

# Framework for Sustainable and Pro-poor Value Chain Development in Mountains

A framework for sustainable, pro-poor value chain development in mountains gives the necessary conceptual frame of reference for understanding the context in which value chain development in mountains takes place. In the following, this approach is developed based on the generic value chain model and taking the dimensions of sustainability and poverty into consideration.

## The Generic Value Chain Approach

A value chain represents the full range of activities required to bring a product or service from conception, through the different phases of production and delivery, to the final consumer. The value chain approach is a heuristic, analytical, and strategic tool that provides a framework for identifying and examining a value chain's different actors, the dynamics of processing and value creation, reward and distribution, power relation structures, and knowledge transfer. The aim is to explore potential leverage points that will help in developing a systemic competitive value chain that enables inclusive and sustainable economic growth (Kaplinsky and Morris 2000).

The core of any value chain analysis is to first understand the input-output processes of the chain. Tracing the complete process means mapping all the actors, functions, and processes that are involved in bringing a product or service from production to consumption. The functions of the main actors are studied in more detail to understand how they add value to, and retain value in, the chain. A clear picture of the functions that the different actors perform allows, at a later stage, identification of which functions could be performed by other actors in the chain in a more efficient way.

Particularly for global value chains, it is crucial to understand the geography of the chain. This is relevant as companies are open to relocating their production, for example to other developing countries, in order to capture higher gains through access to lower labour costs, raw material, or new markets. Hence, "developing countries are under constant pressure to devise strategies to maintain their position in existing production networks or to upgrade to higher value-added segments of global value chains" (Gereffi and Christian 2009, p.4).

Once the basic process, functions, actors, and geography of the chain are mapped, the emphasis shifts to examining the governance structure of the chain. Governance analysis is a central aspect of value chain analysis and one of the core aspects that distinguishes the approach from others. It describes the power relations within a chain, which allow so-called 'lead firms' to allocate resources, influence the distribution of gains, and decide on the terms of chain membership (Gereffi and Korzeniewicz 1994; Kaplinsky and Morris 2000). These actors are able to exercise control over what type of product is supplied, in what quantity and quality, when, and at what price (Humphrey and Schmitz 2002). They have significant influence over how information and knowledge is shared and disseminated along the chain. In terms of governance types, it is observed that chains starting from developing countries are predominantly 'buyer-driven' and only exceptionally 'producer driven' (see more in Gereffi and Korzeniewicz 1994). This holds true for almost all value chains starting from the Hindu Kush-Himalayan region.

Finally, the analysis needs to incorporate the structure and influence of the institutional framework. Regulatory bodies, national or multilateral agencies, trade associations, unions, and governments all have substantial influence over how the value chain is structured and functions.

The aim of pro-poor value chain analysis is to identify leverage points along a chain which, if addressed, yield the highest potential for improving relative, or at least absolute, benefits for small producers, service providers, traders, or processors. Leverage points can indicate intervention potential for various value chain development options. Value chain development is herein defined as a positive or desirable change in chain participation that enhances rewards, reduces exposure to risks, or balances conservation with the use of natural resources at the production level. Different options for value chain development, both in terms of upgrading and downgrading strategies, are feasible.

Upgrading is the most known and used value chain development option. Upgrading is similar to innovation, but advanced in the sense that it refers to innovation in the relative context, i.e., innovation must have a competitive edge compared to the rate of innovation of competitors (Kaplinsky and Morris 2000). Different upgrading trajectories exist. Approaches that are particularly relevant for improving the participation and revenue of small mountain producers include (i) process upgrading (to organise productive activities more efficiently within individual links in the chain and between links in the chain); (ii) product upgrading (to achieve higher prices through improved quality or quantity, value addition, standards, or certification); (iii) functional upgrading (to acquire new functions and, hence, higher margins, which were previously functions of forward chain actors); (iv) integration through vertical or horizontal integration<sup>1</sup>, contracts between actors in the value chain, or linkages (to bring stability, transparency, and efficiency to the long rural to urban value chain linkages of mountain products and services); (v) market upgrading (to identify new or untapped consumers, as well as to improve access to already existing markets). The first three of these are defined in Humphrey and Schmitz (2002) who also defined a fourth: inter-chain upgrading (applying competences acquired in one function of a chain to a different sector/chain).

