



TOWNS IN THE MOUNTAINS

Report of the

**International Workshop on Planned Urbanisation and
Rural-Urban Linkages in the Hindu Kush-Himalaya Region**



**Organised by ICIMOD and the Nepal MAB Committee in
collaboration with UNESCO (MAB), Paris, and
the Department of Housing, Building and
Physical Planning, HMG/Nepal**

**ICIMOD
Kathmandu
25-29 March 1986**

ICIMOD PHASE I Workshop Series

The International Centre for Integrated Mountain Development began professional activities in September 1984, with the first objective of reviewing development and environmental management experience in the Hindu Kush - Himalaya Region. An International Workshop was planned for each of four major fields to review the state of knowledge and practical experience, and also to provide an opportunity for the exchange of professional expertise with regard to integrated mountain development.

ICIMOD completed Phase I activities in June 1986, having held :

- o the International Workshop on Watershed Management in the Kush - Himalaya -- Chengdu, China, 14 to 19 October 1985
- o the International Workshop on Planned Urbanisation and Rural Urban Linkages in the Hindu Kush - Himalaya Region -- Kathmandu, Nepal, 25 to 29 March 1986
- o the International Workshop on District Energy Planning and Management for Integrated Mountain Development -- Kathmandu, Nepal, 3 to 5 May 1986
- o International Workshop on Off - Farm Employment Generation in the Hindu Kush - Himalaya -- Dehra Dun, India, 17 to 19 May 1986

These Workshops were attended by over two hundred experts from the countries of the Region, in addition to concerned professionals and representatives of international agencies. A large number of professional papers and research studies were presented and discussed in detail. With the permission of the authors, copies of papers in full will be supplied on request, with a charge to cover reproduction and postage costs.

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Report of the
International Workshop on Planned Urbanisation and
Rural - Urban Linkages in the Hindu Kush - Himalaya Region

The International Workshop on Planned Urbanisation and the International Centre for Integrated Mountain Development (ICIMOD) from 23 to 29 March 1986, was held in Kathmandu, Nepal, in collaboration with the Department of Land, Urban and Transport, His Majesty's Government of Nepal, with financial support from the Man and the Biosphere Programme (MAB) of UNESCO. We owe particular thanks to Dr. Anne V. Whyte, then on the staff of the Division of Ecological Sciences of UNESCO, for her professional advice and encouragement throughout the planning and implementation of the Workshop, and particularly for helping us develop the theme of rural-urban linkages (environmental, institutional and socioeconomic) as the core of the major Himalayan Valley Region as the central focus of the Workshop discussions.

ICIMOD is indebted to Dr. Mohan Man Singh, the Vice-Chairman of the National Planning Commission, for making the opening address during the inaugural session where he highlighted the need for strengthening the complementarity between rural and urban development, and for finding appropriate mechanisms for a coordinated institutional framework for implementation of development activities at local, district, and regional levels.

I wish also to take this opportunity to express ICIMOD's warm appreciation to Professor Upendra Man Malla, Member of the National Planning Commission and Chairman of the Mount Regional Committee, for his

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In the preparation of this report an attempt has been made to reflect the views and interpretations expressed by the participants at the Workshop. These views and interpretations are not attributable to the International Centre for Integrated Mountain Development (ICIMOD), and do not imply the expression of an opinion concerning the legal status of any country, city, or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

Foreword

The International Workshop on Planned Urbanisation, held at the International Centre for Integrated Mountain Development (ICIMOD) from 25 to 29 March 1986, was jointly organised by the Nepal National Committee for Man and the Biosphere (MAB) and ICIMOD, in collaboration with the Department of Housing, Building and Physical Planning, Ministry of Works and Transport, His Majesty's Government of Nepal, with financial support from the Man and the Biosphere Programme (MAB) of UNESCO Paris. We owe particular thanks to Dr. Anne V. Whyte, then on the staff of the Division of Ecological Sciences of UNESCO, for both organising this support, and for her professional advice and encouragement with the planning and implementation of the Workshop, and particularly for helping us develop the theme of rural-urban linkages (environmental, institutional and socioeconomic) in the case of six major Himalayan Valley Regions as the central focus of the Workshop discussions.

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I must also take this opportunity to express ICIMOD's warm appreciation to Professor Upendra Man Malla, Member of the National Planning Commission and Chairman of the Nepal National Committee for Man and the Biosphere, and to Hazmaniya Lal Rajbhandari, Chief Engineer of the Department of Housing, Building and Physical Planning, for their valuable assistance as members of the Workshop Steering Committee in the direction of the preparatory studies of the Kathmandu Valley Region for presentation at the Workshop.

The success of this most interesting and important International Workshop is due primarily to all those who presented papers; the chairmen, convenors and rapporteurs; the Kathmandu Valley Team for contributing sectoral papers; Laxman Raj Shrestha, Project Manager, and Horst Matthaus, German Team Leader, of the Bhaktapur Development Project, and their colleagues for introducing the project to Workshop participants through a field visit; and to ICIMOD supporting staff. Finally, I would particularly like to thank the Workshop Coordinator, Saroj K. Basnyet, and Dr. Mahesh Banskota for preparing this Workshop Report.

Colin Rosser
Director

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Introduction

The process of urbanisation has been relatively insignificant in the Hindu Kush - Himalaya Region through the ages. The rural sector continues to dominate the economy, primarily due to the geographical remoteness and widely dispersed settlement systems of the area. Inaccessibility has retarded the development of trade, commerce, and contact with the outside world, while rugged topography has ensured the perpetuation of rural subsistence pocket economies. Some interaction between households located in different ecological belts has been continuing, but this exchange has not served as the basis for economic transformation. Low and declining levels of productivity have progressively weakened opportunities for economic reciprocity afforded by ecological characteristics.

The limited number of urban centres that have developed are concentrated in valley areas as a response to a number of socio-economic opportunities. Historically, the availability of productive agricultural land that was easily exploitable and capable of generating surplus was a determining factor. While this was a necessary condition, it has not been a sufficient one. Only when such agriculturally favourable locations were along relatively accessible trade routes, or had other locational advantages relating to the distribution of goods and services, did these areas develop as urban centres. In view of the difficulties of east-west trade along the hills, even this trade stimulus has remained confined to a few places.

During the last century, however, a distinct set of forces have generated the growth of specialised urban centres in the Region. The stimulus for urbanisation has originated from activities promoting the development of cash crops, recreational centres, educational and training institutions, and important pilgrimage sites. More recently, with the commencement of planned development, governments in the Region have been supporting projects and programmes in the hills, providing new impetus to urban growth. Developments in transport, communications, and other infrastructures have revived older centres and led to mushrooming of new settlements adjacent to roads and projects. It is clear that in future, urban centripetal forces will grow stronger, acquiring new significance in the context of developing and diversifying hill economies.

In some of the more economically dynamic areas, urbanisation has been particularly rapid. Lhasa Valley's population increased from 51,000 in 1964 to over 200,000 in 1984 with approximately 50 per cent of the population being

urban residents. The annual growth rate in Srinagar and Kathmandu Valleys has been 3.6 and 4.6 per cent respectively. The population in Thimphu is growing at 5 per cent per annum, while Peshawar has an even higher growth of 8.4 per cent per annum.

Migration has played a significant role in these changes. Many of the important towns in the mountains are still small in comparison with towns in the plains. In view of the unique spatial and environmental characteristics of the mountain areas, the process of future urbanisation in the hills is expected to be based on the proliferation of small towns.

