



Discussion Paper
Series No. MEI 95/10

Mountain Tourism for Local Community Development

A Report on Case Studies in Kinnaur District H.P. and the Badrinath Tourist Zone

**Academy for Mountain Environics,
Dehra Dun**

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Published by

International Centre for Integrated Mountain Development
G.P.O. Box 3226,
Kathmandu, Nepal

Typesetting at ICIMOD Publications' Unit

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Mountain Tourism for Local Community Development

A Report on Case Studies in Kinnaur District H.P. and the Badrinath Tourist Zone

Area 37

From

City

Overview Study

Academy for Mountain Environics, Dehra Dun

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MEI Series No. 95/10

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October 1995

International Centre for Integrated Mountain Development
Kathmandu, Nepal

Preface

The present Discussion Paper is one in a series of papers related to Mountain Tourism that have resulted from a NORAD-funded project entitled "Mountain Tourism for Local Community Development". The Project was initiated in 1994 with the objective of reviewing the status of mountain tourism in selected regions of the HKH (the mountains of Uttar Pradesh and Himachal Pradesh in India, Nepal, and the Northern Areas and North West Frontier Province in Pakistan), identifying the key issues with respect to mountain tourism and economic and environmental development of local communities, undertaking location-specific, in-depth investigation on the key issues, and developing a framework for Action Plans for sustainable mountain tourism and local community development in the case study areas.

The overview studies have already been published in the MEI Discussion Paper Series. The present paper is a case study on Mountain Tourism for Local Community Development in Kinnaur District, Himachal Pradesh, and Badrinath Tourist Zone, Uttar Pradesh hills in India. The thematic focus is on the inventory of tourism resources, the nature and perception of the various impacts of mountain tourism, carrying capacity considerations, perception of the linkage between tourism and community development, and the development of a framework for the Action Plan and Guidelines for Sustainable Mountain Tourism oriented towards local community development in the case study areas.

The case studies from Nepal and Pakistan are also published in the MEI Discussion Paper Series.

On behalf of ICIMOD, Dr. Pitamber Sharma is the Project Coordinator as well as the technical editor of these papers.

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Introduction

This chapter provides an introduction to the study. It presents, in brief, a background, and it identifies the major issues and specific objectives of the case study phase of this research programme. Towards the end, it summarises the outcome in relation to each of the major objectives and also indicates the organisation of this report.

Background to the Case Study on Mountain Tourism

This report is part of the NORAD-sponsored ongoing research programme on Mountain Tourism for Local Community Development in the Hindu Kush-Himalayan region being coordinated by the Mountain Enterprise and Infrastructure Division of ICIMOD. The Academy for Mountain Environics, Dehradun, which incorporates the activities of the erstwhile TARU, Dehradun, has been participating in this research endeavour. An overview report on the state of Mountain Tourism in Himachal Pradesh and the hills of Uttar Pradesh has been prepared.

The second phase of the research programme concentrated on attempting a draft action plan for Mountain Tourism Development in two specific areas in each of the participating nations. This report presents the methods and processes used in the case study, elaborates the concern regarding 'carrying capacity', and draws up a draft action plan for Kinnaur district of Himachal Pradesh and the Badrinath Tourist Zone of the Garhwal Himalayas in Uttar Pradesh.

Major Issues for Investigation

The overview assessment and detailed evaluation of the scope of mountain tourism indicates the need to investigate a number of issues. The critical among them include the following.

1. Is mountain tourism, in the specific areas, already an important development intervention? To what extent does it have a role?
2. Can mountain tourism directly address the concerns of poverty alleviation and gender inequities?

3. What are the limits in terms of 'carrying capacity', including the acceptable levels of tolerance in hosting tourists as perceived by the community and also acceptable to the tourists?
4. What are the constraints in tourism development, and what strategic thrusts are required?
5. How can a policy-programme-plan-project continuum be established to promote tourism as one option for local community development ?

Objectives of the Case Studies

As a rational sequence to the overview studies, the overall objective of the case study programme is to develop an action plan and an implementation framework for sustainable tourism in the specific destinations. The specific objectives are as follow.

1. To prepare an inventory of biophysical, socioeconomic, and infrastructural resources in Kinnaur district and the Badrinath Tourist Zone of the North-west Indian Himalayas.
2. To classify and categorise broad tourist zones, in terms of routes or areas and various experience zones, to enable the prioritisation of actions.
3. To evaluate singular and synergetic impacts on the environment and map the perceptions of the local people on the seriousness of the impacts.
4. On that basis, to set and determine the 'carrying capacity', to assist in making decisions about acceptable visitor use and the infrastructural and managerial support systems required, and to express critical thresholds in terms of 'communicable indicators'
5. Then, through such a process as given above, to develop specific action plans and implementation frameworks for Kinnaur district of Himachal Pradesh and the Badrinath Tourist Zone in the Uttar Pradesh hills.

Rationale for the Choice of Kinnaur District

1. Kinnaur has very recently been opened to tourism by changes in 'inner-line' permits and other restrictions.
2. There is total uncertainty in the policy environment, and the local administration, which will be directly responsible, seeks assistance.
3. Kinnaur has the twin advantages of a diverse physical environment with Cis and trans-Himalayan habitats and their cultural diversity.
4. The region claims a Puranic link with the Pandavas and the community still practices polyandry. However, the most important aspect is the relatively

- better status of women. This is also reflected in their higher, formal educational level. Therefore, it offers an opportunity to better appreciate the cultural dimension and impact that tourism has, and can potentially have, in a different setting.
5. Horticulture came to Kinnaur two decades earlier, and this has made the region relatively stronger in terms of its economy. Thus, the impact of tourism, in an area that has seen some development, is well documented.
 6. There are specific plan-layouts which have been made and intervention, now, can directly demonstrate the utility of this project to the user agencies.

Rationale for the Choice of Badrinath Zone

1. Badrinath is an important pilgrimage centre, and over 80 per cent of the people coming to the region are pilgrims. The fact that large numbers of people have been coming since time immemorial could give us some insights into the factors contributing to sustainable tourism. The region also draws Sikh pilgrims and, therefore, also shows a diversity of pilgrim traffic.
2. Among the emerging areas of tourist interest, some areas offer the potential for understanding the possibility of extending the tourist season and length of stay of tourists. The Valley of Flowers (Bhyundar Valley) offers a unique situation for a popular destination. Fortunately, this ecological wealth is not unique to the Valley but can refer also to a dozen other high-altitude alpine meadows (*bugyal*[s]). This gives a wider applicability to the understanding of Bhyundar *bugyal*.

A small part of Bhyundar Valley has been declared a National Park, and most of the tourists to the Valley are satiated with the first few kilometres of walking/camping there. This has caused tremendous pressure on some of the camping grounds and areas around them, which are being so trampled that regeneration has stopped. Concern has been raised, in various quarters, about the 'carrying capacity' of the Valley, and it would be pertinent to address this concern.

3. The Valley is generally visited during the late pre-monsoon and post-monsoon pilgrimage seasons. Most often the pre-monsoon visitors are disappointed, as the rhythms of flowering seem to have altered and a very limited range of flowers is seen during the pilgrimage season. The documentation of the rhythmic cycles of flowering would add a temporal dimension to the understanding of environmental disturbances and also enable the identification of periods when tourism can be best promoted.

4. The *bugyal(s)* have a strong linkage with the social economy of the high-altitude settlements. During the rainy season, the cattle are taken to these high altitude meadows, often by the elder members of the family. This brings in an element of concern for the maintenance of the regenerative capacity of the *bugyal(s)*. If the local people understand the value of tourism, and evaluate their own ability to participate in it, this can provide the basis for people's participation and enable them to capitalise on their resources. Unfortunately, they are not at all involved in the current tourism profile.
5. In order to increase the length of the tourist season in this region, the Government of India, through its corporation, started the Auli Ski Centre. The nodal point of the region is Joshimath. In the last three years, National Winter Sports have been conducted twice in Auli. However, skiing is not yet popular among Indians, and Auli is unknown to foreigners.
6. Studying the area can enable the documentation of the range and diversity of tourists, from pilgrims to trekkers; this will certainly add value to the research programme.

The Organisation of This Report

1. The first chapter is the introduction.
2. The second chapter elaborates upon the methodological framework and presents the context of the application in each of the case study areas.
3. The third chapter presents an inventory of the tourist resources of Kinnaur district of Himachal Pradesh and the Badrinath Tourist Zone of Chamoli district of Uttar Pradesh.
4. The fourth chapter details the specific nature of the impact and implications of mountain tourism. It investigates the role of mountain tourism as a means of poverty alleviation, as well as its scope as a positive development intervention.
5. Chapter Five provides the linkage of the methodological pursuits of this research programme, the specific case study situation, and the practical requirements of the tourism sector to contribute to local community development. The core theme of this chapter is the concept of tourism carrying capacity and its practical applications.
6. Chapter Six sets up the agenda for tourism in the context of the local communities and attempts a framework and action plan for sustainable tourism development.
7. The last chapter summarises the situation in the two selected areas and makes specific recommendations. It also uses the results of the case studies to lay out a broad strategy for the region.

Summary of Inferences on Major Issues

Issue	Kinnaur District	Badrinath Tourist Zone
Is mountain tourism already an important development intervention? To what extent does it have a role?	Tourism has really yet to begin. Even over the next 10 years, it is likely to have a very minor role.	Tourists trebled in the last two decades. The role of tourism in local development became negligible after the road to Badrinath was built.
Can mountain tourism directly address the concerns of poverty alleviation and gender inequities?	The poor have not the skills to provide priced products and services to the current types of tourists. On the contrary, tourism may destroy the commons and impoverish the poor. The Gender inequities are low and tourism can be of little aid.	The communities that live in villages that are away from the road are relatively poorer. They are skilled in knitting and weaving. Tourism could help these marginal communities if properly targeted. Gender concerns are not an issue at all.
What are the limits in terms of 'carrying capacity'? acceptable levels of tolerance for hosts, also acceptable to tourists?	Over 10,000 people-days, twice the current number, spread over the various centres, could be physically hosted. However, returns from investing in tourism are much slower and less efficient than orchard cropping. The need for tourism is debatable.	While specific limits exist for every site, the area can accommodate a 10% rise from the present annual 5 lakh over the next decade. The promotion of high-investment elite tourism will create a conflict with local communities.
What are the constraints in tourism development and what strategic thrusts are required?	Communications and the climate reduce the time-spread. Equity should be accorded higher priority if the role of tourism is to be enhanced.	Communications, the climate and the norm for opening the temple, reduce time-spread.
How can a policy-programme-plan-project continuum be established to promote tourism as one option for local community development ?	The policy-programme linkage has to be made explicit. Specific research inputs are needed to assess alternative projects. Tourism has to piggy-back on horticulture and be reinforced positively.	The prevailing uncertainty restricts any useful inferences. A policy needs to be formulated and the necessary institutional mechanisms need to be developed.

Methodological Considerations and Processes Adopted

Development of the Methodological Framework

There were three principal strands of ideas and efforts which culminated in the evolution of this methodological framework. The core issue is the devising of a viable process for sustainable development in mountain environments.

The first main group of ideas presents the definitional and conceptual underpinnings of sustainable development, the attributes of which can express the state of ecological harmony and the operatives of which include the transformation tools. This has emerged from a series of projects and research programmes undertaken in different parts of India by some of the members of this research team and other organisations. This has been presented in the overview study and will only be related to this study when the report is synthesised.

The second, and perhaps the more critical, dimension to the methodological development process is the current research programme itself. It focusses on the ecological concept of 'carrying capacity', and has adapted it to express the context of mountain tourism in the case study areas. The central feature of this strand is the idea of 'tourism carrying capacity' and the development of acceptable limits in terms of critical variables and linkages. This is described and adapted in the current analysis.

The third strand is from a rather unfamiliar terrain in development research, particularly tourism. It has emerged from the area now loosely defined as 'information sciences'. The similarity in plan synthesis tasks and many problems of artificial intelligence, including language comprehension, led us to explore some of the artificial intelligence models that directly address problem solving tasks. This was to enable the derivation of specific principles for problem-solving, which provide a direct link between the conceptual basis of sustainable development and the operational context of tourism carrying capacity in the specific regions. This will be elaborated upon when the database being developed (TRIP or Tourist Research Information Package) is integrated with an 'intelligent' model to enable the assessment of alternatives and options in the activities.

At the current stage of research, this eclectic combination of tools to deal with developmental decision-making should be considered necessary, as only such means allow us the required diversity to match the complex problems of mountainous regions. However, this draft report does not elaborate upon the theoretical basis for such a need.

Methodology Adopted for the Case Studies

The methodology has been, more or less, common for both the case studies. In the process, there have been adaptations. While the basis of the design of the methodology is complex, reflecting the nature of the problem, the processes have been applied in a simplified manner.

In each region, an inventory of tourist resources has been carried out. This has been used to provide an overview of the specific area and also to draw out critical resources. The nature and type of the impacts and implications of tourism development have been described. Various parameters, constituted to provide for carrying capacity, have been identified in terms of three different factor sets - environmental, socioeconomic, and institutional. The critical variables and critical linkages have been highlighted.

Tools Used in Data Gathering

Structured Questionnaire

A structured questionnaire was prepared for canvassing in the case study areas. The questionnaire proved useful among the people of the adjoining villages and the people in the settlements. In Kinnaur, 37 out of 40 people responded. Only 25 of them expressed opinions and gave information for most of the questions. In the Badrinath area, the idea of the questionnaire was abandoned, and free discussions were held on the basis of the questionnaire.

A few important inferences could be drawn from the responses from the structured questionnaire. In the case of Kinnaur, they helped to ascertain the perceptions of the people on tourism and government agencies, their primary dependence on horticulture, and their perceptions about the possible influences and impacts of tourism on the region. In the Badrinath Tourist Zone, though this effort was more restricted, it helped to gain an insight on how people perceived tourists, the administrative structures they are given, and the impacts of various activities on the cultural and environmental aspects.

A structured questionnaire is not useful for interviewing government officials and people in the tourism trade. Even among citizens, open group discussions, involving two to three people and one to two team members, were essential to reconfirm views or enable easier articulation.

Check-Lists

Specific check-lists with specific functions were prepared for discussion. These were based on the various sets of questions suggested in the review meetings. Sometimes there was only one issue discussed in detail with an official. Some examples are:

- the problems of marketing destinations in Kinnaur, and other far flung areas, with the general manager (GM) (Marketing) of a state agency;
- public relations, in a period of uncertainty with the Public Relation's Officer.
- the response to privatisation among the staff of a state Tourism Corporation.

Group Discussions

Planned and impromptu group discussions, involving three to five people, were held on overview aspects, political economy, and specific problems of tourism in the case-study areas.

Processing Secondary Data-Sets

Secondary data-sets include those from the tourism department, the district administration and its statistical offices, and plan programmes of sectoral agencies. These have been used to understand trends, and they also contain the base data on population and geography.

Critical Variables and Linkages

Identification of Critical Variables

A list of parameters was drawn up to express the limiting factors for tourism development. Those which tended to affect the carrying capacity significantly were identified.

Note on the Process of Involving Institutions

The objectives of the research programme will be best achieved only when the agencies that are involved in day-to-day implementation focus on the results. However, experiences with government agencies, NGOs and even the private sector have indicated that, if the outcome of the research programme is not seen as a result of the agencies' own interactions (See, e.g., Adaptive Env. Assessment and Management, ed C.S. Holling), the activities are not sustained.

At the initiation of the programme, the different agencies of the government were briefed about the nature and scope of the project. The views and the issues they raised were incorporated and discussed with specific officials involved in planning organisational strategies or at policy input levels. The draft overview report was shared individually.

The plan for case-studies was discussed and the agencies, and a number of individuals, in particular have provided inputs for the development of the draft action plan. After the review workshop, these findings will be presented in a series of working-group meetings.

Text Box # 1

The critical variables for the specific locations are given below (Table 2.1).

Table 2.1: Critical Variables Determining Carrying Capacity	
Kinnaur District	Badrinath Tourist Zone
Environmental Factors	Environmental Factors
<i>Kalpa-Peot</i>	<i>Badrinath</i>
<ul style="list-style-type: none"> * Waste Disposal * Drainage * Littering of Slopes * Shortage of Water * Land Degradation 	<ul style="list-style-type: none"> * Waste Disposal * Drainage * Expansion of Settlements
<i>Sangla</i>	<i>Joshimath</i>
<ul style="list-style-type: none"> * Land Degradation 	<ul style="list-style-type: none"> * Sanitation * Encroachment
<i>Pooh</i>	<i>The Valley of Flowers</i>
<ul style="list-style-type: none"> * Land Degradation 	<ul style="list-style-type: none"> * Weed Growth * Extent

<p>Socioeconomic Factors</p> <p><i>Applicable to all sites</i></p> <ul style="list-style-type: none"> * Security for Cultural Assets * Changes in Construction Practices * Already Visible Inequities 	<p>Socioeconomic Factors</p> <p><i>Badrinath/Joshimath</i></p> <ul style="list-style-type: none"> * Temple Opening * Austerity among ilgrims <p><i>Auli</i></p> <ul style="list-style-type: none"> * Affordability of Skiing
<p>Institutional and Managerial Factors</p> <p><i>Applicable to All Sites</i></p> <ul style="list-style-type: none"> * No Local Institutional Mechanisms * Shortage of Accomodation * Expensive and Scarce Local Travel 	<p>Institutional and Managerial Factors</p> <p><i>Applicable to All Sites</i></p> <ul style="list-style-type: none"> * Information Systems * Transport * Uncertainties

Identification of Critical Linkages

Apart from the constraints placed by the critical variables, there are physical and socioeconomic linkages that relate to the carrying capacity of a tourist centre. In the case study areas, the critical linkages impinge on the carrying capacity of the area. The constraints placed either restrict the total number of 'clear tourism days' or are likely to bring about an unacceptable local change. These have been identified for each of the areas (Table 2.2).

Table - 2.2: Critical Linkages for Carrying Capacity Considerations	
Kinnaur District	Badrinath Tourist Zone
<p>Physical Linkages</p> <ul style="list-style-type: none"> * Landslides and Road Links * Telephones, Other Communications 	<p>Physical Linkages</p> <ul style="list-style-type: none"> * Landslides and Road Links * Telephones, Other Communications * Trains to the Entry Point
<p>Economic Linkages</p> <ul style="list-style-type: none"> * Relationship to Orchard Farming * Increasing Migrant Labour * Mechanisms for Transaction 	<p>Economic Linkages</p> <ul style="list-style-type: none"> * Level of Outside Control * Local Perceptions about Pilgrims

Resources for Tourism in Kinnaur District

Kinnaur is a border district of Himachal Pradesh, and, with relatively less research inputs, there has not been much effort in systematically assessing the available resources, particularly from the standpoint of mountain tourism.

Recong Peo-Kalpa, an emerging twin-town, will become the first urban area in the district, being the headquarters for district administration and hosting several offices. Recong Peo is about 200km from Shimla via Narkanda, Rampur, and Karcham, from where one enters the district (Map 3.1).

Kinnaur was under the Bushr Kingdom before Independence and then a part of Shimla district. It was constituted as a separate district in 1960. Kinnaur offers the unique case of a community that is relatively prosperous and where various basic facilities, such as schools, hospitals, and electricity, are already available. Orchard farming is the mainstay of the Kinnauri economy, contributing an estimated Rs 800 million annually. Kinnaur was, until recently, virtually unknown to the outside world as there were severe restrictions on movement for outsiders. In 1994, Kinnaur received about 2,000 tourists.