Functional downgrading, i.e., downwards movements in the value chain structure, takes place when processing or other downstream functions are stopped to focus on core upstream activities. Small producers, traders, processors, or service providers may be better off if they shed some activities to focus on core activities. By concentrating on fewer activities, they may be able to achieve higher net returns or lower their vulnerability (see Bolwig et al. 2008 for a discussion of the different notions of upgrading).

## Adding a Sustainable, Pro-poor Dimension

Originally, the value chain approach focused on the analysis of the vertical business dimensions of a chain. For a long time, it was not an appropriate instrument for broader development programmes, which aimed to strike a balance between economic growth, poverty reduction, and environmental protection. More recent value chain concepts also integrate horizontal elements into chain analysis and development. This new stream of research reasoned that if the value chain approach was to serve a development purpose, the analysis of poverty, gender, and environmental dimensions within, and at the boundaries of, a chain is equally important.

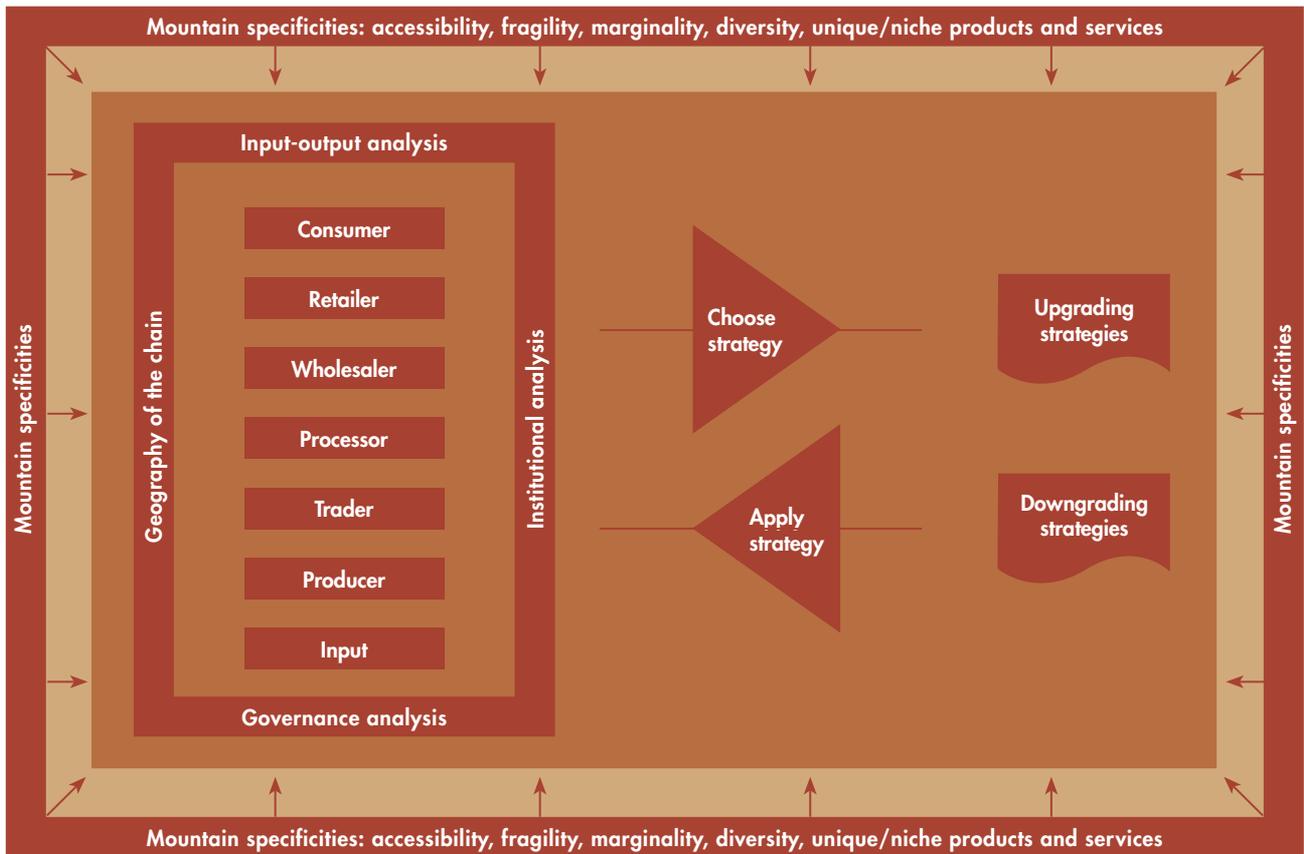
These horizontal elements need to be added to the previous 'stand-alone' value chain approach, which did not have a primary emphasis on pro-poor analysis. DIIS was one of the first institutes to approach these challenges analytically. It introduced a conceptual framework that enables consideration of poverty, gender, labour, and environmental dimensions in the value chain analysis, and thus integrates the 'vertical' and 'horizontal' aspects of value chains that affect poverty and sustainability (see Bolwig et al. 2008). The integration of poverty considerations into value chain analysis significantly broadens the range of issues that need to be examined when exploring issues in value chain governance and restructuring. These horizontal dimensions are necessary to gain a complete picture of the context in which mountain producers act and in order to be able to identify leverage points along the chain that improve the benefits to poor mountain value chain stakeholders in a sustainable way. It is crucial for any intervention to identify a balance between poverty reduction, environmental protection, and economic growth.