In the overall perspective of integrated mountain development, the growing significance of urbanisation as an increasingly important spatial and economic phenomenon cannot be overstated. The forces of urbanisation can generate strong economic impulses capable of transforming the isolated pockets of subsistence economies in the hills. At the same time, urbanisation can impose heavy burdens upon rural hill economies and environments. In view of the potential linkages and their consequences, planned urbanisation becomes a significant component of strategies for reducing pressures on land in the mountains.

Economic interactions between rural and urban areas have acquired new significance for integrated mountain development. Without careful understanding and planning of these rural-urban interactions, urban development forces will tend to function independently of rural development, leading to urban area pocket development in the hills.

With increased focus of development activities on the commercialisation of agricultural production, improved economic infrastructure, and expansion of domestic manufacturing, the need to strengthen reciprocal links between farm and town activities becomes apparent. The growth of towns invariably develops the proliferation of marketing institutions, and policies are necessary to promote their efficiency. Expansion in urban centres provides a spatial comprehensiveness of markets, infrastructure, and a variety of services that will establish mutually supportive interrelations between agriculture and industry, and between rural and urban producers. A decentralised system of urban and market centres strengthens incentives for specialised farm and off-farm production activities with enhanced productivity.

Apart from important potential socio-economic linkages between rural and urban areas, the environmental dimensions of these interactions have an unusually central role in the Region. Despite the development potential of urban areas, it is becoming very clear that specific environmental burdens and costs, such as deforestation, are associated with urban development, and unless planning can begin addressing these issues of economic and environmental trade-offs, short-term gains can become long-term costs.

The third major dimension is institutional linkages. Complicated by the need to transform a predominantly agrarian mountain economy, effective

rural-urban integration programmes are an extremely difficult task, unlikely to succeed without substantial institutional innovations. These innovations are not only necessary in the fields of planning and implementation, but also in terms of promoting effective interaction between rural and urban households, public and private organisations, and national and international agencies.

The study of planned urbanisation in the context of rural-urban integration in these mountains raises important conceptual and empirical issues. Conceptually, the problem is to develop a methodological framework for an evaluation of the critical functions and linkages and to identify the most appropriate policies. Empirically, these exercises involve generation of significant levels of additional information, as the current data base is weak. As empirical problems are likely to vary from place to place, only some of the broader issues are identified here, in the context of developing the methodological framework.

Depending on the type of linkages being discussed, the suitability of the unit varies, making delineation of the Region a complex exercise. Furthermore, rural-urban linkages tend to be functionally differentiated by the prevailing urban hierarchy, and it is clearly necessary to understand these higher and lower order linkages. This could imply examining different physical and economic units. Reference has already been made to the three types of linkages most relevant in this exercise: socio-economic, environmental and institutional. These subsume a complex network of other linkages of varying significance, which need to be prioritised. In order to do so, a basic understanding of the entire socio-economic, environmental and institutional structure is necessary. Many significant changes are likely to occur in the next decade, with implications for the urban regions as well as the various types of linkages. The timeframe being used is undoubtedly a critical determinant in this exercise. The multiplicity of institutions at the local, regional, and national levels is increasing. Proper understanding of their interrelations and identification of policy implications with regard to new developments in hill towns is important to promote integrated mountain development.

Workshop Structure and Objectives

ICIMOD's programme on Rural - Urban Linkages was initiated in October 1985, as a major component of the Off - Farm Employment Generation Programme. This programme included a Workshop on Off - Farm Employment Generation, held in Dehra Dun, India, from 17 - 20 May 1986. Discussions focused on reviewing the major dimensions of the problems and the overall experience in mountain areas. Specific sectoral activities and the role of small towns were examined, and information was exchanged regarding policies and programmes of different countries with reference to hill development and employment generation.

This International Workshop on Planned Urbanisation in the Hindu Kush - Himalaya Region was designed to focus on one aspect of Off-Farm Employment Generation : rural - urban linkages. The major objective was to lay the foundation for a collaborative work programme on rural-urban linkages in five countries of the Region (Bhutan, China, India, Nepal and Pakistan). The programme was initiated by selecting six valleys (Thimphu, Lhasa, Dun, Srinagar, Kathmandu, and Peshawar), seen as generators of socio-economic change, for discussion at the Workshop, without necessarily implying that the follow - up programme would be limited to these valleys.

These areas were selected as being relatively economically dynamic and advanced, in terms of the development of urban functions and allocation of resources. These areas also have the largest concentrations of population, with probability of even greater growth in future. Also, most of these valley areas have within them many satellite towns or are strongly linked with other smaller towns, permitting the evaluation of rural-urban linkages in the framework of an urban hierarchy.

The first stage for this International Workshop was the preparation of detailed background papers relating to the Kathmandu Valley Region by planners from His Majesty's Government of Nepal and ICIMOD staff. Concurrently, limited exercises on other valleys were undertaken through consultations with representatives from the countries of the Region, and professional planners from the valleys.

The specific objectives of the Workshop were :

- To review the approaches adopted so far for the planned urbanisation of valley regions

- To recommend mechanisms for planning, financing and managing valley region urbanisation within a wider regional framework
- To assist in the development of a methodology proposal for a Comparative Planning and Action Programme in the field of rural - urban linkages in the Region to be promoted and coordinated by ICIMOD and undertaken by national planning teams for the major valley regions
- To promote regional cooperation in research, training, and information exchange on urbanisation

A draft methodology for planned urbanisation was prepared by Desmond J. McNeill and presented during the first session of the Workshop. Intended to encourage discussion, the draft includes a review of experience of planned urbanisation in Asia, a statement on the role of hill towns in the Region, and a methodology with emphasis on implementation. Three notable features of the methodology are : a strategy for economic development is central ; emphasis is on stimulating and guiding rather than attempting to control ; and the view is expressed that planning is a continuous process of informed coordinated decision making in keeping with an overall strategy.

Fifty - four professionals mainly from the Region attended this Workshop (Refer to Annex 6 for participant list). One day was devoted to each of the three key perspectives of the Workshop: socio-economic, environmental and institutional. A wide range of disciplines was represented, with most participants directly involved in the field of urban development planning, often with extensive and specialised international experience. It was anticipated that such a gathering would contribute to the development of a framework for a Comparative Planning and Action Programme for the major valley regions.

Workshop Discussions

Theme One : SOCIO - ECONOMIC LINKAGES

The presentations and discussions, relating to socio-economic characteristics and linkages of the valleys, underscored key variations and similarities, development priorities, and issues related to the promotion of socio-economic linkages.

The variations in economic structure between valley regions were highlighted through references to demographic characteristics, and the roles of the valleys in a wider regional context. Demographically, the population of Peshawar is six to eight times greater than Thimphu and three times greater than Kathmandu. Srinagar and Lhasa have a population mid-way between Thimphu and Kathmandu. The economic structures vary significantly with respect to the industrial base. Peshawar is the most industrialised, while others are just beginning to develop their industrial sectors. Kathmandu and Thimphu play key roles as capitals. The other towns are more important in regional terms.

Similarities between the valley towns are related by agriculture which is still the predominant activity, with government - related employment comprising a significant portion of the non-agricultural employment. Tourism is emerging as an important economic development in all valley areas. They all function as important service centres to a fairly large rural area emphasising their continuing significance in rural development efforts.

Important similarities and differences also exist with respect to development priorities, policies, and programmes. While the priorities for the Lhasa, Kathmandu, and Thimphu Valleys are to promote rapid economic development, emphasis is on environmental preservation in the Dun Valley.

The major economic priorities of all six valleys are grouped into seven broad categories. Views were expressed that investments made in each of these areas would promote regional development leading to national development.

