

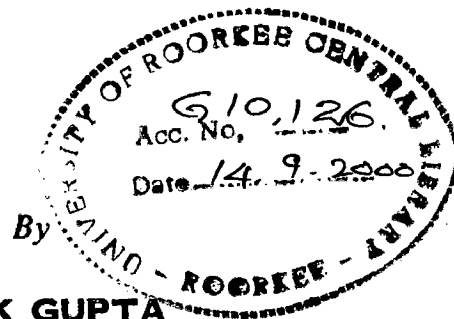
IMPACT OF TOURISM ON RISHIKESH U.A.

A DISSERTATION

*Submitted in partial fulfilment of the
requirements for the award of the degree*

of

MASTER OF URBAN AND RURAL PLANNING



**DEPARTMENT OF ARCHITECTURE AND PLANNING
UNIVERSITY OF ROORKEE
ROORKEE-247 667 (INDIA)**

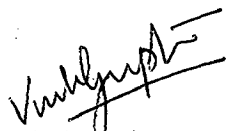
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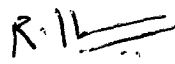
I hereby certify that the work which is being presented in the dissertation entitled, '**Impact Of Tourism on Rishikesh U.A.**' is the partial fulfillment of the requirements for the award of the degree of **Master Of Urban And Rural Planning** submitted in the **Department Of Architecture And Planning, University Of Roorkee, Roorkee** is an authentic record of my own work carried out during the period from July 1998 to January 2000 under the supervision of **Prof. R. Shankar**, Professor, Department of Architecture and Planning, University of Roorkee, Roorkee.

The matter embodied in this dissertation has not been submitted by me for the award of any other degree or diploma.

Date: 30/01/2000


(Vivek Gupta)

This is to certify that the above statements made by the candidate are correct to the best of my knowledge.


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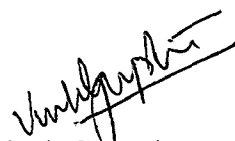
ACKNOWLEDGEMENT

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(Vivek Gupta)

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Chapter - 1

Impact of Tourism on Resnikesh, L.A.

CHAPTER 1: INTRODUCTION

1.1 Historical Background of Rishikesh

Rishikesh is the “place of Sages” is a celebrated spiritual town on the River Ganga and is surrounded by the Shivalik Range of Himalayas on three sides. Rishikesh is situated on the bank of river Ganga at the 30°-6' north longitude and 78°-18' east latitude.

Rishikesh town has been mentioned innumerable times in the old religious text. It has been called as ‘Kubjamrak’, a place of religious importance. According to Indian Mythology, it is said that when Raibhya Rishi did hard penance’s, God Vishnu appeared to Rishi Raibhya on the top of a mango tree due to latter’s hard meditation. He appeared in the form of ‘Hrishikesh’ one who has complete control over our senses. The mango tree swayed to one side due to lord Vishnu’s weight. Henceforth the place was called ‘Kubjamrak’ and their caretakers were called ‘Hrishikesh’. This area henceforth came to be known as ‘Rishikesh’ a distorted version of ‘Hrishikesh’.

In Rishikesh, lord Luxman, the younger brother of lord Rama prayed for lord Shiva to get salvation from the feeling of sin of Magnath’s killing. Therefore, the bridge over river Ganga is called Luxman Jhoola. There is a Chandrabhaga river in the heart of town towards Muni Ki Rati. Muni Ki Rati is famous because of Ashrams and muths. Rishikesh is also well known as a meditation center.

1.2 Regional Linkages

Air

The nearest airport is jolly grant, which is 18km from Rishikesh on the way to Dehradun. At present charter planes operate.

Rail

Rishikesh is connected by rail with Haridwar, Delhi, Bombay, Howrah, and Lucknow and Agra.

Road

Road with most places of north India connects Rishikesh.

Some important distances are: -

Haridwar	: 24 Km.	Kunjapuri	: 27 Km.
Dehradun	: 43 Km.	Chamba	: 63 Km.
Deoprayag	: 70 Km.	Mussoori	: 7 Km.
Dhanolti	: 97 Km.	Delhi	: 245 Km.
Gangotri	: 248 Km.	Nanital	: 260 Km.
Simla	: 262 Km.	Agra	: 398 Km.
Govindghat	: 275 Km.	Lucknow	: 555 Km.
Badrinath	: 300 Km.	Yamnotri	: 234 Km.
Mathura	: 368 Km.	Rudraprayag	: 138 Km.
Kamaprayag	: 170km.	Kedarnath	: 227 Km.