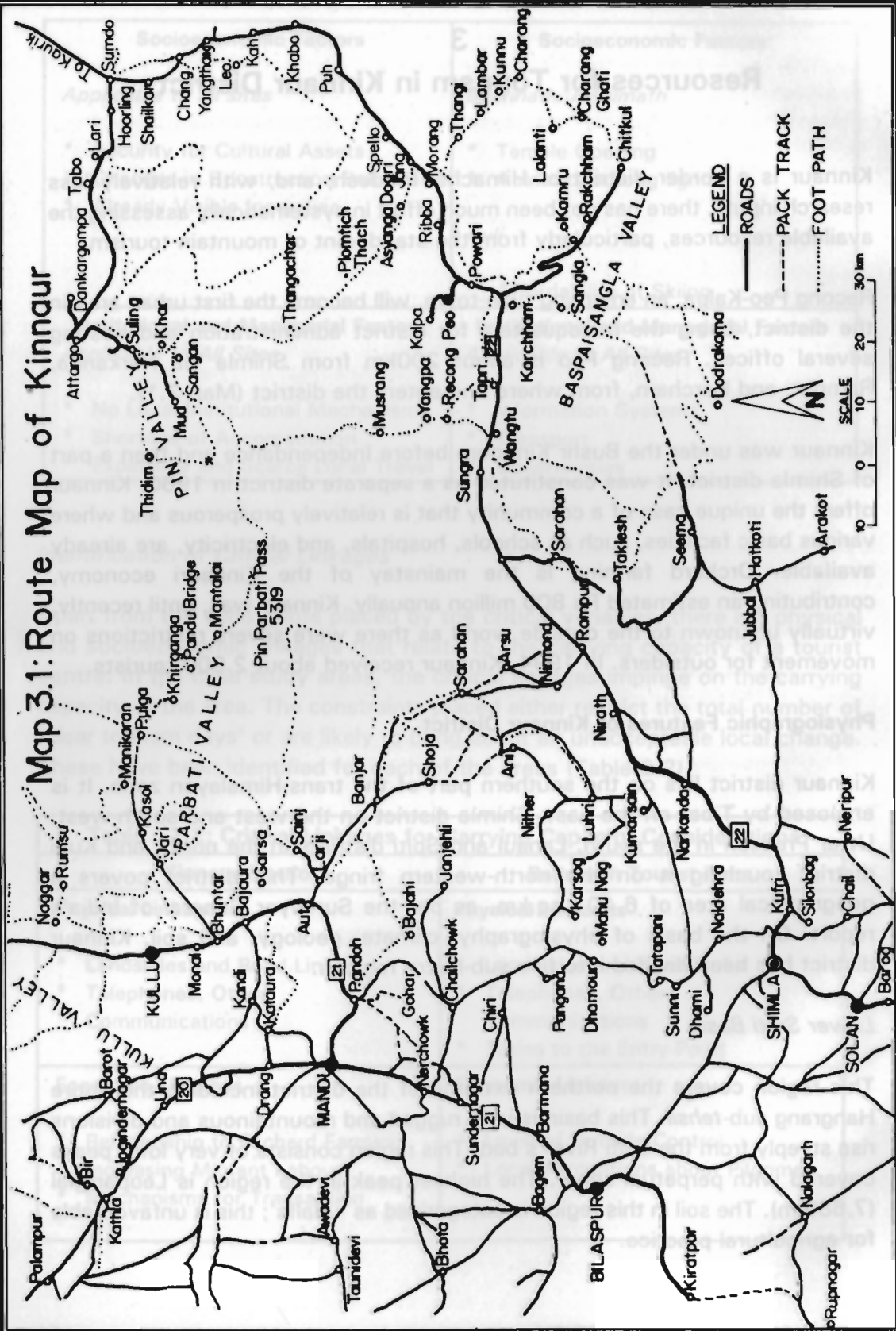
Physiographic Features of Kinnaur District

Kinnaur district lies on the southern part of the trans-Himalayan zone. It is enclosed by Tibet on the east, Shimla district on the west and south-west, Uttar Pradesh in the south, Lahaul and Spiti districts in the north, and Kulu district touching it on the north-western fringe. This district covers a geographical area of 6,401 sq.km. as per the Surveyor General of India's report. On the basis of physiography, climate, geology, and soil, Kinnaur district has been divided into five sub-micro regions.

Lower Spiti Basin

This region covers the northern extreme of the district including the entire Hangrang sub-*tehsil*. This basin is very rugged and mountainous and divisions rise steeply from the Spiti River's bed. This region consists of very lofty peaks covered with perpetual snow. The highest peak in the region is Leopargial (7,680 m). The soil in this region is categorised as 'udalfs'; this is unfavourable for agricultural practice.

Map 3.1: Route Map of Kinnaur



Eastern Kinnaur Greater Himalayas

This region includes the eastern and south-eastern parts of Kinnaur district, including large parts of the Moorang and Sangla *tehsil*(s) and some areas of the Pooh and Kalpa *tehsil*(s). The region has no population. It is characterised by perennial snow-covered peaks from which several tributaries of the Sutlej River originate. Some of the main tributaries are Baspa, Tidong, and Gyamthing gad. The highest point in this region is Kinner Kailash, with an elevation of 7,080m.

In this region, alpine humus and mountain skeletal soils are found. It has no vegetation and climatic conditions are unfavourable for human and animal habitation. It is very dry and receives rainfall during the monsoons.

Sutlej Basin

This includes the central parts of Kinnaur district. This basin is the most populated area in the whole district, and 69 of the 77 villages are situated here. The soils are classified as udalfts, orthents-ochrepts, and peri-glacial and glacial. In the summer, the climate is fairly warm on lower elevations, while the winters are rigorous.

Western Kinnaur Greater Himalayas

These Himalayas constitute the north-western part of Kinnaur district. The region covers the mountainous part of Kinnaur falliing on the right bank of the Sutlej. It has orthents-ochrepts, udalfts, and glacial soils. It is devoid of any population due to the tough terrain and climatic conditions. The peaks receive snowfall in winter and rain during the monsoons. The intensity of the rainfall decreases as one moves from west to east.

Dhauladhar

The south-western part of Kinnaur district constitutes this region. Dhauladhar is the most characteristic range of Himachal Pradesh. Its western half runs parallel to the Sutlej River, and its eastern half runs parallel to the Baspa River. One characteristic feature of the region is its numerous passes (Sathal, Nalgan, Lame etc.). The soils of the region are udalfts and orthents-ochrepts. The climatic conditions are harsh; thus, there is hardly any population in this region.

Physical Resources

Physical resources are fundamental to the evaluation of the carrying capacity of any region. These could be natural as well as built, and some also exist as a consequence of the value attached by society.

Land

Kinnaur district has a total geographical area of 6,401sq.km. A large part of the terrain is either snow-covered or so harsh that it is uninhabited. The village records of the early eighties showed the area to be only 1,685sq.km. In 1992, 2463sq.km. was entered into the village records, and the bulk of this increase is shown as forest land. This still leaves out a large part of the land, which is not under community purview.

Permanent pastures and grazing land constitute the largest segment of the used category, occupying 1,537sq.km. This is followed by barren and wastelands which occupy 341sq.km. The land under the Forest Department constitutes about 212sq.km., of which only a third has tree cover. The net sown area constitutes only 76sq.km. The land-use pattern provided (Table 3.1) should be considered indicative, as there are irreconcilable differences in data (e.g., for the year 1991-92, the Gross Cropped Area is reported to be 101.76sq.km., while the sum of the area under different crops reported in the same statistical handbook works out to be 133.88sq.km.

Table 3.1 Land Use in Kinnaur (Area insq.km.)

Total Geographical Area	6401
Area in Village Records	2234
Forests	212
Barren & Wasteland	341
Area in Non-Agricultural Use	29
Area Unfit for Agriculture	18
Permanent Pastures & Other Grazing Lands	1537
Area under Tree Crops	1
Currently Fallow Lands	16
Other Fallow Lands	4
Net Sown Area	76
Total	2234
Source Statistical Outlines of H.P., 1992.	

Land is not a constraint for various activities in Kinnaur. However, land development costs are very high, and it is only the returns from horticulture that have made it possible to bring more area under crop cover.

A comparison of the average yield per hectare (Table 3.2) of principal agricultural products indicates a very high fluctuation, reflecting the risks of cultivation.

Table 3.2: Fluctuation in Crop Yields

Crop	Yield in T/Ha		
	89-90	90-91	91-92
Cereals	0.68	0.65	1.81
Pulses	0.28	6.37	1.40
Potatoes	8.35	5.00	1.18
Oilseeds	NA	0.27	0.50

Source : District Statistical Office, Kinnaur

Horticulture, which has become the mainstay of Kinnaur's economy, began after the 1962 war when trade with Tibet was suspended. Changes in cropping patterns occurred, and orchard farming was introduced. Earlier, people used to grow crops for local consumption, and the marginal surpluses were bartered with Tibetans.

Though apples grew even earlier in the region, with the Government's initiative and incentives quality strains were introduced and a large area was brought under apple cultivation. The production of *chuli* (apricot), *chiljoja*, almonds and grapes, also increased. In 1960-61, the total area under orchards was 290ha and the production, 300 tonnes. Irrigation facilities and pesticides were simultaneously provided. The result was seen in 1970-71 when production shot up to 2,194 tonnes and the area under cultivation increased to 1,041ha.

After three decades, the production and the area under cultivation are as follow.

Table 3.3 : Area under Cultivation of Fruits in Kinnaur (ha)

Year	Area under apples	Area under other temperate fruits	Area under dry fruits	Total area under fruit cultivation
1991-92	3360.97	345.84	492.55	4199.36
1992-93	3538.17	346.34	498.71	4383.22
1993-94	3719.79	346.63	516.12	4582.54
Source : District Statistical Office, Kinnaur, 1993-94				

Over the years, the area under orchard farming has increased substantially at the expense of traditional crops like *ogla* and *fafra* (buckwheat). The area under pea and *rajma* (french beans) cultivation has also increased. Peas are the main cash crop of Baspa Valley. Apples account for nearly 80 per cent of the cultivated area and 95 per cent of the total fruit production in the district. Kinnauri apples are well received in the market and often fetch much higher prices than other apples. Apples from the Pooh region reach the markets late and, hence, fetch better prices.

Water Resources

The Sutlej and Baspa are the principal rivers of Kinnaur, and most of the settlements are along their valleys. Nearly 50 per cent of the cultivated land is irrigated through systems developed locally. Drinking water sources exist in most settlements and the quality of the water is good. Water supply is becoming a problem only in the Recong-Peo-Kalpa area and Sangla where tourists have started coming. Piped water supplies are still negligible and confined to specific places.

Table 3.4: Total Fruit Production in Tonnes

Year	Apples	Other Temperate Fruits	Dry Fruits	Total
1991-92	19188	299	585	20072
1992-93	18365	303	595	19263
1993-94	35596	405	615	36616
Source : District Statistical Office, Kinnaur, 1993-94				

During 1992-93, 222sq.km. of land were with the Forest Department, of which only 64sq.km. were forested. Thirty-eight square kilometres of this area come under the Rakchham Chitkul Sanctuary. Over 5,000cu.m. of construction timber are extracted annually from these forests (Table 3.5).

Table 3.5: Flora of the Rakchham Chitkul National Park and Sanctuary

<i>Abies pindrow</i> (Tosh)
<i>Acer pictum</i> (Mandar, Mandlu, Rikhandlu, Rikhandu)
<i>Alnus bitida</i> (Kosh, Piak)
<i>Bauhinia</i> spp
<i>Betula alnoides</i> (Bhuj, Bhuji pattara, Kathboji)
<i>Cerdus deodara</i> (Deodar, Diar, Diyar)
<i>Fraxinus</i> spp
<i>Juglans regia</i> (Akhrot, Khor, Than)
<i>Olea ferruginea</i> (Kau)
<i>Picea smithiana</i> (Tosh)
<i>Pinus gerardiana</i> (Neoza, Miri, Chilgoza)
<i>Pistacia integerrima</i> (Kakkar, Kakeran, Kakare)
<i>Populus alba</i> (Safeda)
<i>Pyrus pashia</i> (Kainth, Shegal, Shagal)
<i>Quercus dilatata</i> (Mohru, Moru)
<i>Quercus semecarpifolia</i> (Kharsu)
<i>Salix</i> spp
<i>Aconitum heterophyllum</i> (Patis, Patish)
<i>Artemisia</i> spp
<i>Berberis</i> spp
<i>Clematis</i> spp
<i>Cymbopogon</i> spp
<i>Cyperus</i> spp
<i>Picrorhiza kurrooa</i> (Kaur, Karu)
<i>Prinsepia</i> spp
<i>Rumex</i> spp
<i>Ephedra gerardiana</i> (Somlata)
<i>Ficus pumila</i>
<i>Juniperus</i> spp
<i>Smilax</i> spp

Source: Directory of National Parks and Sanctuaries, IIPA

Tourist Attractions in Kinnaur

Kinnaur has a variety of tourist attractions. A brief list, giving places and their significance, is provided.

- Rekong Peo, the district headquarters, is located at a distance of seven kilometre from Poari, by the link road diverting from the national highway (NH) at Poari.
- Bhabanagar is 35km from Rampur on the NH and is famous for its completely underground, 120 Mega Watt Power Project.
- Nichar, 18km from the NH on a link road diverting from Bhabanagar.
- Sangla, in and around which picturesque villages like Karcham, Sangla, Rakcham, and Chitkul are situated.
- Poari, 40km from Bhabanagar, having the Garrison Reserve Engineering Force (GREF) Headquarters and the only oil-filling station in Kinnaur.
- Kalpa, a beautiful place 14km from Poari on a link road, from where the Kinner Kailash can be seen.
- Kothi, three kilometre from Rekong Peo where a Pandava temple, to the goddess Chandika, is situated.
- Ribba, 16km from Poari, famous for its local brew, *angoori*.
- Moorang, 26km from Poari on the NH, famous for its apricot orchards.
- Pooh, a cold desert 58km from Poari on the NH, famous for its almonds.
- Tashigang Gompa which can be visited by making a diversion from Khab to Namgya and then trekking.
- Nako, eight kilometre from the NH on a link road diverting one kilometre before Yangthang.
- Tilasang Monastery, a kilometre's trek from Ka, which is 12km before Yangthang.

Sociocultural Overview of Kinnaur

The beauty and charm of the picturesque sites of Kinnaur have been known to people since ancient times. According to popular folklore, the Pandavas visited this place during their exile. There are various myths and stories about how the Pandavas built the Durga temple at Kothi. The Kinnauris who, until three generations ago had a strong tradition of polyandrous marriages, believe that they have inherited this practice from the Pandavas.

The myths are replete with anecdotes of the contact of the Kinnauris with the wider Hindu world. It is believed that Kamru, a village in Sangla, got its name from the ancient name of Assam, Kamrup, and that Lord Kamakhya was

brought from there. There is definitely a strong architectural similarity between the temples in Kinnaur and Assam.

Though the Kinnauris are mentioned in Hindu texts like the Puranas and have had contact with the outside world, they have been able to maintain their separate culture and traditions. The people are deeply religious, and most of their activities are not complete without a *devta* (god) coming into the picture; be it consulting a doctor or dealing with somebody afflicted by spirits, the *devta* has to be consulted lest something ominous happen. All rituals are followed by the sacrifice of a goat (*khaddu*). There are instances when, in the name of God, people have been maltreated. However, all this does not deter the people from going to the *devta*. In fact, one can hear fairly educated persons saying that, if the *devta* is not consulted, the doctor will inadvertently commit an error. It may seem an outdated way of thinking, but Kinnauris prosper with their faith in their gods and goddesses.

It is not only the Hindu gods and goddesses who are worshipped by the people, there is also a strong Buddhist following among the Kinnauris. Padamsambhava, a disciple of Lord Buddha, is believed to have landed near Nako, as a demonstration of his tantric powers. His footprints, which are believed to have been imprinted on a rock there, are worshipped. People follow Lamaistic or Tantric Buddhism. The areas bordering Tibet have a larger Buddhist following than other areas; there is a Tibetan influence in not only the type of Buddhism that is practised there, but also in other cultural aspects. For instance, in Pooh village, there were monasteries but no temples. The Kinnauris have a long history of cultural exchange and trade with Tibet which stopped after the 1962 Chinese invasion. On 16 July, 1994, after more than three decades, trade with Tibet was revived with 15 traditional items of trade being transported duty free through the Shipkila pass.

Thus, the Kinnauris have received outside influences, but these people have blended their religious and cultural ideals, with Buddhist and Hindu practices and local beliefs, in such a way that there is no conflict. A Kinnauri reveres Kinner Kailash, the abode of Shiva, as much as he respects Lord Buddha and Padamsambhava. One sees a *lama* performing all the marriage rites in front of the *devta*. Many a time it is seen that, if the father of a family dedicates his time to reading Hindu scriptures like the Ramayana, the mother reads Buddhist *pothis* instead.

The religious life of the people is highly organised. Every house in the village is supposed to send one person for rituals involving the *devta*, and this is diligently followed. Besides guarding the temples, the villagers also contribute

to their upkeep. The property of the village temple is used in cases of natural calamities and other crises. Even though changes are coming about in people's religious beliefs (e.g., a Kothi villager adopting Christianity; the city-bred refraining from religious duties), it is religion that has bound the society and allowed its vibrant culture to persist.

Status of Women

It is generally seen that women in tribal societies enjoy a much higher status than Hindu, Muslim, or even Sikh women; Kinnauri society is no exception. Hard-working Kinnauri women, who work more than their male counterparts, are highly respected in the society. They not only perform their household duties but also work in the fields. They are given quite a lot of importance as far as decision-making regarding family matters are concerned.

The women enjoy freedom of movement and interaction. It is noteworthy that, unlike in other parts of India, a Kinnauri woman does not wear any mark of her marital status. No social stigma is attached to the widow or unmarried woman. In the sphere of education, no distinction is made between the male and the female child. Education has also helped to bring about a change in the marriageable age, in some cases. However, though the women enjoy quite a high status, they are not allowed to enter the sanctum sanctorum of the temples. This is because of the various types of pollution thought to be associated with women. Even though female children are brought up with care, a preference for male children still exists in Kinnauri society.

Education and Literacy in Kinnaur

The level of education is an indicator of the general awareness in any society. Kinnaur, which is a tribal area, falls below the State Average Literacy Rate by almost five per cent. Kinnaur had a 58 per cent literacy rate in 1991, when the state average was 64 per cent. Another important feature, shown in the same data, was the discrepancy between the literacy rates of males and females. Along with Chamba, Kulu, and Lahaul Spiti, Kinnaur had a discrepancy of about 30 per cent between male and female literacy rates.

The most important feature of development, as shown in the Annual Tribal Sub-plan 1994-95, is that there has been a phenomenal increase in the literacy rate of females. In the decade from 1981 - 1991, the growth rate has been as high as 98 per cent, while the growth rate in male literacy was 45 per cent.

A distinctive feature, apparent from the 1991 data, is the high drop-out rate among the Scheduled Caste and Scheduled Tribe children of Kinnaur (Table 3.6).

A college, licensed to award degrees, is coming up at Rekong Peo. Though there has been no substantial increase in the number of teachers, students, or educational institutions, the most striking change one can find is in the attitude of the people. Aware of the fact that they have seats reserved in many prestigious institutions for higher studies and government services, education is regarded as an important route for social and economic mobility.

Table 3.6: Schools, Teachers and Scheduled Castes and Tribes Enrollment

Segment	I - V	VI - X	X - XII
No. of Schools	165	27	24
No. of Teachers	365	152	225
Scheduled Castes	2700	700	250
Scheduled Tribes	5320	2520	1070
Source: District Statistical Office, Kinnaur			

In all the villages one can see that children of both sexes are sent to school. At least in matters of education, no major distinction is made between the sexes, unlike in most other parts of the country. In fact, their daughters study when their sons are often indifferent and prefer to work in the orchards. The Deputy Commissioner of Kinnaur conducted an educational survey which indicates that Kinnaur could be declared a fully literate district.

The rich, mostly orchard, farmers send their children to Chandigarh, Shimla, Delhi, or Bombay for higher education. Education has taken the womenfolk away from their orchard duties. Changes among the boys, particularly those educated outside, are more pronounced. For instance, the awe and respect for the local deity is decreasing among the young and educated people, and fewer volunteer to undertake temple duties.

Economic Characteristics and Trends

Kinnaur has a predominantly agricultural economy. Even though it is a mountainous region, the soil has a rich humus content which makes it a very productive region. People grow crops ranging from peas, *rajma*, *ogla*, and *fafra*

to apples and apricots. Even with small holdings, sustenance has been maintained by adequate diversity.

Wasteland and pastures form the predominant land types in Kinnaur. Even the proportion of area under forests is abysmally low, at 9.88 per cent. Only four per cent of the total area is available for cultivation. Nearly 88 per cent of the villages are on the banks of the Sutlej River in the central region of the district where the soil is the best. Cropping intensity (1.17) is much below the state average (1.67).

Trade with Tibet stopped after the 1962 war. Changes in cropping patterns occurred, and orchard farming was introduced. Earlier, people used to grow for local consumption, and the marginal surpluses were bartered with the Tibetans.

Though apples grew even earlier in the region, with the Government's initiative and incentives, quality strains were introduced and a large area was brought under apple cultivation. The production of *chuli* (apricot), *chiljoza*, almonds and grapes also increased. In 1960-61, the total area under orchards was 290ha and the production 300 tonnes. Irrigation facilities and pesticides were simultaneously provided. The result was seen in 1970-71, when production shot up to 2,194 tonnes and the area under cultivation went up to 1,041ha.

After three decades, the production and the area under cultivation are as follow:

Table 3.7 : Area under Fruit Cultivation in Kinnaur (ha)

Year	Area under apples	Area under other temperate fruits	Area under dry fruits	Total area under fruit cultivation
1992-93	3538.17	346.34	498.71	4383.22
1993-94	3719.79	346.63	516.12	4582.54

Source: District Statistical Office, Kinnaur

Over the years, the area under orchard cultivation has increased substantially at the expense of traditional crops like *ogla* and *fafra*. The area under pea and *rajma* cultivation has also increased. Peas are the main cash crop of the Baspa Valley.

Apples account for nearly 80 per cent of the cultivated area and 95 per cent of the total fruit production in the district. Kinnauri apples are well received in

the market and often fetch much higher prices than other apples. Apples from the Pooh region reach the markets late and, hence, fetch better prices (Table 3.8).

Table 3.8 : Total Fruit Production in Tonnes

Year	Apples	Other Temperate Fruits	Dry Fruits	Total	Approximate Value(Rs) In Million
1991-92	19188	299	585	20072	400
1992-93	18365	303	595	19263	380
1993-94	35596	405	615	36616	800
Source: District Statistical Office, Kinnaur (Values Estimated from Market Price by AME)					

Orchard farming has led to a large inflow of money into the area. This has heightened the inequities through a set of factors.

- The size of landholdings, which range between 0.5ha to 50ha (larger holdings often belong to Rajputs and the small holdings are government-distributed plots owned by the Scheduled Castes).
- The age of plants found in orchards belonging to the higher castes (higher castes having been early adopters of change)
- Location, intrinsic capability, and availability of infrastructure.
- Vulnerability of the crops to erratic rainfall, hailstorms, and cloudbursts, and their ability to bear the risks.

The area around Ribba is famous for grapes and the local brew, *angoori*, which could acquire a market of its own.