- Trading, marketing, transport, peddling, portorage
- Provision of services, both national (education, health, government) and local (water, transport, energy)
- Handicrafts, small - scale cottage industry

- Tourism and links to horticulture, food processing, beverage manufacture, and handicrafts
- Mineral resource exploitation
- Forestry and wood processing
- Agriculture and animal husbandry

The discussions highlighted the idea that resource mobilisation must be "appropriate" in social, economic, and environmental terms. For example, industrial technologies to be adopted should match local skill levels and ethnic characteristics; capital intensive programmes are to be avoided; self-sustaining development has to be emphasised; and the suitability of various types of planning regions, including political units, needs to be explored.

Economic planning at the subnational level (i.e. valley region) is approximate at best, partly because data is usually not available. The need is for decentralised planning and mobilisation of resources. Governments should aim to redistribute responsibilities between levels regarding investment in urban development and cost recovery. Fiscal, monetary, and credit policies need to be mutually reinforcing for urban development. Governments could encourage financial institutions to assume greater responsibilities in financing local authorities. Also, governments should promote private activity in the mobilisation of resources, delivery of services, and employment generation by removal of obstacles and provision of incentives. The national and local tax base needs to be widened with more emphasis on direct and land taxes. Urban development should be directed toward becoming self-financing so it does not become a burden on the rural majority.

Regarding planning for economic development, both the data base and the methodological base are weak in many respects. Thus, the discussion of rural-urban linkages is hampered by lack of clarity as to what precisely is implied by these linkages, how these might be empirically studied, and how such linkages might be rendered more beneficial. Data collection should be selective and should proceed only on the basis of a clear understanding of the purpose that it will serve. Hindu Kush - Himalayan regional planners should learn from their own experiences. To the extent that new paradigms are called for, these should be sought, but modification of old paradigms can be effective if based on critical analysis of experience.

It was emphasised that urban and rural development should not be seen as competitive. The dichotomy often drawn between urban and rural development is, in many respects, dangerously misleading; such development should be seen as complementary and mutually reinforcing. With the development of technology, transport, communication systems, and institutions, contact between rural and urban areas is increasing. Farms, villages, intermediate towns, and major cities suggest a continuum along which complementary actions are required to maximise the use of available resources.

Planned urbanisation cannot be seen as providing benefits to urban dwellers alone. Concentration of resources, infrastructure, and services in

towns provides the basis for specialisation ; increases productivity in manufacturing and supporting services; offers large, flexible labour markets with diversified skills needed to match changing patterns of production which satisfy the requirements of both rural and urban inhabitants ; and facilitates innovation. Rural areas need towns as sources of inputs, credits, and markets for surplus products.

While some argue that the growth centre strategy is appropriate for the Region, it is generally agreed that growth should be supported where it is already occurring, in strategic centres of national importance. Although governments want equity and growth, the fact is that different regions have different potentials, and it may not be wise to sacrifice growth for equity in all circumstances.

Some of the important socio-economic linkages that need to be analysed to arrive at appropriate policy and programme recommendations for rural and urban areas are:

- Exchange and marketing systems
- Demographic linkages
- Transport networks
- Service distributions
- Capital flows

The possibility of improving rural conditions through structural change in rural areas was pointed out, for example, by legislation to liquidate rural debts (as in Kashmir) or by land reform. Often linkages develop as accidental by-products of other efforts (e.g. roads). Constraints to efficient and equitable operation of these links include the costs of investment in infrastructure, which are considerable in mountain areas; lack of understanding, especially of informal off-farm activities; political pressures; failure to coordinate policies; and difficulties arising out of dispersed population settlements.

Regarding the issue of how public intervention can strengthen rural-urban links, emphases on improved communication, information flows, and infrastructure were stressed. The need to study the impact of existing alternative policies in rural and urban areas in mountain regions, the development of urban functions of mountain towns, and their effects on rural areas, was highlighted. Potential exists for all valley agencies to learn from comparative studies in various historical and geographical settings, and in different aspects of rural-urban linkages. Exchanges of staff from planning agencies could be important, with ICIMOD defining a common methodology as the basis for comparative studies, in cooperation with planners from the Region, and combining the results in regional discussions, and staff interchanges.

Theme Two : ENVIRONMENTAL LINKAGES

The mountain ecosystem in the Hindu Kush-Himalaya plays a key role in the social, cultural, and economic life of the people and countries of the Region. Relations between man and the environment are complex due to geomorphological and ecological conditions. Rural - urban linkages have to be examined in relation to the environmental and ecological imperatives of the Region.

The fauna and flora of the mountain ecosystems sustain the life-support systems. Agriculture, animal husbandry, and trade form the base of most economic activities. In integrated development, the management of urbanisation should be clearly related to the necessary harmony between man and nature.

Population pressures, landscape modifications, deforestation, and release of pollutants into the soil, water, and air have direct linkages to the consumption patterns, provision of services and facilities, industry, trade, and service activities in both rural and urban settlements. Conservation of natural resources, especially soil and water, are therefore critical environmental issues in the Region. Concomitantly, opportunities exist for productive use of these and other rural resources, alternative sources of energy, appropriate technology inputs to developing the built-environment especially in urban areas, environmentally sound forestry, and agronomic practices in the Region.

The environmental issues in the context of rural and urban areas may be categorised under a number of headings.

1. Beneficial effects of urbanisation on rural areas

- the availability of alternative sources of energy (that could reduce pressure upon forests in rural areas)
- creating opportunities for the productive use of rural resources which may otherwise lie idle
- increasing demand for rural labour force, products, and services
- supplying various goods and services to rural areas
- affording opportunities for use of appropriate technologies
- reducing population growth rates in rural areas

2. Adverse effects of urbanisation on rural areas

- disposal of urban waste and release of other pollutants
- competing use of arable land for urban expansion and development
- over - exploitation and misuse of rural resources -- minerals, the scenic and aesthetic countryside, religious sites, wildlife environments, forests, water, etc.
- drainage of skilled manpower from rural areas, and other undesirable effects of rural-urban migration

3. Adverse effects from rural areas on urban regions

- the population pressure from rural areas and its effects on urban areas
- pollution effects on urban areas from rural waste discharge, pesticides, and increasing sedimentation
- urban health problems of specific rural origins

4. Methodological issues

Many of the tools available cannot be applied without a better understanding of questions regarding :

- renewable versus non-renewable resources
- management capacity
- types of costs and benefits (particularly how these alter when viewed from national, regional, local, and rural - urban perspectives)
- the scale of activities
- the spatial distribution of urban centres

5. Means to improve rural-urban environmental relationships include

- skill development through appropriate training
- promotion of appropriate technology
- suitable macropolicies
- institutional development at local levels
- increased participation in planning and implementation

Settlement planning parameters relating to the environmental and ecological imperatives of the Region are generally unavailable. Research methodologies need to be generated in different subregions, especially to understand the linkages identified earlier.

Particularly relevant is data on such sectors as population patterns, socio - economic and cultural parameters and their relation among the economic sectors (for example, needed skills). The impacts of network and communication systems on flows of goods and people between settlements and hill areas are significant for such assessments.

Some of the areas that may be considered in this context include :

- Issues of land erosion, salinity, and water - logging as related to urban development and expansion (Peshawar Valley)
- Environmental imperatives restricting use of prime agricultural land by urban expansion (Dun and Kathmandu Valleys)
- Urban need and water sources depletion affecting the rural - urban

patterns of settlement developments; and encroachment on, and the pollution of, Dal Lake (Srinagar Valley)

- Competing demands for, or pollution of, water in virtually all the valleys
- The quarrying of limestone near the town raising serious environmental problems, and environmental parameters of deforestation due to demands for energy and ecological concerns (Dun Valley)

The units of a city, watershed, or valley may all be valid focal points for ecosystem management. The understanding that each is different and none is sufficient in isolation must be emphasised. Rather than setting boundaries, the open system must be acknowledged and linkages examined. Within each unit, both macro and micro levels deserve attention. The relations between urbanisation and environmental damage need a better data base, and the appropriate skills needed for studying these linkages must be determined.

