

Sustainable pathways or troubled development?



Summary

This PhD study uses a longitudinal and comparative perspective to analyse development pathways among rural communities in the Andean valleys of Bolivia. The first three chapters introduce the broader context and relevance of the research, the theoretical framework and a basic classification of the community pathways. Chapters four and five discuss the main internal and external actors and institutions, and chapters six through ten provide a detailed analysis of trends in development pathways in both the productive sphere and in the public domain. These chapters deal successively with land and identity, dryland and irrigated agriculture, and education and other public services. The last two chapters provide an overview of the developments among the different community pathways and reflect on the theoretical findings.

Chapter 1 situates the study in the context of developments in Bolivia and international development policies. After 50 years of development efforts, poverty is still very visible in the country, but it is far less uniform and static than often assumed. In this context it is important to analyse why development processes sometimes diverge and in other cases converge, and why some regions and communities seem to be making more progress than others. Bolivia experienced a sharp increase in external aid, in particular after the severe drought of 1982-1983, which brought on a wide range of development interventions and paradigms, ranging from *basic needs* and integrated rural development to profound changes in the field of municipal decentralization. All of these are evident in the Andean valleys in northern Potosí and Chuquisaca, the research area under study. This region is characterized by a high degree of diversity in landscapes and ecosystems, and, as this study shows, also by a great diversity of community pathways, ranging from gradual population growth and a degree of accumulation to almost complete community abandonment or collapse.

The overarching research questions are as follows:

How can we characterize change processes in development pathways of rural communities? What is the role of agency, institutions, and the collective efforts of households and external actors in these change processes, and how are these mutually articulated? Has there been further differentiation or convergence, and do we find path dependence or the creation of new pathways?

Chapter 2 outlines the theoretical framework of the study. The analysis of development pathways takes a perspective in which the presence or absence of path dependence plays an important role. The change in development pathways is analysed and unravelled in layered processes that mutually interact at different stages. The 'initial conditions' and subsequently occurring events or external 'contingent' shocks can have great influence on the further course of development. It is important to take into account the 'living' memories of communities and households because these colour communities' perceptions and give direction to their actions. In this dynamic, the interaction between structural factors (e.g., land, institutions and demographics) and agency is of great importance. Agency gives communities space to create or adapt institutions and to establish new pathways, which are translated into new rules, routines and habits that in turn can lead to tensions or subsequent modifications. In the Andean region, the existence of formal and informal institutions and the associated institutional change processes was of great importance in community dynamics and interactions with the outside world. Community

organizations had their own logic of decision-making, focused on the reproduction of community practices. Community actors engaged actively in the battle for access to natural resources and public services, but also to position themselves in relation to government agencies, municipalities and NGOs. They made use of many different forms of visible 'collective action', but also of more subtle mechanisms, linked to the representation of community identity in multiple forms. However, collective action did not automatically come into play. It was dependent on numerous restrictive and reinforcing factors that furthermore were acted upon by internal and external influences. Development organizations played an important role, as new policies or direct interventions not only contributed to the possible building up of productive infrastructure or social services, but also directly or indirectly impacted local institutions, sometimes stimulating them but often undermining them too.

Chapter 3 discusses in detail the research area and fieldwork methodology. This study builds on earlier, quite extensive research in 17 communities in the region conducted between 1994 and 1997. All communities and a selected number of households were visited every month during a full annual cycle. This initial in-depth research reconstructed in detail community developments from 1983 to 1996. In a second survey, spread over several months in 2010 and 2011, 14 of the same communities were revisited, and a similar community study and household survey were conducted. This second survey made it possible to analyse the communities from a longitudinal and comparative perspective. Partly based on a cluster analysis, the communities were classified into four main groups or clusters of development pathways and a series of sub-classifications for different domains. The main classification distinguishes between communities with shrinking and growing populations between 1996 and 2011, and between communities with a concentration on dryland farming and those with access to irrigation (implying a range between *decline/growth* and *dryland/irrigation* pathways). A more detailed classification differentiates between irrigation systems and intensity, developments in public services and education, a national or international orientation in migration patterns and the distinction between so-called *sindicato* and *ayllu* communities. An initial analysis shows that the communities in the *growth* pathway did better over the past 15 years in productive terms than the *decline* pathway communities with their shrinking populations, and *irrigation* pathway communities did better than the *dryland* pathway communities. However, these patterns are not entirely self-evident, and *growth* and *irrigation* pathway communities also faced multiple problems.

