

Chapter One

Market and Small Towns in the Hindu Kush-Himalayas: Perspective and Issues

Pitamber Sharma

INTRODUCTION: WHY MARKET AND SMALL TOWNS ?

In the 1970s and early 1980s, when a regional approach to planning was prevalent, market centres and small towns received significant attention in urbanisation and planning literature, mostly pertaining to developing countries (Friedmann and Douglas 1978; Hardoy and Satterthwaite 1986; Mathur 1984; Misra et al. 1974; Rondinelli and Ruddle 1978; Taylor 1981). The case for the planned promotion and development of market and small towns has been made since, although the initial euphoria about regional planning has lessened.

The major justification for market and small towns is anchored to the Central Places Theory: a hierarchically ordered and integrated system of settlements provides the most rational and efficient spatial system for the organisation of population, economic activities, services, and marketing networks. In a system of central places, smaller centres offer goods and services that are more frequently used while higher order goods and services are provided by larger centres. The level of goods and services provided by different orders of centre depends upon the threshold population and the range of goods. Market and small towns act as economic links between large urban areas and the rural hinterland. Accordingly, emphasis was placed on functions that small towns could effectively perform in bringing about balanced regional development (Jones 1991; Leinbach 1992; Rondinelli 1990; Wanmali 1987).

First among these roles is the service function of market and small towns. The idea of locating essential and basic public services in centrally placed settlements with a minimum threshold population is intuitively appealing. Market and small towns have been regarded as desirable locations for the concentration and provision of a number of public services related to education, health, and a variety of institutional and extension services. This is particularly relevant in the mountains where the constraints of access

and the costs associated with service provision to dispersed settlements is exorbitant. In such instances, market and small towns can be the instrument for rationalising the distribution of population through settlement agglomeration.

Second is the economic function of market and small towns. As centres for providing goods and services from larger urban centres, and as bulking and distribution points for agricultural and other produce from the surrounding rural areas, market and small towns facilitate channels of trade and economic interaction. They provide the marketing link between larger urban centres and dispersed, isolated, and often unorganised local markets, and function in a manner that enhances rural-urban interdependency and complementarity. This function is important for the diversification of rural economies. Ancillary to the economic function is the role these towns can play in the diffusion of ideas and technology that flow to these places from larger urban centres. In mountain areas, where economic, social, and political marginalisation is an historic fact, market and small towns can act as mediators between large metropolitan centres of decision-making and the often inaccessible, rural hinterland, and so facilitate social, economic, and political communication within the national space.

Third is the employment function of market and small towns; they can provide potential locations for generating off-farm and non-farm employment, the nature of which may vary depending on the resource potentials of the hinterland. Small towns can provide the framework for the promotion of a dispersed pattern of industrial location and, as such, can have potential for attracting investment in secondary activities, particularly along major highways. An important function of such towns would be to act as alternative destinations for migrants who may otherwise be destined for larger urban centres. Promotion of market and small towns is, therefore, essentially seen as part of a strategy to discourage overcrowding, congestion, and rapid growth of large, primary cities where the environmental diseconomies of scale are becoming evident (ESCAP 1991). This is relevant to mountain areas where the diversity and fragility of the resource base call for regionally balanced, scale-sensitive, and decentralised urbanisation.

Implicit in these functions is the dynamic role that market and small towns are expected to play in the evolution of a hierarchically integrated settlement system. In the mountain context, market and small towns are seen as articulators of the productive potentials of the rural hinterland that could play a major role in mobilising rural resources for regional development. From a national planning perspective, the promotion of market and small towns in the mountains may be seen as serving the objectives of equity, territorial justice, and decentralisation.

However, the urbanisation literature of developing countries also reflects scepticism with regard to the role that market and small towns can play in the articulation of the space economy and in the transformation of rural economies. It is argued that, in predominantly subsistence systems with extremely low levels of production and investment, market and small towns cannot create adequate non-farm employment and so cannot act as alternative destinations for city-bound migrants. The role of these towns in acting as potential agents for bringing about balanced regional development and for realising the development potential of mountain areas is also limited by monopolised marketing structures, unfavourable agricultural pricing, and terms of trade, as well as the structural roots of poverty relating to access to, control over, or participation in resource use. The contention is that spatial policies by themselves cannot transcend the structural problems of mountain development and the continuing process of marginalisation of mountain communities.

Also, the role that market and small towns can play in reducing the growth of large cities in general has been questioned. It has been argued that scale economies of urban agglomerations in rapidly and spontaneously growing locations tend to be far greater than diseconomies. Rapid urban growth is seen as the only way through which productivity is enhanced. It is contended that, as the urban economy expands, it also builds up the capacity to pay for the problems it creates. A deliberate attempt to reduce urban growth at such spontaneously urbanising locations would lead to sharp decline in urban productivity. This would affect the productivity of other sectors such as agriculture since urbanisation is the single most powerful impetus to the modernisation of agriculture. Arguments against rapid growth of large urban agglomerations are seen as tantamount to arguments against economic growth itself (Harris 1990). These arguments have also been made with respect to urban agglomerations in mountainous regions such as Kathmandu.

Despite theoretical justifications for, and scepticism about, the function of market and small towns, understanding of the current state of these towns and the extent to which they are performing the role expected, and factors inhibiting their performance in the mountain environments of the Hindu Kush–Himalayas, remains limited. The premise of this chapter is that strategies for mountain development need to recognise and internalise the role that market and small towns can play in the process of developing sustainable livelihoods for mountain people and in diversifying mountain economies. After a brief note on the definition and perception of market and small towns, the following section sets out the urbanisation context and its trends in the Hindu Kush–Himalayas. The succeeding section looks at rapidly urbanising areas in the Hindu Kush–Himalayas and lessons that can be drawn. Then some generalisations related to the state of market and small towns in the Hindu Kush–Himalayas are presented. The final section brings together a number of issues related to sustainable urbanisation as well as the promotion and development of market and small towns in the region.