Household industries employ a mere five per cent of the people. The Government has opened two Industrial Training Institutes at Re Kong Peo, and subsidies and other incentives are being given to promote the handicraft industry. An interest in the Kinnauri costume has emerged among metropolitan people because the National Institute of Fashion Technology won a national award for Kinnauri designs.

The construction industry is another sector that has offered additional opportunities for employment. Some of the large orchards also employ workers, some of whom are from outside the state. Many are engaged in pastoral activities and, except for wool, their other products are consumed locally.

The Government's Plan for Kinnaur

Kinnaur has been included in one of the new tourist circuits (Sangla - Kalpa - Nako - Pooh - Tabo - Kaza - Rangrik) with Sangla as one of the destinations for focussed action in the **Five-Year Master Plan for Development of Tourism in Himachal Pradesh**. The proposed government activities for the development of tourism in the district are as follow.

Improvement of Infrastructure

- a. Telecommunications. Provision of STD facilities and the strengthening of local telephone exchanges at Sangla.
- b. Construction of Bus Stands. Setting up/improvement of bus stands at Sangla, Rekong Peo, and Pooh.
- c. Civic Amenities. The following financial allocations have been made.
 - i) Rs one million each has been proposed for strengthening and improving the existing drainage and sanitation system, developing parks, and undertaking landscaping works at Rekong Peo, Kalpa, and Sangla.
 - ii) Rs one million each has been allocated for the construction of vehicle parking spaces at Rekong Peo, Kalpa, and Sangla.
 - iii) Rs 5.7 million has been allocated for the development of sewerage facilities at Rekong Peo.
- d. Accommodation. Setting up of a tourism complex (with 20 rooms) at Sangla by the Himachal Pradesh Tourism Development Corporation with an allotment of Rs 10 million.
- e. Amusement and Recreation. Setting up of club houses at Rekong Peo.

In an effort to promote new tourism activities, e.g., certain leisure activities and active outdoor recreation, the Government proposes to start the following to create an ambience for tourism diversification and tourism-related product development.

Tourism Clusters

Setting up of a tourism cluster at Rekong Peo, at an estimated cost of Rs three crores, to provide infrastructural facilities like roads, drinking water, electricity, telecommunication facilities, and other civic amenities.

Paying Guest Accommodation

The Government has proposals for introducing paying guest accommodations which would, consequently, involve large-scale public participation in the tourism development process of the state, the benefits of which would accrue to the local people. This could be particularly relevant for Kinnaur where, being a tribal area, no outsider can purchase land to set up accommodation facilities.

Wayside Facilities

Development of wayside facilities, consisting of cafeterias, souvenir shops, daily needs' shops, parking places, toilet blocks, benches, and wayside kiosks at Bhabanagar, Powari, Pooh, and Chitkul. Rs two million each has been allotted for such facilities.

Promotion of Adventure Tourism

- a) Skiing: Among other activities, the Department of Tourism proposes to start ski runs in certain places. Though Kinnaur has not been listed, the District Commissioner mentioned Kalpakhand as a potential skiing site which could be developed.
- b) Trekking: Trekking is being organised as a major tourism activity today. The Government proposes to develop and publicise trekking with an annual outlay of Rs 10 million. Kinnaur offers several trekking routes, the most famous being the Kinner Kailash route.
- c) Rescue and safety: Keeping in mind the fragile landscape of Kinnaur and, hence, the necessity for rescue and safety (including the provision for mobile medical facilities), it is surprising that there is no financial allocation for such coverage in Kinnaur.
- d) Eco-tourism: With a view to harnessing the tourism potential of forests and wildlife sanctuaries, the Government proposes to develop tourist facilities such as parking places, benches, parks, and bird watching towers. Mention should be made of Lippa and Chitkul in this context.
- e) Camping Tourism: Kinnaur is not listed with the places identified as potential sites for camping tourism. However, it can be said that Kinnaur has various sites to offer where tents could be pitched. It should be mentioned, in this respect, that the DC felt that tents could be provided on a rental basis.
- f) Shilpgram: The Government proposes to start a *shilpgram* at Rekong Peo at an estimated cost of Rs 7.5 million to promote handloom and handicraft items like Kinnauri shawls, caps, and angora products, besides other

horticultural and agro-based products. Live demonstrations and displays of crafts and horticultural products have also been proposed.

g) Fairs and festivals: The Government proposes to encourage the festivals of Kinnaur to promote tourism in the state.

h) Publicity and promotion: The Government proposes to undertake large-scale publicity and promotion efforts through media, trekking/city/circuit maps, brochures, and other such materials.

i) Surveys and statistics: To implement such activities, surveys and statistics have been proposed.

The Budget Provision for 1993-94 in the 'Annual Tribal Sub-plan 1993-94 - ITDP Kinnaur Scheme-wise Budgeted Outlay and Expenditure under the State Plan' for Kinnaur is Rs 0.25 million, but it has been diverted to other areas.

Resources for Tourism in the Badrinath Zone

The Badrinath Tourist Zone (Map 4.1), as delineated for this study, falls in the northern part of Chamoli district, within the Joshimath *tehsil*. The Joshimath *tehsil* is the northernmost area of Chamoli district, parts of which lie in the trans-Himalayan zone. Chamoli district hosts the two most venerated shrines of Badrinath and Kedarnath.

Physiographic Features of the Badrinath Zone

Though the region is small, the physiography is varied. There are three different divisions that constitute the region.

The Zaskar Range

A very small portion of this range falls in the north and north-eastern parts of the region. The altitude varies from 4,000 to 7,750m. There are about 3,000 people living in this physiographic regime spread over a dozen villages. Mana, north of Badrinath, is the last village in the North. Malari is an important village on the banks of the Dhauliganga.

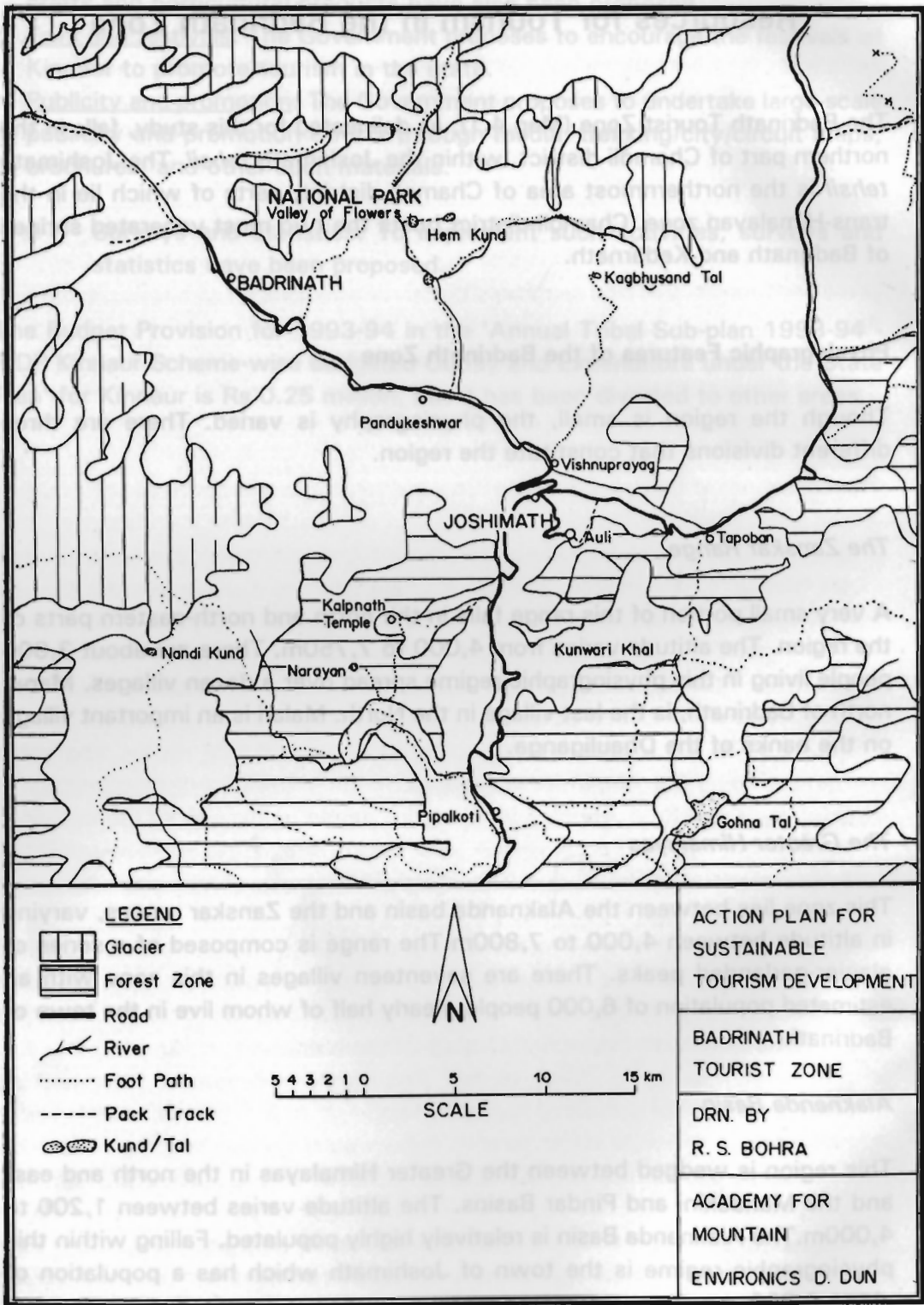
The Greater Himalayas

This zone lies between the Alaknanda basin and the Zaskar ranges, varying in altitude between 4,000 to 7,800m. The range is composed of a series of glacier-garlanded peaks. There are seventeen villages in this zone with an estimated population of 6,000 people, nearly half of whom live in the town of Badrinath.

Alaknanda Basin

This region is wedged between the Greater Himalayas in the north and east and the Mandakini and Pindar Basins. The altitude varies between 1,200 to 4,000m. The Alaknanda Basin is relatively highly populated. Falling within this physiographic regime is the town of Joshimath which has a population of about 9,000.

Map 4.1 Badrinath Tourist Zone



Physical Resources

Physical resources of land, water, and forests are abundant, although their utilisation for local community development is still not managed well, despite a long history of human activity in the region.

Land

The Joshimath *tehsil* has a total area of 841.89sq.km. Nearly 50 per cent of the land in the *tehsil* is cultivable wastes and another two-fifths is uncultivable, as it is either under permanent snow cover or is bereft of any soil. The cultivable agricultural land is just about five per cent of the total land area. Forests cover less than five per cent (Figure 4.1).

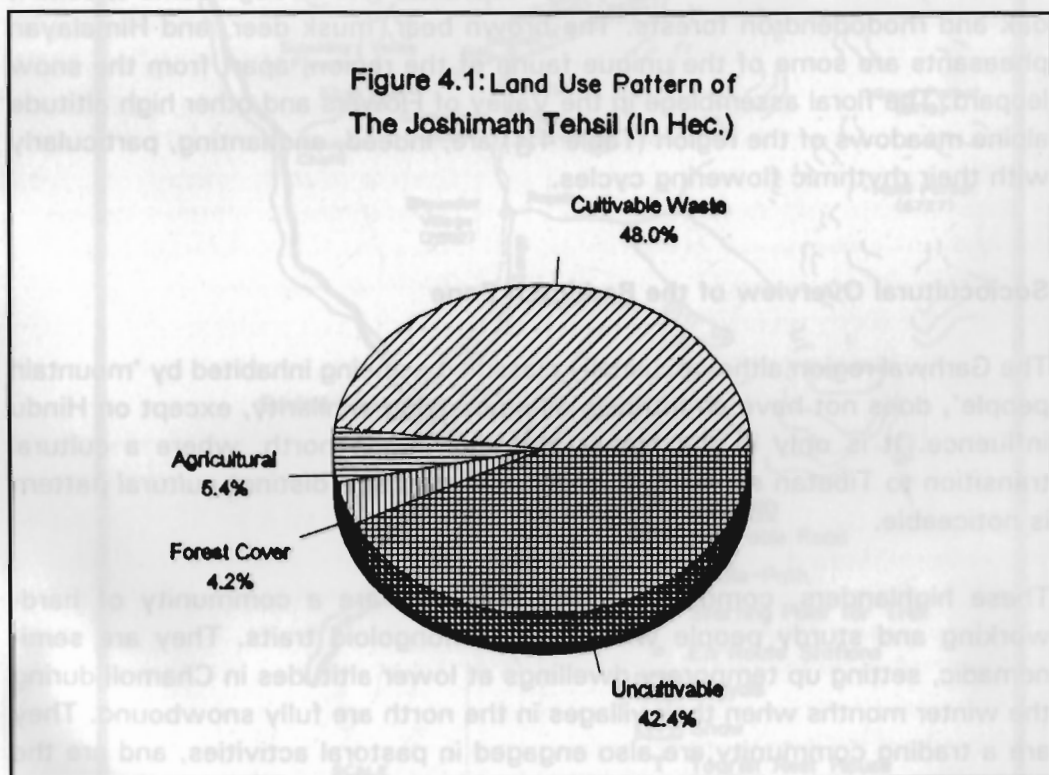


Figure 4.1 Land Use Pattern of Joshimath *Tehsil*

Water Resources

Water resources are abundant, yet there is a physical difficulty in accessing water from the main rivers. Natural springs abound, and, apart from the smaller streams, they are the main source for local villages. Piped water supply

is limited to settlements along the main road. Water supply is highly dependent on the electricity, which is only notionally available, as for long periods there is no supply. Even in the town of Badrinath, a fifth of the households depend on the Rishi Ganga River without any supply network. There is a hot spring at Badrinath with considerable flow, and it is used invariably by every pilgrim for bathing before prayers at the temple.

Forests

Though the forest area is comparatively small, some of the forested tracks in the region are extremely diverse in terms of their floral assemblage. On the trek from Govindghat, on the main road to the Valley of Flowers, one passes through thick forests of oak, rhododendron, and birch (Map 4.2). Similarly the Joshimath - Auli - Gorson - Kuari Pass Trek takes one through some excellent oak and rhododendron forests. The brown bear, musk deer, and Himalayan pheasants are some of the unique fauna of the region, apart from the snow leopard. The floral assemblage in the Valley of Flowers and other high altitude alpine meadows of the region (Table 4.1) are, indeed, enchanting, particularly with their rhythmic flowering cycles.

Sociocultural Overview of the Badrinath Zone

The Garhwal region, although usually classified as being inhabited by 'mountain people', does not have an intrinsic all-embodying similarity, except on Hindu influence. It is only in the higher altitudes in the north, where a cultural transition to Tibetan ethnicity is encountered, that a distinct cultural pattern is noticeable.

These highlanders, commonly called *bhotia(s)*, are a community of hard-working and sturdy people with distinct Mongoloid traits. They are semi-nomadic, setting up temporary dwellings at lower altitudes in Chamoli during the winter months when their villages in the north are fully snowbound. They are a trading community, are also engaged in pastoral activities, and are the ones who have been most affected by the breakdown of trading links with Tibet after the Indo-China war of 1962. The two major clans of *bhotia* in the region are the Marchhaya and Tolcha. Mana village, near Badrinath, is the chief settlement of the Marchhaya clan; the Tolcha clan is largely settled in Malari, in the Niti Valley. From a prosperous trading community, the *bhotia* have been reduced to impecunious conditions, and they make a living by selling some of their woollen products in the pilgrim centres and finding occupations as porters and mountain guides.

Map 4.2: Trek Route to the Valley of Flowers

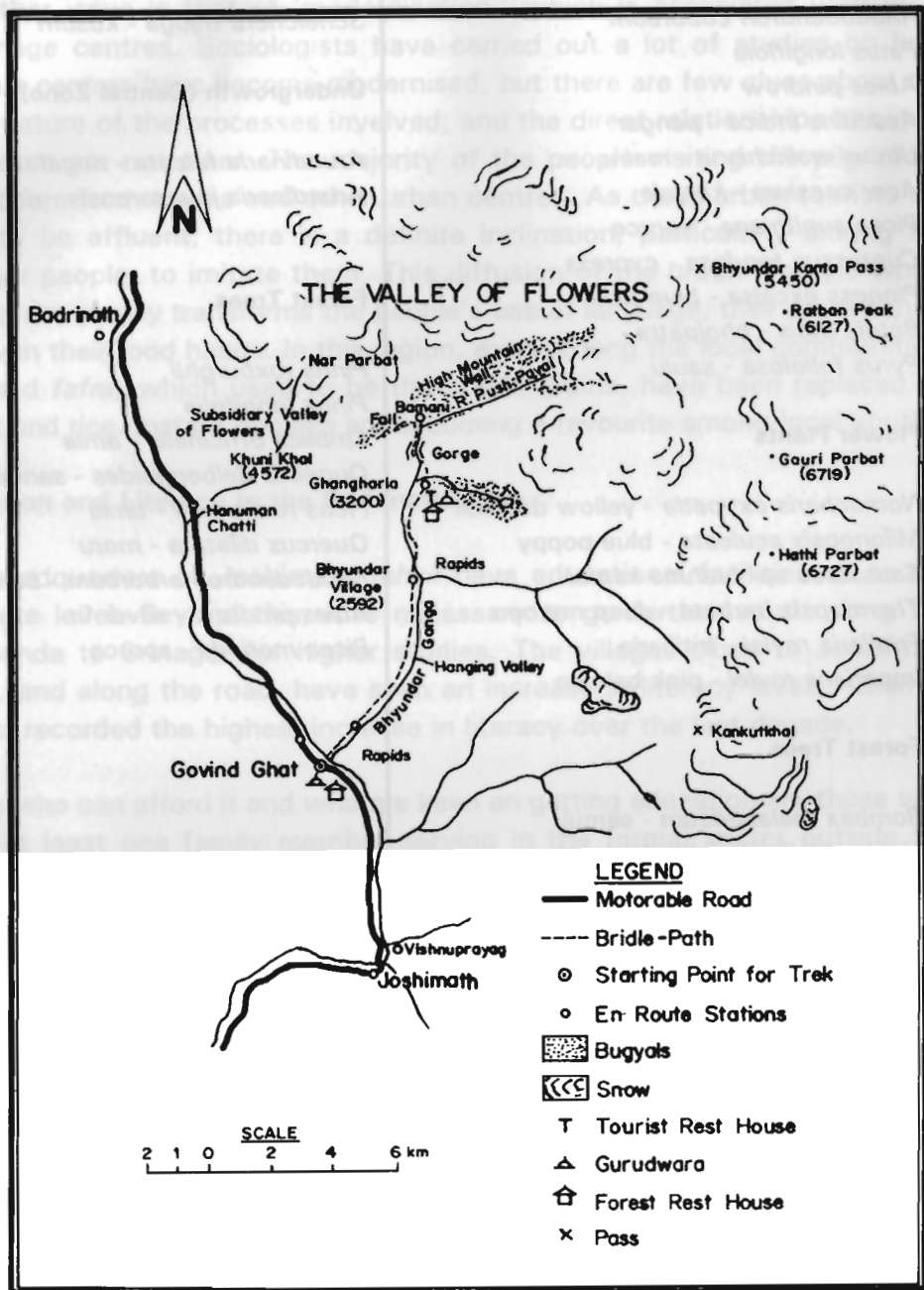


Table 4.1: Flora of the Valley Flowers

<p>Forest Trees</p> <p><i>Rhododendron coboreum</i> <i>Pinus longifolia</i> <i>Abies pindrow</i> <i>Aesculus indica</i> - pengar <i>Ulmus wallichiana</i> - mairu <i>Acer caesium</i> - kanjula <i>Picea sunithiana</i> - spruce <i>Cupressus torulosa</i> - cypress <i>Pinus excelsa</i> - blue pine <i>Betula utilis</i> - bhojpatra <i>Pyrus foliolosa</i> - saulu</p> <p>Flower Plants</p> <p><i>Nomocharis oxypetla</i> - yellow daffodil <i>Mllonopsis aculeata</i> - blue poppy <i>Saussurea sp- brahma kamal</i> <i>Thermopsis barbata</i> - deep maroon <i>Fritillaria roylei</i> - fritillaria <i>Impatiens roylei</i> - pink balsam</p> <p>Forest Trees</p> <p><i>Bombax malabaricum</i> - semul <i>Haldu</i> - <i>Adina cordifolia</i> <i>Dhaura</i> - <i>Lagerstroemia perviflora</i> <i>Amaltas</i> - <i>Cassia fistula</i> <i>Dudhi</i> - <i>Holarrhena antidysenterica</i> <i>Jhingan</i> - <i>Lanner grandis</i> <i>Timber</i> - <i>Garuga pinnata</i> <i>Rara</i> - <i>Randia longispina</i> <i>Dathber</i> - <i>Zizyphus xylopyra</i></p>	<p>Ornamental Forest Tree</p> <p><i>Scheichera trijuga</i> - kusum</p> <p>Undergrowth (Central Zone)</p> <p><i>Arundinaria falcata</i> - ringal <i>Arundinaria jaunsarensis</i> - ringal</p> <p>Forest Trees</p> <p><i>Pinus roxburghii</i> <i>Pinus longifolia</i> <i>Embllica officinalis</i> - amla <i>Ougeinia delbergioides</i> - sandan <i>Ficus roxburghii</i> - timla <i>Quercus dilatata</i> - moru <i>Rhododendron arboreum</i> - burans <i>Abies pindrow</i> - silver fir <i>Picea morinda</i> - spruce</p>
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The region is a historical pilgrimage site which has been visited by the religious for as long as can be remembered. Thus one sees a marked Hindu impact even on the *bhotia*. Over the years, a sort of cultural homogeneity has developed which has not only incorporated the local traditions but has also become imbued with Hindu traditions. Though Hemkund Sahib is a major Sikh

pilgrimage centre which sees a major inflow of visitors, the influence of Sikh tradition is not too great, probably because Sikhism is seen as a part of Hinduism.