Chapter 4 identifies and analyses the main community institutions and organizations. The history of these communities are discussed along with issues related to common perceptions of 'community'. Community dynamics, especially over a longer period, are difficult to capture in a static analysis of communities on the basis of a few selected criteria. Common to all communities was the importance of the shared decision-making process taking place in the community assembly, which acts as the main forum for the definition of the 'rules of the game', to stimulate collective action and manage interaction with external parties. The aforementioned *sindicatos* emerged from former haciendas, and differ in their historical development from the more traditional *ayllu* communities, which largely remained outside of the direct influence of the hacienda, but were nevertheless also much affected by different forms of external encroachment. In addition to the *sindicato* and *ayllu* organizational structure, there were several other forms of cooperation at the community level and beyond, some of them externally initiated or stimulated. This chapter demonstrates that institutional change processes were influenced by the size of communities, their identity and 'critical mass', by demographic changes, the impact of new parallel organizational structures, internal differentiation processes, the presence of social capital, as well as by external interventions. Communities often responded proactively to changes in the external context and dealt in pragmatic ways with externally initiated parallel organizational structures, but they resorted surprisingly often to unorthodox actions, such as the internal splitting up of communities. Initial changes, for example in the structure of the *sindicatos*, often had long-term consequences, eventually resulting in more top-down state control of local organizations as well as vice-versa, as evident from

recent developments in which the rural population increased its influence and leverage in both regional and national political fora.

Chapter 5 explores changes in the external environment and, in particular, the role and influence of government policies, semi-public agencies, municipalities and NGOs. Despite the ‘revolution’ of 1952-1953, and especially because of the almost uninterrupted range of military dictatorships in the following decades, the situation in rural communities hardly improved. Only after the severe drought in the early eighties did interest in rural communities increase, especially among multilateral and bilateral organizations and NGOs. In the study region, this translated into a very uneven presence and distribution of investments, programmes and implementation modalities, at the meso-level and at the micro-level. Development organizations exhibited a constant shift in focus and presence, with their initiatives often barely mutually related. The municipal decentralization process initiated in 1994 led to gradual changes, principally because other external parties became more inclined to fine-tune their activities with municipal development planning efforts and the related cycle of decision-making. Nevertheless, the distribution of projects between communities, and especially between social and productive infrastructure remained erratic, and the overall intervention pattern remained rather fragmented. While the shrinking *decline* pathway communities gradually managed to improve their lagging service delivery, provision of productive infrastructure remained largely focused on the *growth* and *irrigation* pathway communities in which external parties perceived more potential. Interaction processes between development organizations and communities and households were often characterized by misunderstandings and mismatches in priority setting and in selection of target groups, but also by arbitrary use of incentives and conditionalities. In this aspect, municipal decentralization brought little change, although it certainly increased the involvement of communities in their own development agenda.

Chapter 6 shifts the focus to a specific domain, in this case, land and natural resources, also linked to changes in or shifting perceptions of identity. Land was not only seen as a precondition for agricultural production, but conceptualized as the basis of a common identity and for relationships and attitudes towards third parties, including neighbouring communities. The land reform gave the *sindicato* communities access to the hacienda lands they had been working before, while the *ayllu* communities were faced with reduced access to land in the valleys. The historical pressures, the continuing presence of former landlords and the increasing land scarcity led communities and households to do everything in their power to increase security of land access. Land, in its multiple forms of access, was for virtually all households the basis of their livelihood. Land ownership differed dramatically between communities and households, but it certainly was not the most important factor. Far more important was the potential for intensification in agriculture and, in particular, opportunities to access irrigation. Even though they had much smaller plots and land ownership, irrigation communities were often much better off than the dryland communities with their larger landholdings. Households tried to guarantee sustainable access to land through various channels. This was done through collective action aimed at obtaining land titles, through informal exchange mechanisms, via gradual changes in inheritance mechanisms, by new forms of land reclamation and by defining ‘rules of the game’ to counter land degradation and neglect. Unlike the *dryland* pathway, land in *irrigation* pathway communities was occasionally even sold to outsiders. Nonetheless, decades after the land reform, land ownership remained uneven. Attempts by the central government to better define and register land ownership faced multiple complications, and the lack of connection with local conceptions of access led to impatience, confusion and sometimes prolonged internal conflict.