Theme Three : INSTITUTIONAL LINKAGES

From an institutional perspective, there is wide variation between the prevailing arrangements in each valley. A greater degree of similarity emerges, however, with respect to the types of institutional problems being encountered. One of these is the issue of overlapping powers and responsibilities, common to almost all the valleys.

In Srinagar, five different agencies are directly concerned with urban development: the Srinagar Development Authority, the Urban and Environmental Engineering Department, the Jammu and Kashmir Housing Board, the Srinagar Municipality, and the State Town Planning Department. Likewise, in Peshawar, there are the Peshawar Urban Development Authority and the Peshawar Municipal Corporation. In addition, there are District Councils, whose jurisdictions overlap with those of the Peshawar Urban Development Authority. In Kathmandu Valley, a Development Committee, headed by a Minister, and the Nagar (Town) Panchayats and Village Panchayats exist, while in Bhutan, a National Urban Development Corporation looks after both urban development and administration of areas such as Thimphu.

In general, the development authorities are financially strong, though they do not enjoy any taxation powers. This has been possible largely due to the sale and purchase of land for which the development authorities have the requisite powers. Other municipalities which do not have taxation powers under the Municipal or Corporate Acts, have extremely weak financial bases. As a result of the somewhat overpowering influence of the urban development authorities and their strong resource base, the role of the municipalities is gradually being confined to mere maintenance of a few services. Substantial

conflicts exist between the various agencies at the operational levels. For one reason or another, agencies have not been able to coordinate their activities effectively. There are no mechanisms by which rural institutions such as district councils and urban institutions could be brought together to ensure linkages between their activities. The effective functioning of such agencies has been further undermined as a result of unilateral decisions often taken by line agencies and departments.

In developing countries, development requires central government inputs because the funds and skills required are beyond the means of local communities. Therefore, decentralisation may be a limited concept; central intervention will follow central inputs. Interventions will depend on the proximity of the area to the seat of power, and on relevance of the area to the well-being of that seat of power.

This experience continues to raise the question of whether planning and implementation should be together, as in Development Authorities, or separated. Regarding the preferred institutional arrangements, two alternatives may be considered:

1. The Development Authority alternative, of the type presently existing in India and Pakistan
2. The Development Committee alternative, such as the one in Kathmandu

Experience throughout the Region indicates the need for a forum which can bring together various institutions concerned with development at the urban level. Further, the future shape of this forum, i.e., whether it should be an authority, corporation, or other institutional arrangement, can be determined only after the entire range of questions relating to intragovernmental and fiscal relations have been examined.

Central and state ministries have been found to have greater authority, more access to finances, more manpower resources and good policy knowledge, but local knowledge and local priorities are lacking. While the above mentioned strengths of state authorities are slightly lesser than those of the central authority, state authorities are more prone to political influences. Regional, district and local authorities are aware of local problems and a local data base, and are accountable to the local people. They are, however, characterised by inadequate institutional structure and staffing, and low access to finances. Often they are forced to make decisions under political influence.

In the case of specialised development agencies, their strength arises from their authority, ability to plan and implement, and raise funds. However, there has been an evident lack of concern for local priorities in such organisations. They are monopolistic in outlook and frequently generate problems of coordination.

These lessons from experience appear to be more true in countries with large cities, especially India, where the urban development authority approach has recently been reappraised. The towns of Kathmandu, Lhasa and Thimphu, by contrast, have not undergone the same experience. It was also pointed out that in most cases, planners had to take the institutional framework as given, with no room for radical changes. The institutional issue remains a complex question and allowances must be made for country specific conditions, but several areas of agreement emerged :

- Planning should be linked to action
- Emphasis should be on strengthening and better utilisation of existing institutions rather than creating new ones
- Existing institutions should be complementary rather than competitive
- The institutional framework should be developed and coordinated in the overall regional development context, if rural - urban linkages are to be strengthened

Community participation was one of the topics raised during discussions. The justification for encouraging and stimulating community participation is that local perceptions and values should be emphasised at the initial stages of planning and should be incorporated in the process of planned urbanisation. Regarding the role of community participation, the following points were raised :

- Some understanding of traditional arrangements is necessary through case studies of drinking water systems and how religious institutions manage temples, schools, and welfare activities
- The role played by non - government organisations and private businesses in city planning and management
- The role of professional planners in not only understanding, but stimulating and managing, full participation by the different sections of both rural and urban settlements of the valley regions

Community participation through non-governmental organisations should be encouraged in the provision of social services and mobilisation of resources. Service delivery and economic planning need to be adapted to the special development constraints of mountain areas. A balance between efficiency and equity in investment needs to be achieved.

Workshop Conclusions :

Outline of a Collaborative Programme

The major purpose of the Workshop was to establish a foundation for a collaborative work programme in the field of rural-urban linkages. The participants felt that there were many approaches to this problem. In the past, urban centres were treated like islands of physical space. Emphasis was put only on internal urban links without considering relations with the rural sector: an important condition for economic growth in a country where a majority of the labour force is engaged in low-productivity agriculture. Now there is a need to focus on questions such as to what extent urban investments promote rural development, and on a more advantageous collaborative programme on regional economic, environmental, and institutional aspects rather than on urban centres alone.

The Workshop emphasised that one way of approaching the issue of rural - urban linkages is to undertake coordinated implementation of a collaborative programme linking six Hindu Kush - Himalaya Valleys (Thimpu, Lhasa, Dun, Srinagar, Kathmandu, and Peshawar) on a cooperative basis by linked national planning teams. This, however, does not imply that other urban towns in the mountains located in Bhutan, China, India, Nepal, and Pakistan are precluded for future collaboration.

This programme would provide an opportunity for professionals to exchange knowledge and expertise. Great potential exists for shared learning in these valleys, especially as activities in the valleys are at various stages of development. For example, limestone deposits in Dun Valley have been the centre of controversy over resource utilisation at the local as well as national level for more than a decade. Srinagar has been facing the pollution problem of Dal Lake. The problem of competing demands for, or pollution of, water is found in almost all valleys. This information could be utilised to reinforce results of programmes in other valleys which have not had the same experiences, leading to further development of valleys of this Region.

Participants from five countries of the Region agreed to formulate a common but flexible methodology for a collaborative and comparative Planning and Action Programme in the field of rural-urban linkages by integrating appropriate conclusions already presented in the report. The details of the proposed programme, while yet to be finalised, are expected to be included within some of these broad headings raised at the Workshop :

- Design of draft comparable methodologies for action plans through consultation with planners from the Region and ICIMOD staff
- Data Collection, analysis and forecasting
 - Analysis of the impact of urbanisation on rural areas from socio-economic and environmental perspectives
 - Analysis of the role of urban and regional institutions
 - Preparation of an integrated urbanisation and regional development strategy
- Complement developmental activities
- Provide input into the National Planning Commission
- Review of planned development over a number of years
- Manpower and budget required

Although the detailed organisational arrangements for such a programme have not yet been formulated, it is intended that a separate Action Planning Team will be set up in each of the valleys, and a core team, based at ICIMOD, will have the function of promoting this programme by bringing together the findings of the teams, and encouraging and enabling exchange between them.

The success of such a programme would be greatly enhanced by establishing, at an early stage, the methodology to be adopted in each valley. Clearly there would be some variation, primarily because of the range of different institutional arrangements in the valleys. As far as possible, however, a shared approach will be encouraged.