The other issue is that of 'modernisation,' which is associated with most pilgrimage centres. Sociologists have carried out a lot of studies on how religious centres have become modernised, but there are few clues about the exact nature of the processes involved, and the direct relationships between processes are not clear. The majority of the people visiting the pilgrimage centres are from towns and other urban centres. As these urban tourists are seen to be affluent, there is a definite inclination, particularly among the younger people, to imitate them. This diffusion of the urban lifestyle which takes place slowly transforms the people's use of language, their dress sense, and even their food habits. In this region, even among the local communities, *ogla* and *fafra*, which used to be the staple grains, have been replaced by wheat and rice. Instant noodles are becoming a favourite among local youths.

Education and Literacy in the Badrinath Zone

The headquarters of Joshimath *tehsil* have educational facilities up to the graduate level. Beyond this, it is necessary to go further south along the Alaknanda to Srinagar for higher studies. The villages close to Joshimath *tehsil*, and along the road, have seen an increase in literacy levels. Chamoli district recorded the highest increase in literacy over the last decade.

Those who can afford it and who are keen on getting education are those who have at least one family member serving in the formal sector outside the region.

Economic Background of the Badrinath Zone

The district has a primarily agricultural economy. Though cereals such as rice and wheat are grown, it is the fruit plantations which have brought money to this region. Apples are the main cash crop though citrus fruits are also grown.

Most of the farms belong to small landholders. One half (712 of 1,526) of the orchards in Joshimath *tehsil* have an area of less than half an acre. The total area under orchard farming in Joshimath *tehsil* is 650ha. The non-availability of pesticides and other inputs often leads to a poor harvest. Because the quality is not very good, the apples from this region fetch a lower price than those from Himachal Pradesh.

Tourism used to be a more significant contributor in the past, when pilgrims walked and used settlements en route to stop over. Walking also meant longer stays in the region. In fact, the road came up after the trade with Tibet stopped. The trade barrier and extension of the motorable road up to the Badrinath Temple has deeply affected the local economy.

Inventory of Tourism Assets in the Badrinath Zone

Badrinath and Kedarnath are among the most religious pilgrimage centres. They attract people from all regions, all classes, and of all ages who want to earn religious merit by visiting shrines. Frugality, or living on a minimum and vegetarian diet, is seen as a virtue, because in a place of God, one needs to have control over one's senses. This idea of religious merit seems to give people a lot of strength. We saw people who were eighty years' old, making the arduous journey to Badrinath and Kedarnath without complaint. The lower middle class pilgrim's sole objective for visiting the holy places is religious. The scenic beauty provides spiritual recreation for them and they see everything in a religious light.

This attitude of the people should not be seen as a problem to promoting other areas for tourism. In fact, with proper publicity, many other tourist centres can be promoted. For example, all the people in the Hindu fraternity may know about Kedarnath where Lord Shiva is worshipped in his *Sada Shiva* form. This is the most sacred *Jyotirlinga*¹ in the country and is considered to be more than 4,000 years old; but there are few people who know about the *panch kedar*, which are almost equally sacrosanct. Rudranath (3,286m), where the effigy of Lord Shiva is worshipped, is known for its rock-cut temple. This place has some purified water tanks, and the legendary river of Vaitarni flows past the temple. Tunganath is the highest *kedar* where Lord Shiva's shoulders are worshipped, Kalpeshwar has the renowned adornment of Lord Shiva's hair, and Madmaheswar is the fifth *kedar*. With proper publicity, all these places can gain in importance, and there will be less pressure on any particular place.

Badrinath lies at the confluence of the Rishiganga and Alakhananda rivers. It got its name from its carpet of wild barriers or *badri* (there seems to be a myth behind the name). It is said that no pilgrimage is complete unless one visits Badrinath. Badrinath has the Nar and Naryan mountain ranges guarding it with the imposing Neelkanth Peak in between. Badrinath also has the *Panch*

¹ Likeness of the Shiva Lingam (phallus).

Badri spread over the hilly region of Chamoli. Besides, on the route to Badrinath, there are many religious centres and places of scenic beauty. Three kilometres from Badrinath is Mana, where there is the legendary 'Bhim pul', a bridge said to be built by the Pandav, Bhim, when the Pandavas were in exile. Mana also has the Vyas *Gufa* (cave), where the Mahabharata is said to have been written, as well as the Ganesh *Gufa*, sacred to Lord Ganesh, the elephant-headed son of the god Shiva.

Another five kilometres' trek from Mana brings one to the glorious Yashodhara Falls. One can also trek to many other beautiful sites around.

Auli is 14km by road from Joshimath and is at an elevation of 9,500 feet above sea level. It is a wonderful resort which now hosts winter games (by Garhwal Mandal Vikas Nigam [GMVN]) and provides skiing facilities to tourists for IRs 1,500 for 10 days. Gorson, four kilometres from Auli, is a paradise for trekkers.

If one diverts from Govindhat (en route to Badrinath), a 14km trek brings one to Ghangaria. Another 14km trek brings one to the enchanting Valley of Flowers. A five kilometre trek on a different route from Ghangaria leads one to Hemkund Sahib which has the Laxman Temple and Hemkund Sahib *Gurudwara* and is situated on the bank of Hemkund Lake at a height of 4,320masl.

Government Plans and Efforts in Badrinath Zone

Today, the description of selected government plans is only of academic relevance. There is a complete breakdown of the institutional basis for executing any planned scheme.

Skiing as a Means of Extending the Tourist Season

The Government initiated the establishment of a Skiing Centre at Auli. Apart from the preliminary capital investment which was made over the last plan period, in the first two years, the state offered subsidies for training (US\$ 10 for a week's course of US\$ 60). In the third year, a considerable marketing effort was required to conduct the training programme. Given the fact that tourists, and particularly adventure tourists, come so close, it would be worthwhile to investigate the possibility of encouraging some of them to trek in the Badrinath Valley during this period. In the long run, when skiing picks up, there is a likelihood that there will be waiting periods for equipment, which

is expensive for individuals to own. Trekking in the region could provide an alternative.

Preparatory Work for Botanical Tours

The biodiversity of the Badrinath Zone's high altitudes is remarkable, and there are very few technologies and plant cultivation practices that have been standardised. The Government's scheme to promote botanical tours to the region could help gain an in-depth understanding which can pave the way for developing and designing appropriate strategies for regeneration of high altitude flora.

Improvement of Civic Amenities

The Government proposes to undertake the improvement of civic amenities in Joshimath *tehsil* on a priority basis. Under a special central government scheme, improvements are constantly being carried out at Badrinath.

Nature, Impact, and Implications of Mountain Tourism

Nature, Type, and Characteristics of Tourism

The current inflow of tourists to Kinnaur is very limited. In 1992, there were only about 2,000 tourists and this has not increased substantially. Many of the tourists are participants in package tours operated by the state or private agencies based in Delhi. Most tourists visit Kalpa-Recong Peo and Sangla. Few go to Chitkul. It is mostly those who travel into the district of Lahaul and Spiti who go to Pooh and beyond (Map 5.1).

Very few of the tourists are foreigners. They often go beyond Kinnaur into Lahaul and Spiti and are in groups as required by regulations. Many among them are repeat visitors to Himachal Pradesh who find Kulu-Manali and other areas of Himachal Pradesh too crowded.

The Kinner Kailash *parikrama* (circumambulating the Kinner Kailash peak) is practised among groups of devout pilgrims during specified periods.

Though the number of tourists studied as a sample is too small to draw very specific conclusions, the majority (approx. 75 per cent) visited Kinnaur primarily for recreation; 20 per cent had some official work in Kinnaur; and only five per cent came on a pilgrimage (Figure 5.1).

One of the important characteristics of the tourists is that most of them spend over three days at their destinations. At least 25 per cent of them stay for over a week (Figure 5.2). Most of the tourists visiting Kinnaur are rich; 80 per cent reported annual incomes of over Rs 50,000 and, of them, 30 per cent had annual incomes of over Rs 100,000 (Figure 5.3).

The most interesting aspect of the tourist profile is that Kinnaur is a destination that draws visitors again and again. Only 25 per cent of the tourists are first-time visitors, fifty-five percent reported being in Kinnaur for the third time, and as many as 10 per cent of the tourists were many-time visitors (Figure 5.4). Given the fact that travelling into Kinnaur became really possible only in 1992, Kinnaur seems to have enchanted the early visitors into the area.

Figure 5.1:
Purpose of Visit to Kinnaur District

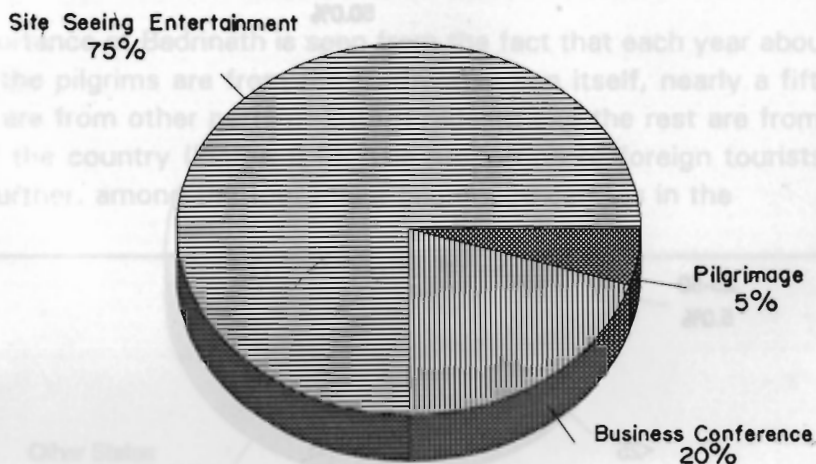


Figure 5.2:
Duration of Stay in Kinnaur District

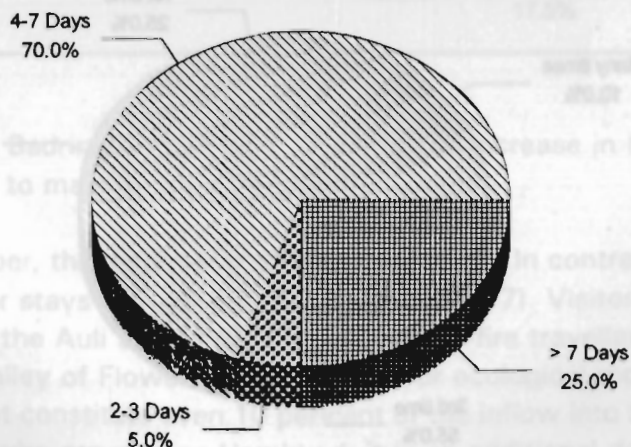


Figure 5.3: Annual Family Income of Tourists in Kinnaur District (Rs in ,000)

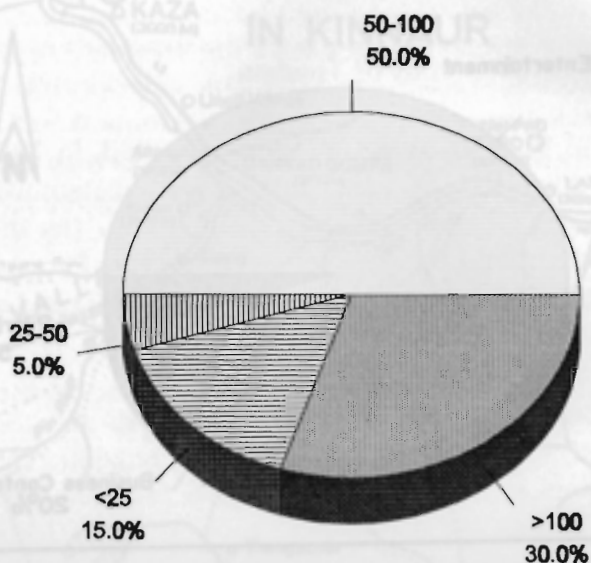
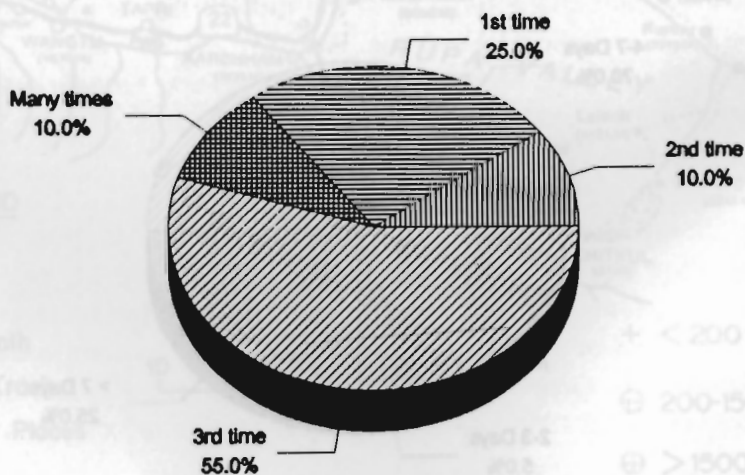
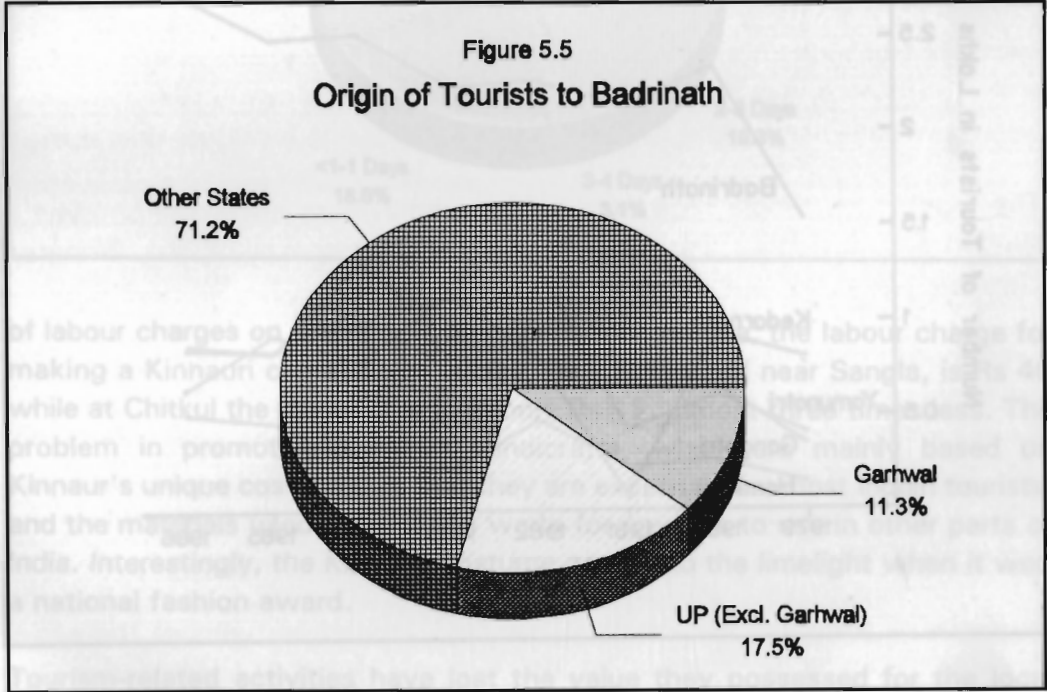


Figure 5.4: Frequency of Visits to Kinnaur District



Most (over 98%) of the tourists who come to the Badrinath Zone are pilgrims. While there is a wide range of economic classes, the pilgrimage economy is entirely operational on low economic turn-overs. The religious sanctions and austerity associated with pilgrimage are essential for the pre- dominance of this category of tourist.

The importance of Badrinath is seen from the fact that each year about 10 per cent of the pilgrims are from the Garhwal region itself, nearly a fifth of the tourists are from other parts of Uttar Pradesh, and the rest are from various parts of the country (Figure 5.5). The proportion of foreign tourists is very small. Further, among the four major pilgrimage centres in the

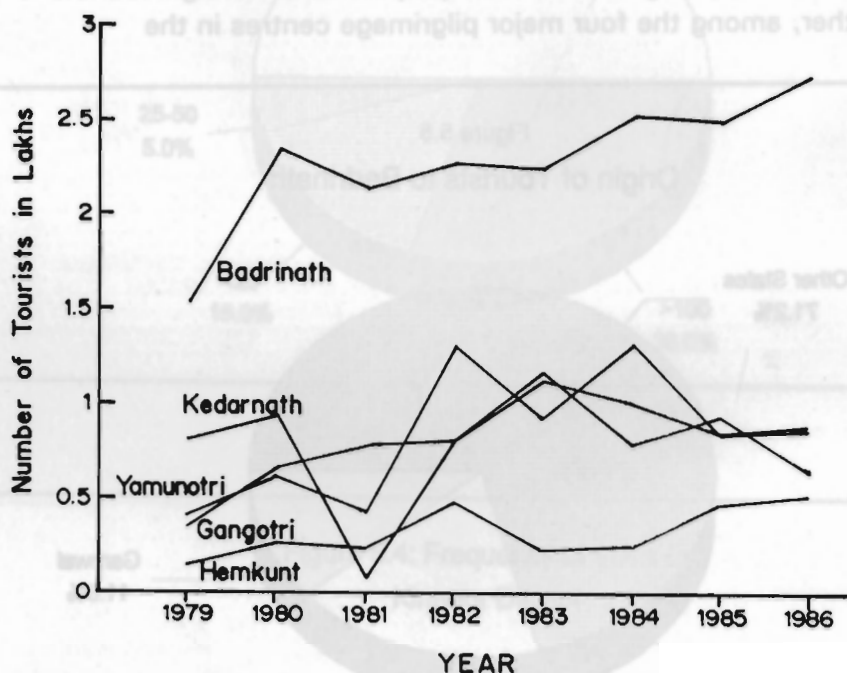


Garhwal region, Badrinath has had a much higher increase in tourist inflow, and it continues to maintain this trend (Figure 5.6).

In Badrinath proper, the duration of stay is very short. In contrast to Kinnaur, hardly any visitor stays for over three days (Figure 5.7). Visitors to the other sites, excluding the Auli Ski Centre, are also quick-fire travellers. Only those who visit the Valley of Flowers with botanical or ecological motives stay for long. They do not constitute even 10 per cent of the inflow into the Valley. For most travellers who are visiting Hemkund, it is an additional day's tour from Ghangaria.

Figure 5.6

COMPARISON OF TOURIST INFLOW IN 'CHARDHAM'

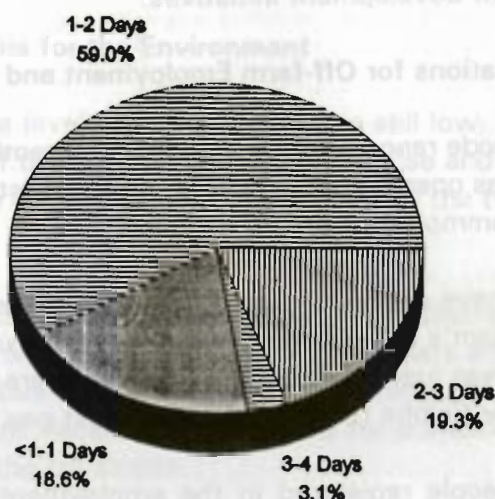


Impacts and Implications for the Production System

The current flow of tourists is small and has no immediate implications on the local production system. Indeed, the fact that tourism development may not positively influence the local production system necessitates more careful analysis in terms of its role as a leading sector in the district.

The only sector that can particularly benefit from tourism is the Kinnauri craft industry. Given the low volume of tourists, unless the industry is given a greater market orientation, passive sales to incoming tourists will not account for large turnovers. Notwithstanding, tourism has led to an increased payment

**Figure 5.7: Duration of Stay in
Badrinath Tourist Zone**



of labour charges on craft items produced. For example, the labour charge for making a Kinnauri cap in Kothi village, near Kalpa and near Sangla, is Rs 40 while at Chitkul the labour charge is only Rs 15, almost three times less. The problem in promoting Kinnauri handicrafts, which are mainly based on Kinnaur's unique costumes, is that they are expensive for most Indian tourists, and the materials used make it too warm for any one to use in other parts of India. Interestingly, the Kinnauri costume came into the limelight when it won a national fashion award.

Tourism-related activities have lost the value they possessed for the local economy, particularly the use of local products by tourists in the Badrinath area. The impact of causal factors other than tourism itself has been severe. The road to Badrinath virtually demolished the concept of *chatti*, which were wayside lodges along the trek route to the temple. The pilgrimage economy, though austere, had to depend on the services provided *en route*, as the pilgrimage took over 20 days from the nearest roadhead.

With the advent of the road, the services have also assumed a commercial character, with more outsiders taking up key establishments. The attitude of the local people still continues to be one of honour for the devotees, and any involvement by them is more in the nature of serving them rather than seeing them as consumers of their products.

The development initiatives undertaken by the Government have also not been received well by the people, for they mostly ignore their concerns. In the current unrest among the citizens, those from the Joshimath area have been in the forefront even during current encounters with the state, a major cause being the impact of development initiatives.

Impact and Implications for Off-farm Employment and Income Generation

Tourism offers a wide range of niche activities. Currently, these are restricted to activities such as opening guest houses, running restaurants, and providing paying-guest accommodation or taxi services.