Defining small towns and market centres

Market and small towns comprise a link in the continuum of rural to urban settlements. It is, therefore, difficult to be quantitatively precise in defining these places. Furthermore, the connotation 'market' or 'small' given to a town signifies different things. Small towns are generally understood to be nucleated settlements with populations between 5,000 and 20,000. Within the Hindu Kush–Himalayan countries, with perhaps the exception of Nepal and Bhutan, settlements with population sizes greater than 5,000 tend to be recognised as urban (and, by definition, municipal) places. In most mountain areas, however, settlements with much smaller population sizes, less than 1,000 in some cases, perform vital urban functions including retail, administrative, institutional, and extension services as well as the provision of ancillary employment opportunities. In theory, all such settlements would fall in the market centre or small town category.

Studies conducted by ICIMOD to assess the potentials of market towns in a few districts in the Hindu Kush–Himalayan region of India, Nepal, Pakistan, and China (Sharma and Khanal 1996) show the diversity in the perception and function of market towns. In Dechang county, Western Sichuan, a market town was defined as 'a centre of services, culture, and communication with the commercial function of collecting and distributing local products and manufactured goods, and formally announced by government notification'. In Tehri Garhwal district in the Uttar Pradesh hills, a market town

was defined as 'a census town (urban settlement) or a nodal village (rural central place) having a minimum of 20 perennial commercial establishments (functional units), not less than three government offices, and serving a population of at least 2,000 excluding its own'. In Dang district in Nepal, a market town was seen as 'a centre with at least 20 functional units and more than 10 commercial functional units'. In the Ghizar district in the Northern Areas of Pakistan, a market town was functionally identified as a *tehsil* headquarters.

These definitions and perceptions indicate a wide range of variation in the size of settlements considered as market towns in mountain areas. A large village that lacks a critical number or array of functional units may not be considered a market town, while a centrally located but relatively small settlement with a critical number of functional units and other service outlets may be considered as one. The problem, of course, is what constitutes a critical number of functional units or a critical array of functions. In a study on the Bagmati zone in Nepal, the lowest order of rural centre (a market town) was defined as one having 20–49 functional units and a population of less than 500. For higher orders of centre, the number of functional units, the array of functions, and population size were taken together as the criteria (Shrestha and Manandhar 1993). A typical feature of mountain areas is that the size of settlement may not always correspond to its functional significance, particularly at lower ranges of the settlement hierarchy. The size of settlement, in these cases, is often determined by the extent and productivity of the land, while the functional significance is determined by centrality of the place in terms of the network of transportation routes and the area and population size of the hinterland.

Given the nature of settlement data in mountain areas, only those settlements that have a municipal status tend to be reflected in official statistics. Most market centres may not meet official criteria for qualifying as a 'town' or 'municipal' area. As a result, a number of settlements that are expected to play a key role in redefining the nature of the rural–urban interface tend to be ignored in official statistics. This needs to be borne in mind when looking at the urbanisation situation in the Hindu Kush–Himalayas.

URBANISATION CONTEXT AND TRENDS IN THE HINDU KUSH–HIMALAYAS

Urbanisation, as characterised by a relative agglomeration of settlements and population and a transformation of the labour force from agriculture to non-agricultural occupations, is a relatively recent phenomenon in much of the Hindu Kush–Himalayas. The conditions that have historically induced urban growth—high agricultural production that allows for the generation of surplus, provides a basis for secondary and tertiary activities, and acts as a basis of long-distance trade — as in Peshawar or Kathmandu—have remained subdued in much of the Hindu Kush–Himalayan region. Among Hindu Kush–Himalayan countries, the proportion of economically active population dependent on agriculture in 1995 was estimated to be nearly 90% in Bhutan and Nepal; around 60% in Bangladesh, China, and India; and around or less than 50% in Afghanistan, Myanmar, and Pakistan. In mountain areas, the dependence on agriculture is much greater. The structure of employment in much of the Hindu Kush–Himalayan region shows that tertiary-sector employment, basically services and trade, is a more important phenomenon in the mountains than employment in secondary sectors.

Available information shows that levels of urbanisation in the Hindu Kush–Himalayan countries remain relatively low, but that growth rates witnessed or estimated for the last decade point towards an accelerating process of urban growth (Table 1).

It should be noted that, differences in the definition of urban areas notwithstanding, the urbanisation data for Hindu Kush–Himalayan countries, with the exception of Nepal and Bhutan, reflect little of the process operative in the mountains. In most mountain areas, the level of urbanisation remains below 20%. The lowest is in Bhutan (6.4%) where the process of urban growth is just beginning. Also, there is enormous variation in the levels and rates of urbanisation. In Bangladesh, the Chittagong Hill Tracts had only 11.1% of its population in urban areas. In the Hindu Kush–

Himalayan region of China, the levels of urbanisation in 1990 varied from 8.8% in Western Yunnan to 12.7% in Tibet and 16.4% in Western Sichuan (IOG/CAS 1997). In the Hindu Kush–Himalayan region of India, the 1991 census showed a wide variation in the level of urbanisation in the hill states. The urbanisation levels were lowest in states such as Himachal (8.7%) and Sikkim (9.1%); greater in Assam (11.1%), Arunachal Pradesh (12.8%), and the Uttar Pradesh hills (17.7%); and highest in mountain districts of West Bengal (27.5%), Manipur (27.5%), and Mizoram (46.1%).

In Myanmar, while a little over 26% of the country's population is urban, the levels of urbanisation in mountain states vary from 14.6 and 14.8% in the states of Chin and Rakhain to 22.1 and 22.3% in the states of Kachin and Shan. In the mountain areas of the North-West Frontier Province and Balochistan in Pakistan, the level of urbanisation also remains below 20%. In recent decades, the rates of urban growth in mountain areas have shown a rising trend. This rise is most noticeable in major, primate cities where the problems of urban management are already becoming conspicuous.

UN projections show that, by 2025, 49% of Afghanistan's, 36% of Bangladesh's, 19% of Bhutan's, 44% of China's, 54% of India's, 47% of Myanmar's, 31% of Nepal's, and 57% of Pakistan's population will be residing in urban areas (UN 1988). Corresponding levels of urbanisation in the Hindu Kush–Himalayan region of these countries is also likely to be higher with commensurate declines in the proportion of economically active population in agricultural occupations. With growth rates of the non-agricultural labour force in the range of two to three per cent per year, providing gainful employment in the non-agricultural sector would be a gigantic task. Creating non-farm employment opportunities in market centres, small and intermediate towns will be the only means of preventing a growing non-agricultural population from moving to large cities.