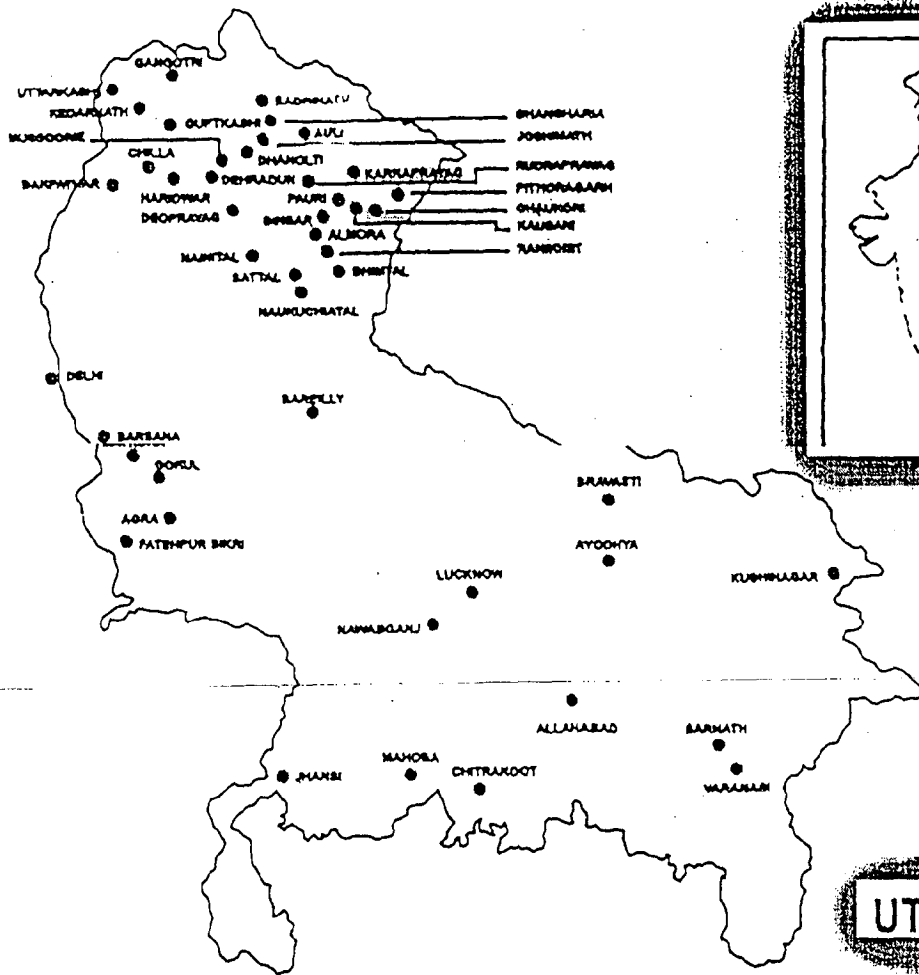
1.3 Identification of Problem

Rishikesh town is facing a lot of problems concerning planning. Land uses of Rishikesh has been not properly planned causing various types of problems. Commercial land use has been developed along the roads, making the route congested in peak hours. Parking facilities are not adequate, in the core of the town at key points.

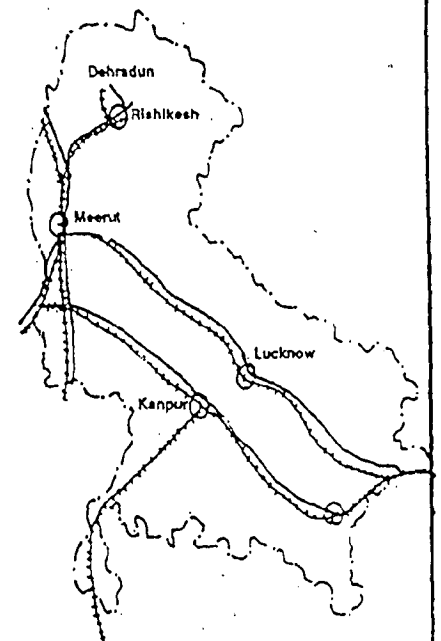
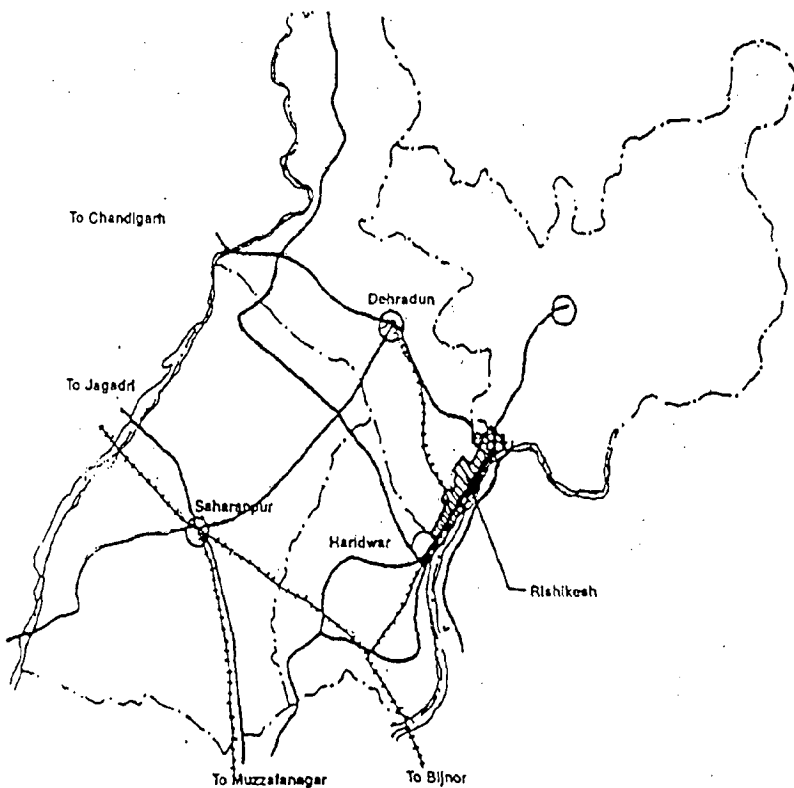
Scarcity of open space or recreational area in residential areas also exists. The numbers of Ashrams in Rishikesh are occupying a lot of space in turn leaving a little, pace for residential sector. Some of the important problems are as following.

Commercial

1. The commercial activity is not in adequate quantity to meet the demand of the tourists coming to Rishikesh.
2. No proper space is allotted for small-scale commercial shops and businessmen, who in turn are occupying the roadsides and making those places crowded and congested.
3. Subzi Mandi is not properly located and creates a crowded atmosphere in peak hour.
4. No parking facilities have been provided in commercial areas.
5. No provision of storage facilities and a right place for whole sale market.
6. Problem created by the motor repairing shops, which are located on the sides of the road without adequate parking facility.
7. No proper organization of commercial activity around religious places.