Chapter 7 discusses developments in the productive sphere in the *dryland* pathway communities. Dryland farming was characterized by a system in which crops and livestock were combined and alternated in the same agricultural space. Households reduced risks by spreading cultivation of different crops over a large number of plots in different ecological zones. Due to climate change, and in particular several years of severe drought and increasing irregularity of rainfall, agricultural production had become

rather uncertain. *Growth* pathway communities performed generally better than *decline* pathway communities (some of which had been partially or completely abandoned), but this was not only related to productive potential. While communities with a concentration on potatoes were doing generally better than communities with more mixed farming systems, there were also exceptions. Local institutions and external interventions played an important role in this respect. Through a series of 'negative' feedback effects, one of the potato-producing communities faced increasing problems in productivity, while conversely, one of the more marginal *growth* pathway communities with a mixed production system managed to maintain more or less their productive capacity. External actors have barely been able to find adequate answers to the challenges faced by the more marginal *dryland decline* pathway communities. The narrow and uncertain margins of the agricultural calendar, coupled with a decrease in household size, increased scarcity of labour and a gradual decline in livestock and availability of organic fertilizer meant that short-term interventions were unable to provoke sustainable improvements, leading people to feel a permanent pressure to migrate. Externally facilitated cooperative structures were not viable, in part because they did not build on an agricultural production system focused on risk reduction. In this respect little attention had, for instance, been given to informal exchange mechanisms as a means to share risks and opportunities. Remarkably, community organizations had only limited capacity to influence long-term processes of land degradation and to reduce *free-rider* behaviour among members in relation to collective action initiatives. *Growth* pathway communities did generally better, not least because they received a lot more support in the productive sphere, but even there many initiatives were overlapping or contradictory in purpose. A long-time commitment and stepwise approach helped in some cases to break through existing power structures and to improve productive conditions.

Chapter 8 continues along the lines of the previous chapter with an analysis of the *irrigation* pathway communities and an overall comparison with the *dryland* pathway. Access to irrigation led to changes in the agricultural calendar, with added opportunities to produce various crops and multiple harvests per year, but it also affected water management and water access rights. The irrigation pathway performed significantly better in productive terms than the *dryland* pathway. This led to relatively higher earnings, allowing for more internationally oriented migration among younger adults. Almost all irrigation communities managed to maintain the production levels of 1996, and output per head of the population even doubled in communities with intensified irrigation. That transition was far from easy and uniform. Most irrigation communities experienced different 'transitions', in the shift from dryland farming to irrigation as well as between different irrigation systems. These processes required long and intensive involvement of the population and support from external actors. In these processes, existing power relations (and related water rights), and free-rider behaviour led to frequent conflicts, within communities and in the relationship with external actors. Again the community organization showed limited capacity to influence those developments. External actors devoted relatively more attention to irrigation than to other productive projects, but their investments remained unevenly distributed. In addition, the emphasis on the formalization of water rights led to *de facto* persistence of unequal access to irrigation. The *irrigation/growth* pathway communities show that it is possible to make agriculture attractive again for younger households, but even these communities were still struggling with multiple challenges in their efforts to attain a more sustainable production system.