During the initial phase of the Workshop follow-up programme, three-year proposals have been received for collaboration from the Peshawar and Dun Valleys and requests for more details about the proposed methodology have been made by Lhasa, Srinagar, and Kathmandu. This early reaction to the Workshop held at ICIMOD shows great interest generated in the field of rural-urban linkages among planners in this Region.

Results of such a programme could be :

- Sharing of experience already gained in other valleys such as environmental consequences of urbanisation
- Systematic information exchange concerning rural-urban linkages in mountain regions
- Regional cooperation through exchange of expertise
- Preparation and implementation of modern development plans
- Development of training programmes in ecological and environmental aspects

With external financial support, collaborative studies of rural-urban linkages will be implemented, with ICIMOD, in cooperation with planners from the Region, defining a comparative methodology as its basis. It is hoped that the discussions held at this Workshop, summarised in the preceding pages, will contribute to establishing a basis for a comparative Planning and Action Programme.

Annex 1.

Workshop Programme

DAY ONE	DAY TWO
<p>Theme One : SOCIO - ECONOMIC ISSUES</p> <p>Chairman : Mr. Shanker K. Malla</p> <ul style="list-style-type: none"> - Kathmandu Valley Region <ul style="list-style-type: none"> a. Economic Dimensions of Urbanisation and its National Linkages : Dr. Mahesh Banskota b. Trend of Urban Growth : Dr. Chandra B. Shrestha - Strategy for Infrastructure Development : Prof. Nayan S. Saini - The Economic Development of the Lhasa Valley : Mr. Wang Hai - Planning for a Valley : The Srinagar Experience : Dr. Om P. Mathur <p>General Discussions</p> <p>Proposed Outline of the Work Programme : Desmond J. McNeill</p>	<p>Theme Two : ENVIRONMENTAL ISSUES</p> <p>Chairman : Prof. Upendra M. Malla</p> <ul style="list-style-type: none"> - Ecological Approaches to Urban Systems : Dr. Anne V. Whyte - Environmental Aspects of Urbanisation in Kathmandu Valley : Bharat P. Sharma - Urbanisation, Economic Development and Environment in Peshawar Valley : Dr. M. Aslam Khan - Environmental Impact on Dun Valley : Prof. M. C. K. Swamy <p>General Discussions</p>
<p>Group Discussions</p> <p><u>Convenors</u></p> <p>Dr. M. Aslam Khan</p> <ul style="list-style-type: none"> - Wider Regional Scale and Economic Links <p>Dr. Nigel Harris</p> <ul style="list-style-type: none"> - Key Economic Programme Priorities <p>Prof. Abhijit Datta</p> <ul style="list-style-type: none"> - Urban and Regional Resource Mobilisation for Economic Investment 	<p>Group Discussions</p> <p><u>Convenors</u></p> <p>Dr. Prodipto Roy</p> <ul style="list-style-type: none"> - Wider Regional Scale and Environment Links <p>Prof. M. C. K. Swamy</p> <ul style="list-style-type: none"> - Key Environment Programme Priorities <p>Prof. Nayan S. Saini</p> <ul style="list-style-type: none"> - Effective Instruments for Intervention and Implementation of Programmes Relating to Environmental Issues

DAY THREE	DAY FOUR
<p>Theme Three : INSTITUTIONAL ISSUES</p> <p>Chairman : Dr. Nigel Harris</p> <ul style="list-style-type: none"> - Urban Development Strategy : Alfred P. Van Huyck - Kathmandu Valley Land Use Development : Conflicts and Priorities : Duane L. Kissick - Institutional Framework : Prof. Abhijit Datta - Urban Development in Bhutan : Meghraj Adhikari <p>General Discussions</p>	<p>Theme Four : PROPOSED ISSUES FOR REGIONAL COOPERATION</p> <p>Chairman : Dr. Colin Rosser</p> <p>Reports from Working Groups :</p> <ul style="list-style-type: none"> - Social and Economic Issues : Dr. Nigel Harris - Environmental Issues : Prof. M. C. K. Swamy - Institutional Issues : Dr. Om P. Mathur <p>General Discussions</p>
<p>Group Discussions</p> <p><u>Convenors</u></p> <p>Dr. Om P. Mathur</p> <ul style="list-style-type: none"> - Regional Scale for Institutions <p>Alfred P. Van Huyck</p> <ul style="list-style-type: none"> - Urban Development Planning and Implementation Institutions <p>Dr. Prodipto Roy</p> <ul style="list-style-type: none"> - Community Participation and Awareness 	<p>General Summing Up In Relation To Proposed Programme Follow - Up : Desmond J. McNeill</p> <p>CLOSING OF THE WORKSHOP</p> <p>Prof. Upendra M. Malla</p> <p>Dr. Colin Rosser</p>

Annex 2.

Workshop Organising Committee

Steering Committee

Prof. Upendra M. Malla	Honourable Member National Planning Commission His Majesty's Government, Nepal and Chairman, MAB Nepal
Dr. Colin Rosser	Director, ICIMOD
Hazmaniya L. Rajbhandari	Chief Engineer Dept. of Housing, Building and Physical Planning, His Majesty's Government, Nepal

Workshop Coordinator

Saroj K. Basnyet	Civil Engineer/Planner, ICIMOD
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Annex 3.

Kathmandu Valley Region Study Team

Dr. Chandra B. Shrestha	Professor Geography Department Tribhuvan University
Padam B. Chettri and Bharat P. Sharma	Acting Chief Planners Kathmandu Valley Town Planning Office
Dr. Mahesh Banskota	Economist, ICIMOD
Ananda R. Pant	Senior Planner Kathmandu Valley Town Plan Implementation Committee
Pradumna Bhattarai	Planner Dept. of Housing, Building and Physical Planning
Saroj K. Basnyet	Civil Engineer/Planner, ICIMOD

Annex 4.

Papers Prepared for the Workshop

BHUTAN

Meghraj Adhikari Urban Development in Bhutan

CHINA

Wang Hai The Economic Development of the Valley Regions
with Special Reference to Tibet

Sun Shangzhi Lhasa and Regional Development

INDIA

Abhijit Datta Urban Plan Finance and Local Resource
Mobilisation in India

Om P. Mathur Planning for a Valley : The Srinagar Experience

Nayan S. Saini Strategy for Infrastructure Development to Guide
Urbanisation in the Hindu Kush-Himalaya Region

Mukul Sanwal Institutional Structure for Planning and
Implementation : Dun Valley and other Towns of
Hill Areas of Uttar Pradesh

M. C. K. Swamy Environmental Impact on Dun Valley

NEPAL

Mahesh Banskota Economic Dimensions of Urbanisation in the
Kathmandu Valley and its National Linkages

Saroj K. Basnyet (Kathmandu Valley)
- Water Supply and Sewerage
- Transportation
- Education
- Health

Pradumna Bhattarai National Policy and Decentralisation

- | | |
|---|--|
| Padam B. Chettri | (Kathmandu Valley)
- Planning History
- Regional and Urban Land Use Planning |
| Ananda R. Pant | (Kathmandu Valley)
- Solid Waste Collection and Disposal
- Communication : Telecommunications
- Housing |
| Bharat P. Sharma | Environmental Aspects of Urbanisation in the Kathmandu Valley |
| Chandra B. Shrestha | (Kathmandu Valley)
- Identification of the Region
- Hierarchy of Settlements
- Population Dynamics
- Trend of Urban Growth |
| H. Detlef Kammeier and
Ballabh P. Acharya
(AIT) | Decentralised Urbanisation and Planning Legislation: The Experiences of the Regional Centres in Nepal |
| Duane L. Kissick | Kathmandu Valley Land Use Development : Conflicts and Priorities |

PAKISTAN

- | | |
|---------------|---|
| M. Aslam.Khan | Urbanisation, Economic Development and Environment in Peshawar Valley |
|---------------|---|

UNESCO

- | | |
|---------------|--|
| Anne V. Whyte | Ecological Approaches to Urban Systems : Retrospect and Prospect |
|---------------|--|

GENERAL

- | | |
|----------------------------------|---|
| Basundhara Dhungel
(AIT) | Urban Development Planning as Seen from the Women's Point of View : Reflections and Propositions |
| Desmond J. McNeill
(ICIMOD) | A Methodology for Planned Urbanisation in the Hindu Kush - Himalaya Region with Particular Emphasis on Rural - Urban Linkages |

Annex 5.