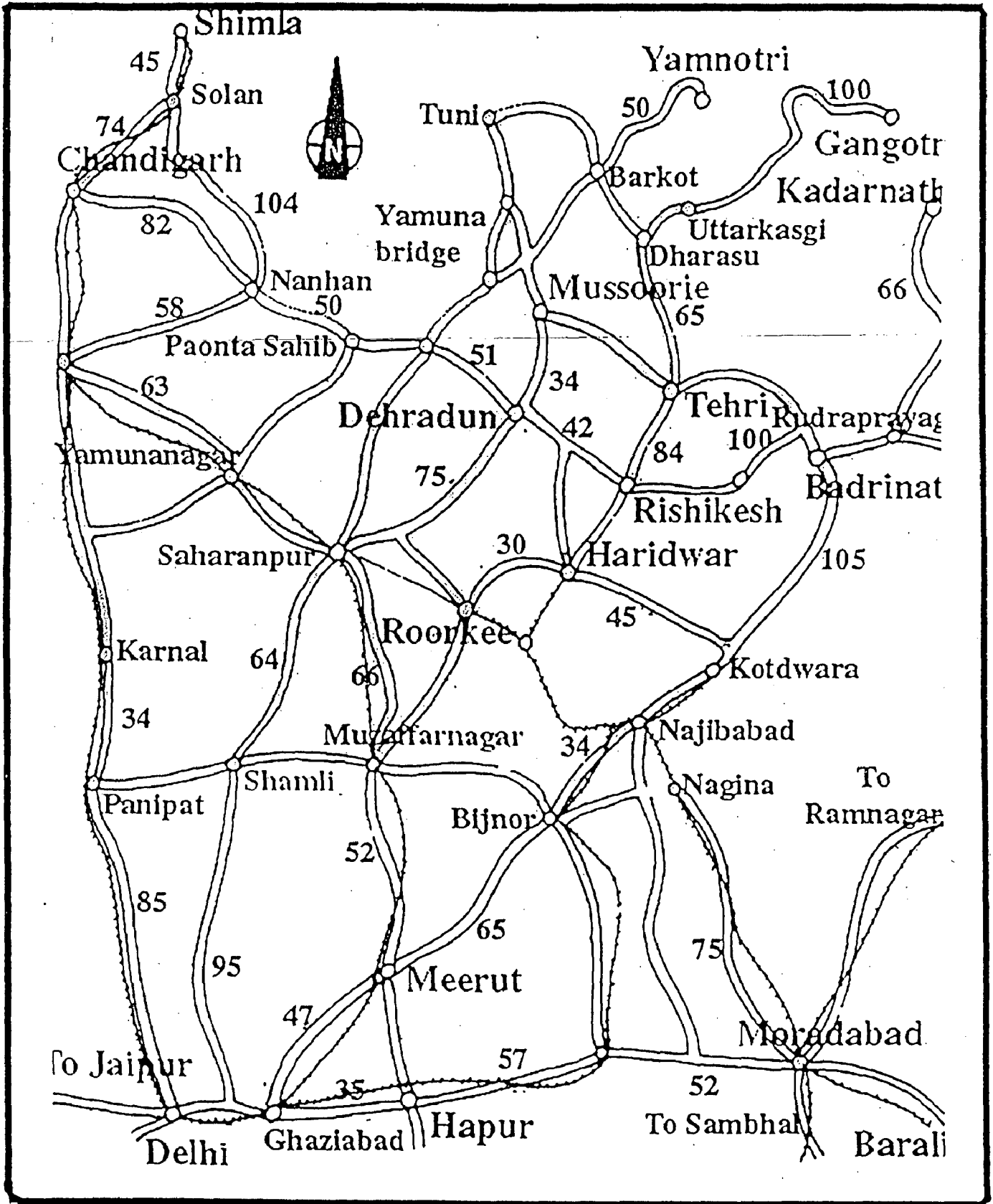


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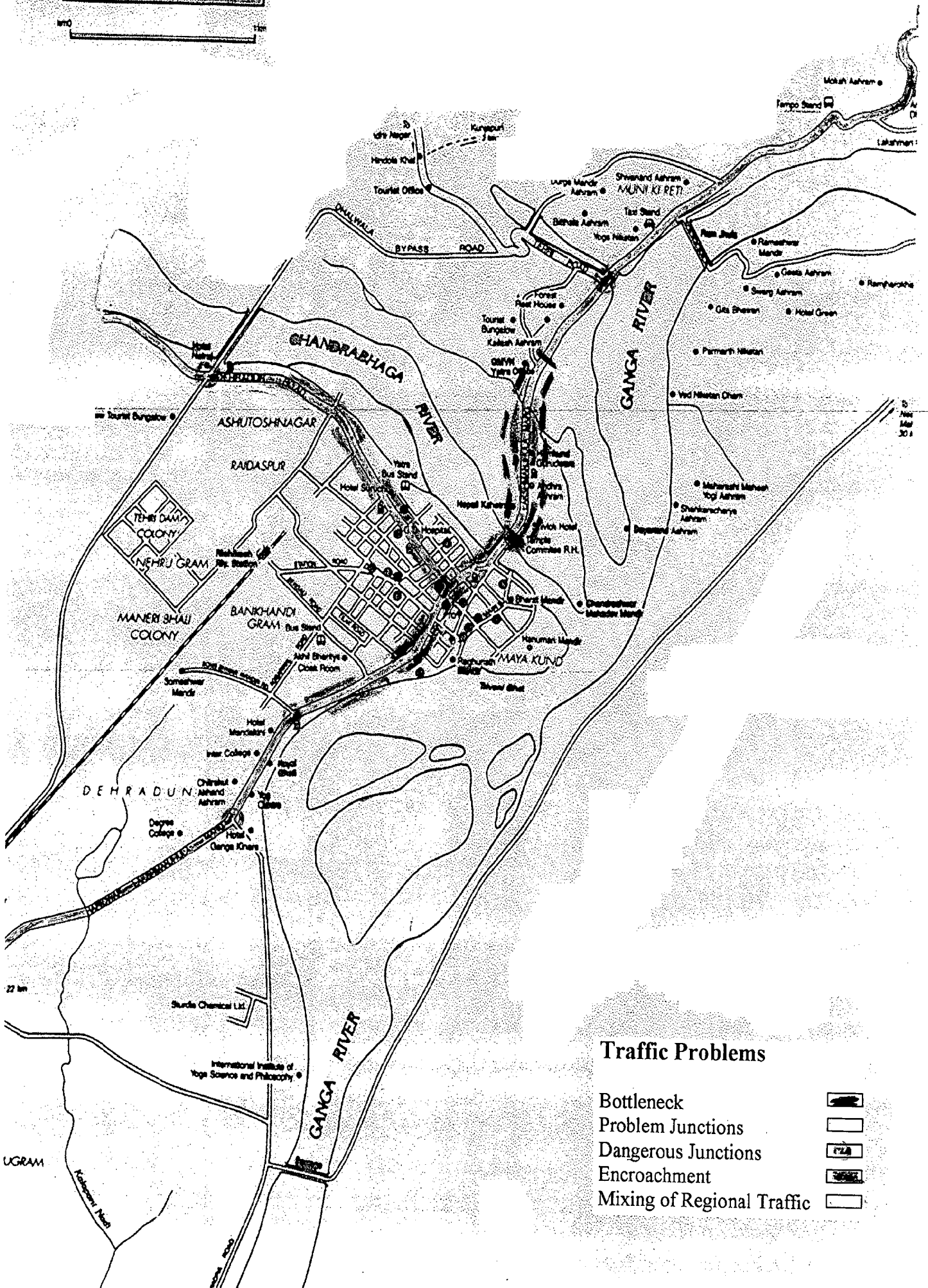
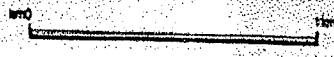