Chapter 9 discusses the great importance communities attached to education, and discusses education-related developments over the past decades. The 'clamour for education' dates back to the early decades of the last century, and some communities began building their first schools immediately after the land reform of 1952-1953. It took until the mid-1970s, however, to achieve large-scale provision of primary education. Only in the mid-1990s was the first secondary school established in the research communities, with distinctions being made between *nucleo* schools and surrounding *sectional* schools. In this process, the government played both a stimulating and a limiting role. Education policies over the past three decades led to a sharp increase in the provision of schooling. Implementation of the reforms in education policy were rather slow, and teachers were reluctant to adapt their methods to the

new concepts introduced starting in 1994. Communities resisted various aspects of the reform, in particular, the elements focused on bilingual education and new pedagogical approaches. Participation of boys and girls did increase rapidly, partly at the expense of household labour, particularly in livestock husbandry. With the construction of new facilities, sports fields and related infrastructure, education became central in community dynamics, but was at the same time increasingly seen as an important precondition for a life outside of agriculture and outside of the community itself. The quality of education remained poor, however, as a consequence of unmotivated and often absent teachers, a lack of adequate teaching materials and because parents were unable to provide their children adequate guidance. Demographic changes, particularly in *decline* pathway communities, resulted in mergers of multiple grade levels into single classrooms and the threat of imminent school closure. Communities with *nucleos* and especially those with secondary schools had the advantage of being *early movers*, but even there the sustainability of the educational system was threatened by the gradual exodus of the youth to peri-urban areas and abroad. Growing external involvement, and in particular the increasing importance of municipalities led to establishment of a range of complementary programmes that boosted provision of education and related services. However, these did not lead to sustainable improvement in opportunities within communities, and young people continued to leave.

Chapter ten, finally, analyses the changes in public services provision. The communities differ substantially in their historical development pattern in the domain of public services, partly due to differences in initial accessibility. The historically more accessible communities obtained faster access to basic services such as drinking water and electricity and a first basic health centre. In a few cases, the benefited from programmes aimed at housing improvement. This process took place over several 'rounds', and much of the basic infrastructure was delivered at different stages, extending in most cases from the core to more remote areas. Existing infrastructure was even entirely rebuilt in some communities. Over time, a discrepancy emerged between communities with more concentrated settlements and those without. Not entirely coincidentally, the more concentrated communities were usually those with irrigation, for which housing improvements were more important due to the frequent occurrence of *chagas* disease. In recent years, dryland communities were able to catch-up, and we observed pattern of semi-concentrated settlements in those communities as well. This process indirectly affected agriculture, and the frequency of interaction with the city and surrounding areas. External actors played an important role in this process. Most interventions, generally in line with the Millennium Development Goals, were supply-driven, however, and focused on 'gap-filling' and 'technocratic' solutions without attuning to the actual needs and capacities at the community level. External organizations, such as the municipality, increasingly operated through a tender process for the provision of public services. This led to reduced community involvement in the design, implementation and maintenance of public infrastructure, undermining, rather than promoting, community participation. The externally stimulated formation of 'health' or 'water' committees barely contributed to the strengthening of the community organization.

Chapter eleven focuses on a comprehensive analysis of differentiation and convergence of different development pathways.

- The *dryland decline* pathway communities suffered from external shocks such as major droughts. These communities faced the greatest decline in *per capita* production over the last 15 years. The margins for risk-minimization strategies to cope with persistent uncertainty about rainfall patterns were narrowing due to the decline in livestock and manure, fragmentation of land ownership and in some communities also because of land degradation. External aid in the productive sphere was extremely patchy and provided little added value. It is therefore not surprising that these communities, despite their improved service provision, faced the largest exodus, primarily focused on national migration destinations.
- The *irrigation decline* pathway communities did better from a productive perspective, but the physical limitations for bringing new land under irrigation and recurrent problems with land losses and

contaminated irrigation water led also here to a fairly massive outflow of young people, this time more often to international destinations such as Argentina. Relatively small primary schools, threatened with imminent closure, also played a role. Two of the more marginal *irrigation* pathway communities also faced internal disputes, in one case resulting in a conflict that had crippled internal cooperation within the community for years.