LESSONS FROM RAPIDLY GROWING URBAN AGGLOMERATIONS

In much of the Hindu Kush–Himalayas, the first city has a population many times larger than cities and towns in succeeding ranks. Peshawar in the North-West Frontier Province in Pakistan, Dehradun in the Uttar Pradesh hills, Kathmandu in Nepal, Lhasa in the Tibetan Autonomous Region of China, Thimphu in Bhutan, Mitkyina in Kachin state in Myanmar, and Kabul in Afghanistan are all examples in their regional setting. Urban growth in these areas has been rapid by virtue of their administrative, political,

Table 1: Levels of urbanisation and urban growth rates in Hindu Kush–Himalayan countries 1995 (estimates)

Country	Urban (%)	Growth rate (%)
Afghanistan	20.0	7.7
Bangladesh	18.3	5.3
Bhutan	6.4	4.8
China	30.3	4.0
India	26.8	2.9
Myanmar	26.2	3.3
Nepal	13.7	7.1
Pakistan	34.7	4.4

Source: UN 1995

and economic functions; also they often have a productive hinterland, a relative concentration of infrastructure, and historic and locational advantages with respect to trade, services, and tourism. Many of these cities have population sizes much lower than cities in the plains, but the strains of urban growth and management are beginning to show in various ways. Mountain areas are extremely scale-sensitive mainly because of the vulnerable and fragile nature of their physical attributes and natural resource base. The niche afforded by the comparative advantage of any activity tends, therefore, to be rather limited. Consequently, the carrying capacity in terms of population remains restricted. The cases of the Kathmandu valley in Nepal and Dehradun in the Uttar Pradesh hills illustrate the problems of managing rapid urban growth in sensitive environmental contexts (Sharma 1995).

Problems of rapid urbanisation in the Kathmandu Valley

Kathmandu Valley (1,300 m) with its three historic cities of Kathmandu, Lalitpur, and Bhaktapur has traditionally been, and continues to be, the major urbanised region of Nepal. The area of the valley is approximately 600 sq.km and geologically it is a structural trough surrounded by the Mahabharat (or Middle Himalayan) ranges. Historically, urban growth in the valley was fuelled by a rich and productive hinterland, and the advantages of entrepôt trade between the Indian plains and Tibet. Since the 1950s, urban growth in the valley has accelerated as a result of the centralisation of political, administrative, and economic functions, development in physical and social infrastructure, location of a variety of industries, and the emergence of tourism.

The urban growth rate of Kathmandu is, at present, estimated to be in the range of seven per cent per year. In Kathmandu and Lalitpur, the apparent contribution of migration and reclassification to urban growth was around 64 and 47% respectively in the 1981-91 intercensal decade. Kathmandu Valley had a total population of slightly over one million in 1991. About 55% of this population was within the municipal limits of the three valley towns.

Historically, the urban settlements in the valley evolved in the upland 'tars' while the lowland 'dols' were intensively cultivated. Much urban growth in the last few decades has taken place on productive agricultural land. Estimates show that residential land use, which was only about 14% of the greater Kathmandu's land area in 1971, had reached 46% in 1991.

Since the late 1960s, tourism has emerged as a major economic base for valley towns. In 1996, over 80% of the tourist flow of nearly 400,000 people entered Nepal through the Kathmandu Valley. At the same time, industrial growth has been rapid: mainly in agro- and food processing, plastics, chemicals, and carpets and dyeing. In 1990/91, a total of 335 carpet industries was reported to be located in the municipal areas of the Kathmandu valley, which at its peak provided employment for around 100,000 on a part-time or seasonal basis.

The increasing pace of urbanisation in an environmentally fragile watershed has strained the valley's natural resources and the infrastructural systems. Without any system of urban planning and management, the Kathmandu Valley is increasingly becoming an unsustainable urban region.

The valley is drained by the Bagmati River and its tributaries, which originate in the surrounding Mahabharat ranges. Increasing multiple uses of the river water (for irrigation, washing, and industrial uses) mean that large volumes of untreated, raw domestic sewage and industrial effluent have been discharged into the river system. The aquatic

life of the rivers has been completely destroyed and the river water is a major health hazard for the urban population (ICIMOD 1993).

Temperature inversions during the winter exacerbate the problem of air pollution, which is becoming increasingly serious in the valley. Presently, there are over 119,000 motorised vehicles (including 71,000 two-wheelers). The state of most of the urban road infrastructure is poor. Dust, vehicular and industrial emissions, including smoke and dust from brick kilns and the government-owned cement plant, contribute to the increasing environmental hazards.

Only about 52% of the demand for water is met by the supply system, and often with a quality much below the standards suggested by WHO. There is no storm-water drainage system and over three-quarters of urban areas lack a reticulated sewage system. About 320 tonnes of solid waste are estimated to be generated per day of which less than 70% is actually collected. For various reasons, there are increasingly frequent breakdowns in the solid-waste management system. In many cases, the scale of the problem is too large to be sustainably addressed by urban areas the size of Kathmandu or Lalitpur.

Many of the problems of urbanisation in the valley have resulted from the absence of a planning and land-use management framework, and a lack of political and administrative will to establish and enforce infrastructural and environmental standards. Also a growing population and concomitant growth of economic activities continually impinge upon the self-renewing capacity of the fragile environmental resources. Environmental and economic issues remain intricately linked in the Kathmandu Valley.

Environmental problems of urban growth in the Doon valley

The Doon Valley in the Uttar Pradesh hills is a latitudinal valley between the Siwaliks (the lesser Himalayas) and the middle Himalayas. The valley has an area of 2,130 sq.km with an altitude of from 500 to 1,000 m. The urban settlements consist of the city of Dehradun, two sub-regional towns, 13 market towns, and scores of villages. It was during the British colonial period that the basis for urban growth in the Doon Valley was laid. The population of the valley grew from about 17,000 in 1816 to about 127,000 at the beginning of the twentieth century. Rail connection to the valley was completed in 1905. Factors that contributed to urban growth were the development of an irrigation network, forest management, planned development of institutions of national and regional importance, and growth in tourism. Indeed, well into the 1940s, Dehradun grew as a tourist centre and a settlement for pensioners, of whom many were European, and as a market and services' centre for the Uttar Pradesh hills' hinterland (Bandyopadhyaya 1989).