Regional Linkages of Rishikesh






Regional Linkages to Rishikesh

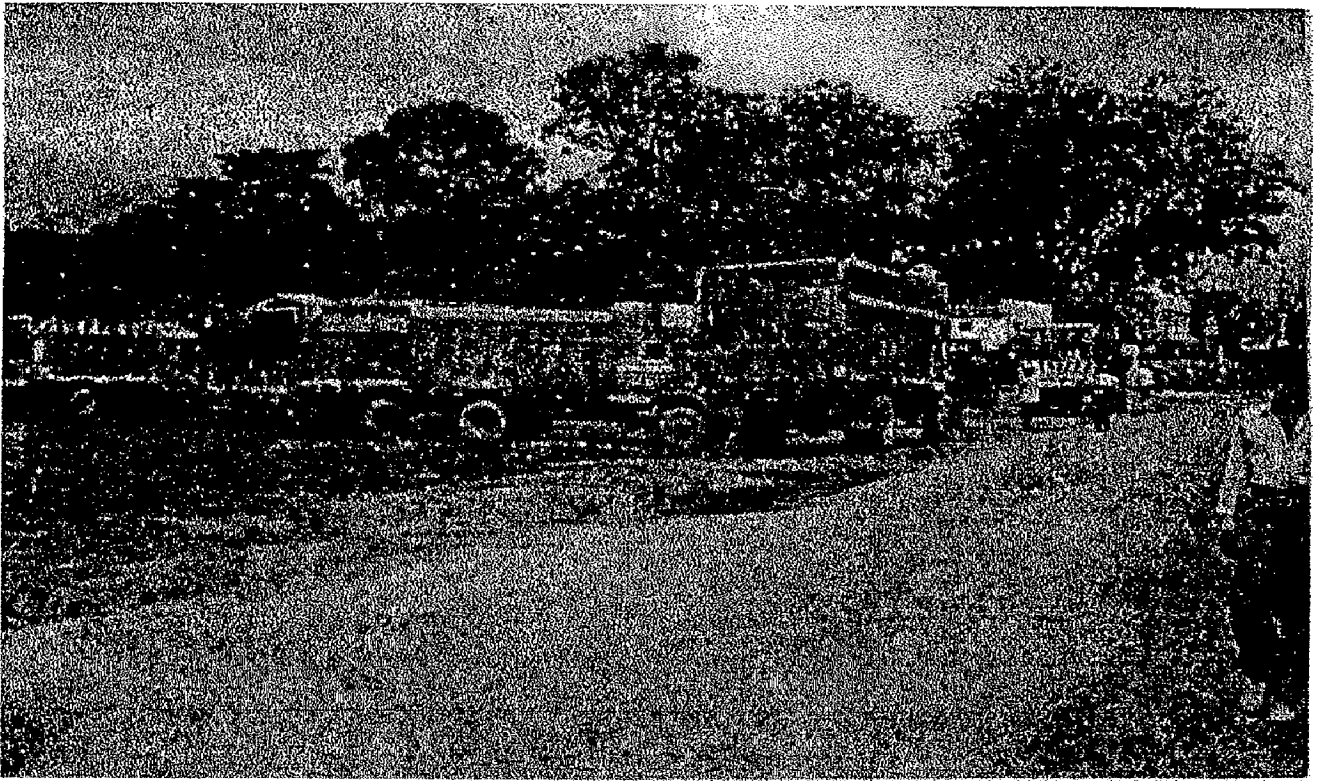


RISHIKESH



Traffic Problems

- Bottleneck 
- Problem Junctions 
- Dangerous Junctions 
- Encroachment 
- Mixing of Regional Traffic 



Unorganised Parking along the main Haridwar -Rishikesh Highway



Poor Condition of Bathing Space at Treveni Ghat



Traffic Congestion on the Existing Bottleneck along Haridwar-Rishikesh Road



Poor Drainage Condition of the Parking Places



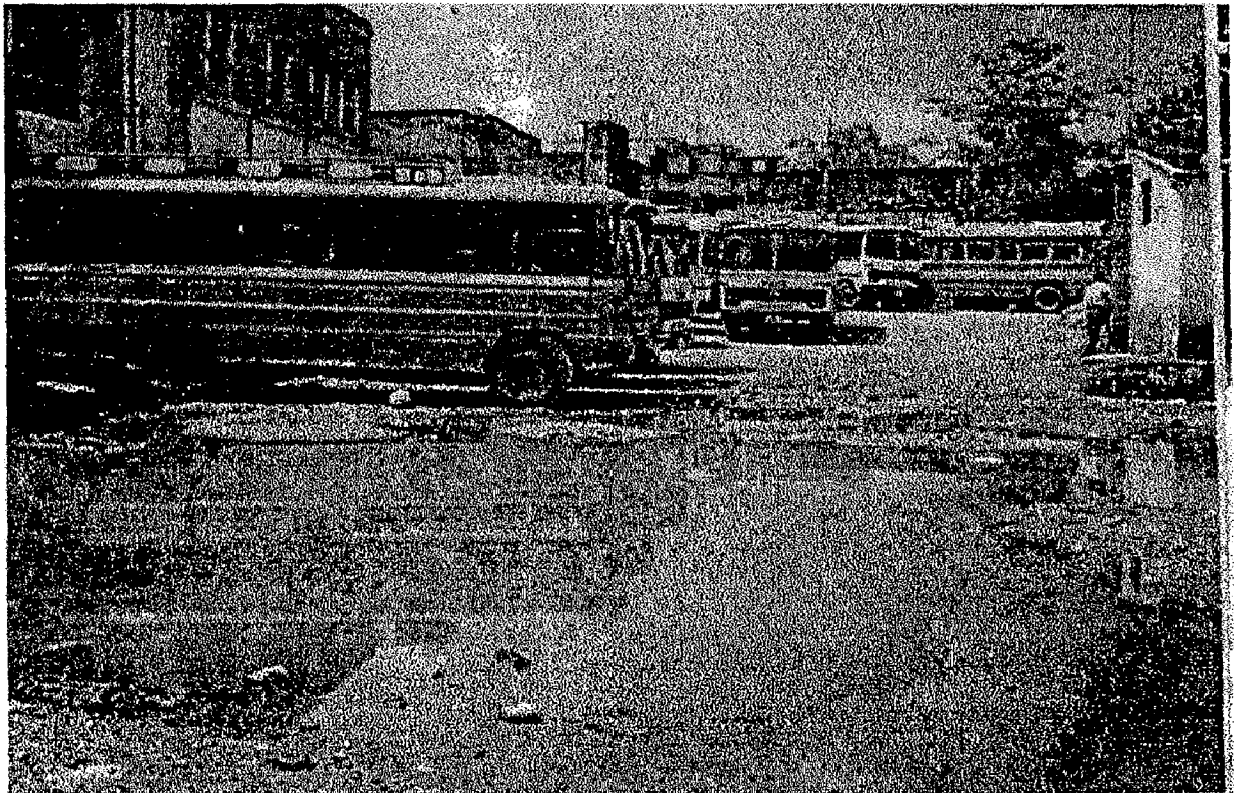
Poor Drainage Condition of the Main Road Reaching to main Tourist Centers



