational innovations.

Following the definitions presented in the preceding chapters, the *Programa de Educación Ecológica* is an innovation, just as the activities resulting from Arariwa's 'Support to Formal Education' programme. Chapter Six showed that maintaining these innovations operative in time is not an easy task. On the contrary, there are many factors which go against this, and which determine that the innovation itself is not sustained. What benefits can the establishment of stronger linkages provide against these factors? No opinions were given by the different interviewees. The potential advantages in this respect are not directly recognized by the actors.

Still, looking back at the advantages mentioned at the beginning of this chapter, I conclude here that stronger linkages between the different parties can increase the chances which the educational innovations have to remain operative or to be sustained in time. Even though no experimental design has been set, field evidence has shown different possibilities:

- (a) Operational linkages can provide resources, materials or facilities. It is not difficult to demonstrate how many projects finish simply because these resources or facilities are not available anymore from the original source. But many other actors or institutions are operating in the same area, with different possibilities in terms of money, contacts, personnel, or facilities. Every actor recognizes the possibilities available from other institutions.
- (b) Greater participation, including as many of the actors in the field, can lead to a better selection of activities. This means, a better understanding of the road to be followed in order to reach the specific objectives which are defined (leading to greater relevance). This participation, however, can only come out of the recognition that there are different parties,

different opinions and interests; and out of the willingness to include all these in every step of an intervention.

(c) Communication and coordination facilitates defining roles and responsibilities. A lack of clarity of who is in charge of what has been shown to be a serious constraint. The definition of new roles in the different population groups is essential when an intervention is to finish. Communication and coordination possibilities which result from stronger linkages among the different parties involved can lead to the much needed clarity. In this sense, the implementation of the different CDDs, with the resulting communication and coordination procedures, proved to be interesting examples. There, after a common identification of a district's basic problems, the activities which need to be done are distributed among the participants, so that all can be fully implemented.

(d) Different linkages, even if only operational, can facilitate the preparation of the different participants for the assumption of their (new) roles and responsibilities. Cooperation with different institutions can lead to specific training programmes. A good example is the teacher-training programme resulting from the links between the Ministry of Education and the different local institutions (PLANCAD). It gives the teachers and *directores* the abilities necessary to continuously implement new ideas or methodologies.

(e) Linkages with the authorities -including in particular the municipalities, or the different public offices- can also lead to the *oficialización* of a given practice if this is required. The different authorities can then follow what Clark (1995) defines as 'operational collaboration': using certain experiences as part of their own wider programmes.

Establishing linkages, even if only of an operational character, can be positive. However, it has already been shown that establishing linkages, or even contacts with other institutions, is not simple or straightforward. There are many different factors which go against this, and there are additional limitations in each of the interventions themselves.

Is there a need for specific linkages towards sustainability? Or do the linkages which 'improve' an intervention also determine the possibilities for sustained innovations? Even if the establishment of communication channels, coordination, collaboration or interaction between the different parties do not necessarily aim at sustaining an innovation, it can be concluded that this is achieved indirectly.

The establishment of linkages influences much of the design and implementation of a project. It facilitates detailed analyses and diagnoses of the (initial) situation, as well as needs assessments and the setting of priorities and objectives. These are all factors which will determine the relevance of a project.

At the same time, linkages which lead to coordination help in the distribution of roles and responsibilities, or in defining what has to be done, where and how. This is essential when the general situation changes. And complying with the structural pre-requisites -even if

simultaneously- leads to higher results. Finally, linkages certainly lead to higher participation and to the benefits which participation brings.

The educational relevance, the structural pre-requisites, or the general participation of the different actors are all factors which facilitate reaching the objectives of the different interventions (see section 6.4). The results each intervention brings have then a much better chance of being accepted, implemented or followed during a longer period of time.

This seems a clear cut conclusion. Linkages 'improve' an intervention and therefore lead to innovations which are sustained in time. This in turn leads to a long-lasting impact in an area. Nevertheless, this positive relation leaves two further questions which need to be considered:

- do interventions actually lead to innovations, as end products?
- does this end-product need to remain unchanged?

All along this research I have considered innovations, such as the PEE, as the end-product which results from an intervention (when an intervention is designed as a particular project). But according to different authors an intervention 'stimulates' innovation. The result is not an end product, but a process. Similarly, Engel (1997) calls for interventions as networking, "as a social practice aimed at supporting innovation...". Once again, a process which is to take place, and not a product which is achieved or obtained.

What do interventions actually aim at? The practice observed is different to what these authors consider: projects such as the PEECC have a concrete output in mind, just as any of the NGO activities. Neither case shows an open innovation process as one of its aims, but rather a concrete result (even if some specific activities do facilitate a process, such as the monthly meetings of teachers). In spite of many new discourses, interventions follow a traditional approach: the transfer of information, technology, or even a complete *programa*³. As the previous discussion has shown, linkages then prove necessary so that this concrete result is maintained, thus leading to a long-lasting impact and a continuous benefit for the population served.

This leads then to the second question: does the end-product need to remain unchanged? The conditions in which an innovation is set are clearly not the same as time goes by. Change doesn't only take place when the intervention agency leaves the area or when a project finishes. There are always changes in the authorities, in the personnel involved, in the general policies, in the set of activities which are taking place (new projects may begin) or even in the interests of the *beneficiarios*. It is therefore clear that if innovations are to be sustained, then they cannot be static innovations.

Field observations show that innovations are not really static, even if they are designed as a 'product'. The different *programas* have been adapted differently in each province, and are implemented differently in every school. (Box 20 shows the changes and adaptation which was best observed: that of the implementation of the PEE in Urubamba.) During their

³ Except for their size, little differences are distinguished between *capacitación* and the formal education innovation projects. Both are designed, implemented and then expected to be followed and continued after the project finishes.

implementation period, the different NGOs projects are equally adapted to the changing circumstances. The 'product' therefore needs to be seen as the starting point of a 'process'.

Thus, in relation to the impact and the interest of the *beneficiarios*, the question is not only whether linkages lead to a sustained innovation (as a product), but also if they facilitate a continuous innovation process. Do linkages actually lead to a continuous innovation? According to Röling (1996), an innovation is "the result of interaction among different actors with complementary contributions". It is the set of linkages -and the general interaction between the different actors and institutions- which lead to innovation as a continuous process. There is not a single intervention which leads to this. Rather, it is the sum of all the contributions of actors and activities. A certain management is required to facilitate these interactions. It is here, as it has been shown, that the role of the municipalities gains importance.

Box 20

Changes and continuity

The PEE was the end result of a big and detailed project, the PEECC. It consists of a set of guidelines which teachers are to follow in their day-to-day activities. However, the implementation of this *programa* has suffered changes and has had to adapt itself to the circumstances.

The end of PEECC meant no more resources, facilities or courses. But further changes took place:

- changes in the Ministry; where it was decided that nation-wide *oficialización* was not to take place;
- new laws, granting autonomy to the *directores*;
- implementation of PLANCAD, relations established with NGOs;
- changes in school personnel (due to teacher migration).

In spite of the difficulties, implementation of the PEE continued in the schools in Urubamba. But not only did it continue: it was adapted to the changing context and to the new difficulties, innovating further towards better results:

- local *oficialización* from the USE and the DRE;
- involvement of NGO extensionists in specific activities with the children;
- discussions with parents in the ASPAFA assemblies;
- participation of some schools in a new project tried by the Ministry.

The PEE, even if modified, continues in the province.