The inflow of migrants after partition led to significant growth in the population of the Doon Valley with consequent changes in the nature of settlements. Dehradun began to attract a large number of small industries. Limestone quarrying emerged as a major activity. By the 1970s, several large-scale industries were attracted to the valley. In the 1980s, the number of industrial units in the valley rose from 105 to 351. Limestone quarrying and the location of large industries with considerable pollution potential had serious implications for the environment of the valley. In the meantime, the growth of institutions continued. By 1981, the Dehradun urban area had a population of about 420,000 with core densities approaching 1,000 persons ha⁻¹. Dehradun district had a population of 1.025 million in 1991; a little over 50% of this population was urban.

Physiographically, the Doon Valley is fragile. It is comprised of pebbles and boulders.

ders and a thin mantle of soil. It is quite pervious. The management of water resources in the valley is critical. The Dehradun gravels provide high-quality aquifers that are recharged by annual rains. Urban growth and excessive use of groundwater for irrigation, industrial, and domestic uses have resulted in growing deficits in water supply. The deficit is variously estimated at between one-quarter to one-third of the total demand. In fact, scarcity of water, particularly during the months of May and June, acts almost as a ceiling to the population carrying capacity of the valley.

Industrial growth is constrained by the nature of the topography. The phenomenon of temperature inversion traps pollutants during winter. Air pollution from chemical and cement industries, brick kilns and crushers, and vehicular exhausts is already a major problem. In addition, land degradation from limestone quarrying and accompanying soil erosion and siltation have contributed to changes in the ecology of the valley. The limits of industrialisation and urbanisation in a fragile environmental context are being felt in the Doon Valley today. This is reflected in emerging environmental consciousness at the grass roots' level.

The situations in the Kathmandu Valley and the Doon Valley elucidate the sensitivity of mountain environments to problems of scale more so than the plains. In mountain areas, the critical determinants of environmental risks from urbanisation are geomorphological attributes, topography, and climate. The topographic and geological conditions in the mountains impose constraints to growth through problems of water supply and sanitation, disposal of solid and hazardous waste, sewage disposal, temperature inversions, and landslide hazards. Many urban areas in the mountains of the Hindu Kush-Himalayas have also suffered from disastrous seismic events in the past and the tectonic history of the Hindu Kush-Himalayas suggests a high likelihood of such events in future.

Recent studies show that the environmental hazards of large urban areas are reflected in increasing economic costs. Impacts on the health of urban workers, lost worker-productivity, and problems of congestion and infrastructure overload may, in fact, result in the declining productivity of large cities (WRI 1997).

STATE OF MARKET CENTRES AND SMALL TOWNS IN THE HINDU KUSH-HIMALAYAS

Conditions in the mountains seem to indicate that the form and process of urbanisation have to be both environmentally and economically sustainable. Proponents contend that a strategy for the development of market and small towns could contribute to this process. In spite of this need, why has decentralised, small-scale urbanisation not emerged as a dominant theme in the Hindu Kush-Himalayan region? In the absence of a comprehensive understanding of the process, a few generalisations regarding the state of market and small towns will be presented here.

The state and vitality of market and small towns differ significantly between regions that have a low-surplus, subsistence level of agriculture and regions with some degree of economic diversification and agricultural surplus (Rondinelli 1990). While ease of access and transportation contribute to bringing about economic diversification and motivation for agricultural surplus, a number of other processes, including the resource base of the hinterland and niche-based comparative advantage, may determine the level of diversification and the magnitude of surplus.

Regions in the mountains with predominantly subsistence economies are characterised by problems of accessibility, low levels of marketing interaction, and weak trade linkages between rural areas and towns. Towns with relatively specialised goods and

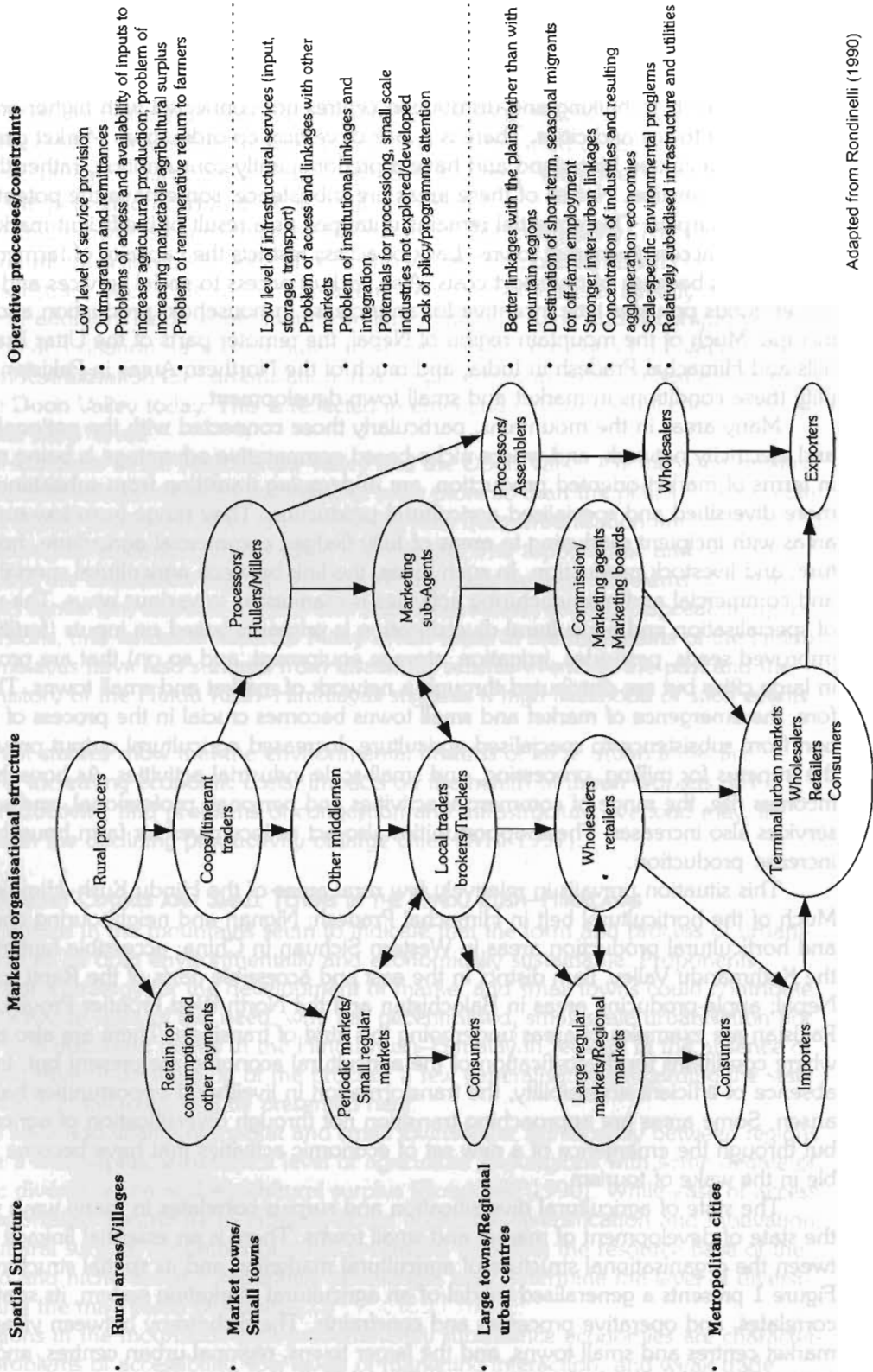
services are few and are often spread over relatively large distances. There is a strong dependence on intermediaries. Periodic market centres are frequently the only centres for the exchange of goods and services. Market centres and small towns may be neither linked effectively to bulking and distribution centres nor connected with higher-order intermediate towns and cities. There is a lack of vertical co-ordination. Market centres often serve a limited hinterland and have a predominantly consumption, rather than production, function. Not all of these areas are subsistence; some have the potential for generating surplus. This potential remains untapped as a result of inefficient marketing and limited access to market towns. Lack of access restricts the capacity of farmers to sell their surplus because of transport costs. Also, lack of access to social services and consumer goods provides little incentive for an increase in household production and income. Much of the mountain region of Nepal, the remoter parts of the Uttar Pradesh hills and Himachal Pradesh in India, and much of the Northern Areas in Pakistan exemplify these conditions in market and small town development.