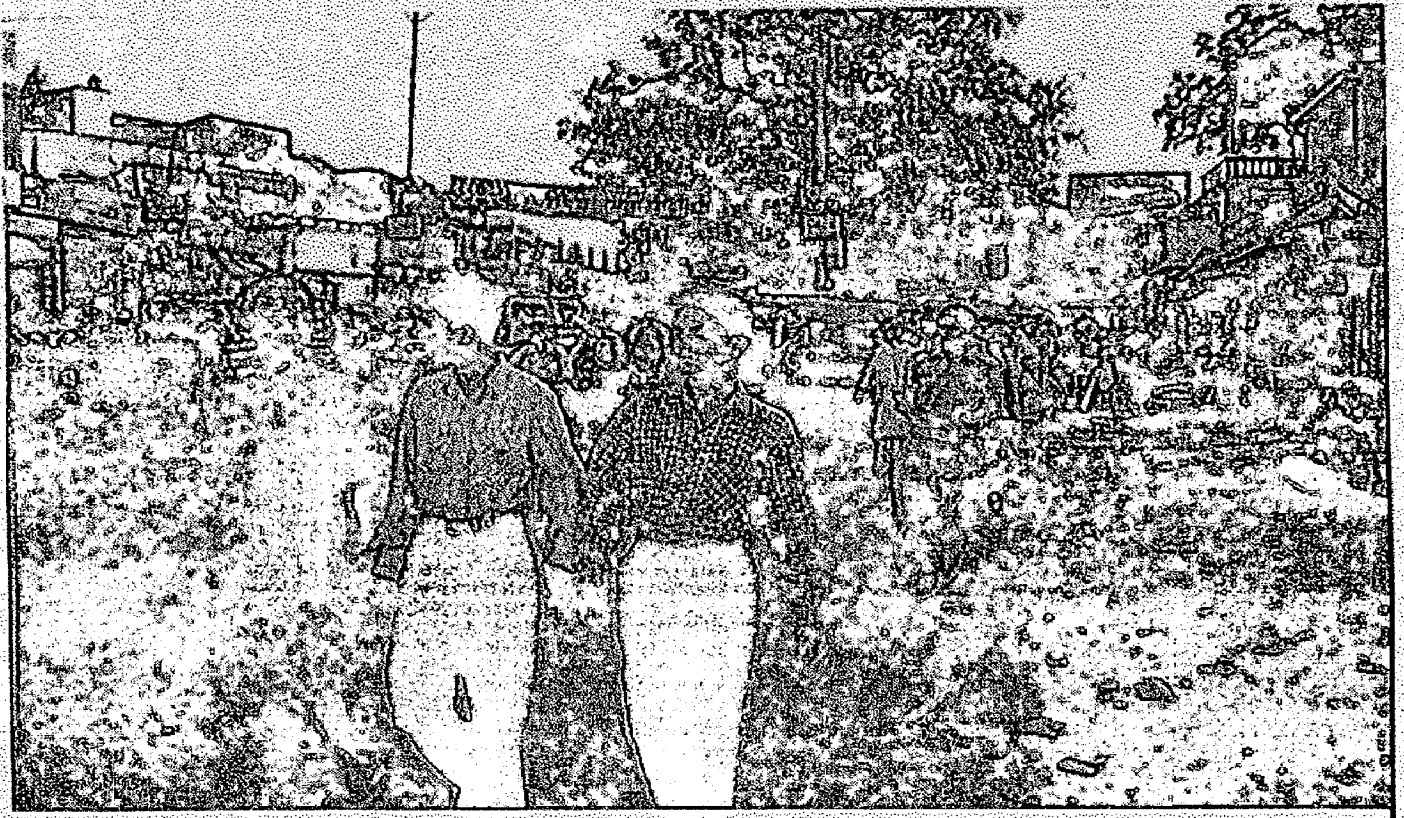
Informal Sector along the Main Road



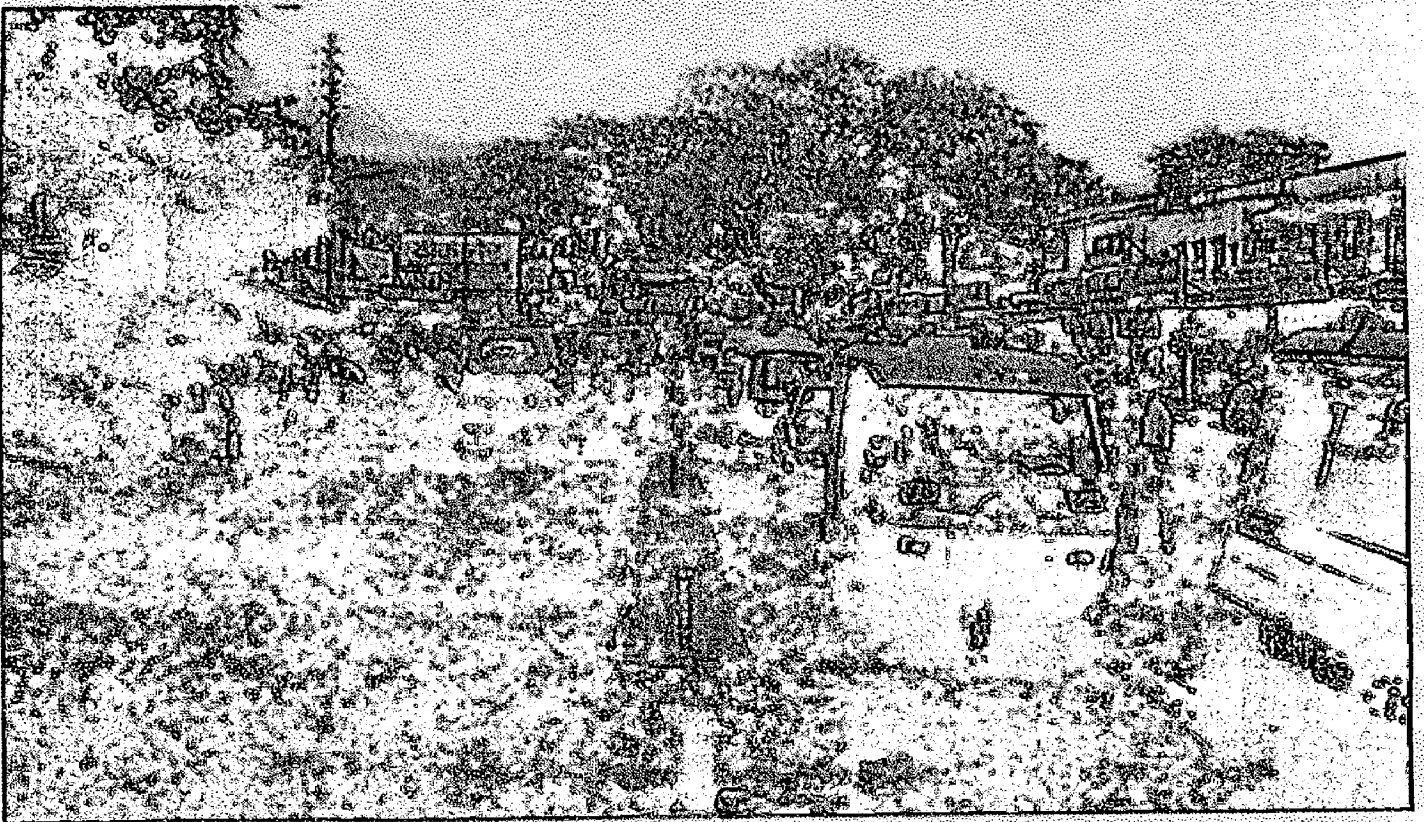
Traffic congestion on the main Road



Poor Drainage Condition of the Parking places



On Road Auto Stand ,On the main Junction



Intensity of Traffic in the Town

Community Facilities

1. Inadequate open space for playing and recreation area along with the schools
2. Lack of public parks in the town.

Public Utilities

1. The peripheral areas of Rishikesh are not well connected with water supply network.
2. The electricity is not adequately supplied to all parts of the town.

Sewage Disposal

1. Sewage network is not extended to all parts of the town.
2. The power of the pumping stations is not adequate.
3. Sewage treatment plants are also not adequate.
4. Difficulties in extending the sewage network to uphill areas.
5. Improper maintenance of the sewer lines.

Transportation

1. The growth of shops along the main road causes a great obstruction and creates turbulence in the traffic leading to congestion.
2. The transport services to the places of religious interest is not maintained in a proper way. The pilgrims have to rely upon the private transport.
3. Narrow roads leading to the temple places cause a great congestion to the people and traffic.
4. Problems with the mixed internal traffic of the town.
5. Number of bottlenecks present on the main road because of the irregular building line obstructs the traffic.
6. The main road of Rishikesh is not having sufficient width to take the peak traffic volume.
7. Problem of hawkers on the main road, reducing the effective width of the road.
8. Electric poles covering the space at the side of the roads reduce the effective width of the carriageway.
9. Improperly designed intersections.
10. Lack of traffic management in the town.

1.4 Objectives of the Study

1. To identify & study various tourism related activities occurring within the U.A. of Rishikesh in space & time.
2. To assess the impact of various existing tourism related activities in terms of problem & identification, prioritization and cost effect network.
3. To project the needs and activities requirement for tourism for the plan development of Rishikesh.
4. To prepare plan proposal for the tourism development within Rishikesh U.A.

1.5 Scope and Limitation

The study will confine itself to the movement, pattern, needs etc. of the tourist population within the urban agglomeration of Rishikesh. It is intended to study only those aspects and impacts of the environment of Rishikesh for which data are readily available or can be gathered within the time limits. Essentially this will be a planning study from the point of view of the core function a town, in this case, that of pilgrims and tourists the process of which can be applied to the planning study of other town also.

1.6 Methodology

The project will start with the collection, assimilation and analysis of various relevant data collected from secondary sources. The identification of data gap will lead to the required field study- discussion, interview etc. to complete the information base, which in turn lead to the final analysis in terms of descriptive, statistical and graphic method.