8.4 CONCLUSIONS

The establishment of linkages between the different actors and institutions in the field - regardless of their type- leads to many advantages. This is recognized by the actors themselves, who identify benefits from the existing linkages and also mention advantages which could arise in the future. One of the resulting advantages -even if it is not directly intended- is the long-term sustainability of the different educational innovations.

Sustainability is a consequence of different factors, which can all arise from greater linkages. Among these, a greater provision of resources, greater participation or a better definition of roles and responsibilities. The (expected) outcome from these factors is an innovation -and impact- which lasts over time. However, it is necessary to mention here that a sustained innovation does not need to refer to a static innovation. On the contrary, sustainability implies a continuous innovation, as a continuous adaptation to the changing circumstances and context. When the different interventions aim at an innovation as a final product, it is linkages and a greater integration between the different actors and institutions which provide the possibilities for a continuous innovation process.

The different institutions show different possibilities, as well as different interests, towards the implementation of linkages. In addition to the factors mentioned in Chapter Seven, this chapter has shown specific internal factors in the different institutions in the field. The search for further linkages has to consider these factors as points of departure in every case, together with three general issues: the allocation of resources, the search for consensus, and the need for strong institutional leadership.

In any case, much depends on the types of linkages which are intended, something which in turn depends on the type of advantages which are expected. Greater levels of integration are not specifically aimed at, and the interaction between the different parties is generally limited to operational mechanisms, with direct and immediate benefits. Nevertheless, even simple communication procedures, or the exchange of information, leads to more efficient interventions and therefore to higher possibilities for the long-term sustainability of the results. It is necessary though that these linkages consider all the actors in a given location. Although *capacitación* and the formal education activities conform two separate sectors -which are to remain separate- both prove essential for the interests of the other. In particular, both prove essential for the interests of the communities at large.

GENERAL DISCUSSION AND CONCLUSIONS

This last chapter presents a general discussion and the conclusions of this work. I do not intend here to add new information, but rather pull the last chapters together. Based on the three research questions, I give an overview of the main findings, as well as ideas for further research.

This chapter is divided into three sections. Considering the formal and non-formal activities, the first section looks at the factors which determine the sustainability of the educational innovations, and at the resulting situation in the field. The next two sections focus on the factors which determine the establishment of linkages between the different institutions and on the added value of these linkages.

9.1 INNOVATIONS AND SUSTAINABILITY

Several educational innovations were recognized in the field. These are the result of different interventions, designed and implemented with the aim of improving a particular situation. Interventions take the shape of a project, which is run with specific objectives in mind. These projects are found within the formal education structures and also as part of the activities of the non-governmental organizations running the non-formal education programmes.

The general situation in the research locations matched the findings and analyses of previous studies. Many activities are taking place, many interventions are designed and implemented, and the local population is involved -actively or not- in many programmes and projects. All these projects share common characteristics. They concentrate on a certain area and are implemented over a period of several years, after which results are shown. In general terms these results are positive, whether in the complete design of a *programma*, in the development and use of 'new' production technologies, or in the methodologies followed. But these results, however positive, are short lived, and their impact is not recognized anymore after some time. The contribution of the different interventions is therefore limited, in spite of the resources, manpower and effort put in every case.

In general terms, the different educational innovations are not sustainable. Sustainability, as the ongoing existence of whatever is planned, implemented or intended, is limited. But sustainability is not determined by a simple cause-effect relationship. Many different factors

were identified influencing the sustainability of innovations. These factors were similarly distinguished in both the formal and non-formal education activities, showing that, in spite of the differences between what is formal and what is non-formal, the design of interventions and the resulting outcomes have similar limitations¹.

Lack of sustainability is frequently equalled to a lack of financial resources. This is certainly an important factor, though field research has shown that many other factors contribute as well. The main factors recognized in the field range from a poor definition of roles and responsibilities to a lack of resources and materials (see Table 2). All these factors lead to one: management. This refers to management during the intervention itself: provision of the necessary resources, materials, sufficient autonomy to implement decisions and interest and motivation in all those involved. And naturally it refers to management after the project is finished, for which it is necessary to have an adequate preparation, together with a distribution of roles and responsibilities.

These factors are at work simultaneously. Each one has been described and considered separately, though only as a way of facilitating the analysis. As I mentioned before, my intention with this analysis was not to measure or categorize, but to show the limitations with which the institutions have to cope. It can be interesting however to measure the effect or relative weight which each of these factors has, to make a comparison between them and determine where must the institutions put greater emphasis. A detailed measurement of the effect of each of these factors is then an issue for further research.

Still, such research will be limited by the same constraints which were met during this study. Sustainability is directly related to the factor time, and therefore can only be measured over an extensive period. A detailed measurement of any of the factors identified here -whether it is the definition of roles and responsibilities, or the interest and motivation shown by the actors- would have to take place over a long period of time. And it will have to consider a detailed set of indicators, as parameters with which all those involved agree. Determining what indicators to use is then the first step to take.

Different institutions are behind the interventions: The Ministry of Education, the NGOs, the donor agencies. They are all interested in a continuous implementation and a long-lasting impact of the activities they are involved in, something which is reflected in their opinions and their documents. (In fact, they all expect that what is done will last for long.) However, 'sustainability' is a difficult term, with different meanings in every case. Even if there is a general interest in an ongoing existence, there are different understandings and interpretations of what the term means, and therefore of how it is to be achieved.

¹ The main differences, as shown in Chapter Six, derive from the fact that innovations in formal education are implemented within the structures of the *Ministerio de Educación*, while there is no similar structure for the non-formal activities.

Varying meanings and understandings

This research has shown that the 'sustainability of the educational innovations' can have various meanings, even if they all refer to a long-lasting impact. The definitions collected and summarized by Stockmann (1997) have been differently identified in the field. The meaning of the term sustainability varies from a continuous supply of goods and services to a continuous response to changes, and there is no clear definition, even within one institution, of what is (or should be) specifically intended. *Beneficiarios* taking part in the NGO activities expect a constant provision of facilities and are dismayed at the thought of the NGO leaving their *comunidad*. Teachers expect a continuous supply of materials and resources, together with courses and activities. The formal education projects aim for *oficialización* and a continuous implementation, following detailed norms and regulations. And all NGOs expect the activities they carry out to continue over time. All opinions share an interest in an ongoing existence or persistence. The differences emerge when considering what exactly is to persist, and how.

The process-product dichotomy is another differentiation which came out of the analysis. This is something which is seldom considered by the institutions or by those taking part in their activities. The *Programa de Educación Ecológica* is recognized as a final product, as a set of guidelines and activities which resulted from a project and which are to be implemented accordingly. NGO innovations include new methodologies (e.g. participatory approaches) or new technologies (for production) which are designed and tried out in the field. Every case, or every intervention, consists of a process where many actors are involved. Every intervention leads to a final product, which is to be followed by teachers and students, extensionists and *beneficiarios*. But no intervention is purposefully oriented at an innovation process, such as those proposed by Engel (1997). A specific product is always the expected result, something which can be shown and measured.

Do these products lead then to an innovation process? The ways in which the PEE has evolved over the last years show that innovation did not finish once the project was over. On the contrary, innovation continued, leading to a different implementation in every school. NGO activities evolve similarly, leading in every case to further innovation. While every final product is the result of a process, every product is also the starting point of an innovation process, where additional factors and interests intervene (the actors, other projects, etc.). The search for sustainability must therefore not be limited to the continuous existence of a product (as, for example, the provision of services). In addition, all attempts must also aim at a continuous innovation process.