Summaries of Presentations

(in order of presentation)*

Theme One : Social and Economic Issues

ECONOMIC DIMENSIONS OF URBANISATION IN THE KATHMANDU VALLEY AND ITS NATIONAL LINKAGES

Mahesh Banskota

Urbanisation in Nepal is an old and slow process. In the last 30 years the pace has accelerated, but development is occurring in an uneven manner. A large percentage of total development expenditure in Nepal is concentrated in the Kathmandu Valley Region (KVR); investment in the hills is extremely low.

The Kathmandu Valley Region is the nation's major urban centre, including three major and ten minor towns, built by Newars : an ethnic group with a long history of urban dwelling. Large parts of the valley region remain rural. During the sixties, the region was one of the most productive agricultural areas in south Asia. Production has declined, but 70 per cent of KVR's economically active population are employed in the agricultural sector, primarily in cereal grain production. Currently, about 60 per cent of the Valley's food grain requirement is imported into the valley.

Manufacturing industries have increased over time, but in the face of limited diversification and raw material supply constraints, their growth has not been as rapid as in the Terai (southern plains). As these are mostly agro - processing industries, strong linkages are indicated between agricultural

and manufacturing sectors in Nepal. Employment per unit and value added per person are greater in the Terai. While per capita bank deposits in KVR are constantly increasing, per capita credit is low. The situation is reversed in the Terai, indicating provision of credits from KVR and the hills.

Tourism is a relatively dynamic sector, not constrained by the domestic market. However, equity questions arise as there is little evidence of tourism benefiting hill areas.

Lack of data is a severe constraint in economic analysis of urbanisation and related trends in Nepal. Not only sectorial data, but data on relations between sectors and on rural-urban linkages, are non-existent. Data is essential to assess ongoing regional changes, of which development can take advantage. Regional issues, such as strong links between the Nepalese and Indian economies, deserve careful research for effective internal decision making.

TREND OF URBAN GROWTH

Chandra Bahadur Shrestha

A single urban system has been evolving in the Kathmandu Valley Region since the middle of this century. Earlier, each of the three urban centres in the valley was a different system of equal importance. Since the 1950s, Kathmandu has absorbed the other two centres, and two more systems have developed in the Terai of central Nepal. The primacy of Kathmandu is increasing.

* Not all authors have had the opportunity to comment on the summaries presented here ; ICIMOD has tried to reflect as accurately as possible the major points raised by the authors.

STRATEGY FOR INFRASTRUCTURE DEVELOPMENT TO GUIDE URBANISATION IN THE HINDU KUSH - HIMALAYA REGION

Nayan Singh Saini

The hierarchical structure has undergone changes in terms of tiers, developing from a three - tier system prior to the 1950s to a six - tier system in 1981. Most of the urban centres have been small market centres; the number of such centres is steadily increasing. The pattern of urban growth has always been conditioned by route networks.

The current trend in the spatial pattern of urban growth has been the declining importance of urban centres of northern hill areas and increasing importance of southern towns of the Terai. The size of the towns declines from south to north, with the exceptions of Kathmandu and Patan. Changes have also occurred in locational pattern. Previously, market centres were located at high altitudes to avoid malaria. Later, development took place in lowlying plains and valleys. Although a change has been noted in the distribution pattern of market centres with increasing dispersion, the centres are still highly concentrated.

Regarding the spatial pattern of service areas of urban centres, the sphere of influence of Kathmandu is growing, while those of the valley's other urban centres have declined. Compared to India, Nepal's rural areas have poor access to market centres. Lack of job opportunities keeps the population growth rate lower in the smaller centres and higher in Kathmandu (4.6%).

Kathmandu's population growth rate would not be considered high when the addition of population due to extension of municipal boundaries is taken into account. There has been large scale out-migration from the Kathmandu Valley to small market centres in the Central Development Region and Terai towns, following the completion of new roads. Intra-urban movement of population is a growing phenomenon in Kathmandu. The movement has been markedly from inner areas to outskirts.

The key issues regarding urbanisation include: structural deficits, i.e., concentration of urban centres; minimal spread effect due to lack of roads and transport; and lack of medium sized towns necessary for development of the mountain areas.

Urbanisation in the Himalaya region of Uttar Pradesh, traditionally an area of religious meditation, has been an ongoing process since Independence (1947). Regional trends affecting urbanisation include: out-migration (hills to plains) due to lack of job opportunities, scarce water and poor soil, in-migration (hills to hills and plains to hills) due to development projects; improved road networks; and health facilities which have contributed to rapid population growth.

Hill Area Development Programmes have significantly increased urban growth in hill areas. Overall, the existing urban infrastructure is good in terms of schools, teacher-pupil ratios, medical facilities, shops and bank branches. However, electricity consumption, paved roads and water supply are below national standards. The main problem is inequity of distribution due to inaccessibility and travel time.

Presently, all urban areas are tertiary (service) oriented, two-fifths of the population are male, one-third of the households have one or more members in defence service, most of the land is forested, and substantial fluctuation in population occurs, with the winter being the lean period.

Tourism may be the most compatible industry for the region, but given the fragile ecology, understanding of urban-rural linkages and resource utilisation is important. An ecological sensitivity analysis is proposed for the region, by watershed, to guide development. Further, two settlement policies for the Kumayun and Garwhal areas of the Uttar Pradesh Himalaya, should be designed. Based upon the analysis and policies, Growth Service Centres should be designated and infrastructure development carried out with local private agencies' full involvement. Identification of a key authority and catalyst agency is crucial.

THE ECONOMIC DEVELOPMENT OF THE VALLEY REGIONS WITH SPECIAL REFERENCE TO TIBET

Wang Hai

The Tibet Autonomous Region is rich in natural resources, mostly unconverted for economic use. Mineral and energy resources, including hydroelectric, geo-thermal, solar and wind energy await exploitation. The river basin of the Yarlung Zangbo, the Lhasa, and the Nianchu Rivers, is the valley region of Tibet, with 43 per cent of the population, 60 per cent of the total grain production, and 40 per cent of the total annual industrial and agricultural output.

The Autonomous Region People's Government has an "open door" policy, and is increasingly making the area accessible according to perceived needs. An emphasis is being placed on agriculture and animal husbandry, light industry for agricultural raw materials, national handicrafts, traditional medicines, service occupations and tourism. Tourism is an increasing source of income and investment. The Lhasa Hotel, Art Museum and Theatre are among many new features in the capital. Urban projects such as transportation improvement are underway.

A tentative plan for the opening of the valley region adjacent to Lhasa has been proposed. Data collection and analysis are needed to estimate potential benefits from river improvements such as land reclamation, irrigation, hydropower and waterways to supply meat, milk and wool to the city of Lhasa.