The area of study comprises of mainly Rishikesh Municipality, Muni Ki Rati and Swargashram area i.e. Urban Agglomeration, but for the future development of Tourism, Surrounding areas are also taken into account.



Chapter 1

Impact of Tourism on Reshikesh B. A.

CHAPTER 2: LITERATURE REVIEW

2.1 Tourism

Tourism is defined as an activity encompassing all travel with the exception of community. But this definition is too general. Some specialists restrict tourism to trip distance over 50 to 100 miles from home. Some definition requires that a person stay one night to be counted as tourist. Other definition includes only vacation and pleasure trips. One of the most acceptable definitions is by Mathieson and Wall: Tourism is temporary movement of people to destination outside their normal place of work and residence, the activities undertaken during the stay in those destinations, and the facilities created to cater to their needs.

International Tourist

The definition of international tourist, which all country of the world accept, is a person spending a minimum of 24 hours & a maximum 6 month in a country other than his own, living in hotels or other commercial accommodations where he pay in his own currency.

Domestic Tourist

The domestic tourist is one who travels more than 50 miles away from the home and spends at least a night in a hotel or some place where he has to pay.

2.2 Type of Tourism

Depending upon resources, there may be six types of tourism in a country. These are:

Recreation Tourism

As the name suggests, the purpose of this category of tourism is recreation-holiday or pleasure. It has been estimated that 75 per cent of international travel in the world and 50 percent of domestic travel is recreational. According to Indian government's survey also the purpose of visit of 75 percent of foreign visitors is recreation.

Adventure or Sport Tourism

The trips undertaken by people for playing golf, tennis, skiing trekking, mountain, etc. fall with in this category.

Cultural Tourism

When people are motivated to travel in order to see the cultural heritage of country i.e. visits ancient historical monuments, places of religious interest, museums, art galleries, etc., it is termed as cultural tourism.

Conference and Convention Tourism

This is a recent phenomena and people travelling to attend convention & conferences, attending meetings relating to their business etc. fall in this category.

Health Tourism

People are on health tour when they takes trips to have medical treatment elsewhere or to visit places where there are some special health facilities such as hot springs, yoga institute, etc.

Incentive Tourism

The concept of incentive travel was developed to motivate workers to do a better job. The manufacturing companies or business corporation offer their good workers, sales executive, etc. with reward of free holiday. Trip under such holiday's fall with in this category.