Many areas in the mountains, particularly those connected with the national road and electricity network, and where niche-based comparative advantage is being realised in terms of market-oriented production, are undergoing transition from subsistence to more diversified and specialised agricultural production. They range from low-surplus areas with incipient marketing to areas of fully fledged commercial agriculture, horticulture, and livestock production. In such areas, the link between agricultural specialisation and commercial and manufacturing activities is manifested in various ways. The process of specialisation and agricultural diversification is primarily based on inputs (fertiliser, improved seeds, pesticides, irrigation, storage equipment, and so on) that are produced in large cities but are distributed through a network of market and small towns. Therefore, the emergence of market and small towns becomes crucial in the process of transition from subsistence to specialised agriculture. Increased agricultural output provides the impetus for milling, processing, and small-scale industrial activities. As household incomes rise, the range of commercial activities and personal, professional, and social services also increases. These opportunities also act as incentives for farm households to increase production.

This situation prevails in relatively few rural areas of the Hindu Kush-Himalayas. Much of the horticultural belt in Himachal Pradesh; Nignan and neighbouring counties, and horticultural production areas in Western Sichuan in China; accessible hinterland of the Kathmandu Valley, Ilam district in the east and accessible parts of the Rapti zone in Nepal; apple-producing areas in Balochistan and the North-West Frontier Province in Pakistan are examples of areas undergoing this kind of transition. There are also areas where conditions for diversification of the agricultural economy are present but, in the absence of efficient accessibility, the transformation in livelihood opportunities has not arisen. Some areas are approaching transition not through diversification of agriculture but through the emergence of a new set of economic activities that have become possible in the wake of tourism.

The state of agricultural diversification and surplus correlates in many ways with the state of development of market and small towns. There is an essential linkage between the organisational structure of agricultural marketing and its spatial structure. Figure 1 presents a generalised model of an agricultural marketing system, its spatial correlates, and operative processes and constraints. The dichotomy between villages, market centres and small towns, and the larger towns, regional urban centres, and metropolitan cities is nowhere more apparent than in the mountains.

Figure 1: Simplified agriculture marketing system and its spatial correlates and constraints in mountain areas



Adapted from Rondinelli (1990)

Table 2: Settlements and market towns in selected mountainous districts

	Dęchang, China	Tehri Garhwal, India	Dang, Nepal	Ghizar, Pakistan
Total number of settlements	337	1,938	1,060	121
Percentage of settlements with population sizes of less than 200	78	47	59	25
Percentage of settlements with population sizes of 200–999		51	40	57
Percentage of settlements with populations greater than 1,000	22	2	1	18
Percentage of settlements with central or commercial functions	23 (townships)	7 (central places)	32 (commercial centres)	
Number of market towns	23	16	25	17
Ratio of market towns to settlements	1: 15	1: 122	1: 42	1: 7
Average population size per market town	7,000	36,000	14,000	6,000
Average size of hinterland (km ²)	99	276	118	339
Accessibility	Out of a total of 23 townships, 87% have a highway passing through.	Out of a total of 1,938 villages, 13% have a road passing through, and 53% have a road within 5 km.	Out of a total of 40 village districts, 38% have a regular bus service, 32% have a seasonal bus service and 30% do not have such facilities.	No highway, only jeepable road.

Source: Sharma and Khanal (1996)

ICIMOD-sponsored studies undertaken in 1994 to assess the potentials of market towns in diverse spatial and economic contexts (Dechang county in Western Sichuan province in China; Tehri Garhwal district in the Uttar Pradesh hills in India; Dang district in Nepal; and Ghizar district in the Northern Areas of Pakistan) revealed an enormous variation in the location and attributes of market towns. However, accessibility, population density, and the productivity of the hinterland emerge strongly as factors in the distribution and functional attributes of market towns.

Table 2 shows that the average population served by a market town ranged from 6,000 in Ghizar to 36,000 in Tehri Garhwal. The size of the hinterland is naturally larger in remote regions such as Ghizar (339 sq.km), and lower in areas with relatively easy accessibility such as Tehri Garhwal (276 sq.km), Dang (118 sq.km) and Dechang (99 sq.km). Likewise, the ratio of market towns to settlements is the lowest (1:7) in remote Ghizar in northern Pakistan, and the highest in the relatively densely settled Tehri Garhwal (1:122) in the Uttar Pradesh hills.