This leads back to the interventions. It was found that many of the possibilities for a sustainable innovation lie in the way interventions are designed and implemented and in what is expected to result as innovation. The search for educational relevance, the attention given to the necessary structural pre-requisites, the levels of participation considered or the use of evaluations are all criteria which have a direct influence, as shown in section 6.3. It is

necessary therefore to determine how each of these criteria is considered in each case. This derives directly from the general aims and objectives set for each intervention, and from the way in which these objectives are translated into activities in the field.

The aims and objectives of an intervention

Fieldwork has shown that the possibilities for sustainability depend heavily on what is wanted in each particular case and on how each intervention is designed and implemented.

What do the different interventions aim at? Formal education projects such as the PEECC aimed at an improved curricular programme, providing children "with a better knowledge of their own social and environmental reality" (PEECC, 1990). The different NGO projects aim at greater agricultural production levels, at the promotion and consolidation of local organizations, or at better managerial capacities in the population. The descriptions and analyses presented in the previous chapters show the orientation followed during implementation, and the 'driving forces' which guide each case (to name a few here: the structure of the Ministry of Education, the relationship established with the donor agencies, the interest and motivation of teachers or extension workers). But the specific aims in the initial design of each intervention are modelled by the basic 'motivation' behind each case, and by the general theories regarding education and its contribution to development.

The projects and activities analyzed in the field follow different guidelines and ideas in the formulation of their activities. These ideas can be divided according to the classification provided by Farrington et al. (1993) for development-oriented NGOs (presented in section 3.2). Many activities follow an 'alternative development' approach, with emphasis on empowerment or participation. Alternative methodologies are designed and implemented, even if these are punctual and specific (e.g. consciousness-raising activities). Similarly, many activities can be labelled as 'green development': the focus on environmental issues, the promotion of an ecological agriculture, etc. Still, most projects are designed towards more orthodox goals: an increase in outputs and production levels. Common NGO programmes aim at providing either facilities (credits or resources) or information; in both cases oriented at a greater (agricultural) production output. Even the *programas* of the *Ministerio de Educación* are seen by some teachers simply as the provision of specific information for agricultural production (in which children are and will be involved).

Every intervention is similarly modelled by more general notions of education and development. Differences can be established following the broad theories presented in Chapter Three, even if it is not always easy to distinguish each case precisely. Earlier NGO projects, designed towards *Educación Popular* and *concientización* aimed at a change in roles, power distributions, relations and structures within society in the rural areas. Education was thus modelled by 'conflict' theories in its aim to transform society.

Non-formal education programmes still look for 'change', and this is the main motive for the presence of NGOs in the field and their specific interventions. But this change is now

expected within the existing structures of society: greater production capacities and facilities which can lead to a better situation of the individual. The same can be said of the formal education system: Freirean objectives such as the formation of citizens who are capable of transforming reality, contrast with the activities taking place nowadays, which rather aim at providing the possibilities for personal change (children or adults who acquire specific abilities or attitudes). In short, personal change within the given structures².

Interventions in the field are modelled by these ideas, determining what they do and for how long will each case last. Every case is a set of temporary, goal-directed and purposeful activities. Considering that the current situation is not optimal, interventions aim at change. This means, a change in the educational activities and as a consequence a change in the situation of the *beneficiarios*. But their main focus is on the 'here and now', and on the need to show immediate results. Interventions are a temporary process, so the results have to be shown within this period. Measurement of impact long after the intervention is finished is clearly not the interventions' top priority, so no specific actions are taken towards it. '*Metismo*' shapes results as an easy-to-measure product.

A focus on sustainability can lead to a greater impact of this 'product', making better use of the resources or efforts put into every intervention. Furthermore, an even greater impact can result from the sustainability of the process which starts in each case.

9.2 THE INTER-INSTITUTIONAL LINKAGES

This study focused on the linkages between the different institutions in the field. There are many institutions involved in many activities, even in the few research locations chosen. My interest was to focus on those institutions involved in the different educational activities, concentrating on those directly related to the intervention projects aimed at improving a particular situation. Looking both at formal and non-formal education, I analyzed the rural primary schools, the (local) education authorities and the non-governmental organizations. Additionally, as part of the setting, I considered the role of the *comunidades campesinas* and the district municipalities.

My main interest was the establishment of linkages between these institutions; basically the analysis of a non-situation. Many factors determine a lack of linkages in the field. It is necessary to start though by saying that 'linkages' proved to be another term with different interpretations, even if they all refer to the connection between two or more parties.

² One of the objectives of the PEECC was that children develop knowledge, attitudes and abilities, "preparing them to confront their future, both in the rural areas as in the cities" (PEECC, 1990). The main interest of all parents is that children, with education, leave the *campesino* life. Neither set of opinions would seem oriented at transforming this *campesino* life.

Diversity in terminology

An unexpected issue emerging from the findings is the diversity in terminology. I took the term 'linkages' as the main interest of this research, focusing on the interrelations between two or more parties. Previous studies talk of links, linkages, linkage mechanisms and strategies when referring to the interrelations between two parties and to the actions taken to enhance these. Other terms found include relationships, interdependence or interconnectedness, ending with networks as stable patterns of communication and interaction between social actors (Engel, 1997).

Field research showed different types of linkages and linkage mechanisms, basically depending on their attributes, on the function they are to fulfil and on the actors who are involved in each case. Linkages are therefore formal or informal, permanent or temporary, ad hoc or with no specific function. They are differently meant to provide resources or mutual support, or to programme and distribute activities. And they involve different individuals at different levels. There are many different possibilities, although they are all linkages in the sense that they all connect, in one way or the other, two separate parties.

Additional terms found in the field were collaboration, coordination, communication, cooperation, integration and *concertación*, as the way in which these linkages are operationalized in the field (terminology is complicated even further by translating it to and from Spanish). But it is not always clear what do these terms refer to, or what is expected from each of the parties involved. Is communication between two parties already a linkage? Clear definitions are especially relevant if linkages are to lead to specific advantages.

This diversity in the terms and definitions used shows how difficult it is to give unequivocal concepts which are similarly understood. Terminology needs to be determined in greater detail, providing another orientation for further research. It will be necessary then to establish a set of indicators and with it analyze the terminology used and followed in the field. Only then would it be possible to determine how 'strong' are the linkages established and how interrelated is each of the institutions to the others.

What does arise clearly from my findings is that there is not one way in which institutions interrelate. The relationship established takes many forms, depending on what is intended and who is involved. This therefore takes different names. This analysis did not intend to show which of these refers to 'better' linkages, but I can conclude that some lead to stronger interrelations and can therefore lead to greater benefits.

There is thus a clear difference between coordination and cooperation on one side and *concertación* and integration on the other. The first two terms were more commonly observed: communication between two parties which leads to immediate results (e.g. the visits of the extensionists to the schools or the agreements signed between two institutions). Concerted actions, based on an agreement, consensus and common goals, is only starting within some NGO networks or with the implementation of the CDDs. Integration between the institutions is still to be achieved.

These are all terms which reflect the result of linkages: they all show that the actors or institutions are connected. But linkages are 'stronger' in the latter group, as institutions are more interrelated. Further research, concentrating on a larger number of already established linkages, could be useful to measure these differences.

The factors determining the establishment of linkages

Different linkages between the different institutions were identified in the field. These were all implemented for a specific reason, and all fulfilled, to a certain degree, their objectives. However, considering the large number of institutions in the field and the activities in which each of these institutions is involved, the linkages established are not many. On the contrary, a general lack of linkages was identified, with the majority of activities being implemented in relative isolation. Once again, the situation confirmed previous findings and the initial assumptions of this thesis.