2.3 Sustainable Tourism Development

One of the greatest challenges faced by the planner is to ensure the human settlement remains both economically & environmentally sustainable. Sustainable development is the development that meets the need of the present without compromising the ability of future generation to meet their own needs.

2.4 Eco Tourism Policy

The prosperity that tourism brings should cause accretion and strength rather than damage to our social and cultural values and deletion of our natural resources. Realization

of these policy objectives, particularly in the context of Eco-tourism, would involve a selective approach, scientific planning, effective control & continuous monitoring. The development process itself should meet the following cardinal principles:

1. It should involve the local community & lead to the overall economic development of the area.
2. It should identify the likely conflict between resources used for tourism and for the livelihood of the local inhabitants and to minimize such conflicts.
3. The type & scale of tourism development should be compatible with the environment and socio-cultural characteristic of the local community.
4. It should be planned as a part of the overall area development strategy, guided by an integrated land use plan and associated with commensurate expansion of public services.

2.5 Strategy in Ninth Five Year Plan

The specific component of the development activity during the ninth plan have been outlined as:

- Infrastructure Development;
- Project development & diversification including mega tourism resort;
- Entrepreneurship development and promotion of self employment opportunities;
- Enhanced tourist facilitation;
- Human resource development;
- Research and computerization;
- Promotion & marketing;
- Environmental protection and cultural presentation;
- Provision of incentives;
- Monitoring and evaluation;
- Strengthening of organization.

2.6 Significance of Impact Studies of Tourism Activities

Today tourism is the world's fastest growing industry. Tourism has reached out to touch every part of the globe, from deepest Africa to the rain forests of the Amazon to

highest point Mount Everest. Tourism has different meaning for different people and even the development of a place as the center of attraction for tourists involves various factors. It has great educative value and promotes the spirit of adventure. It involves a huge amount of capital as well as other factors of production to achieve different ends. Returns, therefore, become important. The expenditure the tourists incur affects the economy, environment, society and culture of a place very much.

Both tourists and those who provide for them affect the environment of the places they visit and the lives of local people. The impact can be positive or harmful depending on the choices that are made in the planning process. The massive tourist inflow has been concurrent with a generally unplanned growth of Rishikesh, causing various planning problems of very complex nature. The role and the impact of the varied and ever-increasing tourists population on the fragile environment of Rishikesh and the cause effect relationship have not been studied systematically so far and impact of tourism activities also not studied. It is truer in the case of subsistent rural economies having rich cultural and natural wealth. The policy makers turn to attractive activities like tourism to bring development to such regions. Moreover, the impacts are greater where the economic and cultural gap between the tourists and the local are substantial. Such attempts to solve economic problems sometimes create other more complex and unforeseen complications.

Many scholars think that international tourism play contentious role for third world development. The criticism of tourism parallels a general paradigm shift away from purely growth-oriented economic development towards more sustainable forms of development. The new paradigm requires program's that check the negative effects of economic behavior on local environment and culture. It proposes linkages between economy, culture and ecology. Mass tourism which was accepted as panacea of development until now encounters skepticism because its impacts and linkages are not necessarily or even probably, sustainable or benign and also because 'there is no other international trading activity which involves such a critical interplay among economic, political, environmental and social elements as in tourism'.

2.7 Problem of Impact Assessment

Impact research is a complex exercise like the phenomena of tourism itself. It is difficult to measure, in precise terms, the effects of tourism on various aspects, for its

intangible nature and suitable human stress, especially in the socio-cultural field. Quantifying economic impact becomes all the more difficult for want of basic input-output data. It is for this reason that impact research in tourism has gained only precious little ground. Besides, impact assessment can be never achieved in a short span of a few weeks or months. So impact assessment, which demands years of meticulous gathering of facts which should be tested and monitored on different time period, will not be as accurate as desire.

2.8 Review of Rishikesh Master Plan

The Rishikesh Master Plan is prepared for the horizon year 2001. Total population at the end of plan period is 1.09 lakh and total urban spread is about 1674.71 lakh hect. "Town & country planning department, U.P", prepare this development plan. This development plan consists of 18 chapters. The first chapter deals with introduction, historical background, Geographical position etc. The second chapter deals with Demographic characteristic Of Town Third chapter focuses with characteristic of employees. Fourth chapter deals with housing scenario. In the fifth chapter emphasis is given on Trade & Commerce. Seventh chapter deals with govt. & semi govt. offices. In eighth & ninth chapter complete description of community & utilities services is given. Tenth chapter focuses on present status of transport. In the eleventh chapter, the most important character of Town i.e. Tourism is dealed. In 13 to 18 chapter master plan proposals are given.

Master Plan Proposal

In Rishikesh because of non-availability of open land, the physical development of this was suggested on Riverside in southeast direction. This city is developing lengthwise direction in N-S direction because of hills in east direction & forest in west direction. The land for development is available only on south situated I.D.P.L. and Pashulok areas.

In reviewing the Master plan emphasis is given on those plan & polices which are adopted for tourist population of Rishikesh like Pilgrims, tourist etc. has been seen that people belonging to medium class came in large percentage.

Table 1: PROPOSED LAND USE

Land Use	Area (Ha)	Percentage
Developed area	315	21.21
Residential area	385	25.93
Tourism	50	3.37
Business	50	3.37
Offices	50	3.37
Community services	75	5.05
Industrial	70	4.71
Park & playground	170	11.45
Transport	135	9.09
River bank Development	80	5.38
Kumbh Mala area	50	3.37
Garden	55	3.90
Total	1585	100.00

Table 2: OTHER MAJOR PROPOSAL

S.No.	Type of service	No.
1.	<i>Community services</i>	
A.	Inter college	1
B.	Hospital	6
C.	Post office	1
D.	Police station	2
E.	Fire station	1
F.	Community center	4
2.	<i>Residential</i>	
A.	Developed area (High density) (375 pers/Hect. or more)	265
B.	Residential (Medium density) (270 to 375 person/hect)	225
C.	Residential (Low density) (180 to 250 person/hect.)	120
3.	<i>Transport</i>	
A.	Total proposed land	135
B.	Bus Terminal	5
C.	Truck terminal	11
D.	Max. proposed road width	45
E.	Min. proposed road width	18

• • •

Chapter - 3

CHAPTER 3: CASE STUDY

This case study is being done as a part of literature review from the M.U.R.P. dissertation "*Impact of floating population on Haridwar*".

3.1 Geographical Position

Haridwar is situated on the right side of the Ganga the longest perennial river of the sub continent. It is situated on 29°58' north longitude and 78°10' east latitude. It is 200 Kms. Away from Delhi, capital of India....