At present, there have not been very large tourist inflows, but there are some indications of tourism's impact on employment. For example, in Rekong Peo, until 1986 there was just one taxi, but now there are nearly fifty, and even remote villages like Skibba today boast of at least one local taxi operator.

The number of people registered in the employment exchange showed a sudden fall in 1992. This coincided with the removal of the Wangtoo checkpost, and the spurt in tourism activity since then.

Even though there has been no substantial increase in tourist arrivals, people are very much aware of the benefits of tourism. For instance, the *pradhan* of Sangla village intends to promote, among the people in the *gram sabha*, the idea of establishing a paying guest system for tourists. This could be in the form of tents in orchards, or separate rooms with toilet facilities, which are still uncommon.

In Garhwal, the local population is still very limited and almost the entire community could be involved in the tourism sector to varying degrees. However, the timespread and the limited stay of the pilgrims in the region reduces the possibility of large numbers being wholly involved in tourism. The Government's programme needs to reduce their monopoly over infrastructure by systematically divesting control to local agencies and community organisations.

There are high altitude tribal villages in the region where the populations are largely of Tibetan descent. These villages, particularly Mana which is very close to Badrinath, could earn additional income if some of their crafts were promoted as souvenirs. Mana village, which also forms the last post on the border along this road, was an important centre in terms of the trade with Tibet and it used to cater to the requirements for woven and knitted woollens,

apart from trading in basic items like salt, which were traded along this route. It is more a revival of trade that could bring about the integration of these people, as the current process of tourism development has totally excluded them.

Impact and Implications for the Environment

In Kinnaur district, the level of tourist activity is still low. However, the first and very clear signs of the impacts it is going to cause and the implications to local communities are already evident, particularly in the twin settlements of Recong Peo-Kalpa.

At Peo, waste disposal systems, at the market and settlement hub, are grossly inadequate. The solid wastes generated by both tourists and local commuters in and around the bus-stand area is an aesthetic blight. The smell is nauseating. Most small vacant plots are used for dumping waste. Plastic is seen strewn all over the hill slopes.

Significant construction waste is generated as new buildings are being constructed for various offices and shops. The main impacts of the ongoing rapid pace of construction include:

- the new buildings coming up in the style of ugly modern concrete structures are totally devoid of any aesthetic considerations;
- construction activity along the roadside is narrowing the thoroughfares and raising dust on the specific sites where material is dumped;
- overflow of drain water, when some of the excavated or demolished material fills open drains along the road, drainage itself becomes an area of concern as the public systems are not being maintained and sewage is released at several locations.

The wastes and the concrete constructions combine to the most unaesthetic effect, and this is one factor that the local citizens immediately recognise as something detrimental to their living conditions. Of course, they feel that the contribution of tourists to this degradation is not so great as that of establishing the district headquarters in this place and making it a nucleus for various activities.

The presence of the various offices of the district and state also means that an increasing area is brought under development, and, without a proper area plan, the entire stretch of land between Peo and Kalpa is becoming degraded.

The major environmental problems in the Badrinath zone relate to the sanitation facilities in Joshimath and Badrinath which, during peak tourist inflows, are inadequate to cater to the needs. This is in spite of constant efforts and seasonal preparations as the number of tourists increase considerably each year. Sanitation and solid waste management require truly innovative solutions as the expansion of the system cannot occur beyond a certain point, and there is a relentless increase in the number of tourists. The only period that saw a sizeable reduction was the post-monsoon period of 1994 because of the agitation going on in the region.

The route along the Lakshman Ganga leading to Ghangaria, from where one visits Hemkund and the Valley of Flowers, is also a zone that has seen an increased flow of tourists and a depleting forest cover. This is, however, not on an alarming scale.

The Valley of Flowers, which has now been declared a biosphere reserve, suffers trampling and other damage at the entrance. With night camping disallowed in the valley, it is the zone immediately within reach that faces a rapid decline in species' diversity. Another cause for the loss of diversity that is inaccessible to the conservationists is the banning of seasonal grazing which was practised in the past. Large animal grazing is known to be ecologically conducive to increasing and maintaining diversity.

The Auli Skiing Centre has had, until now, a very small volume of tourists, and the impacts are still not very visible. The initial construction activities did have some impacts and the ropeway system has caused localised soil erosion.

Impact and Implications for Local Infrastructure and Community Development

Kinnaur has basic amenities such as electricity, water supply, medical facilities, roads, transportation systems, and telecommunications. However, to cater to the demands of the tourists, the existing facilities have to be increased manifold, even if for a short period.

The Government has to make investments in water supplies, medical facilities, telecommunications, and transportation. These investments will be significant for a district that receives rather limited resources. Even though Kinnaur boasts that all its villages are provided with drinking water, the supply is grossly insufficient. In all the villages we visited, people had to trek long for distances to fetch drinking water. The normal daily water supply is usually only for a couple of hours in the morning and one hour in the evening.

Water availability at Recong Peo, which was adequate until a few years ago and probably a factor responsible for choosing it as the location for the district headquarters, has become an issue for concern. Shortages are suffered by the residents, particularly during the pre-monsoon periods. A detailed assessment of the water demand for current and proposed construction activities alone will reveal whether this is likely to be a problem that will be resolved after mandatory constructions are over.

Local infrastructural development has been slow, and tourism can bring in critical inputs for the Badrinath Zone. Most of the basic infrastructural facilities have still not reached the villages that are away from the road.

For the township of Badrinath, a Master Plan was devised taking into account the future growth of tourism. The land use in the town was surveyed. Only 26 per cent of the land was shown to be in the developed land-use category, amounting to approximately 33ha. The principal categories of land use that were envisaged were the residential areas and the tourist accommodation zones, which together constitute about 48 per cent. The transport zone, which is the other main use category, accounts for another 25 per cent of the developed area (Table 5.1). One of the main problems with the Master Plan's process is that the designing agencies are overwhelmed with the methods that they normally adopt in the larger townships of the plains, and the distinct character of the religious settlement and the necessity for a design for a mountain environment are never brought to the fore. Thus, the structures that have come up are not appropriate for the mountain environment; over the years, the distinct characteristics of the Badrinath *dham* have been lost and it now resembles an unkempt small town in the plains. Further, the municipality has not had any regular fund devolvement, and, for over a year, the conservation workers have not received their wages. Most recently, the municipal employees have threatened to stop even minimum upkeep activities.

Infrastructural development has not extended to the smaller settlements en route, and the local people have received no particular benefit from tourism development in the region.

Although hospitals exist, they are not equipped with modern medical facilities. Even though the number of buses has increased, travelling from one place to another is quite difficult. Local commuters face hardships, as the same buses ply for long distance travellers. **It is not just time consuming, but also quite tiring to move on these overcrowded buses, and** all these services are dependent on weather conditions.

Table 5.1 : Badrinath Land-Use Master Plan 1979

Undeveloped Land Use	Area	%	Developed Land Use	Area	%
Agriculture	34.14	36.78	Residential Area	9.02	27.28
Open Space	32.40	34.90	Visitor's Housing	6.60	19.96
Low Land	07.18	07.75	Commercial Area	2.12	06.42
River Sides	19.10	20.57	Government Buildings	3.12	09.44
			D.G.B.R. Area	2.52	7.62
			Community Services	0.75	2.27
			Transport Zone	8.56	25.83
			The Temple	0.39	01.18
	92.82 (73.72%)	100.00		33.08 (26.28%)	100.00

Source. Town and Country Planning Organisation, U.P.

Investment Implications

Tenure laws in both regions do not permit outsiders to buy land. This implies that, although people are ready to welcome tourists, the investments have to come from the Government and, in the case of Kinnaur, supplemented by larger orchard farmers. As of now, the Government and the local elite seem to be keen on establishing a '3-star' hotel at Sangla. The Government might do well to enable the local people to invest in it and find alternative sites for themselves or, still better, it should concentrate on strengthening civic amenities and devising various mechanisms for the local people to participate in the accommodation sector.

While government systems have suddenly mired themselves in uncertainty, they have also begun a process of privatisation. The first public announcement has come through an advertisement asking prospective sellers to respond.

The state, through this, plans to obviate land laws by acquiring property through notification and payment of compensations. This land will then be leased to outside agencies and corporate bodies. This process of land alienation has created discontent among the local people as well as among the employees of government agencies, particularly those in government-run corporations, who see that their resources will be given away at very low prices.

The government programmes in each of these areas is discussed, along with the draft plan that seeks to first alter these proposals, while developing a sustainable plan formulation and monitoring system.

Impact and Implications for Culture and Traditional Institutions

Even before the influx of tourists began, one significant impact that Kinnaur faced was the theft of valuable idols from the Kamru temple. This, it is now known, was part of a larger racket involving international entities (some of the idols have been traced to Italy). There has been a definite concern voiced by many people, including senior officials in the district. This has resulted in circumspection towards foreigners freely moving in the district. Many people expressed the need for a vigilant approach to the promotion of tourism in the district, particularly as foreigners seem to be keener than Indian tourists to visit some of the traditional shrines.

Crime has been on the rise in Kinnaur, particularly in recent years. The local people are of the opinion that social disturbances are mostly caused by those who have received some education and have travelled outside the area. They are the people who lack respect for the traditional lifestyle. It is not education or exposure to the world outside Kinnaur which are responsible for the increase in crime, but large amounts of money in the hands of a few and sudden exposure to outside culture (satellite TV is very popular in Kinnaur).

Media exposure is incomparable as an acculturation factor. Over the last few years, Kinnaur has witnessed a sort of media revolution, with the setting up of a television relay station at Rekong Peo. Now television has become the most popular form of entertainment in most villages. Dish antennae are seen in some villages. The impact on consumption habits is still minimal. The radio, newspapers, and magazines are not very popular.

Tourism has existed for ages and it has not altered traditional lifestyles as such. The exposure of these communities to the outside world, through education and the media, have had a greater bearing on the cultural norms.

The most striking aspect is the 'modernisation' that seems to be catching up with most pilgrimage centres, and Badrinath has not escaped this process. There does not seem to be a direct relationship between modernisation and tourism alone, but, probably because the majority of people visiting the pilgrimage centres are from towns and other urban centres, a diffusion takes place. The local people give in to the basic economic datum of demand and supply and transfer themselves as per the needs and wants of tourists (i.e.,

in their dress sense, dialect used, the food consumed, and goods provided). *Ogla* and *fafra* for instance, which used to be the staple foods of this area, are all but gone.

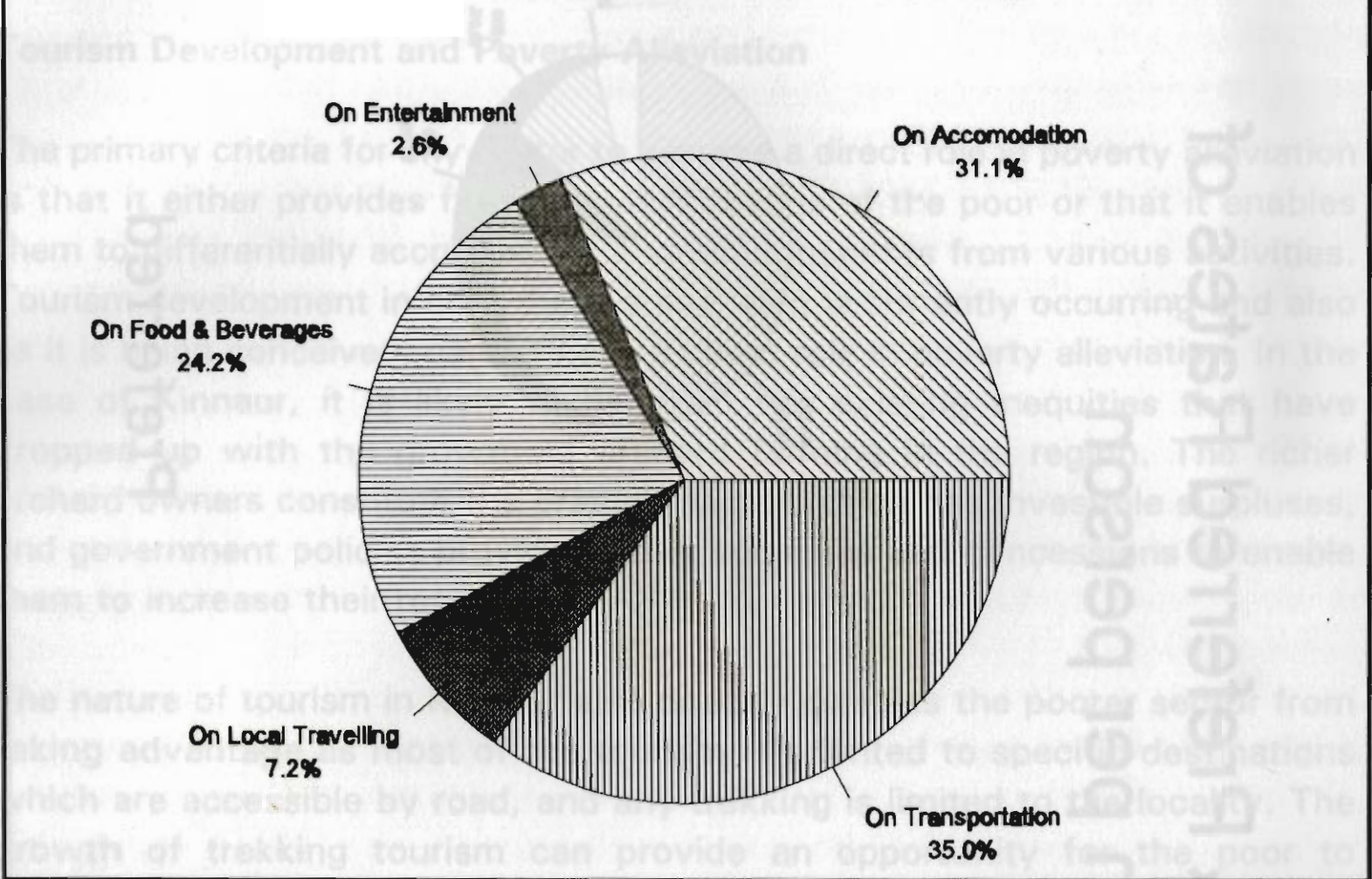
In recent times, there have been demands from certain traders and politicians to extend the period during which the Badrinath Temple is opened. Their emphasis has been on the rationale that the climate allows for the extension of the period and also that technology is now available to clear the snow to extend the period. This is argued to be the easiest method of tackling the problem of seasonality. While this suggestion itself is seen by the local people and the devout as the greatest affront to their religious sentiments, this would be the critical test of whether market forces in the tourism sector can dislodge a time-honoured religious rule. Of course, local sentiments send very clear signals that, if this were to happen, the already soured relationship with the governmental machinery will turn into a movement of uncontrollable anger against the state.

Assessment of Tourism as a Development Intervention

The role of tourism is limited in the context of Kinnaur. As noted earlier, unless there is a phenomenal growth in tourist numbers, which is unlikely, the volume of tourist inflow is not going to be significant in generating incomes that can also be retained within the local economy. The current expenditure per tourist per day is quite low (Figure 5.8), and the total financial input into the local economy is limited as the bulk of the expenditure is incurred by travellers. The accommodation costs are high and this is the only area where specific people can earn substantially. The currently available accommodation facilities are mostly government-owned rest houses which, on average, charge less than Rs 50 a day, and the paying guest houses which, on average, charge over Rs 200 a day. The availed and preferred accommodations (Figure 5.9) indicate that there is scope for creating an infrastructure for higher ranges.

The paying-guest scheme which was introduced by the state is one positive programme. Though the scheme has been operational in a limited manner, it has the advantage of dispersing tourists over a larger area, and individual house owners who have created an additional capacity for visitors may find gainful use for this accommodation during the off-season. This also has the advantage of enabling a larger number of people to cater to the tourists' accommodation needs. The existing paying guest accommodations are close to the tourist centre itself, and they are approached when government accommodation is not available or when directed by those who had visited them earlier. In Sangrattan Guest house in Kalpa some of the guests were

Figure 5.8
Tourist Expenditure in Kinnaur (In Rs)

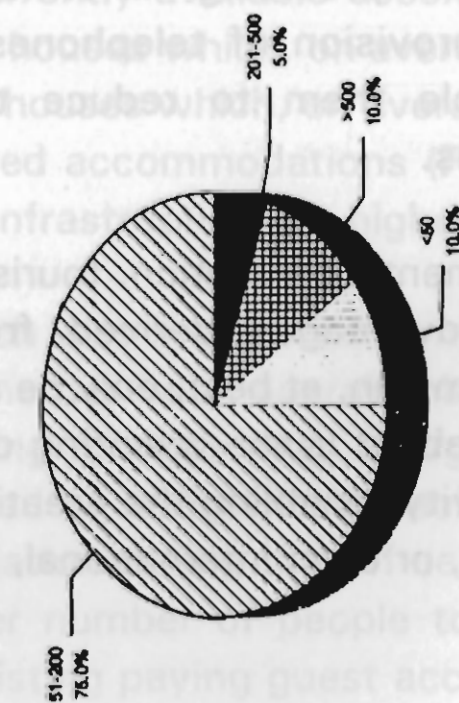


repeat visitors. Considering the fact that over 80 per cent of the visitors to Kinnaur are repeat visitors, a guest house with accommodation for about eight to ten persons may develop a regular clientele over a period of time and thus ensure its viability. The Government can provide a useful service with a centralised system for providing information on the availability of accommodation. The provision of telephones on a priority basis to these houses will also enable them to reduce the costs of marketing their accommodation facilities.

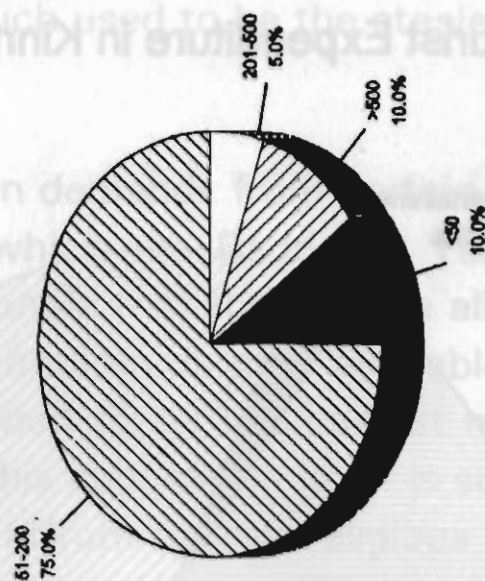
However, as a development intervention, tourism is not a particularly exciting area, as the initial advantages derived from orchard farming can be strengthened and tourism can, at best, only be an adjunct. The particular focus that tourism can bring about is the orienting of tourism itself into a function of the horticultural activity, enabling the creation of a special status in terms of developing a national, or even international, market centre for high-altitude fruits and nuts.

The Badrinath region has immense scope for transforming the existing tourism activity into an important tool for development. In fact, by doing so it would only restore its historical role. This would require much greater political will

Figure 5.9: Aailed & Preferred Rates of Accomodation per person



Aailed



Preferred

and closer work with the communities, than has ever been displayed by the Government in the past.

Tourism Development and Poverty Alleviation

The primary criteria for any sector to assume a direct role in poverty alleviation is that it either provides for the specific needs of the poor or that it enables them to differentially accrue better economic benefits from various activities. Tourism development in both these areas, as it is currently occurring and also as it is being conceived, cannot have a direct role in poverty alleviation. In the case of Kinnaur, it is likely to heighten the existing inequities that have cropped up with the growth of orchard farming in the region. The richer orchard owners constitute the primary sector which has investible surpluses, and government policies provide further subsidies and concessions to enable them to increase their returns.

The nature of tourism in Kinnaur also directly disables the poorer sector from taking advantage as most of the tourism is oriented to specific destinations which are accessible by road, and any trekking is limited to the locality. The growth of trekking tourism can provide an opportunity for the poor to contribute in terms of guide and porter services, although it might be the last form of support that the local poor would seek.

Another scope, limited to poor artisans, is in making Kinnauri costumes. This could, however, be enhanced, not necessarily as a product for the tourist, but as an occupation in itself.

In the case of Uttar Pradesh, the paying-guest scheme has really not taken off, and, in the context of the Badrinath Zone it will be a poor replication of the concept of the *chatti* dotting the trekking route to Badrinath from Rishikesh. Further, there have been complaints in parts of Garhwal about the significant mismanagement of the subsidy offered on this account, which is seen to have only helped richer individuals to construct additional or fresh spaces for their own use at the cost of the public.

The scope for involving the poor in trekking in the region is enormous. One area in which local people could specialise, and which the majority of tourists find inadequate, is the identification of the plants on the trek to the Valley of Flowers. This is something that many of the villagers are adept at and, given some training to familiarise them with scientific terms, they could fill an important niche and also earn a significant income.

The concern with addressing poverty in a region, and the existing mechanisms for it, has always been a point of debate. The existing concessions for large industries, and also large investors, have definitely been a cause for increasing inequities across the country. The step that is seen within the Government as positive in terms of enabling more people to cater to the tourists' needs is in itself a cause for developing inequities, but it should be seen to be positive only, as it is at least a couple of steps down the ladder from their original hope of trickle-down effects.

As it is being conceived, cannot have a direct role in poverty alleviation in the case of Kinnur, it is likely to heighten the existing inequities that have dropped up with the growth of orchard farming in the region. The richer orchard owners constitute the primary sector which has investible surpluses, and government policies provide further subsidies and concessions to enable them to increase their returns.

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In the case of Uttar Pradesh, the paying-guest scheme has really not taken off, and, in the context of the Balmath Zone it will be a poor replication of the concept of the chattri dotted the trekking route to Balmath from Rishikesh. Further, there have been complaints from Garhwal about the significant mismanagement of the subsidy offered on this account, which is seen to have only helped richer individuals to construct additional or fresh spaces for their own use at the cost of the public.