Although a pattern of settlement agglomeration was evident in terms of population size, functional magnitude and range of market towns were not always related in the mountains. Many of the market towns in the study areas lacked the basic infrastructure that is essential for the agglomeration of economic activities. The significance of market

towns is often determined by locational advantages with respect to a trail or road network, and strategic, socio-historical, and cultural significance.

The role of accessibility was predominant in the functional importance of market towns in most study areas. New towns tend to emerge at the node and break-of-bulk points of major transport arteries. In Dang district in Nepal, most market towns were developed only after the construction of the country's East-West Highway and other link roads. Some market towns have declined as a result of locational disadvantages created by new roads. In Tehri Garhwal district in India, many new market towns have emerged along the Mussoorie–Chamba–Rishikesh axis. Spontaneously emerging or planned road networks may be the single most important determinant of the potential of market towns.

Institutional and administrative functions often determine the significance of a market town in the mountain context. Government institutions not only provide services but also generate a demand for agricultural production and trade. Also, a major consequence of administrative function is the attention these settlements receive in terms of basic infrastructure. The studies revealed that, in cases where local governments are active, infrastructural development can encourage investment from the private sector.

Another important factor for the development of market towns is socio-historical. The majority of market towns with the greatest potential in Dechang in China are traditional towns developed in strategic locations with long historical importance. Traditional towns are also the places where local government institutions are located and infrastructure is developed.

What emerges from these generalisations is the crucial role of (a) access, (b) institutional and administrative infrastructure including services that can only be feasible in central places, and (c) economic diversification with a market orientation in the integration of rural mountain economies. Market centres and small towns are a spatial manifestation of this integration. National and regional policies with respect to infrastructure and other complementary sectors play a crucial role in supporting or inhibiting the conditions that enable market and small towns to perform the functions expected of them.

Typology of market and small towns

Mention must be made of the typology of market and small towns in the mountains because it can provide a good conceptual basis to address the planning, policy, and programme issues related to these towns. Most market and small towns in the mountains tend to be multi-functional because the conditions for functional specialisation are rarely found.

The most typical market and small town in the Hindu Kush–Himalayas is the administrative/political centre. Administrative, political, and institutional functions attached to such towns ensure a steady flow of people and, therefore, the viability of services. A large number of district or county headquarters in the Hindu Kush–Himalayas fall into this category. Of the 33 market centres and small towns in the Tibetan Autonomous Region of China, 31 are administrative centres. Similar situations prevail in Nepal and Bhutan. A road connection often enhances the status of these towns in terms of the increase in the number and array of functions.

Transport centres that owe their evolution, growth, and survival to their location along a highway or at crossroads, and are dependent on functions deriving from it, are also common. The level of services and functions of these towns is often determined by the size and productivity of the hinterland.

Gateway towns are a typical category of transport towns and tend to develop at places that derive advantage out of the discontinuities in topography, production systems, and even differing modes of transport. Such towns act as gateways to a large hinterland. They are often located at break-of-bulk points, with bulking and distribution as their main function, and differ from the traditional central place in that their hinterlands tend to be elongated, and fan-shaped. Dharan, Hetauda, and Butwal in Nepal are typical examples of gateway towns. In areas where production potential of the hinterland remains limited, the importance of gateway towns may change as the road extends into the hinterland.

Hill resort towns that owe their existence to colonial rule, particularly in India and Pakistan, comprise a separate category. Many of these towns, such as Shimla or Nainital in the Indian Siwalik Range have acquired administrative importance and expanded their trade and service functions. However, their economic base, to a great extent, depends on tourism. Many hill resort towns are well-known centres of education, such as Mussoorie or Darjeeling in India, and also act as the hub for a number of tourist activities. Mountain tourism has contributed to the transformation of quiet settlements, such as Namche or Jomsom in Nepal, into centres of bustling tourism activity.

Small-scale manufacturing towns are another category. These towns specialise in the manufacture of specific products derived from their natural or locational comparative advantage. The Chinese Hindu Kush–Himalayan region, perhaps, best exemplifies these types of towns that have come into being as a result of deliberate decentralisation in industrial location.

Religious function has remained central to the evolution of many mountain towns — such as Lhasa or Shigatse in Tibet and Badrinath and similar pilgrimage centres in the Indian Himalayas. In spite of the agglomeration of a variety of other functions, pilgrimage still remains important for many of these towns.

Last, but not least, are the multi-functional trade-and-service towns that thrive because of their central-place functions.

ISSUES IN THE PROMOTION AND DEVELOPMENT OF MARKET AND SMALL TOWNS

Despite the intuitive appeal, why do market and small towns generally remain neglected as the focus of policy and programme attention in Hindu Kush–Himalayan countries? This is a question worth exploring because it highlights some of the most relevant conceptual and operational issues in the promotion and development of market and small towns. These issues deserve attention in designing strategies for the promotion of market and small towns in Hindu Kush–Himalayan countries.

Mountain areas are unique because of variations in environmental and natural-resource conditions within short vertical and horizontal distances. These mountain characteristics have a number of implications for development (Jodha 1991). These variations influence and, in many ways, determine the nature of economic activities, the distribution of population, the structure of settlements, and the forms of interaction. However, the varying spatial implications of economic policies are rarely internalised in development policy in Hindu Kush–Himalayan countries. This is the first issue related to the promotion and development of market and small towns. Diversity of mountain environments means that policies related, for example, to agricultural pricing, provision of inputs, technology, credit, various forms of subsidies, and so on tend not to be space neutral. By virtue of unique environmental conditions and modes of access, certain areas tend to derive greater advantage from these policies than others. Even within the

mountains, accessible areas, and particularly the valley regions, are influenced by changes in agricultural pricing or subsidies for particular inputs more immediately than inaccessible areas. The differential spatial impact of policies tends to be reflected in varying spatial incidences of growth. Areas where greater exchange, interaction and trade take place develop as dynamic areas of spatio-economic growth. A little infrastructural support in such areas can contribute significantly to the process of enhancing linkages with the rural sector and in expanding the scope for sustainable livelihoods in the locality and its hinterland.