- The *dryland growth* pathway communities did reasonably well, more or less maintaining *per capita* production levels over the past 15 years. In two of the three communities a process of accumulation allowed richer households to embark on mechanization and to sell a larger share of their production on the market. These communities received prolonged external support, which to some extent also allowed them to overcome existing power relations. Despite the relatively low level of public service provision (excluding education) younger households still saw opportunities in these communities.
- The *irrigation growth* pathway communities all had relatively intensive irrigation, but also either opportunities to bring additional land under irrigation or to commercialize other natural resources such as gravel. In all three communities we identified fairly effective associations, and all three communities had a relatively high level of public services. Despite the high migration rate to countries like Argentina, these communities remained attractive for return migrants, and the population remained relatively stable. In two of the three communities, external support had played an important, and almost disproportionate role, which also gave rise to lingering conflicts.

Chapter eleven continues with a discussion of the changes in internal dynamics, both at the community and the household level and regarding the interaction with external actors. The existing institutions seemed hardly capable of responding to the growing problems in the productive sphere, such as massive outmigration, *free-rider* behaviour in relation to collective action, and unattended or abandoned land. New (and often externally supported) associations seemed to be effective only in communities with relatively intensive production and better market access. In the productive and in the public sphere, external actors barely managed to support a more sustainable improvement of infrastructure and service delivery. In the productive sphere, the balance was clearly in favour of communities that seemed to offer more potential, while the results in the public sphere were more balanced, probably because of the 'mediating' role of municipalities. Within communities access to projects or services was often very uneven. This led to additional interventions, but also to frequent imbalances and internal conflicts. This occurred especially in the provision of drinking water and housing improvement programmes. The logic of external interventions was often not adapted to local needs and dynamics, resulting in projects with limited ownership, leading to ineffective use and maintenance problems.

Chapter twelve summarizes the changes in development pathways from a more theoretical perspective. The communities went through impressive changes, and some even experienced complete transformations. These did not always occur in a positive direction, and there was often a considerable gap between the objectives and development solutions of development organizations and everyday reality. The analysis of development pathways shows that historical events and developments may have a profound impact on future developments. This applies in particular to the history of community institutions, mechanisms for decision-making and matters such as land ownership. Yet, historical events and developments also affect the way communities and households attempt to deal with such issues, individually or collectively. While most development interventions took place after the major drought of 1982-1983, communities built upon their own history and experiences, ranging from efforts to improve basic infrastructure, gaining recognition of community boundaries or land titles, and positioning themselves in relation to neighbouring communities or external parties such as the central government, municipalities and NGOs. Communities were far from static. At some point, almost all experienced an internal split, the shift of the population or production from higher to lower agro-ecological zones or the generally rather abrupt and self-reinforcing process of settlement concentration. These kinds of transitions can be characterized as *critical junctures*, sometimes driven by external shocks, in other cases by internal conflict, and with some regularity in association with external interventions. The evolutionary

development of communities thus varied widely, and although communities went through similar stages, individual community pathways were highly dependent on specific historical developments and factors such as location, accessibility, demographic changes, access to natural resources and the presence and actions of external actors. Local programmes and projects, and ‘normalization policies’, for instance, in education or around irrigation often led to unintended and distorting side effects by reducing the space for community agency, while on the other hand the decentralization process allowed for broadening community involvement in the local development agenda.

The initiative of a small group or the collective action of a community in some cases led to quick improvements, but these were often lost again. Communities and households worked together to gain access to public services, but they also competed with each other. Collective action was a contextual process in which external actors sometimes played a stimulating role, but they often also constrained community involvement. The available literature too often assumes that, upon the fulfilment of certain conditions, the capacity and the long-term potential for collective action will continue to increase. This study shows that this is far from self-evident. Over time, the balance of community participation and external input continually shifted. In some cases, instead of strengthening participation or coproduction, the initiative or responsibility for implementation shifted to external actors. As a consequence of demographic changes, the reduction in size and ageing of households, communities increasingly lacked the willingness and commitment to embark on large-scale collective action. Many of the mismatches between external intervention practices and community logics arose from inadequate or completely absent *theories of change*, and from practices focused on ‘solutions’, rather than creation of conditions in which communities and households could determine their own development path – even if the pathways they choose extend far beyond their community boundaries. In a complex framework of risk assessment and a multiplicity of potentially valid strategies, communities and households ultimately choose their own pathway, instead of the many trajectories that others may project on them.