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CARRYING CAPACITY CONSIDERATIONS

The concept of carrying capacity emerges from the ecological sciences where population growth in specific ecosystems needs to be understood in the light of various biotic factors. Broadly, it attempts to identify a condition beyond which the system would lose its equilibrium and be unable to regain it. Environmental analysis has sought to adapt this concept as a means of understanding the conditions of stress in many defined environmental contexts.

Tourism research has long grappled with this concept, particularly as a means to devising management methods for specific destinations or tourist zones. However, the multi- and cross-sectoral nature of decisions impinging on tourism make the concept of carrying capacity very complex to operationalise. Further, the relentless pursuit of quantification has often led to bizarre results. It is now recognised that the concept of carrying capacity should be accepted as flexible, and the contextual overtones are what provide the actual basis for using it as a tool to aid tourism planning and management.

Tourism carrying capacity is a function of a large number of variables that are non-orthogonal. Typically, the attributes are interconnected and the carrying capacity may be altered by the activities of another sector, e.g., well-managed transportation systems can ferry larger numbers of tourists with the same physical capacity, and thus physical capacity itself may not be a limiting factor. The important aspect of tourism carrying capacity analysis is in the identification of the current and future limiting factors and, in doing so, identifying the critical variables and linkages. This is particularly so as assessment and continued monitoring of all the variables may not only be impossible but also very expensive, this being a condition most common in the context of developing countries.

In a simplified framework, tourism carrying capacity is a function of the natural, socioeconomic, and cultural environment of the destination, the specific perceptions of the local communities, and visitor behaviour patterns.

Relevance of Carrying Capacity Considerations

Though the concept of tourism carrying capacity is readily understood, in the context of mountain tourism development in the case study areas, this

exercise should be treated as the first step to defining the nature of the current problems and as a tool for identifying some options that are available to make mountain tourism more sustainable. In this light, the notion of carrying capacity assumes particular relevance.

In the two case study areas, where as some of the critical variables and linkages are similar, there is a distinct difference in the perception of local communities about the role and acceptable levels of change in their environment. A more critical aspect of the carrying capacity assessment and monitoring in the mountain terrain is the timespread available for tourist activities in the region. We shall describe here, in detail, these two aspects and, based upon them, draw rational conclusions, however preliminary, to reflect the situation in the case-study areas.

Timespread for Tourism

Most of the existing literature has dealt with this aspect in the framework of seasonality and made a serious mark on the development of mountain tourism. This particular research endeavour has probably seen in virtually all parts of the Hindu Kush-Himalayan region, the virtue of a particular period that is conducive to tourism activities. In assessing the carrying capacity of a particular destination or zone, the reality of a 'timespread' has to be accepted and the strategies designed accordingly. For each of the destinations and zones, we have drawn up a calendar, which forms the base-line for tourism analysis, to indicate the best, the tolerable, and the non-tourism periods (Figure 6.1). Thus, the timespread is seen as a given condition for the destination and treated as the critical underlying element and not a specific factor.

One of the important tasks is the assessment of 'recovery periods' which would enable the calculation of the maximum possible spread a destination can achieve. This notion is fundamental to the future development of 'carrying capacity' as a tool for assessment and management, as the resilience limits for various critical parameters can be transformed into time periods and the stress limits of these critical variables.

The maximum period available for visits to the region is only 200 days in the case of Pooh in Kinnaur district and Hemkund in the Badrinath Zone. A minimum of 80 days is estimated for the Valley of Flowers. Even in these 80 days only about 40 days are actually best suited to visitor movement and experience.

Figure 6.1: TIME SPREAD FOR TOURISM

Place	Current Annual Inflow	Months J F M A M J J A S O N D	No. of Days (---)	(---)
BTZ				
BADRINATH	450,000	-----	(60)	(120)
HEMKUND	30,000	-----	(60)	(140)
VALLEY OF FLOWERS	5,000	-----	(40)	(40)
AULI	1,500	-----	(40)	(50)
KINNAUR				
KALPA-RECONG PEO	1,500	-----	(40)	(100)
POOH & BEYOND	200	-----	(60)	(140)
SANGLA	500	-----	(80)	(100)
(--)	Best Period Climatically Acceptable to visitors Social/religious customs	Period of maximum inflow		
(--)	Extendable/depends on climate acceptable with reservation or different mind-set Climate not totally conducive			
(-)	Non Tourism			

The implications of timespread are particularly significant in designing institutions for tourism promotion and management and will be referred to while discussing the draft action plans.

Critical Factors Affecting Carrying Capacity

Specific impacts and implications exist for each of the destinations, and these have been described contextually in the previous chapter. These implications may have positive or negative impacts on the total carrying capacity of the zone.

The critical factors in each of the areas are categorised in terms of environmental factors, socio-economic factors, and managerial and institutional factors (Figure 6.2). While it may be debatable under which category some of them should be placed, we have accepted the perceptions of the local people and visitors and their image of the predominating aspect.

Critical Factors in Kinnaur District

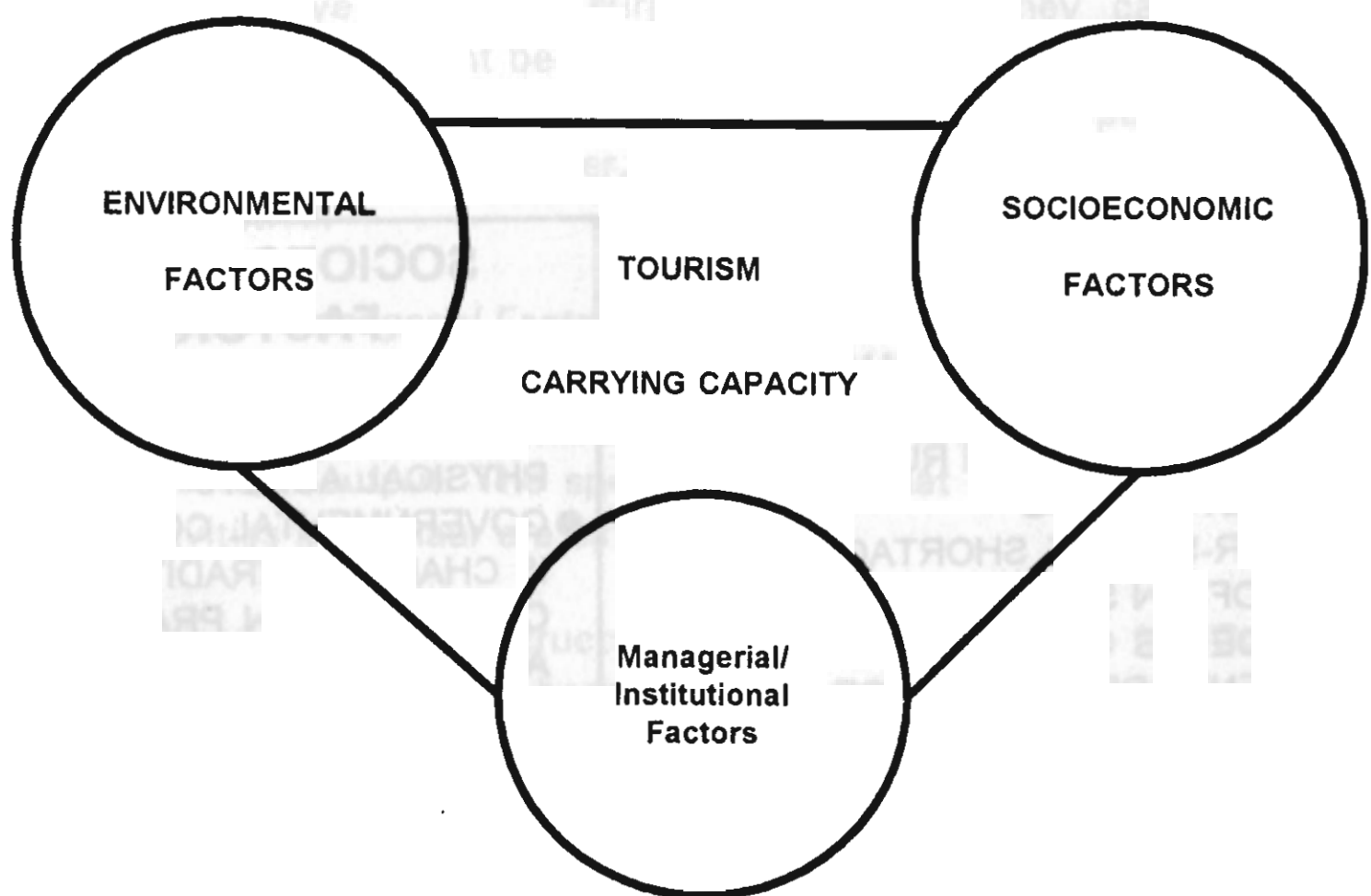
Environmental Factors

Environmental factors are those variables that determine the environmental quality of any destination, the condition of which will affect the potential of tourist movement or the quality of the touristic experience. Such critical factors in the case study areas are (Figure 6.3) as follow.

- 1) Recong Peo presents the look of a town in the making. Waste disposal and drainage are visible problems. Slopes are littered with rubbish, mostly plastic.
- 2) The water-supply is already limited and restricted to three to four hours a day. Residents frequently suffer from shortages.
- 3) The entire stretch of land between Recong Peo and Kalpa is progressively being transformed by new buildings.

The waste disposal and water shortages in Recong Peo are the more critical limiting factors that affect tourist inflow as the quality of visit tourism has severely deteriorated within the past three years.

Figure 6.2: Critical actors Controlling Tourism Carrying Capacity



Social and Cultural Factors

Social and cultural factors for tourism are those that have a bearing on the hosts' perception of tourists and, therefore, on the levels of acceptable change and also how tourism activities may have an impact on traditional social structures.

- 1) There is **inadequate security for physical assets**. Idols have been stolen from some of the temples. Though a few of the local people maintain that tourism and the theft of idols are unrelated, many fear that it fuels such tendencies. People consider **it too high a cost** to pay for tourism development.
- 2) Government construction is changing traditional construction practices and architectural styles. The new constructions follow urban styles with unimaginative use of concrete, and these factors have made inroads into

Figure 6.3: Kinnaur District Tourist Zone

ENVIRONMENTAL FACTORS

- PEO WASTE DISPOSAL AND DRAINAGE PROBLEM, SLOPES ARE LITTERED WITH RUBBISH, MOSTLY PLASTIC
- WATER-SUPPLY SHORTAGES ARE OFTEN SUFFERED BY RESIDENTS
- THE ENTIRE STRETCH OF LAND BETWEEN RECONG PEO AND KALPA IS BECOMING DEGRADED

SOCIOECONOMIC FACTORS

- INADEQUACY OF SECURITY FOR PHYSICAL ASSETS
- GOVERNMENTAL CONSTRUCTION IS CHANGING TRADITIONAL CONSTRUCTION PRACTICES AND ARCHITECTURAL STYLES
- SOCIAL AND ECONOMIC INEQUITIES ARE GETTING HIGHTENED

INSTITUTIONAL/MANAGEMENT FACTORS

- NO LOCAL INSTITUTIONAL INFRASTRUCTURE
- ACCOMODATION IS LIMITED TO 50-60 PERSONS A DAY IN PEO-KALPA AND ABOUT 20 IN OTHER CENTRES
- TRANSPORT WITHIN THE DISTRICT IS EXPENSIVE AND LIMITED

most of the areas. Traditional construction incorporated many elements to achieve resistance to earthquakes, to which the area is prone. Though the local people do not hold tourism responsible, traditional construction practices are vanishing.

- 3) Inequities in society had already developed earlier with orchard farming, enabling Rajputs and other landowners from higher castes to dominate the economy. Tourism is going to heighten these inequities as only the richer landowners have investible surpluses and only they can best take advantage of government benefits. Orchard farming has received a trickle of benefits from the Government for employment, packaging, and transportation; tourism, however, may not ever be able to achieve even this limited objective.

Institutional and Managerial Factors

The existence of institutions for and the effective management of tourism can enhance the total output. The specific factors that are currently affecting tourism activities in Kinnaur are as follow.

- 1) No local institutional infrastructure has been developed so far. Currently, the district administration is handling tourism activities. There is no specific policy adopted by the local administration, and this is recognised by the officials. The move by the state to appoint a District Tourism Officer has still not taken shape.
- 2) Accommodation facilities are limited to 40-50 persons in Peo-Kalpa and about 20 in other centres. At present, this is the most critical limiting factor. Tour operators from Delhi are largely focussing on camping in places like Sangla and Chitkul.
- 3) Transport within the district is expensive and limited. Though the number of taxis has increased phenomenally, the bulk of tourist expenditure is on travelling within the district. The public transport system is limited and not very well maintained.

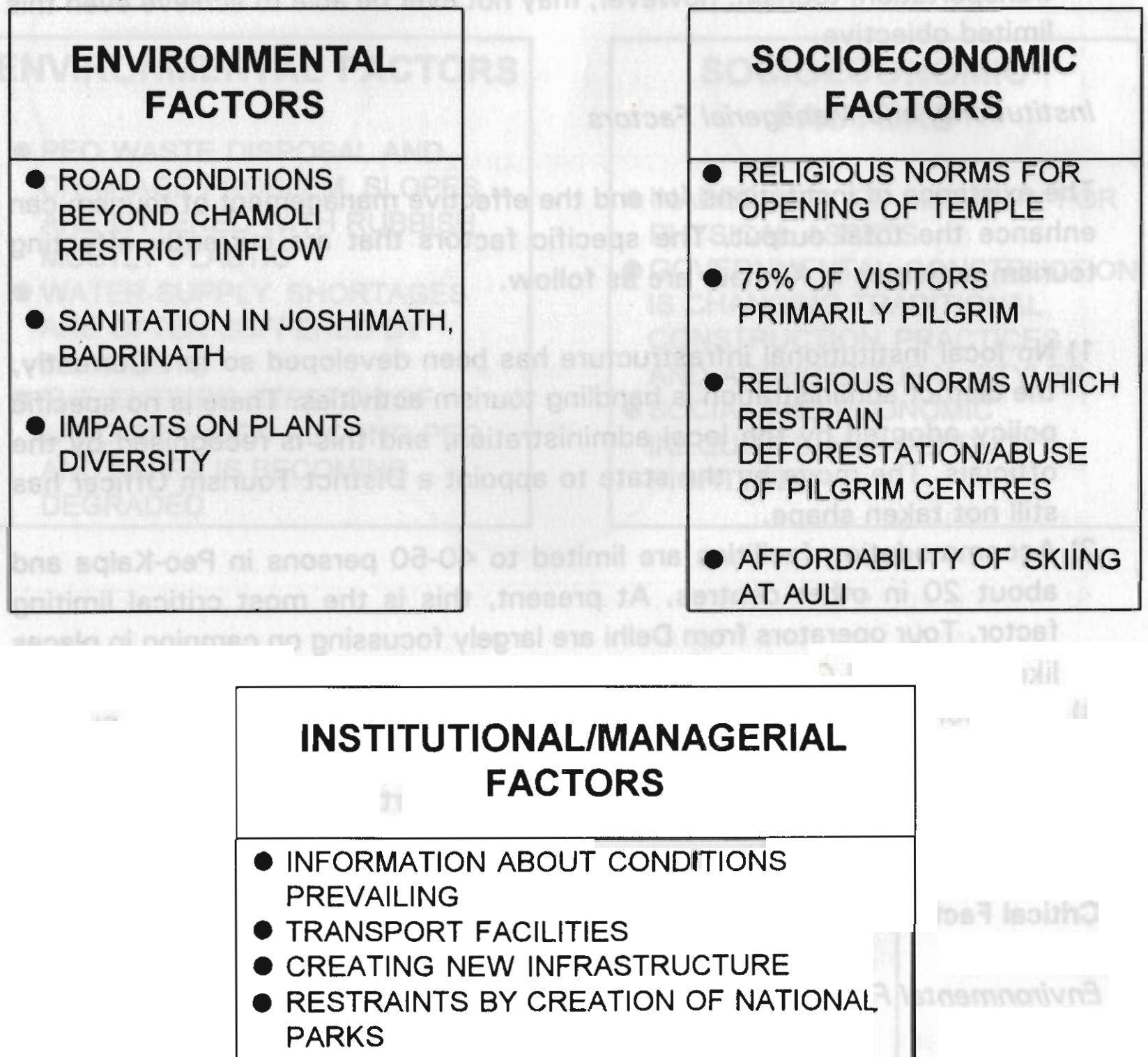
Critical Factors in the Badrinath Tourist Zone

Environmental Factors

Despite the fact that tourism has existed over the ages, the region has not been significantly affected by tourists.

The fragile nature of the region's slopes has implications for various development activities. The critical environmental factors are as follow (Figure 6.4).

**Figure 6.4: Critical Factors in
Badrinath Tourist Zone**



- 1) Road conditions restrict the flow of tourists during the monsoons, even though there are many who wish to travel during this period. The experience of getting stranded en route discourages those who would wish to travel during the off-season. The pilgrims, on the other hand, while treasuring the experience, accept it as their biggest achievement and are happy with the visit. Thus, repeat visitors to the Badrinath Zone are far fewer than those to Kinnaur district. The efforts to clear the roads, and the mechanisms for exchanging passengers stranded in buses on either side of landslides, do redress the problem to some extent.
- 2) In Joshimath and Badrinath, sanitation facilities are inadequate for coping with the needs during the tourist season. The principal problem here is that the resources set up provide technical solutions for a short timespread and are forcing the administration to manage with *ad hoc* and temporary solutions. The visitors' quality of experience is vastly degraded by bad sanitation conditions. In the case of Badrinath, the problem is compounded by the fact that, due to administrative problems and the devolution of funds from the state government, the municipal workers have been deprived of their wages for over a year. This season, which is the ideal period for emphasising their problems, the workers have threatened to go on strike.
- 3) In the Valley of Flowers, the initial half kilometre stretch has experienced a vast decrease in the number of species. Though a very detailed botanical assessment has not been undertaken in this study, this is the perception of the people who have visited the area over the years. While this is, in itself, a concern in terms of the ecological conditions, in terms of tourist inflow, this zone determines the decision of the tourist to trek further up the Valley.
- 4) There is apprehension about soil erosion and slope instability because of the ropeway construction to Auli and the infrastructure that has been built there. This requires detailed investigation.

Socioeconomic Factors

Socioeconomic factors, apart from playing a very crucial role in determining the timespread, critically determine the carrying capacity. The most important among them are as follow.

- 1) The religious norms for opening the Badrinath Temple reduce the visitor inflow period and, therefore, each day witnesses a greater number of tourists. Though there have been suggestions to change this practice, it is totally unacceptable to both the local communities and devout pilgrims.
- 2) Nearly 98 per cent of the travellers to this zone are pilgrims. The requirements of the pilgrim, in terms of goods and services, are limited, as the notion of pilgrimage is deeply intertwined with austerity. This enables

the area to serve larger numbers without the kind of ostentatious and wasteful goods and services that clutter up other hill stations.

- 3) The cost of skiing at Auli is considerably high for local communities. It was noted that, after three years, when most of the subsidy for training and the use of equipment was withdrawn, the number of skiers dropped dramatically.

Institutional and Managerial Factors

Institutional and managerial factors were, perhaps, better handled in the past as the number of tourists was smaller and the Government had hardly any role in the pilgrimage process. Given the fact that there are a number of institutions with overlapping tasks, and also with activities which fall between sectors, there is a much greater necessity to coordinate. Among the several factors, the following are critical to the carrying capacity of the region.

- 1) Information about the prevailing conditions in the region is not available and, on many occasions, it leads to considerable day-to-day fluctuations in the number of tourists in the zone. The availability of accommodation, the road conditions, and, in the recent context, the social climate need to be advertised at entry points.
- 2) Transport facilities remain insufficient despite many vehicles being brought into service on the route during the tourist season. This sharply increases the price of the transport available and taxi operators function arbitrarily and demand exorbitant amounts. The per day rate of hire fluctuates and goes beyond Rs 1,000, which is over three times the regular charge.
- 3) The Government's building pace for new infrastructure is very slow. In addition, there is total uncertainty prevailing over the future of the region, in terms of the general administration and tourism sector in particular. Tourists are restricted by inadequate accommodation and waiting for road clearance, including the right of way at specific sections where the gate-system is adopted.
- 4) The designation of the Valley of Flowers as a National Park and Sanctuary, and the subsequent ban on night camping in the Valley, is subjecting the initial stretch to severe degradation.

Critical Linkages Affecting Carrying Capacity

Apart from the critical factors mentioned above, there are critical linkages that are also vital in considering the carrying capacity of a tourist zone. The

emphasis here is on the physical and economic linkages only, though it is recognised that a critical ecological linkage may affect the analysis or may cause the system to be unsustainable. In the case of Kinnaur district, the following linkages have implications on the future of tourism.

Physical Linkages

- 1) Entry into Kinnaur depends upon the status of the roads, particularly beyond Rampur. Parts of this road are prone to landslides, and road blockages are not uncommon. Similarly, Baspa Valley is also prone to road dislocation (Map 6.1).
- 2) Telephones and other such rapid communication links do not extend beyond Recong Peo.