## The Mountain Specific Value Chain Dimension

Value chains in mountains are different and therefore require a differentiated interpretation. Mountain value chains are influenced by a set of mountain specificities to which they owe their comparative advantages, but which also present challenges to reaping higher returns. Mountain specificities, such as the availability of unique and niche products and services, accessibility, fragility, diversity, and marginality, have a strong impact on value chain analysis and on the selection of value chain development strategies. Figure 2 shows the basic value chain framework set within mountain specific conditions.

<sup>1</sup> Vertical integration describes the situation where one actor performs multiple chain activities. This can be in the form of forward vertical integration (i.e., when a chain actor adds additional value to the product) or contractual agreements with buyers that can support producer-trader linkages.

Figure 2: The mountain specific value chain framework



### Unique and niche production

Due to their specific environmental and resource-related features, mountains have unique and niche products and services that provide them with comparative advantages over plains areas, even though production is generally unable to compete in terms of large-scale agricultural production. The comparative advantage results from high mountain conditions such as biodiversity, climate, topography, culture, and landscape. For example, certain valleys provide a habitat for special medicinal plants, and some mountains are a source of unique services or products such as mountain tourism or certain agricultural products.

There is substantial scope for generating more income locally by supporting mountain people to promote and harness unique and niche products and services. In fact, niche or comparative advantages remain largely dormant in mountain areas unless circumstances are created to harness them. The focused commercial and sustainable harnessing of high value products and services presents a significant opportunity for mountain communities to generate employment and income by using the natural resource endowment and comparative advantages of the Himalayan ecosystem.

### Accessibility

The accessibility of mountain systems is a crucial determinant of the performance of mountain value chains. The remoteness and isolation of mountain systems is directly related to the potential of unexplored niche and unique products. Particularly for tourism products, the wilderness and untouched characteristics of remote mountain areas are highly attractive. However, the high transportation and transaction costs, low mobility and accessibility, and often insufficient quality and quantity, means that most products and services available in mountain areas remain uncompetitive compared to those in more accessible areas.