Many factors were recognized behind this lack of linkages, running from the difference in aims and objectives in the institutions to the apparent 'competition' between these institutions (e.g. competition to see which one reaches a greater section of the population, or around which has more results to show). These factors were observed limiting the emergence of new linkages, as well as influencing the performance and utility of those already existing. And the same factors were found within the formal and non-formal cases, showing that in spite of the different settings, interventions are similar.

Apart from these general factors, different constraints were also identified in each of the institutions surveyed (the NGOs, the schools, the education authorities, the *comunidades* and the municipalities). These limitations include the lack of financial resources and in particular the lack of time, the lack of autonomy or the little interest which many of the members of the institutions showed towards inter-relations with other institutions. But each institution also showed different possibilities towards the establishment of further linkages. These are based on the specific characteristics recognized in each case, as factors which can lead to linkages and to greater advantages. Among these factors: the accumulated experience in NGOs or their canalization of resources, the permanent presence of schools in a given area, or the local authority represented in the municipalities.

The fact that many different factors are influencing the establishment of linkages determines that there can be no recipe to be followed in each case. The original aim of this research of designing a linkage implementation strategy towards specific advantages faded thus in front of the findings. But linkages provide specific benefits, so it is certainly convenient to take steps towards their improvement or towards the establishment of additional ones. The possibilities recognized in each of the institutions surveyed must be taken as a starting point (see Table 7). Apart from the necessary resources (money and in particular time), two additional issues are essential (based on Engel, 1997):

- the need for a common objective, or at least a common background and interests, and
- a higher authority or leadership.

This research has shown that these are factors which are not easy to find in the field. Institutions lack the financial resources, and in particular they lack the time to look for stronger linkages, even if these linkages are going to bring specific advantages. The general objectives may be similar in all cases, but the activities are driven by the need to show concrete and immediate results ('*metismo*'). And not many institutions can effectively assume the role of a higher authority and exert pressure on the other institutions.

Many studies consider the need for this higher authority and much attention is given to the State, as a 'new' (or rather renewed) institution (Bebbington, 1997). This leads to the presence of the State in the field, and to the need to establish stronger linkages with it.

Linkages with the State

The relation between the different institutions and the State needs to be highlighted. Whatever the terminology which is followed, the establishment of linkages between the different NGOs is difficult. But linkages with the public sector are even more difficult to realize. It is this difficulty which basically determines the lack of linkages between the formal and the non-formal education activities.

The works of Bebbington and Thiele (1993) and Edwards and Hulme (1992, 1997) have shown the difficulties and possibilities for greater interrelations between the public and the non-governmental sector. The general conclusion is that NGOs can greatly benefit from a stronger relation with the State, while all governmental activities can similarly benefit from the experience and capacities of the NGOs. The findings presented here only confirm these ideas.

However, it is not easy to determine where is 'the State' in the remote rural areas or how can these stronger interrelations be started. I mentioned in the first chapters of this book the 'recovery' of the State in Peru, having reassumed many of its functions after years of internal war and economic problems. At the moment there are teacher training programmes, in the same way as new roads or communication facilities. But even if many activities are taking place in the rural areas, it is still quite difficult to consider the actual 'presence' of the State, as an institution with which it is possible to interact.

Rural schools are found in every location and are in fact part of the governmental apparatus, but they do not represent the State. Every province has a governor appointed by the central government. There are education authorities, just as representatives of the Ministry of Public Health or the Ministry of Agriculture. But the lack of autonomy of these direct representatives of the government in the areas is evident, and all decisions are taken in Lima. Lack of autonomy then adds to a lack of resources and facilities. As a result, local NGOs, interested in programmes and activities in specific locations, have much smaller chances of benefitting from the advantages which linkages with the State provides. This was clearly seen with

PLANCAD: only NGOs who could have a representative in Lima could apply for participation in the programme. Local NGOs have limited possibilities for lobbying or for exerting critique, or for multiplicative strategies for scaling-up (Clark, 1992).

This confirms the important role of the local elected authorities: the municipalities. Municipalities constitute independent government bodies, directly related to the population of each district. Their capacity to command resources, exert authority and contribute to the definition of activities, roles and responsibilities has been shown before, together with their possibilities for even greater roles (ChavezTafur, 1994). This is confirmed here. Still, municipalities face two major obstacles: law does not specify any of the roles described above as their responsibility, and their resources are limited. Despite these difficulties, the results observed in the implementation of the *Comités de Desarrollo Distrital* show the possibilities that can emerge under the auspices of the mayor and the district council. These possibilities only start with putting together the different institutions intervening and operating in each district.

The role of the individual actors

To finish this section, it is necessary to mention an important factor which was identified in all the cases: the motivation and interest of the individuals. This is a factor which inevitably leads to a deeper analysis of the actors and their actions. To mention a clear example, it is the personal interests of many teachers (and of many officials at the USE or the DRE) which sustain a continuous implementation of the *programas* in some of the schools. This is recognized when, under similar conditions, one school continued to implement them and another did not. Similarly, many of the linkages observed (or the lack of linkages in a given situation) respond to a particular interest expressed by one individual and the actions he or she takes or decides not to take (e.g. writing a letter to the NGO team and inviting them to take part in some of the activities in the school).

There is no doubt that the individuals, as actors, formulate their own decisions. These decisions are determined by their specific interests, motivation, willingness, and are based on their own perception about the situation in which they are found. Each actor is an active and knowledgeable agent (cf. Long and Long, 1992); the response of every actor is important in determining the road which is taken in every case. However, as the previous chapters have shown, the decisions which the actors take or do not take are equally shaped by factors which are not within their reach. The availability of resources, or the lack of autonomy with which local offices operate, presents serious constraints.

This study focused on the linkages between different institutions, considering all those involved around the formal and non-formal education activities in the field. I analyzed the rural primary schools, the local education authorities (the USE and the DRE) and the NGOs, and in addition I considered the municipalities and the *comunidades campesinas*. It was my intention to look at the different institutions as such, and analyze the constraints and

possibilities found, in each particular case, in the way each institution fits within a given social location and operates towards its objectives. In short, I looked at the general framework within which the individuals are found. This is, the context within which the actors are to act.

Nevertheless, having concentrated on the institutions as corporate bodies, this study runs short, and an additional analysis proves necessary within each of the institutions surveyed. The recognition of the central role played by human action and consciousness for understanding social change (Long and Van der Ploeg, 1994) must follow an identification of the conditions within which these actors exert their agency. Having shown the main difficulties and the main possibilities which each institution shows, it is now possible (and useful) to look deeper.

9.3 THE CONTRIBUTION OF LINKAGES

Frequent calls are made for greater interrelations between the different educational activities towards a greater educational impact in the rural areas (e.g. Lacki, 1995). The main objective of this research was to determine the contributions of linkages and interrelations between the different institutions, in particular in relation to the sustainability of the educational innovations. Fieldwork showed that the existence of linkages does provide specific benefits to the different educational activities. In general terms, linkages contribute to the degree of success shown by the different interventions. This is difficult to measure, especially in such a short time. But it is possible to recognize it in the results achieved by the different interventions and the satisfaction expressed by those involved. To name a few examples: the implementation of the *Programa de Educación Ecológica* with the 'support' of the representative of the Ministry of Agriculture; the implementation of PLANCAD, specifically relying on the expertise and capacities of NGOs; or the programmes of these NGOs which reach at students and parents as part of their target groups.

