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Summary, Issues, and Recommendations

INTRODUCTION

This chapter summarises the main findings and issues emerging from the study. At the outset it is imperative to point out that the information required for the study is either non-existent or not adequate to understand the economic linkages between highlands and lowlands at the macro-level. As such, the study has been limited to exploring the dominant features characterising the flow of some important traded commodities from the highlands to the lowlands. Herbs and other non-timber forest products, mountain tourism, and horticultural and other farm products are the main highland products considered in the case study. Commodity flows from the lowland to the highlands are mostly manufactured products, financial resources, biochemical inputs, and food. The flow of these traded goods and services from the lowlands to the highlands has not

been possible to examine at this stage in the study because of lack of information. It is conceivable that examination of a one-way economic linkage (flow of resource products from the highlands to the lowlands) does not provide a complete picture of inter-regional economic linkages. However, to date there has been no effort made to understand this flow from the highlands, and such an understanding is essential for the assessment of the highland area's contribution to overall economic development. In addition, the study brings out important areas that need further investigation in lieu of the large-scale resource extraction that is taking place in highland areas.

SUMMARY

The highland areas are already making a substantial contribution to the overall economic linkages with the lowlands and urban centres. Based

on the study, Table 4.1 provides an idea of the highland's contribution in terms of the monetary flows. Strictly, it is not possible to aggregate the monetary values of the flows because not all information is for the same year, and, in some cases, there is the possibility of double accounting. Furthermore, some of the monetary values shown reflect only royalties earned from licenses collected and not the market value of the resource traded. However, even if aggregated, the monetary values may be an underestimate since the full traded volumes are not available. Despite these deficiencies, it is nevertheless tempting to add the monetary flows from the highlands.

Based on the study, some of the main findings are briefly summarised. According to Table 4.1, the total monetary value of the flow is about Rs five billion, and this is not a small amount. This value may be only the tip of the iceberg and not the total value, as it has not been possible to identify and account for the full volume of resource products that flow out from the highlands for reasons pointed out above. Also, note that many of the values are not those of the market value of the resource products.

The highland-lowland economic linkages are dominated by the flow of renewable natural resources and perishables products. Most of the natural resource-based flows are in the form of raw materials, which are collected *in situ* and governed by government licenses. Additionally, the extraction methods are unscientific (e.g., harvesting too early or uprooting the plants) and endanger the habitats of these resources and their growing stocks. Uncontrolled livestock

grazing is also a prime cause of habitat destruction. There is little incentive to conserve the resource as most of these renewable resources are found on government-owned lands.

Highland's contribution. The A fundamental problem exists with the current practice of issuing licenses. The evidence, based on different studies, indicates that the quantities collected are in excess of the authorised amounts and in the case of certain resources, namely, NTFPs, the current extraction rates may exceed the sustainable yield rates. This may also be true for non-renewable resources, and information on permitted quantities and mines was simply not available. This is a serious threat to the highland areas as it is akin to killing the goose that lays the golden egg. Royalties are collected far away from the point of extraction, and the royalties do not reflect the market values of the resources.

In the case of perishables, namely, vegetables, fruit, and milk, the contribution of highland areas is on the increase. Already about 44 per cent of the vegetables supplied to Kathmandu's wholesale market are from highland areas. The supply is higher in the case of fruit (63%). In the case of milk for which the information available is relatively better, the supply from highland areas is overwhelming. The supply of milk to the urban centres of the Eastern, Central, Mid-Western, and Far Western Development Regions is primarily from the highland areas. In the Western Development Region, the contribution from highland areas is about 30 per cent. Important factors that have contributed to an increasing supply of perishables from highland areas to urban centres are the increase

Table 4.1: Summary of Resource Product Flows from the Highlands and Value of the Flows