The environmental consequences of economic policies also vary from area to area depending on altitude, slope, aspect, geology, vegetation and drainage conditions, nature of infrastructure, and so on. At present, since environmental impact assessments are required only for major projects, the environmental implications of economic policies, in general, largely remain speculative. Economic policies need to be screened with respect to their environmental consequences. Policies may inadvertently be providing incentives for the growth of agglomerated settlements in environmentally fragile areas such as unstable slopes or landslide-prone areas, areas that lie on known fault lines, areas that are prone to flash floods, and so on. The relatively high degree of fragility in mountain areas means that the spatial incidence of economic growth should not be left to chance.

Another critical consideration concerning spatial implications of economic policies relates to the complementarity among sectoral activities. The synergy of complementary sectoral activities can be advantageous to certain spatial nodes. The spatial manifestations of these complementarities can also have a bearing on highland-lowland links as well as rural-urban links. These considerations can affect the methodology of development planning in the mountains, particularly in terms of data needs, the modes and methods of formulation, and assessment of development projects and similar interventions, and so on.

A second issue is the regional context of market and small towns. Market and small town development strategies demand an area- or region-based approach to development in the mountains for a number of reasons. First, an area- or region-based approach is relevant in tailoring interlinked programmes and activities suited to regional resource endowments and development potentials, particularly those that aim to diversify the economy and bring about market-oriented changes in the system of production. Experience shows that poorer areas do not benefit spontaneously unless organised efforts are made at a relevant regional level (Banskota 1989). Such a region may be an agro-climatic zone, a natural region such as a watershed, or a functional region that might take into account the resource base, the structure of settlements, and the level and intensity of interactions in terms of the movement of goods, people, and resources. Although the functional region takes explicit cognisance of the structure and function of settlements in a development context, other types of region can also be seen and analysed from this perspective. The region provides a framework for the development of market and small towns. Studies in Nepal have suggested that often the region-serving functions of small towns are more important for their development than locality-serving functions (Bajracharya 1995).

The region can also serve as a unit for the assessment of market towns for possible programme intervention. Not all existing market centres or small towns have equal or similar potential for growth. Such potential has to be assessed in terms of the function of particular market towns in the regional context. This is borne out by the assessment of

market and small towns with respect to their growth potential conducted under an ICIMOD programme in selected districts in some Hindu Kush–Himalayan countries.

Market and small towns are influenced significantly by the regional network of roads. Experience regarding the impact of roads in the mountains suggests that it is the single most important element in influencing the incidence of spatio-economic growth. Road alignments often determine the centrality of a market or small town in terms of access, location, and levels of goods and services and the nature of economic activities. There are examples in the Nepalese hills where roads have contributed to the phenomenon of 'gateway towns' whose importance changes with the extension of a road network (Sharma 1989). Regional infrastructural planning, particularly of roads, can provide a sound basis for the development of a strategy for market and small town development. The Nepalese experience in planning regional infrastructure suggests that the 'supply-driven' context (in the form of roads and bureaucratic infrastructure) for the development of market and small towns has to be matched by efforts to mobilise demand (agricultural diversification in the hinterland). This reduces the 'lag period' between the supply of infrastructure and the realisation of the productive potential of the locality.

A third issue is the process of decentralised planning and the role of market and small towns. The merits of a decentralised approach to planning and development are true everywhere but the case for decentralisation is nowhere more urgent than in the mountains. Relative inaccessibility and remoteness, differential relief and altitude, and varying opportunities for, and constraints to, resource use make a centralised approach to planning and development inadequate and often irrelevant in the mountains. In order to achieve better integration between resources and activities, decentralised planning, even to the extent of 'autonomy' in planning, on an area basis is warranted (Papola 1996). Greater power and authority for local government would mean a larger role for local people in decision-making. Such a situation is likely to affect the development of market and small towns in that they are the economic and functional nodes in rural areas. It is in these areas that the bulk of infrastructural investment is likely to be concentrated. If local government is equipped with more power and resources and backed by financial and administrative authority, it could play a much more influential role in stimulating production and creating off-farm employment opportunities. Such a situation would aid the mobilisation of resources and people for development that is a priority at the local level. In most countries of the Hindu Kush-Himalayas, spatial units for local government are often delineated without regard to the potential for maximising the effect of investment at certain central nodes. A rethinking in terms of envisaging local-level development units as 'townships' determined in part by the nodal characteristics of potential market and small towns may, therefore, be necessary, and could indeed serve a more meaningful planning purpose.

A fourth issue is institutional support for market and small towns. Institutional support is required for facilitating agricultural diversification, for the development of value-added opportunities, for creation of social and physical infrastructure, for human resource development and for the generation of off-farm employment opportunities. The institutional issue is particularly important for market and small towns that do not have a legal basis as entities for claiming or requesting this kind of support. In Nepal, for example, most market towns exist in an institutional vacuum as most are not municipal areas. A study of market towns in the Bagmati zone conducted in 1993 showed that out of 77 market centres of varying functional importance only three (Banepa, Bidur, and

Dhulikhel) had formal institutions responsible for their development (Shrestha and Manandhar 1993). Even in cases where institutions for supporting the development of market and small towns exist at the district level, such as in India, there is often a lack of coordination between activities.

Market centres and small towns are often seen as localities that can create conditions for mobilising rural resources. They can also be attractive for private investment. It is this role that is crucial for realising the productive potential of the hinterland, in creating off-farm employment opportunities, and in arresting migration to large urban agglomerations. However, these conditions are not created spontaneously. Government has to play a lead role in providing support for the development of basic services, such as education, health, and other social services, that create preconditions for the private sector in the provision of personal and commercial services; and basic marketing support infrastructure including market facilities, credit and technical assistance, development of farm-access roads, and storage facilities. Institutional mechanisms for financing such support need to be created. The kind of infrastructure and investment required will depend, to a great extent, on the assessment of specific towns in terms of their problems and potentials.