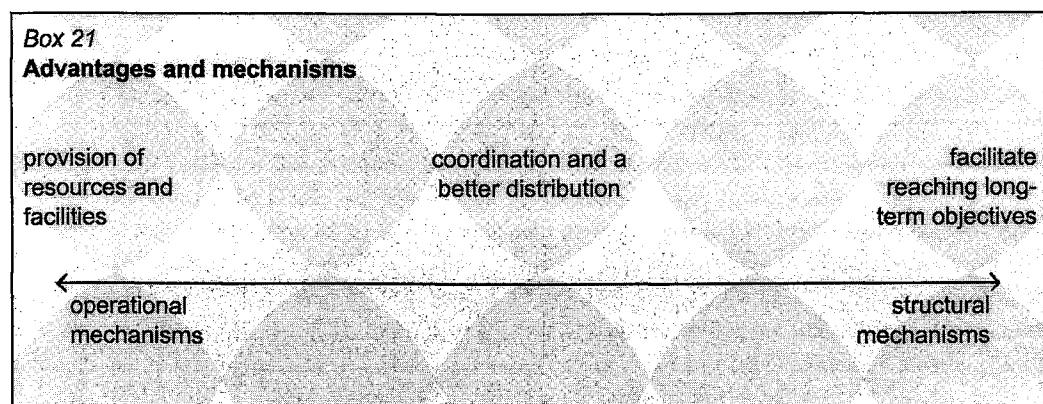
Actors in the field recognized the advantages of the linkages which were already established, and at the same time mentioned different benefits which could show after additional linkages between the different institutions are established (as a potential contribution). These advantages are summarized as follows:

- a greater provision of materials, resources or facilities;
- a better distribution of all the activities taking place in one area (coordination);
- greater possibilities for reaching the long-term objectives (by reaching out to additional target groups and improving the interventions).

These are all conditions which facilitate the design and implementation of an intervention. This does not imply facilitation of an already specified, top-down plan of action. On the contrary, these advantages allow for more appropriate processes, better suited to the environmental, social and economical settings in which the interventions take place.

Still, as it has already been mentioned, there is a broad diversity in linkages. It is therefore clear that different linkages will result in different types of advantages, depending on the

circumstances and on the institutions involved. The preferred linkage mechanisms (as the organizational procedures used to establish, maintain or improve the linkages) will depend on what is wanted or deemed necessary in each particular case. The difference between the operational and structural mechanisms³ (Kaimowitz et al., 1990; Bebbington and Thiele, 1993) can then be linked to the advantages expressed and summarized above, as is shown in Box 21. This can be seen as the starting point for the establishment of additional linkages or for the improvement of the existing ones. The continuum drawn avoids the difficulty of setting fixed limits between the linkage mechanisms and between the advantages.



Thus, for example, the district mayors mentioned that mutual support results from linkages between the municipalities and the NGOs. Such mutual support requires basic operational mechanisms. So does the provision of materials which teachers expect to receive from other institutions operating in the area. The necessary coordination of activities which *comuneros* ask for, so that they can fully participate in all the activities which take place in their *comunidad*, could result out of bilateral collaboration between the different institutions involved, or out of joint planning of activities. Considering the situation found in the field, it can be concluded that structural mechanisms -such as coordination units within one *comunidad*- could provide better results. At the other extreme, reaching out to a wider population group, or improving the definition of problems, alternatives or objectives, can only come out of coordination units or committees such as the CDDs.

What is wanted in each case? Much depends on the objectives each institution has set, and on how it intends to achieve these. It is therefore clear that the search for greater linkages has

³ Operational linkage mechanisms are those which coordinate or support the implementation of specific functions by the two parties. Structural mechanisms are those functioning at a general planning level to create more linkages.

to be context-specific. This is, based on these objectives and on the different factors which limit or facilitate the establishment of linkages in each case.

All linkages contribute, even if differently and at different degrees, to better results and a greater impact. The question is then if this contribution also leads to a long-lasting impact.

Linkages and sustainability

What is the contribution of linkages to sustainability? Even though this was the basic motivation behind this research, no directly related opinions were heard in the field. Findings in the field showed that there are many factors influencing the sustainability of innovations. It is therefore possible to conclude that the establishment of linkages does not necessarily lead to sustainable innovations if the different factors identified here are not considered. Nevertheless, the findings support the idea that the sustainability of the different educational innovations is enhanced with greater linkages between the institutions (even if sustainability is not the main motive behind the establishment of these linkages). An inverse relation is found with the factors that determine non-sustainability. The different types of linkages can provide resources or the necessary facilities for a given activity. They can lead to greater participation of the various sectors of the population, something which in turn leads to a better selection of the activities which define an intervention. Similarly, this can lead to a better distribution of roles and responsibilities between the interventors and also with the participants. These are all conditions which determine that the result of an intervention is sustained in time.

Going back to the discussion in the first section of this chapter, it is necessary here to distinguish between a final product and an innovation process as the central aim of an intervention. As mentioned, linkages contribute to sustainability if the result of an intervention is a final product. But linkages are even more necessary if the aim of an intervention is to start a continuous innovation process around a specific issue.

In opposition to what is described by theoretical studies, interventions are seldom oriented at facilitating an innovation process. Findings in the field have shown that '*metismo*' and the need to show concrete results shape activities towards an innovation as a final product (a given technology, a methodology or even a *programa*). However, whatever the final result, this product is modified and adapted in the field. The product is therefore the starting point of a process, which continues or stops altogether depending on the different factors identified. If innovation is the result of interaction among different actors (Röling, 1996), the contribution which linkages provide lies in the possibilities for this process to continue.

The systems perspective

The systems perspective provides a useful framework for looking at the actors and institutions found in the field and their interactions. These are different institutions involved in a broad set

of activities, all geared around the interests of the local population. The advantages identified above can be recognized thus as the properties which emerge when the actors and institutions come together.

Looking at these institutions as part of a system facilitates the analysis of the situation, thus determining the advantages and possibilities for sustainable innovations. A systems perspective provides the basis for a study on linkages, from the initial (current) situation to that where 'emergent properties' appear. Innovation, and in particular a sustained innovation process, can be recognized as such a property.

It must be noted though that the situation found differs from that generally considered by the literature dealing with the agricultural knowledge and information systems (AKIS). Traditional systems terminology considers those institutions involved in agricultural research and extension, together with the 'users' of the agricultural knowledge and information (the producers). The situation found in the research locations includes the extension organizations, identified in the different NGOs. It also includes the users, as *beneficiarios* or *comuneros*. But there are no agricultural research institutions nearby, and the activities of those situated throughout the country are not directly related to the activities in which either group is involved⁴. On the contrary, I found other institutions which are seldom described in the literature: the local schools, and the district municipalities. Even if indirectly, both cases are involved in the activities related to agriculture and production.

The role of municipalities has been discussed in the previous chapters, and is considered again hereafter. What is necessary here is to consider the role of the rural schools. The rural primary schools constitute a permanent institution in the field, found in every location. In spite of the difficulties which are easily identified, its presence is welcome by the population, and the activities which take place there -or which fail to take place- have direct implications for the whole setting.

Several interviewees considered that the school is the logical meeting place in a community: it provides the necessary infrastructure, where extensionists and all the *comuneros* can come together. But there is much more to every school. All the *comuneros* share the interest of their children's education. They all participate in many activities, and they are all represented in the ASPAFAs. Besides, schools are more and more involved in the daily life of the *comunidad*, following the new approaches which result from the projects.