	No	Resource Products	Qty	Value (Rs)
Renewable Natural Resources that Originate Primarily in the Highlands	1	Jaributi (Herbs and Medicinal Plants)	3120614 (kg)	30,420,332
	2	Jaributi Export		64,500,000
	3	Commercailly harvested NTFPs	11690 (MT)	15,812,000
	4	Export of NTFPs	13581 (MT)	306,685,000
	5	Chiraita	27000 (kg)	3,461,488
	6	Chiraita	305 (kg)	
	7	Lokta	494559 (kg)	
	8	Cardamom		188,400
	9	Lycopodium	15600 (kg)	6,386,238
	10	Other medicinal herbs	27111 (kg)	2,203,708
	11	Spices		279,416
	12	Essential Oils	4544 (kg)	5,460,882
	13	Grass pulp	72,392 (kg)	8,210,968
	14	Cinnamon		10,100,000
	15	Tumeric		1,600,000
	16	Turpentine		9,100,000
	17	Niger seeds		259,200,000
	18	Perfume Oils		800,000
	19	Other herbs		17,100,000
	20	Ginger		121,600,000
	21	Dried ginger		40,600,000
	22	Coffee	4245 (kg)	602,259
	23	Mountain Tourism	334353 (tourists)	640,662,000
	24	Hydropower	241150 (kw)	
		Subtotal		1,544,972,691
All may not accrue to the highlands	1	Flowers and flower seeds		584,351,000
	2	Honey	887	132,372
	3	Tea		19,800,000
	4	Fruit, dry fruit & jam	3403	242,098
			Subtotal	
Non-renewable resources	1	Marble slabs		36,500,000
	2	Stones & sand		27,100,000
	3	Royalties: non-renewable resources		800,000
	4	Bricks and tiles	25911000 (pieces)	38,866,500
	5	Cement	343181 (MT)	1,372,724,000
		Subtotal		1,475,990,500
Other flows from the Highlands	1	Vegetables * fruits	47972148 (MT)	526,169,093
	2	Migration	317385 (persons)	
	3	Remittance Sent from the Highlands	177188 (persons)	1,145,995,237
	4	Remittance Received	203236 heads	8,341,000,000
	5	Expenditure on foods originating from the highlands		1,045,713,629
		Subtotal		1,672,164,330
		Total		5,297,652,991

Note: It is not possible to say what portion of the revenues generated is retained in the highlands. Much of the highland people's income leaks out in the form of consumption expenditure to purchase food and non-food items as well as for the education of their children and for health care. The flow of remittances to the highlands is substantial and exceeds the value of total flows identified in the Table.

in urban population, better transportation, and formation of cooperatives or small groups of farmers, who are in a better position to manage production, that have helped strengthen their bargaining position. The benefits that accrue to these farmers, especially producers of perishables, can be increased if improved packaging arrangements can be made. Currently, large amounts of the produce supplied to the wholesale markets are destroyed along the marketing chain, for which the producers have to bear the loss.

Mountain tourism is currently confined to a few areas that are fairly remote and too inaccessible for efficient transportation. In these remote and inaccessible areas; mountain tourism has generated substantial income and employment, and this would not have not been possible if mountain tourism did not exist. The leakages of income earned from tourism are, however, high and could be minimised if the production of many perishable items was encouraged in the mountain areas. Such a strategy not only helps reduce leakages but also promotes productive employment in highland areas. The overall supply side planning for mountain tourism is essentially non-existent and mountain tourism has been entirely demanded. This situation has resulted in haphazard growth of rudimentary infrastructure and promotion of mountain tourism requires, among other things, a concerted effort to improve the overall supply side management.

The marketing of most highland products is lamentable. In the first place, the marketing chain is too long.

Secondly, non-highlanders control all aspects of the marketing functions. The poor human capital and poor marketing information, along with the fact that most highland sellers have to sell on an individual basis greatly reduce the bargaining strength. Where highland producers or sellers have been able to organize themselves, their capacity to bargain and to improve the accrual of benefits has been strengthened.

There is considerable migration from the highlands to the lowlands, and the reason for this migration is mainly the lack of opportunities in the highlands. Many highland households remit income to members living in different parts of the country, but the amount of remittances received by highland households is substantially larger than the outgoing amount.