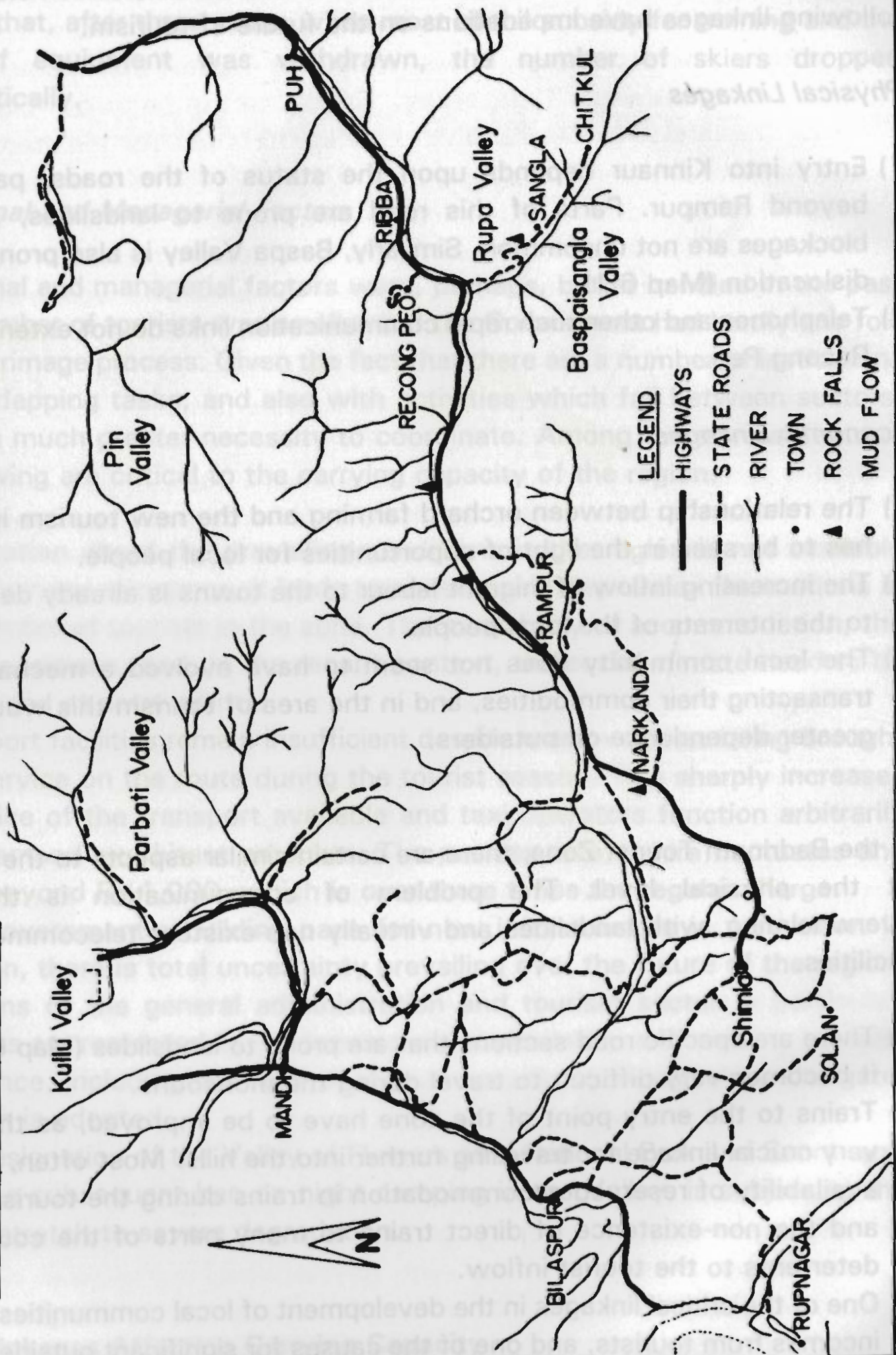
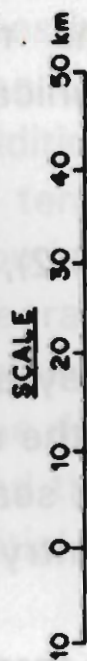
Economic Linkages

- 1) The relationship between orchard farming and the new tourism initiatives has to be seen in the light of opportunities for local people.
- 2) The increasing inflow of migrant labour to the towns is already detrimental to the interests of the local people.
- 3) The local community does not seem to have evolved a mechanism for transacting their commodities, and in the area of tourism this would mean greater dependence on outsiders.

In the Badrinath Tourist Zone, there are certain similar aspects to the linkages at the physical level. The problem of communication is the most overwhelming, with landslides and virtually non-existent telecommunication facilities.

- 1) There are specific road sections that are prone to landslides (Map 6.2), and it becomes very difficult to travel during the monsoons.
- 2) Trains to the entry point of the zone have to be improved, as they are a very crucial linkage for travelling further into the hills. Most often, the non-availability of reserved accommodation in trains during the tourist season and the non-existence of direct trains to many parts of the country are deterrents to the tourist inflow.
- 3) One of the critical linkages in the development of local communities through incomes from tourists, and one of the causes for significant outsider-control of the region's tourism industry, is the local communities view that pilgrims are not tourists and that it would be a moral crime to earn profit from their pilgrimage.

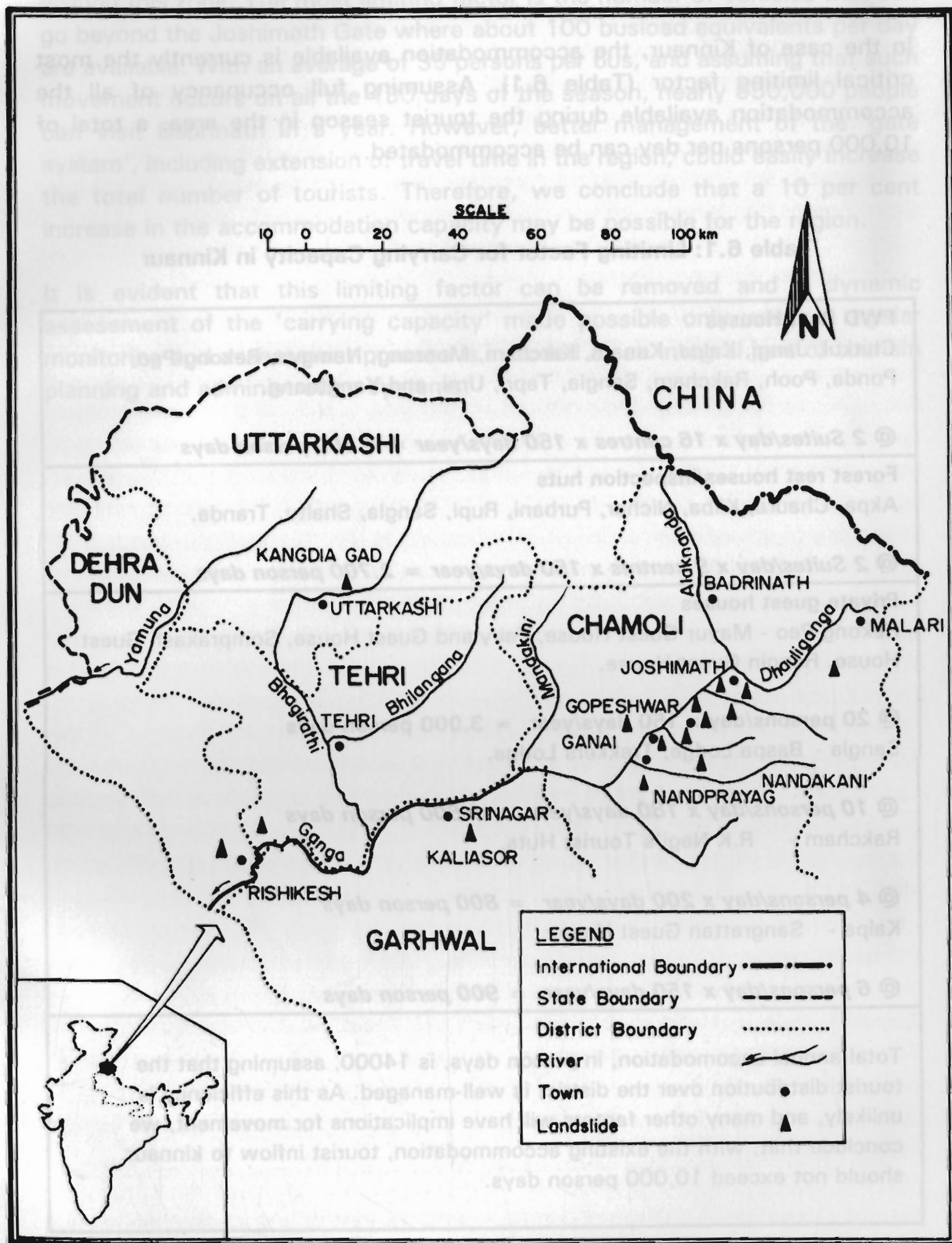
Map 6.1: Hazard Zone en Route to Kinnaur



LEGEND

- HIGHWAYS
- STATE ROADS
- RIVER
- TOWN
- ROCK FALLS
- MUD FLOW

Map 6.2: Major Landslide Zones on the Road to Badrinath Tourist Zone



At the current level of research, a quantitative assessment of the carrying capacity is a little premature, but we have used the current limiting factor as the basis for this estimate.

In the case of Kinnaur, the accommodation available is currently the most critical limiting factor (Table 6.1). Assuming full occupancy of all the accommodation available during the tourist season in the area, a total of 10,000 persons per day can be accommodated.

Table 6.1: Limiting Factor for Carrying Capacity in Kinnaur

<p>PWD Rest Houses Chitkul, Jangi, Kalpa, Kanam, Karcham, Moorang, Namgya, Rekong Peo, Ponda, Pooh, Rakcham, Sangla, Tapri, Urni, and Yangthang.</p> <p>@ 2 Suites/day x 16 centres x 150 days/year = 4,800 person days</p>
<p>Forest rest houses/inspection huts Akpa, Chaura, Kilba, Nichar, Purbani, Ruppi, Sangla, Shaltu, Tranda.</p> <p>@ 2 Suites/day x 9 centres x 150 days/year = 2,700 person days</p>
<p>Private guest houses Rekong Peo - Mayur Guest House, Fairyland Guest House, Somprakash Guest House, Rangin Guest House.</p> <p>@ 20 persons/day x 150 days/year = 3,000 person days Sangla - Baspa Lodge, Trekkers Lodge.</p> <p>@ 10 persons/day x 180 days/year = 1,800 person days Rakcham - R.K Negi's Tourist Huts.</p> <p>@ 4 persons/day x 200 days/year = 800 person days Kalpa - Sangrattan Guest House.</p> <p>@ 6 persons/day x 150 days/year = 900 person days</p>
<p>Total annual accomodation, in person days, is 14000, assuming that the tourist distribution over the district is well-managed. As this efficiency is unlikely, and many other factors will have implications for movement, we conclude that, with the existing accommodation, tourist inflow to kinnaur should not exceed 10,000 person days.</p>

In the case of the Badrinath Tourist Zone, the Badrinath pilgrimage centre overwhelms the other areas, accounting for over 90 per cent of the tourists visiting this zone. The most limiting factor is the number of vehicles that can go beyond the Joshimath Gate where about 100 busload equivalents per day are available. With an average of 35 persons per bus, and assuming that such movement occurs on all the 180 days of the season, nearly 650,000 people can visit Badrinath in a year. However, better management of the 'gate system', including extension of travel time in the region, could easily increase the total number of tourists. Therefore, we conclude that a 10 per cent increase in the accommodation capacity may be possible for the region.

It is evident that this limiting factor can be removed and a dynamic assessment of the 'carrying capacity' made possible only when a regular monitoring and assessment process is included as an integral part of tourism planning and administration systems.

Draft Action Plan for Tourism Development

Based on the analysis and discussions with tourism officials, local administrators and members of the local trading communities, specific plans have been drawn up for each of the case-study areas. The financial details of each specific activity have not been worked out, but the overall financial requirement for implementation has been calculated as less than what the Government has been spending, or has proposed to spend, in these areas.

Draft Plan for Kinnaur District

In the case of Kinnaur, it is an important and fundamental question whether tourism as an industry should be promoted at all. Investments in tourism are not likely to bring immediate returns, compared to the returns from orchard farming. The right way may be to dovetail investments with the marketing of horticultural products. One alternative route to tourism could be as an international trading centre for apples. The investments in this, along with the possibility of providing sophisticated communications' technology, can pay off significantly as both tourism and apple production in the region could mutually benefit. This view is also held by some of the local people though they are unable to articulate it in a comprehensive manner. While we have cursorily investigated the possibility of such a development, the existing policy and institutional framework will make this almost impossible in the short term. Therefore, it would be practical to shape the action plan in the light of the Government's plan programme and modify it slowly so that a more relevant and directly beneficial strategy may be adopted for the development of tourism in the district. Thus, the specific areas of concern identified and the Government's plan programme have been analysed to draw up the draft action plan.

Accommodation

Accommodation is the most critical limiting factor in Kinnaur district. The Government had proposed two specific means in its plan. One is a high investment tourist complex which will only serve the destination of Sangla; the other is a scheme for the building of paying guest accommodations by the local people.

Tourist Complex. A 20-room complex is to be developed at Sangla by the Himachal Pradesh Tourism Development Corporation (HPTDC). The budget

estimate is Rs 10 million. This ought to be avoided as the HPTDC investments are high and most of their construction entails using materials from outside, e.g., steel and cement, and even the skills for construction come from outside the region. Further, it is even being sought to hand over existing tourist complexes to private enterprises. The idea, of a tourist complex in the style of HPTDC, or even of outside enterprises in other tourist centres, needs to be avoided in the case of Kinnaur. In case the Government wants to pursue such a scheme, priority must be accorded to the local people. There are a few people from Sangla who have indicated that they are interested in establishing a tourist complex. They should be supported with the necessary technical and financial assistance to establish and operate the complex.

Paying Guest Accommodation. The Government has proposals for introducing paying guest accommodation. In fact, some guest houses are already operating. This is a viable strategy for increasing accommodation, and the cost of additional rooms will be only one-tenth of the estimates of the Tourism Development Corporation. A truly large-scale public participation in Himachal Pradesh's tourism development process, and the accrual of benefits to the local people, can be envisaged from such a programme. In implementing such a programme subsidies must be carefully avoided. While subsidies to weaker economic sections may be legitimate, they have to be based on performance. To ensure this, the banks may be asked for loans and the last segment of funds may be provided as a subsidy rather than providing it up front. The paying-guest scheme is particularly applicable in Kinnaur where outsiders cannot purchase land to set up accommodation facilities.

The success of the paying-guest accommodation scheme requires that information about availability of accommodation be available to all visitors. This could be dove-tailed with another plan programme for improving telecommunications facilities. All guest-house operators can be provided with long distance calling facilities, and local telephone exchanges at all the centres can be improved. By doing so and avoiding construction by the Government, of high-investment tourist complexes which appeal only to the 'Mass Tourist', some dispersal of the benefits of tourism may be discussed among the local people, and they also might understand the tourists better, and a greater understanding of tourists by the village community might be achieved.

Sanitation and Sewerage

This is the next critical input required for increasing the tourist inflow without burdening the local environment.

A financial allocation of Rs one million each has been proposed for strengthening and improving the existing drainage and sanitation system, developing parks, and undertaking landscaping work at Rekong Peo, Kalpa, and Sangla. Rs 5.7 million has been made available for the development of sewerage facilities at Rekong Peo.

In each of these cases, the technologies adopted for developing sanitation and sewerage systems have been a poor replica of towns in the plains. No fundamental thinking has thus far been noticed in the hill areas. Research into developing sanitation and sewerage systems should be initiated, and it should enable future expansion.

Investments should be made only after designing these facilities effectively, as there is time for Kinnaur to become a destination for a large number of tourists and the results could well be replicated in many other hill towns.

Creation of Parking and Bus Stands

Rs one million each has been made for the construction of vehicular parking spaces at Rekong Peo, Kalpa, and Sangla. The location and the sloping conditions where parking spaces are built would be very important. In many towns in Himachal Pradesh and Uttar Pradesh, it has been noticed that such spaces are either located where they obstruct the traffic and/or on slopes where vehicles have to accelerate while other vehicles are turning or moving. This causes very high levels of pollution. It is necessary to set up or improve the bus stands at Sangla, Rekong Peo, and Pooh, and bus stands also allow for smoother traffic flow.

Along the travel routes, certain wayside amenities including parking and sanitation need to be created, and for this there is already a provision of Rs two million.

Exploring Options for Creating Alternative Tourism

- a) Skiing. Skiing could be an important sport in terms of attracting tourists to the region. Given the fact that through their apple trade the Kinnauri's have some linkages with the national capital, a small but rich segment could choose to come to Kinnaur. Kalpakhand has potential for skiing.
- b) Trekking. Trekking has yet to pick up in Kinnaur. Only a very small number do the Kinner Kailash *parikrama*. Detailed mapping of trekking routes and training for local people as trekking guides are essential. There is a provision of Rs 10 million for the development of trekking tourism; this is sufficient

for the investigation and the establishment of basic facilities for trekking to different primary destinations.

- c) Eco-tourism. There is a significant rise in awareness among urban tourists of ecological concerns. Their urge to learn more about the environment can be harnessed to find opportunities for eco-tourist trails. For governments, eco-tourism means only wildlife sanctuaries and developing facilities such as parking places, benches, parks, and bird-watching towers. Investments are required to establish interpretation centres within the region and also to locate knowledgeable guides. To begin with, in the Rakcham-Chitkul region, the tourism department could collaborate with the Wildlife Institute of India, or other agencies, and set up a model eco-tourism programme. This could be achieved with an investment of Rs 1.5 million, which includes the training of local people.
- d) Camping Tourism. Kinnaur is not listed as a potential site for camping, but it offers various sites where tents could be put up. Camping tourism will also avert the immediate construction of more accommodation. The district administration could provide assistance under various programmes for local people who could provide services on hire or pitch basis in specific places for tourists.
- e) Shilpgram. The Government proposes to start a *shilpgram* at Rekong Peo at an estimated cost of Rs 7.5 million to promote handloom and handicraft items, e.g., Kinnauri shawls, caps, and angora products as well as other horticulture and agro-based products. Live demonstrations and displays of the crafts and horticultural products have also been proposed.
- f) Fairs and Festivals. The Government proposes to encourage the festivals of Kinnaur for the promotion of tourism in Himachal Pradesh.

Support Systems for Promotion and Monitoring

- a) Publicity and Promotion. The Government proposes to undertake large-scale publicity and promotion efforts through the media, trekking/city/circuit maps, brochures, and other such materials. Currently, publicity materials are designed to reach only the mass tourist segments in metropolitan centres. It would be ideal to provide detailed information on the region, particularly in Shimla and other crowded centres, where tourists seek alternative destinations. A computerised information base would be very useful, and it could be achieved for a wide area with limited investment. A financial outlay of Rs 0.5 million would be sufficient to accomplish this task.
- b) Survey and Statistics. In 1989-90, the Himachal Pradesh Government's Directorate for Economics and Statistics conducted a tourist traffic survey. Such periodic assessment is essential, and the methodology needs to be standardised to enable comparisons. This can be achieved by providing

training to the District Statistical Office, and the information can be computerised and made available through the National Informatics Centre's Network (NICNET). The additional investments will be marginal.

Specific destinations, such as Recong Peo-Kalpa, and Sangla, should be monitored regularly for changes in 'carrying capacity'. The district tourist office could be trained to undertake such an analysis so that seasonal variations can be detailed.

- c) Rescue and Safety. Keeping in mind the fragile landscape of Kinnaur, and hence the necessity for rescue and safety with provisions for mobile medical facilities, it is surprising that there is no financial allocation for such coverage in Kinnaur. The district hospital should be equipped with such a facility which would also serve the local people.

Draft Plan for the Badrinath Tourist Zone

The uncertainties prevailing in the region have been emphasised in the overview studies and in the course of this report. However, building a very cogent plan for the zone seems to be possible. There are specific aspects that need to be dealt with before discussing specific tasks in each of the destinations. The legal framework on various aspects needs modification. The specific ones are as follow.

- 1) There is no justification for designating the Valley of Flowers as a sanctuary and banning the use of Valley resources by local communities. The communities strongly resent this step, but since they are a minority their voices tend to be ignored.
- 2) The entry-tax to Badrinath has been abolished. This has resulted in the non-availability of funds for the town *panchayat*. The state has not been releasing funds for the upkeep of the town, and this has been attributed to procedural delays. The number of tourists is so high that there could be an entry-tax per vehicle, which the tourists are already willing to pay. This would certainly help to maintain the town.
- 3) The Government's attempt to acquire land and distribute it at very low prices to outside business interests should be stopped. The Government's privilege, through legislative means, to acquire land should not be misused as it will deprive the local people of benefits.
- 4) The attempt made by certain sectors to build a road up to Ghangaria has to be legislated against. Road construction along, the route to Hemkund Sahib and the Valley of Flowers will be totally detrimental to the environment of the region, which abounds in rhododendrons and birch.

The draft plan looks at the immediate activities in specific destinations and seeks to identify what could still be done in a period of uncertainty.

Mana Village

Sanitation facilities and foot routes need to be improved. This can be achieved by supporting the village *panchayat* with technical and marginal financial assistance.

The villagers produce excellent woollen carpets and other woollen goods. Proper marketing outlets should be devised for them. The Scheduled Caste and Tribal Development Corporation in the region should be asked to include this in their priority work area. This will entail no direct investments as the corporation has allocated funds for such a purpose, and it is autonomous in its operations.