Contrary to what earlier studies showed (Watson, 1983), rural teachers face many difficulties in becoming development agents in any community. Focusing on the need for external pressure and a 'higher authority', schools may fail to effectively bring all the actors together. But all rural schools and the local education authorities show possibilities towards greater linkages. Schools can therefore benefit from the establishment of linkages with the other institutions, and at the same time they can contribute to the success and impact of the

⁴ I have to mention that extension activities following a transfer of technology approach may use the results of the agricultural research stations. The majority of NGOs however concentrate on other sources of information: their own experiments, the results of other NGOs or the activities of *comuneros* inside or outside their areas of influence.

different interventions. Above all, schools can enhance participation and thus contribute to continuous innovation processes.

Unfortunately, the schools, NGOs and the other institutions fail to constitute one system, or even one single set of actors and institutions. Isolation and the general *modus operandi* distinguished in all interventions leads to several (sub-)systems, where each case has different components and a different orientation. Different networks were recognized around each intervention or set of activities. They all have in common that they all include the *beneficiarios*, but they all operate separately, in virtual isolation from the rest. Thus each NGO is the centre of one network which basically involves the extensionists and the *beneficiarios*. Other actors may be additionally involved, such as those from the schools or the municipalities. The implementation of a *programa* constitutes another network. It involves the staff members of a school and the authorities at the USE. Additionally, it is possible to find extensionists from the NGOs, or representatives from the Ministry of Agriculture.

Each of these networks involves communication and interaction patterns towards one specific direction: towards the objectives set. According to the differentiation presented by Röling and Jiggins (1998), each case follows an instrumental rationality, something that leads to specific results. However, these networks show few systemic properties. On the contrary, without a wider outlook, each intervention can very easily turn into (or remain as a) top-down execution of activities, with no possibilities for participation, control or decision. Communicative rationality can only result from greater linkages, including all the institutions in a given area.

Greater linkages do lead to the maintenance of a specific product. A continuous supply of goods or services, or the sustained use of a given technology can be ensured with greater communication and cooperation agreements between those involved. However, this does not necessarily refer to a higher systemicity. But if the aim is to facilitate an innovation process, then it is necessary to get all these networks together. A systemic interrelation of all the institutions involved is even more important in the quest for a sustained process.

Management

The difficulty lies in getting these systems together. Many factors drive the institutions apart, so facilitation for networking, in the way described by Engel (1997) is not an easy process. Objectives are different, and there is a general lack of resources (and time). And most of the time there is no institution which will assume the role of leader and 'pull' all the others together. The activities of the NGOs and the extension workers are not oriented at facilitating networking, and their continuous presence is uncertain. The presence of the State is relative; the distance between the central authorities and the field determines the difficulties for becoming an effective 'higher authority' in the rural locations.

In order to efficiently consider both the formal and the non-formal education activities, the role of manager would have to rely on neither. This leaves either the *comunidades* or the municipalities as candidates, as institutions capable of drawing all the other institutions

together. Both represent a 'higher authority'. But the *comunidades*, even though they represent all inhabitants of a given location, have a limited power or influence over the other institutions, and they have almost no resources. Up until these *comunidades* are given the power and resources needed to take on this role, the main responsibility lies with the municipalities who do possess these attributes.

9.4 FINAL WORDS

Many difficulties are found in the rural areas of Peru, and many different activities are taking place towards the improvement of such situation. These activities are generally defined as interventions, which take the shape of a project. Projects are designed and implemented around almost every issue, involving many groups of actors (as *interventores*, managers or *beneficiarios*). The provision of formal and non-formal education is no exception: many different projects take shape, aiming to improve the activities in the field.

This research provided the opportunity to look in detail into two issues commonly met within development interventions: the limited duration of the results and impact achieved, and the relative isolation in which each of these interventions take place.

Many different factors were identified. Perhaps the most striking factor in both cases is the need of presenting concrete and 'measurable' results, thus showing that interventions are worth in the short time they last.

The picture presented here may appear bleak. It must be mentioned though that, given a difficult initial situation, the job is not easy. All interventions end up assuming excessive responsibilities, and every case faces many difficulties during implementation. However, interventions do show results, and the benefits they bring are many.

Looking at a set of interventions and the resulting innovations, the general conclusion is that linkages can have a significant contribution. They can lead to a continuous implementation and a continuous benefit. Additionally, linkages can facilitate a continuous innovation process, ensuring a long lasting impact. In order to achieve this, it is necessary that interventions put a greater focus on the local authorities as managers, capable of steering this innovation process.

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GLOSSARY

acompañamiento:	going together, support given with one's presence
asistencialismo:	an approach within NGO activities, limited to a provision of goods or services
beneficiarios:	beneficiaries (of the activities of an NGO)
campesinos:	farmers, agricultural producers
capacitación:	training, extension, non-formal education
centros educativos:	primary (rural) schools
comuneros:	all the inhabitants / members of a comunidad
comunidad campesina:	rural communities (see page 7)
concertación:	agreement towards concerted actions, consensus
concientización:	awareness, consciousness-raising
coordinador:	the head of each NGO team
departamentos:	each one of the areas in which Peru is divided politically
Dirección Regional de Educación:	the education authorities in every political region
director, directores:	headmaster, principal
escuelas:	rural schools
interiorización:	internalization, becoming convinced of an idea
líneas de acción:	internal divisions within an NGO
metismo:	from <i>meta</i> , goal: the design and implementation of activities towards a specific goal
minifundios:	small agricultural plots (in comparison to <i>latifundios</i> , or large estates)
Ministerio (de Educación, de Agricultura):	Ministry (of Education, of Agriculture)
oficialización:	to make something official, passing laws or regulations
Programa:	each one of the programmes resulting from the innovation projects
protagonismo:	to show off, exaggerate one's presence
selva:	the Amazon jungle
sierra:	the Peruvian highlands

ABBREVIATIONS

AKIS	Agricultural Knowledge and Information Systems
Arariwa	<i>Asociación Arariwa para la Promoción Técnico Cultural Andina</i>
ASPAFA	<i>Asociación de Padres de Familia</i> (parents association)
CAIP	<i>Centro Andino de Investigación Pedagógica</i>
CDD	<i>Comité de Desarrollo Distrital</i>
CE	<i>centro educativo</i>
COINCIDE	<i>Coordinación Intercentros de Investigación, Desarrollo y Educación</i>
DRE	<i>Dirección Regional de Educación</i>
FAO	Food and Agriculture Organization of the United Nations
IMA	<i>Instituto de Manejo de Agua y Medio Ambiente</i>
NGO	Non-governmental organization
PEE	<i>Programa de Educación Ecológica</i>
PEECC	<i>Proyecto Escuela Ecológica y Comunidad Campesina</i>
PEF	<i>Programa de Educación Forestal</i>
PLANCAD	<i>Plan Nacional de Capacitación Docente</i>
PROMEP	<i>Proyecto Manejo del Ecosistema de la Laguna de Pomacanchi</i>
RAAKS	Rapid Appraisal of Agricultural Knowledge Systems
SSM	Soft System Methodology
USE	<i>Unidad de Servicios Educativos</i>

SUMMARY

This thesis is about linkages between the different institutions operating in the rural areas and the contributions these linkages provide.

Numerous activities are found taking place in the rural areas of Peru. Many are the result of a specific intervention, designed and implemented towards the improvement of a given situation. This research concentrated on the interventions around education, considering both formal and non-formal education. It looked, in particular, at the innovations in each case.