ISSUES AND RECOMMENDATIONS

Lack of Appreciation of Highland Resources and Long-term Plan for Highland

For a long time to come, highland areas will continue to rely on the supply of natural resources to the lowlands and urban centres. Although this is already happening and the monetary values of the flow are substantially high, there is little awareness of this contribution made by highland areas. In part, this lack of awareness is perhaps because of not being able to appreciate that mountain areas are indeed endowed with resources that have potentially high economic value. Without appreciation of the potential economic value of highland resources, a vision of harnessing these resources to transform the highland economy is not possible. Many

resources found in highland areas have little close substitutes in the world. The diverse ecology of the highlands gives them a natural comparative advantage in a wide range of natural products that have few close substitutes. However, the natural comparative advantage of the niches have not been well explored, and, even if these opportunities are recognised, the coordinated support programmes that are needed from different government and private agencies have been unforthcoming.

Generate Awareness at the Policy Level about the Importance of Highland Resources and Their Contribution to National Development

There is no concerted effort to perceive the highland areas as potentially rich in a variety of unique natural resources that can be harnessed to transform their current economic state. This lack of realisation and vision has been the source of a number of policy and institutional problems. Long-term integrated plans and programmes are not in place to guide development in the highlands. Policy weakness, inconsistencies, and market failures are, to a great extent, responsible for poor terms of trade, poverty, unemployment, and environmental degradation in the highlands. *Ad hoc* pricing and regulatory mechanisms for mountain tourism products and many other high-value non-timber products (herbs), without prior assessment of their potential value through scientific research, are examples of policy failures. It is important to recognise the highland specificities in terms of fragility, inaccessibility, remoteness, compara-

tive niches, and adaptation mechanisms of highland people in the plans and programmes.

Develop Long-term Plans and Programmes That Provide Opportunities for Sustainable Uses of Highland Resources

The stipulated royalty rates for harvesting NTFPs are insufficient on several grounds: First, the royalty rates do not reflect the market value of the product. Second, they are not enforced on the individual collectors at the point of collection but on the wholesale traders in the districts. The rates can vary for the same product because of the difference in the names used in different areas. Third, existing royalty rates provide no preferential incentive for cultivation on private land or for common property management.

Encourage Cultivation of High-value Resource Products in Highland Areas through an Appropriate Incentive Mechanism Based on Scientifically Established Principles and Experiences

Ways and means have to be explored to make highland farmers more responsive to the opportunities created by the growing demand in lowland and urban centres for agricultural products in order to bring about an impact on income and employment. For example, helping farmers receive more for their produce requires an improvement in the marketing arrangements to help improve the terms of trade in the highlands. Care should also be taken that an increase in prices does not lead to overexploitation of

the resource base. As witnessed, helping farmers/producers organize themselves and helping them improve their skills through training have helped improve resource management, their bargaining position, and their incomes and productive employment.

Encourage Farmers/Producers to Organize Themselves and Help Improve Their Skills

Existing development policies and programmes are not based on objective considerations of the characteristics of various types of enterprises, the advantages they offer, and the support they need from government and private agencies to realise their potential. The pattern of existing urban development programmes and policies that are largely confined to the political boundaries of municipalities have, in fact, mostly ignored the opportunities offered by highland-lowland synergy. Many development programmes sponsored by the government in the rural hinterland areas are sectoral in nature, with little or no coordination between agencies. A substantial shift in policies and priorities is needed to establish a strong cross-sectoral production and consumption linkage with the rural hinterlands through collaborative efforts among different stakeholders.

Make Collective Efforts to Develop Innovative Enterprises Based on Highland Resources to Strengthen the Highland Economic Base

Poor Information

Poor information is a serious impediment not only in the context of as-

sessing the economic linkages between highlands and lowlands, but also in the context of identifying the potentials of the highlands. While the minimum database, consisting of spatial distribution of mountain-specific products, their production base, and the nature and magnitude of flows, is imperative, the lack of adequate information also seriously affects the entire planning process. Currently there is no practice of systematically recording and monitoring the stock or resources or their distribution and flows. Poor information also implies difficulties in monitoring and evaluating highland resources and flows.