PLANNING FOR A VALLEY : THE SRINAGAR EXPERIENCE

Om Prakash Mathur

The Master Plan for the development of Srinagar (1971-91) came under review by the National Institute of Urban Affairs (NIUA) in 1983. The review was necessary primarily because of unexpectedly rapid population growth and the gap between demand and provision of services, along with the usual problems of pressures on land

resources, inadequate infrastructure, a fragile economic base, and deepening environmental strains.

The original Master Plan envisaged spatial reorganisation, economic growth with major expansion in industry, infrastructure development with emphasis on the tourism sector, and the arresting of environmental degradation. While attributing certain failures of the original Plan to absence of coordination between departments and lack of effective implementation and monitoring mechanisms and authority, the revision has relied on traditional paradigms and allocative principles of planning. The revised Plan highlights the urgent need for Srinagar to strengthen and diversify its economic and occupational bases.

The key issues challenging Srinagar planners are : utilisation of Dal Lake for economic opportunity versus environmental preservation, provision of basic services to the boat population where they are versus relocation, and the impact of the growing informal sector on city beautification versus promotion of self-employment. Rather than a land allocation approach, a problem solving approach which emphasises proper utilisation of existing resources should be considered. A combination of innovative and adaptive approaches in place of comprehensive ones, may best serve the needs of valley cities.

Theme Two : Environmental Issues

ECOLOGICAL APPROACHES TO URBAN SYSTEMS

Anne Veronica Whyte

The Man and the Biosphere Programme (MAB) of UNESCO has, since its inception in 1971, been developing an ecological approach to human settlements, especially major urban centres. Since 1975, nearly 80 projects have been carried out by national MAB Committees in collaboration with UNESCO-MAB.

Many of these projects have focused on human settlements as systems which share many of the features of ecosystems in that they are open systems

with complex organisation, there is competition for resources, and hierarchical organisation of energy. This aspect of urban systems has been used as the main entry point for studying human settlements. A series of "urban metabolic" studies have been undertaken in which inputs, transformation and outputs of food, water and energy, have been measured.

The major lessons drawn from this 10 year experience of the MAB field programme are:

1. The city is not necessarily the best unit of analysis ; a larger system which includes rural - urban linkages, such as a watershed, is preferable.
2. Input - output models are essentially linear and are not the best basis for planning innovation or creative problem solving. Alternatives to be considered are simulation models involving local participation and expert systems.
3. Projects have a higher chance of being implemented by policy makers and planners if these people are involved in the design, implementation and evaluation of the project, and the project responds to their expressed priorities.
4. The analogy of the city as ecosystem or an organism does not give sufficient weight to the creative, socio - cultural aspects of cities, which are also centres of opportunity, information exchange and innovation. Cities are self - organising systems as well as ecosystems.'
5. Ecology in the 1980s has tended to downplay earlier emphasis on trophic levels, a hierarchical organisation of energy and macro - views of systems in favour of the analysis of strategies of organisms within the overall system. Similarly, urban systems cannot be understood simply in terms of their structure, but attention must also be paid to process. What are the major social economic, political, and environmental processes involved in urbanisation? Micro - studies should be included of local people's perceptions, decision making and behaviour. For this, a useful unit of observation may be the rural - urban household or extended family,

through which many of the rural - urban linkages flow and are actually maintained.

6. Projects have a better chance of success if their objectives are well defined and relatively focused. In this respect, a planning objective, such as ecological sustainability, environmental impact assessment, or risk assessment, has advantages over a more general " integrated development " rubric. Such objectives should be defined at the outset as positive aspects of the project, rather than being added later as negative constraints.

ENVIRONMENTAL ASPECTS OF URBANISATION IN THE KATHMANDU VALLEY

Bharat Prasad Sharma

Balance is needed between economic growth and care for environmental resources in the urbanisation process. In Kathmandu, the environmental issues needing to be examined in the socio-economic framework include: urbanisation, land use, agriculture, water and hydro-cycle, forestry, and natural resource harvesting. Kathmandu's growth pattern has followed the road network away from the city centre, leading to misuse of prime agricultural land. Cement, tannery and brick factories threaten the well - being of the environment. Sustenance, consonance and safety considerations are critical for the balance of the urban system, along with attention to action and reaction cycles of humans on the environment.

URBANISATION, ECONOMIC DEVELOPMENT AND ENVIRONMENT IN PESHAWAR VALLEY

Mohammad Aslam Khan

The Peshawar Valley has a very important regional role, with 35 per cent of the North West Frontier Province's population, 60 per cent of the industrial units, and 40 per cent of the value added by agriculture. Almost 60 per cent of the land in the valley is used for cultivation. Factors

contributing to the achievement of regional importance include : irrigation extension, power generation, the shift from food to cash crops, rapid industrialisation, farm mechanisation and use of agricultural inputs. These same factors have had substantial effects on the valley's environment.

More than half the land of the Peshawar Valley has either been affected or is soon likely to be affected by desertification, in particular, waterlogging and salinity. This is largely due to the extended irrigation carried out to meet the increasing population's food needs. Reduction in carrying capacity has also occurred through population increase, as well as through resource misuse. In - migration to cities and unequal distribution of population have aggravated loss of agricultural land, overcrowding (two - thirds of valley housing has three or more persons per room), the gap in demand/supply of services, and problems of water supply, sanitation and health.

Pollution of land/soil, water and air is of growing concern. Water pollution has occurred largely through the use of chemical fertiliser necessary for increased yields, while animal dung is used more and more to meet growing fuel demands. This fuel demand is leading to deforestation, soil erosion and sedimentation. The intensity of industrial pollution has been reduced until now due to planned dispersal of industries, which may not be possible in future. Likewise, the loss of prime agricultural land has partially been reduced due to planned infrastructural development, which has helped pull city growth in desired directions.

One further factor in the web of environmental linkages in the Peshawar Region is the lack of community involvement, which is an important hindrance to effective environmental management.

ENVIRONMENTAL IMPACT ON DUN VALLEY

M. C. K. Swamy

The Dehra Dun Valley, which is a distinct geographical entity, is highly urbanised and occupies a unique position as the gateway to the upper Himalaya mountains.

An understanding of the linkages between human - ecology, hydro - ecology and the environment is critical for effective planning in the

Dun Valley. Although 50 per cent of the land is not suitable for urban development, the Dehra dun District is the second most urbanised in the State of Uttar Pradesh, India (49.21 per cent in 1981). In the fragile environmental setting, this high rate of urbanisation and consequent industrialisation (especially limestone quarrying and road construction) have brought about deforestation, soil erosion, siltation and air pollution. The high dependence of the rural people on livestock, fuelwood collection and pressures from tourism, are contributing to ecosystem deterioration. The monsoon seriously aggravates these problems in an already "mass wasting" setting like the Siwaliks. Siltation of streams and canals have depleted water availability for irrigation and urban uses.

The valley faces high population pressure and a low skill level. Most towns in the valley are administrative and service oriented. Agricultural land holdings are small, and cash crop introduction is unwise from the environmental perspective. Isolated urbanisation without rural area linkages cannot be the strategy for future economic development of the valley area.

The valley is losing the ability to feed the resident population. Environmental management is a must to restore the natural systems upon which the economy depends. Appropriate rural-urban linkages and innovative farming methods patterned on natural vegetation, hydraulic cycles, and integrated crops, livestock and trees, deserve careful development. Research is necessary to establish the environmental imperatives of the valley, upon which an integrated mountain development system could be based.

Theme Three : Institutional Issues

URBAN DEVELOPMENT STRATEGY

Alfred. P. Van Huyck

The issues facing development planning everywhere are brought into sharper focus and magnified for valley planning by two factors: finite space and fragile ecologies. Taking into account the deficits in existing infrastructure, low incomes,

and limited skills facing the valleys of the Region, development planning requires thought rather than more data collection. Development planning is usually based on the idea that development should be brought to the people where they are. Thinking in larger, "open systems" terms is necessary for realistic assessment and option generation regarding, for example, off-land employment as a viable alternative to subsistence agriculture.