A fifth issue is that these concerns cannot be addressed through piecemeal efforts. A comprehensive urbanisation strategy for the mountains is warranted. The major aim of such a strategy would be to promote the development of a graduated hierarchy of settlements, and to strengthen existing highland–lowland and urban–rural interdependencies so that regional and rural development potentials in the mountains could be realised. Such a strategy should lay the basis for strengthening desirable urban nodes around transportation spines; provide a framework for integrating development of basic infrastructure with urban land-use plans; provide guidelines for promoting off-farm employment by identifying location-specific economic growth potentials; and provide an institutional management framework for promoting urban development. An urbanisation strategy in this sense has to be conceived as part of a regional/rural development strategy. Such a strategy has to be backed by an investment strategy to complement the objectives of regional urban development (Ertur 1994). Without a well-designed and well-financed urbanisation strategy, the regional and rural development potentials of basically agrarian mountain economies may not be fully realised.

A final issue relates to the problem of data. The definitional problem notwithstanding, the database on non-municipal small and market towns is extremely weak across the Hindu Kush–Himalayas. Policy-makers and programme managers need to be sensitised to the importance of creating and updating a database on market towns. A minimum database consisting of population size, number and range of functional units, nature of trade and production base, occupational structure, infrastructure, and characteristics and potentials of the hinterland is necessary to address the issues of market and small town development. The data problem is generally felt to be an outcome of the lack of attention paid to market towns in the process of district planning. The problem of data is crucial because it is only on this basis that an assessment can be made of the existing state of market and small towns, and strategies developed for their promotion and development.

REFERENCES

- Bajracharya, B.B. (1995) 'Promoting Small Towns for Rural Development: A View from Nepal'. *Asia-Pacific Population Journal*, 10(2) 27-49
- Bandyopadhyaya, J. (1989) *Natural Resources Management in the Mountain Environment: Experiences from the Doon Valley*. ICIMOD Occasional Paper No. 14. Kathmandu: International Centre for Integrated Mountain Development
- Banskota, M. (1989) *Hill Agriculture and the Wider Market Economy: Transformation Processes and Experience of the Bagmati Zone in Nepal*. ICIMOD Occasional Paper No. 10. Kathmandu: International Centre for Integrated Mountain Development
- Ertur, O. (1994) 'The Need for a National Urbanisation Policy in Nepal'. *Asia-Pacific Population Journal*, 9(3)
- ESCAP (Economic and Social Commission for Asia and Pacific) (1991) *Small Town and Rural Human Resources Development to Reduce Migration to Large Cities*. Asian Population Studies Series No. 110. New York: United Nations
- Friedmann, J.; Douglas, M. (1978) 'Agropolitan Development—Towards A New Strategy for Regional Planning in Asia'. In *Growth Pole Strategy and Regional Development Policy*. Nagoya, Japan: United Nations Centre for Regional Development
- Hardoy, J.E.; Satterthwaite, D. (eds) (1986) *Small and Intermediate Urban Centres: Their Role in National Development in the Third World*. Toronto: Hodder and Stoughton
- Harris, N. (1990) 'Urbanisation, Economic Development and Policy in Developing Countries.' *Habitat International*, 14(4)
- ICIMOD (1993) *Economic and Environmental Development Planning for the Bagmati Zone. Vol 3. Kathmandu Valley Urban Region*. Kathmandu: International Centre for Integrated Mountain Development. (Mimeo)
- Institute of Geography (IOG) (1997) 'The State of the Environment and Development in the Chinese HKH Region.' (ICIMOD Internal document) Beijing: The Institute of Geography of the Chinese Academy of Sciences (CAS)
- Jones, G.W. (1991) 'Urbanisation Issues in the Asia-Pacific Region'. *Asian Pacific Economic Literature*, 5(2) 5-33
- Jodha, N.S. (1991) Mountain Perspective and Sustainability: A Framework for Development Strategies. In *Sustainable Mountain Agriculture. Perspective and Issue. Vol. 1* by Jodha, N.S. et al. (eds). New Delhi: Oxford
- Leinbach, T.R. (1992) Small Towns, Rural Linkages, and Employment. *International Regional Sciences Review*, 14(3) 317-323
- Mathur, O.P. (ed.) (1984) *The Role of Small Cities in Regional Development*. Nagoya, Japan: United Nations Centre for Regional Development
- Misra, R.P.; Sundaram, K.V.; Prakasa Rao, V.L.S. (1974) *Regional Development Planning in India: A New Strategy*. New Delhi: Vikash

- Papola, T.S. (1996) *Integrated Planning for Environment and Economic Development in Mountain Areas. Concepts, Issues and Approaches*. MEI Discussion Paper 96/2. Kathmandu: International Centre for Integrated Mountain Development
- Rondinelli, D.A.; Ruddle, K. (1978) *Urbanisation and Rural Development—A Spatial Policy for Equitable Development*. New York: Praeger
- Rondinelli, D.A. (ed) (1990) *Proceedings of a Conference on the Role of Market Towns in National Economic Development*. Kathmandu: USAID/Nepal and RHUDO/ASIA
- Sharma, P. (1989) *Urbanisation in Nepal*. Papers of the East West Population Institute No. 110. Honolulu: East West Centre
- Sharma, P. (1995) *Urban and Industrial Development—Process and Opportunities in the Mountains*. MEI Discussion Paper 95/13. Kathmandu: International Centre for Integrated Mountain Development
- Sharma, P.; Khanal, N. (1996) *Assessing the Potentials of Market Towns in the Mountains. Case Studies from the Hindu Kush-Himalayas*. ICIMOD Occasional Paper No. 25. Kathmandu: International Centre for Integrated Mountain Development
- Shrestha, C.B.; Manandhar, M.S. (1993) *Settlement System, Small Towns and Market Centres in the Bagmati Zone Sub-region*. ADPI Discussion Paper No. 5. Kathmandu: International Centre for Integrated Mountain Development
- Taylor, D.R.F. (1981) Role and Function of Lower-order Centres in Rural Development. In *Rural Urban Relations in Regional Development* by Lo, F.C. (ed). Regional Development Series Vol. 5. Nagoya, Japan: United Nations Centre for Regional Development
- UN (1988) *World Demographic Estimates and Projections 1950-2025*. New York: United Nations
- UN (1995) *Statistical Yearbook 1995*. New York: United Nations
- Wanmali, S. (1987) *Geography of Rural Service System in India*. Delhi: B.R. Publishing
- WRI (World Resources Institute) (1997) *World Resources 1996-97: A Guide to the Global Environment—The Urban Environment*. Washington, D.C.: World Resources Institute/United Nations Environment Programme