Initiate a Process of Collecting, Organizing and Disseminating Information Pertaining to Important Issues in the Highlands

Institutional Vacuum

Currently, there is no single institution responsible for addressing the issues of the highlands. Many government agencies at both the national and district levels lack coordination in planning and implementation of development projects designed to address the problem of highland economies. The lack of a coordinating institutional body at the national level, in this context, implies that no institution is responsible for developing an information system to monitor the economic flow of traded goods from and to highland areas. An authoritative institutional body is badly needed at the local level, and this can be established by forging a partnership among different key stockholders. A central-level agency at the apex to coordinate and monitor the plans

and programmes of highland areas is also needed.

Create a Unit at a High Level (e.g., in the National Planning Commission) to Coordinate Highland Programmes and as a Repository of Highland Information

Developing an Integrated Hierarchical Structure of Dispersed Markets

The development of a well articulated and integrated hierarchical structure of dispersed market centres in the highlands is crucial if the market zone in the highlands is to benefit from the most powerful local hubs of market development. Under such a system, the bigger markets in the chain would serve the smaller centres, which in turn would serve their nearest hinterlands. It is essential to identify the market tiers (primary urban centres, secondary urban centres, small / tertiary market centres and villages) within the highland region. The primary market centre would provide more goods and services, have a larger population, and more functional establishments or, in other words, a larger service area than the secondary and tertiary market centres.

Market centres can be used as sites for locating and relocating service facilities or agencies to provide efficient services to rural areas (i.e., to maximise service efficiency). Establishing service delivery linkages is necessary to stimulate production linkages. However, both these linkages in the highlands are constrained by poor physical (transport accessibility) linkages. Although the scope for improv-

ing physical linkages by means of a well-established transport network is limited in many remote areas because of difficult terrain, improving the existing marketing system through a well-articulated and integrated hierarchical order of markets is one possible approach to overcoming the constraints imposed by poor physical linkages. Currently, many market centres located in the highlands have not performed the economic role they are expected to in stimulating production linkages with their rural hinterlands. Instead, they are functioning as commercial transaction centres for the flow of externally produced goods and services. Opportunities exist to establish many storage and processing units in these market centres, so that they can play a role in facilitating value addition locally through the export of processed products to the lowlands and elsewhere in the international market. Regional perspectives are essential for developing individual market towns in the highlands. Currently broad-based investment programmes and policy reform strategies related to such market towns are few. There is no institutional mechanism for financing these centres that are so vital, not only for strengthening rural urban linkages but also highland-lowland linkages.

Mules carrying supplies to places in the mountains.



Encourage the Development of an Integrated Hierarchical Structure of Dispersed Markets that Are Able to Stimulate Local Production Activities

Improving Marketing Efficiency

Despite the vast potential for commercial production of vegetables and fruit and other cash crops in the highlands, there is still tremendous scope for the highland areas. Many of the present problems relate to numerous production and marketing constraints. The manifestations of production and marketing linkages in many market zones, especially those in the hills, are mostly constrained by their poor physical linkages. While the scope for improving physical accessibility in these areas is limited there is an urgent need for improving the marketing system to compensate for the poor physical linkages. A marketing information system simply does not exist to provide farmers with information on the prices prevailing at different marketing levels for different types of commodities; and this has resulted in a kind of monopoly in the case of highland products such as herbs, fruit, and vegetables. This is the main reason why a few Terai wholesalers have full control over herbs (herb trade) and a few Kathmandu wholesalers have control over the vegetable and fruit trade.

Linkages and coordination among farmers, transporters, middlemen or agents, wholesalers, and retailers need to be institutionalised through marketing arrangements. Currently, farmers have to bear significant economic losses due to the lack of a support system for post-harvest technologies. The lack of storage and processing plants for promising highland products remains another obstacle to ensuring the generation of appreciable benefits (income and employment) in highland areas.

Several approaches and actions can be taken to improve the existing marketing system. Coordination between local farmer/producers' institutions and other relevant institutions needs to be strengthened. Organizing farmers for group marketing (cooperative) is a necessary means of addressing a number of marketing problems, but this has to be backed by complementary programmes. A strict code of conduct for collection procedures, their monitoring and enforcement mechanisms, herb processing, and use and production-oriented programmes is needed to address the above issues.

Improve Marketing Efficiency by Making Better Information Accessible to Organized Highland Farmers/Producers to Compensate for the Difficulties Arising Out of Poor Physical Infrastructure