KATHMANDU VALLEY LAND USE DEVELOPMENT : CONFLICTS AND PRIORITIES

Duane L. Kissick

Among the findings of the Kathmandu Valley Urban Land Policy Study is the realisation that no articulated role for the Valley exists. A clear vision is increasingly important as the population is expected to more than double by the year 2000, and conflicts between rural and urban land use are growing. If development continues at present rates of growth, all agricultural land in the Valley will have been urbanised by 2020. Yet the Valley is one of Nepal's most fertile areas, and enjoys increasing yields.

The ongoing urban growth is unplanned and inefficient. Lack of formal housing finance contributes to the urban sprawl. Landless low income groups are excluded from the land market due to rising prices, reflected in urban centre core area densities. Land remains the best investment in Nepal.

Development of lowlands and flood plains, traditionally avoided, is likely to lead toward serious drainage problems. The absence of standards for public sector land development and unsatisfactory management are contributing factors. With no institution for valley planning or development, and with land legal instruments generally contributing to the problems, it is suggested that the guthi corporation (traditional community organisations responsible for lands donated to public good currently holding up to 9% of the valley's prime agricultural land) could be effectively utilised as land policy instruments.

Using land transactions as indicators, future development sites can be determined and infrastructure facilities used as magnets or deterrents.

Recommendations arising from the study include:

1. The Valley's role should be defined as national capital ; cultural, historic and regional economic centre ; and national/regional services centre. Economic development and industry should be focused in the Terai.
2. Valuable arable land should be preserved as long as possible through efficient urbanisation. Introduction of access roads needs to be limited, a housing finance mechanism needs to be established using the guthi corporation as a land policy tool, flood plains and priority arable areas should be protected from development, and land brokers should be organised so their skills and knowledge can be built upon.
3. Establishment of public land acquisition and utilisation policy is recommended, in accordance with a valley development plan.
4. Improvement of the cadastral system is urged.
5. Legal modifications need to be made.
6. House, compound and urban land taxes could be merged into one urban property tax.
7. A Valley Development Authority should be established, which recognises its national role but reflects the spirit of decentralisation.
8. Immediate priority should be given to establishment of a development and investment plan for the Valley and institutional development for its authority.

INSTITUTIONAL FRAMEWORK

Abhijit Datta

The nature of local-level public institutions is not generally understood, more so in the countries of the Hindu Kush-Himalaya Region with widely varying systems of local government and administration. Historically, local institutions have evolved on a continuum from centralised to decentralised systems; also there seems to be uneven growth of rural and urban institutions, with China being the sole exception.

LOCAL GOVERNMENT SYSTEMS			
TYPES			
	<u>Centralised</u>	<u>Decentralised</u>	
AREAS	Integrated	Unified	Separate
1. Rural/ Urban	China	-	-
2. Rural	Bhutan	India Pakistan Nepal	-
3. Urban	-	Bhutan	India Pakistan Nepal
4. Valley	Lhasa (China) Thimphu (Bhutan)	-	-

From the above diagram it is clear that countries like India, Pakistan, and Nepal lack valley-specific local institutional arrangements. There are at present two options : (a) under a unified system, a valley-specific local institution could be created under a governorate as in the middle-eastern countries, though this is unlikely to be created as the existing municipal authorities would have to surrender their autonomy vis-a-vis the field administration ; or (b) under a separate system a valley - specific unified local government

could be created on the model of the British two tier arrangement for metropolitan areas, although in view of their impending abolition, it is unlikely that the system will be given a trial in the developing countries of South Asia.

The three South Asian countries of India, Pakistan, and Nepal have experimented with function - specific ad hoc authorities as well as general-purpose development authorities in the large urban concentrations. The experiences with these authorities have not been entirely successful, from the points of view of local political or resource mobilisation. Currently, there is a rethinking about the role of metropolitan development authorities in India and any alternative institutional system that may be devised in India for metropolitan areas will have bearing on the question of appropriate institutions for the valley regions in other South Asian countries as well.

Since local institutional restructuring is politically sensitive and difficult to bring about quickly, a practical alternative to the local institutional tangle would be to influence these through the creation of a valley-specific development bank which could bring about efficient functioning of the existing institutions, rather than substituting them by creating new institutional arrangements.

URBAN DEVELOPMENT IN BHUTAN

Meghraj Adhikari

The definition of "urban" in Bhutan is different from many other countries, as the largest city - Thimphu - has a population of only 15,000. "Urban" is understood to mean a centre with services and high potential for growth.

Despite the existence of a Town Planning Department prior to 1984, urban centres in Bhutan have been plagued by lack of coordinated infrastructure programmes to supply water and sanitation systems, complex narrow road networks, inappropriately mixed land uses, and urban buildings unsuitable for the climate. In 1984, a National Urban Development Corporation (NUDC) was established, through which central government directives are given to district offices.

NUDC has adopted a policy of promoting housing which reflects Bhutan's cultural heritage, as well as the climate and local resources. Research is focusing on improvement of traditional mud wall building methods and materials, and passive solar heating efficiency to utilise energy and to conserve the forest. Involving local people in the planning process and training local artisans are emphasised. Each division of NUDC has carefully designed manpower structures to provide a framework for staff training and recruitment, as skilled manpower is a critical constraint in Bhutan.

Presently, a number of urban studies are underway, including preparation for a plan for Thimphu with maximum emphasis on housing, office accommodation, commerce and basic infrastructure, with the goal that urban areas should generate their own revenues and service provision.

A METHODOLOGY FOR PLANNED URBANISATION IN THE HINDU KUSH - HIMALAYA REGION WITH PARTICULAR EMPHASIS ON RURAL - URBAN LINKAGES

Desmond James McNeill

The theory and practice of urban planning have undergone considerable changes in Asia in the last two decades, with increasing emphasis being placed on appropriate institutional frameworks. General transitions are occurring from master plan bureaus to development agencies, from economic growth to basic needs and productive employment, and from technocratic planning to community participation.

Decreasing emphasis is being placed on physical, land use aspects; comprehensive planning objectives are more frequently sought. Use of the investment budget is replacing instruments of land use control.

Urban development planning should be concerned with maximising the productive role which towns play in the national economy, for the benefit of rural as well as urban dwellers. Towards this end, emphasis must be on implementation, based on detailed analysis of key factors, provision of relevant and reliable information to agencies, and

initiation of projects consistent with overall objectives through proposals to line agencies.

A strategy for economic development should be central to the methodology. Emphasis should be on stimulating and guiding, rather than attempting to control, and planning should be viewed as a continuous process of informed, coordinated decision making.

Annex 6.

Participants

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Founding of ICIMOD

The fundamental motivation for the founding of this first International Centre in the field of mountain area development was widespread recognition of the alarming environmental degradation of mountain habitats, and consequent increasing impoverishment of mountain communities. A coordinated and systematic effort on an international scale was deemed essential to design and implement more effective development responses to promote the sustained well-being of mountain communities.

The establishment of the Centre is based upon an agreement between His Majesty's Government of Nepal and the United Nations Educational, Scientific and Cultural Organisation (UNESCO) signed in 1981. The Centre was inaugurated by the Prime Minister of Nepal in December 1983, and began its professional activities in September 1984.

The Centre, located in Kathmandu, the capital of the Kingdom of Nepal, enjoys the status of an autonomous international organisation.

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- | | |
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| o Bhutan | o Burma |
| o China | o India |
| o Nepal | o Pakistan |



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