The purpose of this research was to determine the possibilities for sustainability which the different educational innovations have, considering basic rural education as one of the main input factors for development. In short, this study intended to explore to what extent linkages and interrelations between the different institutions in the field can contribute to sustained educational innovations. Consequently, the following research questions were formulated:

1. What are the critical factors influencing the sustainability of innovations within (a) basic formal education in the rural areas and (b) NGO-initiated non-formal educational interventions?
2. What are the reasons which determine the establishment or non-establishment of linkages?
3. What are the (potential) contributions of linkages to interventions and to the resulting innovations in education?

Different theories on education and development were considered, as well as various concepts on sustainability and on linkages. In particular, research drew upon the knowledge systems approach as the necessary analytical tool for looking at the advantages emerging from the establishment of linkages. This proved useful for looking at the actors and institutions in the field, and specifically for looking at their interactions. A difference was found however between the institutions considered in the literature and those in the field. No research institutions were found directly involved, while the (primary) schools were seen in every location, related in many ways to agriculture and general life in the community. This proved the need for a wider outlook.

Research followed a qualitative approach. The purpose was thus not to produce generalizations, but rather in depth understandings. A combination of different research instruments was used in order to cover the research questions: literature reviews, semi-structured and unstructured interviews, observations (in particular 'participant observation') and group discussions.

Four different locations were chosen, in two provinces in the southern highlands of Peru: Urubamba and Acomayo. Each of these locations is witness to different intervention projects.

Two groups of projects were chosen: those oriented at improving the provision of formal education in rural primary schools, and the general set of activities resulting from the presence of an NGO (non-formal education). These projects involve different actors and institutions: the *Ministerio de Educación*, the local education authorities, the *Asociaciones de Padres de Familia* (parents associations), the school staff, the NGOs, the extension workers and the beneficiaries.

It was observed that projects, or the specific activities within each project, last for a limited period of time. Results are seldom sustained after the project is finished. Different factors were identified behind this lack of sustainability, running from a poor definition of roles and responsibilities to a general lack of interest or motivation. All these factors are summarized in one: management. This refers to management during the intervention itself, as well as management after the project is finished.

All institutions and interviewees showed interest in sustainability. However, this is not easily translated into their day-to-day activities. Besides, the 'sustainability of educational innovations' showed various meanings. These meanings range from a continuous supply of goods and services to a continuous response to changes. Even if all opinions share an interest in an ongoing existence or persistence, the differences emerge when considering what exactly is to persist, and how.

Linkages between the different institutions were observed in the field. These showed different attributes and different functions. Still, considering the large number of institutions and activities taking place, these linkages are not many. Several factors were recognized behind this lack of linkages: from the difference in aims and objectives to an apparent competition between these institutions (e.g. competition to see which one reaches a greater section of the population). These factors were observed limiting the emergence of new linkages, as well as influencing the performance of those already existing.

The establishment of linkages is limited by the characteristics of each of the institutions surveyed. But each institution also shows positive factors, such as the accumulated experience in NGOs, their capacity to canalize resources, the permanent presence of schools in a given area or the local authority present in the municipalities. Implementation of further linkages is then to be based on these positive attributes. And it is facilitated by an adequate provision of resources (money and in particular time), a common objective between the institutions being linked, and the pressure exerted by a 'higher authority'.

The need for a certain leadership showed how important it is to establish linkages with the authorities. This confirmed previous studies which showed the importance of establishing linkages between the public and the non-governmental sectors. However, and despite the 'recovery' of the State in Peru, it is not easy to determine where 'the State' is in the rural areas. Thus the need to consider the local authorities. It became clear that district municipalities can effectively assume the role of managers and contribute to attaining specific advantages.

Fieldwork showed that the existence of linkages does provide specific benefits to the different educational activities. This positive contribution was recognized by the different actors, who mentioned existing and potential advantages. These advantages were summarized as:

- a greater provision of materials, resources or facilities;
- a better distribution of all activities taking place (coordination); and
- greater possibilities for reaching the long term objectives (by reaching out to additional target groups and improving the interventions).

The contribution of linkages to sustainability was the main motivation behind this research. Even though it was not explicitly formulated in the field, the findings showed that the sustainability of the different educational interventions can be enhanced with greater linkages. Linkages can provide resources or facilities. They can lead to a greater participation of the various groups of the population, something which in turn leads to a better selection of the activities which define an intervention. Similarly, this can lead to a better distribution of roles and responsibilities. These are all conditions which determine that the result of an intervention is sustained in time.

An additional issue arising from this research was the difference between an innovation product and a process. Research showed that most interventions see an innovation as the final product which results from the intervention itself. An innovation process is not frequently sought, and facilitation towards this process does not take place. However, an innovation process always occurs: the final product is modified and adapted, both within the formal and the non-formal activities. The product is therefore the starting point of a process, which continues or stops altogether depending on the different factors identified. The greatest contribution which linkages provide lies in the possibility for the innovation processes to continue.

SAMENVATTING

Dit proefschrift handelt over *linkages*¹ tussen organisaties en/of instellingen die werkzaam zijn in rurale gebieden en over de bijdragen die deze *linkages* leveren.

In de rurale gebieden van Peru vinden talrijke activiteiten plaats, die een gevolg zijn van specifieke interventies. Deze interventies worden ontwikkeld en geïmplementeerd ter verbetering van een bepaalde situatie. Het onderzoek voor dit proefschrift richtte zich op de interventies op het gebied van onderwijs, waarbij zowel formele als informele educatie beschouwd werden.

De doelstelling van dit onderzoek was het vaststellen van de mogelijkheden om te komen tot duurzame onderwijs-interventies, waarbij basisonderwijs in rurale gebieden als één van de belangrijkste factoren voor ontwikkeling wordt beschouwd. In het kort, dit proefschrift beoogt te verkennen in hoeverre *linkages* tussen de verschillende betrokken instituties kunnen bijdragen aan duurzame onderwijs-innovaties.

Hieruit zijn de volgende onderzoeks vragen geformuleerd:

1. Wat zijn de belangrijkste factoren die de duurzaamheid van innovaties beïnvloeden bij a. het formele basisonderwijs in rurale gebieden en b. informele, door NGO's² opgestarte onderwijs-interventies?
2. Welke factoren zijn bepalend voor het al dan niet tot stand komen van *linkages*?
3. Wat zijn de (potentiële) bijdragen die *linkages* leveren aan interventies en aan de resulterende innovaties?

Verschillende theorieën over onderwijs en ontwikkeling zijn beschouwd, alsmede diverse ideeën over duurzaamheid en *linkages*. Het onderzoek hanteerde in het bijzonder de 'kennis-systeem-benadering' als benodigd analytisch instrument voor het beschouwen van de voordelen die zich voordoen wanneer *linkages* tot stand komen.

Deze benadering bleek nuttig te zijn voor het bestuderen van de actoren en instituties in de praktijk, en met name van hun interacties.

Er waren echter verschillen tussen de instituties in de literatuur en de instituties in de praktijk. Zo waren echter in de praktijk geen direct betrokken onderzoeksinstellingen maar werden in alle lokaties (basis)scholen aangetroffen, die op velerlei manieren verbonden zijn met landbouw en met het dagelijks leven in de gemeenschap. Een bredere visie bleek nodig.

¹ Hier wordt de term 'linkages' gebruikt omdat er geen precieze equivalent in het Nederlands bestaat. Onder *linkages* wordt verstaan alle mogelijke verbindingen tussen verschillende actoren, instituties, organisaties en/of instellingen.

² Niet-gouvernementele organisaties.