The villagers of Mana also have their winter homes at Gopeshwar. Almost all their children are studying. The peak season overlaps with the summer break and, therefore, it would be ideal to train some youths to guide tourists to tourist sites beyond the village, e.g., Vasudhara falls, Vyas *gufa*, Ganesh *gufa*, and Bhim-*pul*. Since they are ethnically different, the people themselves are something of a tourist attraction. This makes them very uneasy, particularly the elders. One way of avoiding this would be establishing a trekking route that does not necessitate people walking through the village and which takes tourists to areas beyond the village. This can be constructed by the village *panchayat*, with additional funds being provided through employment generation schemes.

Badrinath Town

The Master Plan for the town needs to be thoroughly reviewed, and there must be a fundamental research into town planning. The existing plan allocates specific areas to designated zones as is done in the plains. As a result, Badrinath Temple is now almost hidden behind mindless constructions. Further, as the town *panchayat* itself is seasonally located at Badrinath, there have been significant violations of bye laws. Proceedings against the offenders have become a problem, as they avoid coming during the season when the *panchayat* is in Badrinath; thus, it is hard to pin them down. Moreover, there is a steady stream of VVIPs into the town, and they provide a shield for the offenders.

Badrinath requires a thorough analysis that is much beyond the scope of this project. The variables are too many and the uncertainties that plague the region make it impossible to make any piecemeal recommendations. The review of the master plan must be carried out by an independent agency other than the Town and Country Planning Organisation, which has singularly demonstrated, in many towns, that classification does not consider the special nature of the mountain environment and is not sensitive enough to the various issues that need to be considered.

The investment for undertaking such a process can come from the Uttarakhand Development Department, through Uttar Pradesh's Department of the Environment. This would make it official and legitimate and would also provide a basis for reorienting town planning processes in the region.

As an immediate measure, the pending wages of Badrinath municipality's sanitation workers must be paid forthwith, and they should be encouraged to undertake their activities with greater vigour. Afforestation has also been initiated, but the programme lacks imagination. Thus, the primary requirement of Badrinath is a well-drawn out town plan, considering its seasonality, setting building standards that are aesthetically pleasing and making the plan suitable to the local environmental conditions.

The Valley of Flowers

The fundamental requirement is to denotify the area as a National Park. To ensure that camping, which is currently prohibited, does not become a menace, specific sites in different parts of the Valley can be made into permanent camping areas so that any adverse impact is limited. If denotification occurs, private agencies will be willing to set up permanent camping grounds in the region without impinging on the Government's financial resources.

Tapovan

This is a hot spring located 14km. from Joshimath. This should be developed as a health resort by the local community, in collaboration with other technical agencies. The investments can come from the private enterprises in Joshimath, with priority being accorded to investments by local people.

Development of the Panch Badri(s)

Three of the five *badri(s)* are *en route* to Badrinath, and are accessible during the off-season from Badrinath. The season could be extended with initial visits to these areas. The Garhwal *Mandal Vikas Nigam* has become interested, as a result of this research programme, in investigating further the possibilities for developing this circuit. This will be carried out through the budgetary provisions already available.

1.4. A characteristic objective is to expand the role of mountain tourism in the context of the region. In examples of tourist development, it is not as much as to turn it into a means to improve the local economy, but to experience the quality of life of mountain communities by creating a specific environment. It is seen that to develop mountain tourism, it is directly addressing the concept of environmental education at specific destinations as well as in the region as a whole.

1.5. In addition, addressing the question of poverty in areas where such a development is necessary, and of even more critical importance, is to promote and to preserve the local cultural values and traditions.

1.6. The policy of tourism development should be based on the following aspects:

Guidelines for Tourism Development in the Region

Introduction

Tourism development in the region requires a complete set of institutional, environmental, and technology-related inputs which are coherently knit to benefit from the natural conditions. Such a process has to be designed to benefit local communities. In such a situation, where significant structural changes have to occur, it is necessary to first identify a minimal set of actions which are feasible, as tourism development has implications for various sectors in the economy. Thus, the following guidelines are not a substitute for the fundamental structural changes required in the economy.

Policy Aspects

It has been pointed out in the overview report that tourism development is impacted by a number of policies in interlocked areas, and the evolution of policy perspectives for tourism itself has been incoherent. It is essential to establish a policy base for mountain tourism, and it would be expedient at the national level to develop it on the basis of area and ecological region. The policy criteria for sustainable mountain tourism should include the following aspects.

- 1) A clear statement of objectives to express the role of mountain tourism in the context of the region, for example:
 - enhancing the quality of life of mountain communities by creating equitable opportunities;
 - directly addressing the concerns of environmental degradation at specific destinations as well as in the region as a whole;
 - directly addressing the question of poverty in areas where such intervention is necessary; and
 - promoting and conserving the local cultural ethos.
- 2) The policies governing mountain tourism development should be transparent about the Government's role. Among the various aspects, emphasis must be laid on the following aspects:

- the ground rules for private sector operations, including specific criteria to enable enterprise development, e.g., considerations regarding carrying capacity, the role of local people, and the scope for expansion;
 - the process and practice of allocating resources despite implementation through different sectoral agencies;
 - the role of the Government in minimising conflicts over resource use, particularly in designated protected areas;
 - the role of the Government in coordinating the mobilisation of resources from the private sector, including financial agencies that can support private and non-government initiatives; and
 - the precedence of different sectoral policies that affect tourism, including regulations.
- 3) The policy on mountain tourism must evolve in association with state governments, the NGOs working in the region, and the representatives of local communities, so that there are fewer discrepancies between the Centre and the state, or between either of them and the local perceptions about the role of mountain tourism.
 - 4) The fundamental role of institutional development and the need for proper information systems need to be emphasised.

Programme Formulation

Programme formulation must consider the carrying capacity of each destination and route being promoted as well as those destinations where tourism already exists. Carrying capacity evaluation must be dynamic, and programme formulation must be on the understanding that it is a tool to continuously assess the development of tourism; and it must be used as the most important feedback for reviewing policy, programmes, and specific projects. The most important aspects that need to be considered, in developing criteria to evaluate carrying capacity, are as follow.

- 1) The critical factors that affect carrying capacity have to be considered, and the limiting factors have to be identified. The limiting factors could be the timespread available for tourist activity. They could also include socioeconomic, cultural, ecological (including bio-diversity) considerations, infrastructure, institutions, perceptions of tourists about their experience, and visitor behaviour patterns. The limiting factors, in some cases, are the government regulations, including legislation, which could restrain certain classes of tourist.

- 2) It is important to internalise and also, if necessary, reconcile local and visitor perceptions of carrying capacity. While carrying capacity is the cornerstone of tourism development, the options should not be closed down for tourism development in any region in the mountains.
- 3) Critical zones must be identified on the basis of the established policy criteria, the nature and type of and timespread for tourism, and the actual and perceived impacts.

The parameters for visitor satisfaction in critical zones must be clearly identified, and unobtrusive and appropriate mechanisms must be designed to promote acceptable tourist behaviour.

- 4) Programme formulation must take into account the complementary nature of the development infrastructure and tourism and identify synergies that can be derived in the creation of facilities. This should be carefully analysed in creating new access, services, and production systems, and it must be reflected in all facets such as skill development, technology choice, and resource management.

Planning

Planning must be considered for both the long-term effects of carrying capacity and short-term returns to the local community. The planning process must involve local communities and must include all aspects of local development. Only such an approach can help identify the role tourism can play in any particular place. This necessitates a number of aspects.

- 1) Institutions must be created and strengthened to design and carry out various tasks for sustainable mountain tourism development. The institutional base should enable participative planning at local and regional levels and be able to feed into the national plan processes.
- 2) It should also have a strong spatial and programme focus, so that specific outcomes can be monitored for the various aspects that need to be changed through the development of tourism in the region.
- 3) Plan formulation must be a coordinated effort of the Government, non-government organisations, research institutions, the private sector, and local communities, in order to reflect the variety of influences on tourism development in the region.
- 4) Settlement planning must be an integral part of the tourism development process. The management of a built environment will be an essential aspect of this activity, and the plan should identify ways for the long-term sustenance of the service systems.

Private enterprises, at all levels, should have broader goals in their areas of operation rather than be narrowly guided by short-term gains. This is becoming very important as the wider economic changes are causing unscrupulous entrepreneurs to swiftly change their lines of trade for the sake of immediate gain. Local enterprise has the dual role of fuelling the local economy and keeping a watch on such profit raiders.

Non-government Organisations

Non-government organisations can play a significant role in various facets of the community development process. They can help local communities to resolve conflicts about the use of resources and also enable a more rational and sustainable use of resources. They can also help local enterprises by providing the necessary technical assistance. They can be involved in a creative partnership with local institutions to evolve new tourism products and solve existing environmental problems.

Summary and Project Outcomes

This project, with its focus on local community development, has provided an overview of the nature and implications of tourism in the region, and it has, through the case studies, allowed us to make a number of inferences about how tourism can become a more important and focussed initiative in the region. The important aspects are as follow.

Information and Monitoring Systems

The urgency for information and monitoring systems has been felt during the research programme, in the entire Hindu Kush-Himalayan Region. The information for planning and developing tourism is extremely limited and government agencies in both states (Himachal Pradesh and Uttar Pradesh) have expressed concern about the lack of data for devising effective plans and monitoring the results of the tasks implemented.

One fundamental lacuna in India, and perhaps in all the countries of the region, is that most research is reactive or *post hoc* and, therefore, the various departments do not have a strong basis for planning. Further, the tasks of data collection and maintenance of statistics are with separate departments which often have no linkages or interactions with the various sectoral agencies. In areas such as tourism, which cuts across many economic sectors, this department's specific interaction is inadequate.

Information Needs

Information needs exist at various interfaces of the tourism process. The visitor requires information about tourist resources and the services available at different destinations and along different routes. The agencies and tour operators require information to fulfill this need.

The researcher and the planner need information to assess the carrying capacity of destinations and routes. They also require information on the nature of the current tourist inflow and the potential for attracting the particular type of tourist whose satisfaction levels would be higher for the existing tourist resources and services, and from whom the local people could benefit the most.

The Government and the private sector need information on the most attractive opportunities for investment in terms of economic and development returns.

Tourist Research Information Package Software

The necessity for an information base led the research team to develop a FOXPRO-based programme (Tourist Research Information Package) and incorporate the existing datasets for various destinations in the Uttar Pradesh Hills and Himachal Pradesh in the programme. The complete documentation of the programme and the initial dataset for the destinations are provided in an accompanying document. This software can be used on many levels, e.g., to provide information at Tourist Information Centres and for decision-makers involved in tourism development and management.

Data Needs for Continuous Assessment of Carrying Capacity

Data needs for continually assessing tourism carrying capacity vary according to ecological and tourism regions. Broadly, the structure of required information varies between areas in which tourism already exists and tourist assets exist, but where tourists need to be encouraged to visit, and areas in which tourist assets have to be developed. In order that, in each of these contexts, the local community development issues are focussed, an inventory of local resources for development has to be made, and the potential and constraints for development have to be assessed. A broad outline of such information has been developed on the basis of the specific case studies (Table 9.1). The methodology developed for the case studies can be adapted to various specific contexts.

Monitoring of and Feedback on Carrying Capacity

While the critical factors affecting carrying capacity may be stable for a long time, the limiting factors will change with the natural changes and human interventions in the region. For instance, any change in the regulation governing the traffic movement to the Badrinath Zone, which requires no physical infrastructural development, can immediately change the current carrying capacity. The changes that occur in the numbers and nature of tourist inflow into the region will establish a new limiting factor. This monitoring task has to include both those parameters that can be technically assessed as well as those which reflect the tourists' satisfaction and their acceptance by the local community.

Table 9.1: Checklist for Resource Inventory and Carrying Capacity Assessment

Resource Inventory Survey
1. Physical Resources
<ul style="list-style-type: none"> ● <u>Land</u> Land ownership categories Current land use Land availability for various purposes Land productivity
<ul style="list-style-type: none"> ● <u>Water</u> Water sources' relationships to settlements Water quality at different sites/periods Current consumption at different periods
<ul style="list-style-type: none"> ● <u>Forests</u> Area under different forest categories Rights and privileges of local communities Production and productivity
<ul style="list-style-type: none"> ● <u>Existing Tourist Resources</u> Temple and pilgrimage sites Trekking routes Skiing slopes Forests and floral habitats
<ul style="list-style-type: none"> ● <u>Existing Infrastructure</u> Access and communication Housing and accommodation Water supply systems Sanitation and waste disposal Power and other energy supply systems Public distribution systems Market infrastructures

2. Human Resources

- Local Population
Location-wise distribution
Composition
Current occupations
Educational and skill status
- Regular Immigrants
Source regions
Duration of stay
Relationship with local communities

3. Cultural Resources

- Traditional Conventions and Norms
Community hierarchies
Roles and privileges of different groups
World-views : beliefs and customs
- Traditional Festivals
Periods/dates
Associations - nature, religious beliefs
- Arts and Crafts
Products
Association - communities, raw materials

4. Financial Resources

- Local Incomes
Agriculture
Animal husbandry
Income from tourists
Horticulture
- Government Investments
State line agencies
Development investments
Specific projects
- Private Investments
Local people
Outsiders

5. Institutional Resources

- Government
State line agencies
District agencies
Government corporations
Specific development authority
- Panchayat
Zilla parishad
Block/ village *panchayat*
- Traditional Institutions
Temple management committees
Community *panchayat(s)/gram samaj*
Bazaar committees/unions

6. ASSESSMENT OF POTENTIAL AND NEEDS

- Potential Tourist Resources
Temple and pilgrimage sites
Trekking routes
Eco-tourism trails
Skiing slopes
- Infrastructural Requirements
Transport
Accommodation
Water
Sanitation
Restaurants and eating places
- Training Needs
Communication skills
Tour operations
Hotel management
- Investments Needs
Infrastructure
Skill development
Management

One of the important inferences from the study has been the necessity for changing the notions regarding seasonality. Seasonality has been seen to be valuable in most cases so that ecological systems can recuperate. Therefore, all planning for tourism development has to consider the timespread available for tourist activities and develop optimal systems for that period.

Specific Recommendations for the Case-Study Areas

The following specific short-term recommendations have been made for Kinnaur district, keeping in mind the existing financial resources and the mandates of the leading agencies.

- 1) Accommodation being the critical limiting factor, it is necessary to focus on creating additional accommodation facilities. This could be best achieved by encouraging the local people to accommodate paying guests. Any large-scale construction by the Government, or its agencies, must be avoided.
- 2) Sanitation and sewerage systems must be fundamentally redesigned for specific destinations.
- 3) Parking facilities and bus stands are necessary to avoid traffic bottlenecks and localised pollution.
- 4) More options for alternative tourism should be created, for which there exists a wide scope.
- 5) Better support systems, for promoting and monitoring tourism and its impacts, must be established.

In the case of Badrinath Tourist Zone, the following recommendations have been made with similar considerations.

- 1) The Valley of Flowers must not be a sanctuary, as this is both detrimental to the local communities and to the promotion of tourism. This has also provided larger scope for illegal extraction as local communities are unable to monitor what is happening in the region. Simultaneously, the attempts to make a road up to Ghangaria must be stopped. The tourism department and the Uttarakhand Development Department should assume leading roles in tourism development in the region. The views of local people should also be given adequate weightage.
- 2) Sanitation facilities and foot-trails need to be improved in Mana Village. A marketing channel needs to be established to market the woollen garments and other items produced.

- 3) A thorough analysis of the Master Plan for Badrinath Town is required and settlement planning has to be carried strictly to preserve the traditional architectural styles and aesthetic quality.
- 4) As an immediate measure, the pending wages of the sanitation workers must be settled.
- 5) The *Panch Badri(s)* must be developed and marketed as a package, and this will enable a marginal extension of the timespread of tourism.

Follow-up Activities Initiated

A number of activities have been initiated, particularly in the Uttar Pradesh Hills, as a direct follow up of this research. These activities, which will lead to specific outcomes, have been initiated as a result of the two phases of the research programme. The efforts in Himachal Pradesh have been limited and, they will be resumed when some of the activities achieve stability. Some important follow-up activities among them are as follow.

- 1) A short tele-film of 12 minutes' duration was made. This is being extended into a 30-minute film on the tourism situation in the Garhwal Himalayas.
- 2) A two-part programme on Mountain Tourism has been accepted for telecasting by the country-wide classroom programme of the University Grants Commission.
- 3) The Uttarakhand Development Department of the Uttar Pradesh State Government seeks to plan community tourism circuits in the Chakrata *tehsil* of Dehradun District.
- 4) The Garhwal *Mandal Vikas Nigam* requested a short orientation programme on TRIP software. Senior officials were exposed to the software and opportunities for extending their efforts were highlighted.
- 5) A feasibility study for converting solid wastes into biofertilisers and/or energy is being carried out with the possible support of Garhwal *Mandal Vikas Nigam*.
- 6) A private sector agency wants assistance for environmentally-sound designing of tourist resorts in the region.
- 7) The state government wants to review the plans for promoting adventure tourism in the region.
- 8) The Garhwal *Mandal Vikas Nigam* has sought assistance in the preparation of its long-term corporate plan.

ICIMOD

ICIMOD is the first international centre in the field of mountain development. Founded out of widespread recognition of environmental degradation of mountain habitats and the increasing poverty of mountain communities, ICIMOD is concerned with the search for more effective development responses to promote the sustained well being of mountain people.

The Centre was established in 1983 and commenced professional activities in 1984. Though international in its concerns, ICIMOD focusses on the specific, complex, and practical problems of the Hindu Kush-Himalayan Region which covers all or part of eight Sovereign States.

ICIMOD serves as a multidisciplinary documentation centre on integrated mountain development; a focal point for the mobilisation, conduct, and coordination of applied and problem-solving research activities; a focal point for training on integrated mountain development, with special emphasis on the assessment of training needs and the development of relevant training materials based directly on field case studies; and a consultative centre providing expert services on mountain development and resource management.

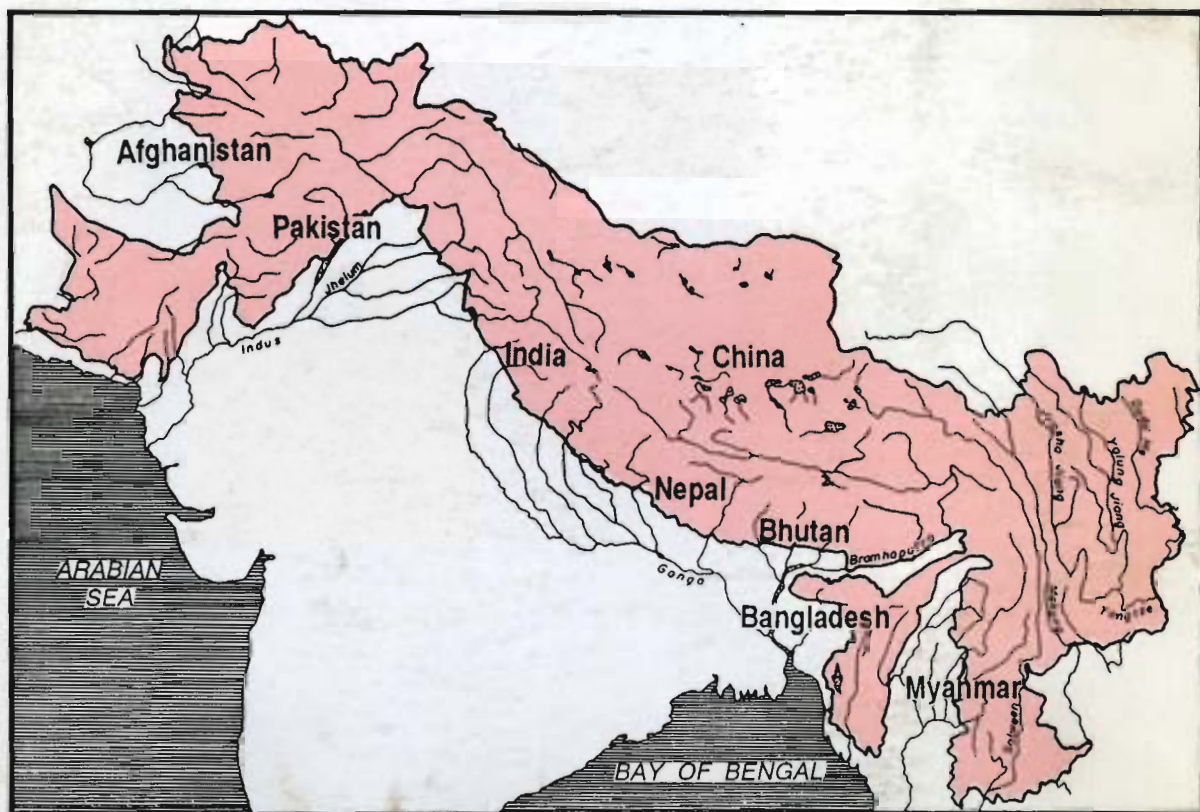
MOUNTAIN ENTERPRISES AND INFRASTRUCTURE DIVISION

Mountain Enterprises and Infrastructure constitutes one of the thematic research and development programmes at ICIMOD. The main goals of the programme include i) gainful enterprise development and income generation; ii) harnessing mountain specific advantages; iii) infrastructural development (social and physical); iv) sustainable energy resources for mountain development; and v) capacity building in integrated mountain development planning.

PARTICIPATING COUNTRIES OF THE HINDU KUSH-HIMALAYAN REGION

✱ Afghanistan
✱ Bhutan
✱ India
✱ Nepal

✱ Bangladesh
✱ China
✱ Myanmar
✱ Pakistan



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