Distances to markets are long and transportation costs high, in part as a result of wear and tear of the means of transport. The steep slopes and high risk of natural hazards such as landslides mean that transportation, if any, can be obstructed for weeks. The maintenance of mountain roads is a costly exercise. Thus establishing market links is difficult, expensive, and, ultimately,

uncompetitive. Further, mountain value chains are long and particularly the segment from producer or service provider, via trader to processor or agent in the plains is characterised not only by physical obstructions, but by a multitude of different actors each with vested interests. This often means that chains are not transparent and are badly coordinated. Fiscal burdens add to the generally insufficient infrastructure and increase transaction costs to unprofitable levels for many mountain products.

The provision of infrastructure and supportive institutions is a pre-requisite for the successful integration of mountain economies into modern markets. However, infrastructure development is beyond the scope of most value chain development projects, and other strategic means need to compensate as far as possible for the constraints of physical inaccessibility.

### **Environmental fragility and conservation**

The fragility of mountain resources, which refers particularly to low carrying capacity, poses challenges in meeting market demands in terms of volume, quality, and environmental sustainability. Agriculture is the dominant user of natural resources in the mountains, thus, the performance and sustainability of mountain agriculture is determined by the pace and pattern of resource use systems and associated technological and institutional measures. A sustainable and productive agricultural model in the mountains and hills requires a production system that ensures the stable flow of products and services without degrading or depleting the long-term potential of the environmental resources of mountain agriculture (Jodha 1991).

### **Marginalised mountain communities**

In line with the remoteness and isolation of mountain systems, mountain communities remained widely marginalised. For service value chains, such as tourism, this marginalisation represents a major niche element in the form of a uniquely preserved traditional and subsistence-oriented way of life with vast cultural variety. Further, the depth of traditional knowledge for livelihood and adaptation mechanisms is as yet little explored and is receiving increasing attention in relation to the discussion on climate change adaptation (e.g., traditional knowledge on tolerant seed value chains).

Nevertheless, the marginalisation of mountain communities currently represents one of the major challenges in pro-poor value chain development and is, therefore, a prime focus for interventions. Because of the persistent lack of connectivity and market links, rural mountain people have remained primarily subsistence oriented. Weak human capital poses challenges in establishing market links as mountain people lack market knowledge, and production, marketing, and negotiating skills. A powerless voice means that the demands of mountain people for equitable market integration are unheard by mainstream decision makers. Mountain people are highly averse to cutting down their self-sufficiency in food production, as during times of food shortage the outside supply is not reliable or accessible, and there is sometimes a lack of purchasing power.

It is argued that the focus on subsidies, charity, and paternalistic measures, disregarding local potentials, concerns, and capacities, has increased the dependence of mountain communities on external support (Jodha and Shrestha 1994). Inaccessibility definitely imparts a certain invisibility and makes it easier to push aside the integration of mountain communities into mainstream development. Most developing countries with underdeveloped mountain areas also face considerable development problems in more accessible areas, which are easier to address and promise greater impact and visibility. To decrease the marginalisation of mountain communities through value chain development, the focus has to be long-term and concentrated on awareness raising on market mechanisms and capacity building to enable mountain people to engage with markets.

### **Diversity**

There is an immense variation among and within eco-zones in mountain areas. Different factors, such as elevation, altitude, geologic conditions, steepness and orientation of slopes, wind and precipitation, and mountain mass and relief, lead to an extreme degree of heterogeneity, not only of mountain products, but also of mountain people and their cultures. This high natural and biological diversity offers interesting opportunities if value chains are steered correctly, particularly for the NTFP and tourism sectors. Economies of scale, i.e., reducing the average cost per unit by increasing the number of units produced, are a preferred instrument for value chain development in more accessible, homogenous areas. However, for mountain areas with high diversity, different concepts, such as economies of scope, i.e., increasing cost-efficiency by producing two or more different products together rather than separately, need to be considered.