Het onderzoek volgde een kwalitatieve benadering. Het doel was daarom niet zozeer tot generaliseringen, maar tot dieper inzicht te komen. Om de onderzoeks vragen te beantwoorden, werd een combinatie gebruikt van verschillende onderzoek-instrumenten: literatuurstudie, semi-gestructureerde en ongestructureerde interviews, observaties (met name participerende observaties) en groepsdiscussies.

Vier onderzoekslokaties werden geselecteerd, in twee provincies in de zuidelijke hooglanden van Peru: Urubamba en Acomayo. In al deze lokaties vinden verschillende interventie-projecten plaats. Er werd gekozen voor twee soorten projecten: projecten gericht op het verbeteren van het geven van formeel onderwijs in rurale basisscholen, en het geheel van de activiteiten die NGO's in het algemeen uitvoeren (informele educatie). Bij deze projecten zijn verschillende actoren en instituties betrokken: het Ministerie van Onderwijs, lokale autoriteiten op het gebied van onderwijs, oudercommissies, de staf van de scholen, de NGO's, voorlichters en de begunstigden.

Waargenomen werd dat projecten, of specifieke activiteiten binnen elk project slechts een beperkte tijd duren. Wanneer een project is afgelopen zijn de resultaten zelden blijvend. Voor dit gebrek aan duurzaamheid zijn meerdere factoren geïdentificeerd, variërend van een onvoldoende definiëring van rollen en verantwoordelijkheden tot een algemeen gebrek aan interesse of motivatie. Al deze factoren zijn samen te vatten in één term: management, verwijzend naar zowel management tijdens de interventie zelf, als management na afloop van een project.

Alle instituties en geïnterviewden toonden interesse in duurzaamheid. Dit is echter niet zichtbaar in hun dagelijkse activiteiten. Bovendien kenden zij verschillende betekenisnissen toe aan 'duurzaamheid van onderwijs-innovaties', variërend van continuïteit in de toelevering van hulpmiddelen tot continuïteit door middel van aanpassing aan veranderende omstandigheden. Zelfs wanneer alle betrokkenen duidelijk belang hebben bij het voortduren van projecten, komen verschillen in betekenisgeving naar buiten bij het bepalen van wat nou precies dient voortgezet te worden, en op welke manier.

Linkages tussen de verschillende instituties op de onderzoekslokaties zijn waargenomen. Deze *linkages* vertonen verschillende karakteristieken en verschillende functies. Hoewel het aantal organisaties, instellingen en activiteiten in het gebied groot is, waren er maar weinig *linkages*.

Meerdere redenen werden gevonden voor dit gebrek aan *linkages*, waaronder verschillen in doelstellingen tussen instituties, en een schijnbare competitie tussen de organisaties (bijvoorbeeld een strijd om wie de meeste mensen bereikt). Deze redenen bleken enerzijds de totstandkoming van nieuwe *linkages* te beperken, en anderzijds de effectiviteit van bestaande *linkages* te beïnvloeden.

De totstandkoming van nieuwe *linkages* wordt beperkt door karakteristieken van de onderzochte instituties. Maar iedere institutie vertoont ook positieve kanten, zoals de opgedane ervaringen van NGO's en hun vermogen om hulpmiddelen aan te wenden, de permanente aanwezigheid van scholen in het gebied, of de positie van lokale autoriteiten in de gemeente.

Implementatie van nieuwe *linkages* dient vervolgens te worden gebaseerd op deze positieve bijdragen van de betrokkenen. Bovendien wordt implementatie bevorderd door te voorzien in voldoende hulpmiddelen (geld, tijd), gemeenschappelijke doelstellingen van de verschillende instituties, en druk die wordt uitgeoefend door een 'hogere autoriteit'. De behoefte aan een zeker leiderschap maakt duidelijk hoe belangrijk het is om *linkages* met de autoriteiten aan te gaan.

Dit laatste bevestigt resultaten van eerdere studies, die het belang aangeven van het vormen van *linkages* tussen de overheid en niet-gouvernementele sectoren.

Ondanks het herstel van 'de Staat in Peru' is het niet gemakkelijk om te bepalen waar 'de Staat' te vinden is in de rurale gebieden. Daarom is het van belang om lokale autoriteiten erin te betrekken. Het is duidelijk geworden dat de lokale autoriteiten de management-rol effectief op zich kunnen nemen en zekere positieve bijdragen kunnen leveren.

Veldonderzoek laat zien dat het bestaan van *linkages* zekere positieve effecten heeft op de verschillende onderwijsactiviteiten. Deze bijdragen werden onderkend door de betrokkenen, die de bestaande en potentiële voordelen van *linkages* voor de praktijk beschreven. Deze voordelen kunnen als volgt worden samengevat:

- een grotere beschikbaarheid van materialen, hulpmiddelen en/of faciliteiten;
- een betere verdeling van activiteiten (coördinatie);
- grotere mogelijkheden om de lange termijn doelen te bereiken (door het bereiken van meer doelgroepen en verbetering van de interventies).

De belangrijkste motivatie achter dit onderzoek was de bijdrage van *linkages* aan duurzaamheid te bestuderen. Hoewel niet met zoveel woorden gezegd tijdens het veldwerk, blijkt uit de bevindingen dat de duurzaamheid van de verschillende interventies vergroot kan worden door meer *linkages*.

Linkages kunnen voorzien in meer hulpmiddelen. *Linkages* kunnen leiden tot meer participatie van diverse bevolkingsgroepen, iets wat weer kan leiden tot een betere selectie van activiteiten binnen een interventie. Daarnaast kan deze participatie leiden tot een betere verdeling van rollen en verantwoordelijkheden. Dit zijn allemaal voorwaarden die bepalen of het resultaat van interventies duurzaam is.

Een ander punt dat uit dit onderzoek naar voren kwam, is het verschil tussen een innovatieprodukt en een innovatie-proces. Volgens de bevindingen wordt bij interventies meestal een innovatie gezien als het eindprodukt als gevolg van de interventie zelf. Een innovatie-proces wordt niet vaak beoogd, en het bevorderen van dit proces gebeurt ook niet. Toch vindt er altijd een innovatie-proces plaats: het eindprodukt wordt gewijzigd en aangepast, zowel bij formele als bij informele educatie-activiteiten. Het produkt is daarom het begin van een proces, dat voortduurt of ophoudt afhankelijk van de verschillende geïdentificeerde factoren. De belangrijkste bijdrage die *linkages* bieden is de mogelijkheid tot continuering van innovatie-processen.

CURRICULUM VITAE

Jorge ChavezTafur was born in 1968, in Lima, Peru. In 1990 he obtained his B.Sc. degree in Agronomy from the Universidad Agraria La Molina, in Lima, specializing in agricultural production. A one-year thesis on cereal breeding and production lead to the *Ingeniero Agrónomo* degree.

In 1992 he started the thesis-oriented M.Sc. course Management of Agricultural Knowledge Systems (MAKS) at the Wageningen Agricultural University. Research took place in Chile, looking at the activities of the small-scale farmers within the export-oriented agriculture context. He completed the course in 1994, with distinction.

Back in Peru, he became involved in the establishment of Inka Cert, a local ecological agriculture certification organization, assuming later its general management.

In 1995 he started the Ph.D. programme with the Agricultural Education Group, Department of Social Sciences, in Wageningen. Fieldwork was carried out in the Cuzco region, in the southern highlands of Peru.

Since 1991 he has been engaged in different activities. Among these, diverse assignments and consultancies for the Universidad Agraria and for local non-governmental organizations based in Lima and Cuzco.