3.2 Criteria for Selection of Case Study

The criteria for selection of this particular report as case study are as follows:

- (a) The problem dealt in this report i.e. impact of floating population its analysis and remedies is similar to the thesis topic but in different dimension.
- (b) The causes & effects of this case study are similar to my thesis work.
- (c) By tanking this report as case study some lessons can be taken from the methodology, type of survey conducted and the way data has been analyzed is this report.

3.3 Aim of taking this as Case Study

To analyze, evaluate and apply to the thesis work wherever relevant.

3.4 Places of Interest

CHANDIDEVI-6 km.

The temple of Chandi Devi atop the Neel Parvat on the other bank of river Ganga was constructed in 1929 AD by the king of Kashmir-Suchat Singh. It is a 3 kms. Trek from Chandighat. Legend has it that goddess Chandi here after which the place got the name Chandi Devi killed the army chief Chana-Munda of a local demon King Shumbh-Nishumbha. It is believed that the Adi Shankaracharya established the main statue in 8th century AD

MAYA DEVI TEMPLE 0.5 km

This is an ancient temple of Maya Devi the Adhithatri deity of Haridwar, known as one of the Siddapeethas. Said to be the place where the heart and navel of goddess Sati had fallen.

King Vikramaditya constructed this sacred Ghat in memory of his brother Bhartrihari. It is believed that Bhartrihari eventually came to Haridwar to meditate by the banks of holy Ganga. When he died, his brother constructed a Ghat in his name, which later came to be known as Hari-Ki-Pairi. This sacred bathing Ghat is also known as Brahmakund. The reflection of golden hues of floral diyas in the river Ganga is the most enchanting sight in the twilight during the Ganga Arctis ceremony.

GURUKUL KANGRI UNIVERSITY 5 Km

It is situated on the Haridwar-Jwalapur bypass road. It is known for an old institution known for following a unique system of education in India. The Veda Mandir Museum with archaeological exhibits in display can also be seen.

MANSADevi TEMPLE 3.5 Km

The temple of Goddess Mansa Devi is situated at the top of Bilwa Parvat. Here, on statue of the Goddess have three mouths and five arms while the other statue has eight arms. The temple, which can be reached by a ropeway or on foot, affords a beautiful vision of the city of Haridwar.

DAKSHA MAHADEV TEMPLE 4Km

The ancient temple of Daksha Mahadev is situated in the South Kankhal town. The mythological story about this place is that king Daksha Prajapati, father of Sati (Lord Shiva's first wife) performed yoga at this place. Daksha Prajapati did not invite Lord Shiva and Sati felt insulted. Therefore she burnt herself in the yagya kund. This incident provoked the disciples and followers of Mahadev, who killed King Daksha, but later on Lord Mahadev brought him back to life, Daksha Mahadev temple is thus a tribute to this legend.

NEEL DHARA PAKSHI VIHAR 3.5 Km

(Enchanting bird watching Point)

During the winter season, fascinating birds, especially the Siberian Crane can be seen around Laljiwala on the banks of the river Ganga.

OTHER PLACES OF INTEREST

Bilwakeshwar Mahadev 0.5kms, Bhimgoda Tank 3 kms, Pawan Dham 4 kms, Bhooma Niketan 5 kms, Vaishnav Devi Temple 5 kms, Bharat Mata Temple 5 kms, Sapt Sarover 6 kms, Doodhadhari Temple 5 kms, Shahi Gurudwara 4.5 kms, Sureshwari Devi Temple 12 kms, Jairam Ashram 3.1 kms (All distances from the Tourist Office).

3.5 Major Problems

1. Places of religious importance are not inter-linked properly
2. No parking facilities have been provided in commercial area in the core of the city
3. There is no proper organization of commercial activity around religious places
4. Inadequate open spaces for playing & recreation
5. The parking of Rickshaws and taxies in front of the bus stand is not properly organised
6. Trivani Ghat is the most important place as Pilgrimage point. But it is not provided with:
 - a) Well maintained-bathing space at the peak hours
 - b) Cover shade for the rest of the pilgrims
 - c) Municipal services are not adequate to control
 - d) Movement of beggars
 - e) Movement of cattle particularly on Hari ki pauri
 - f) Location of shopping and other facilities close to Hair ki Pauri
 - g) Sanitary conditions of Dharmshalas & Ashrams particularly near Hair Ki Pauri
 - h) Encroachment along both side of the road had reduced the service capacity of the road
7. In the view of existing linear expansion of the town to the extent of nearby 12 Kms. Though mainly due to terrain conditions further linear expansion is not desirable

8. The main Haridwar – Rishikesh road runs through the town, mixing of regional & local traffic
9. Island of outstanding landscape beauty between river Ganga & Ganga canal, at present not used for any definite purpose, should be utilized
10. Public utilities, services, common facilities, and amenities are inadequate
11. The pilgrimage character of the town should be maintained, at present it is disturbed by location of further heavy industries in close vicinity, location of further industrial undertaking should necessarily be taken into consideration, the need of preserving pilgrimage character of the town

3.6 Impact Analysis

1. Residential areas of Haridwar town is getting congested with time and residential land use area is increasing continuously
2. Commercial activities are mainly confined at Hair- Ki- Pauri due to preference of traders. Encroachment by commercial activities of the road is very crucial problem in the Haridwar
3. Except open space community facilities are continuously increased during the past decades
4. Transportation and communication system is not organized. Traffic problem is acute in the main road of the Haridwar with increasing traffic volume and reduced road width
5. Natural environment of the Haridwar has been disrupted due to unplanned development, In Haridwar development is going on at the cost of nature. Trees are cutting, air & water are continuously polluted, and noise problem also exists
6. These are the natural environment problem, which Haridwar town is facing
7. Residences, shops and other type of structure have been consuming open spaces are consuming open spaces, which in the process of growth, is not good for the healthy environment of the town
8. A large percentage of the people who are engaged in commercial activities is dependent on the floating population

C h a b e r - 4

CHAPTER 4: RISHIKESH PLANNING STUDIES

4.1 Physical Characteristics

4.1.1 Physical Development of the Town

In 1908, Rishikesh town area committee was set up which was promoted to notified area committee in 1922. In 1926-27, Rishikesh was connected to railway line, as a result number of pilgrims started increasing continuously. Consequently it promoted to speedy construction of Ashrams, Dhramshala and rest houses. In the year 1936, "The Divine life society" was founded by swami Shivanand.

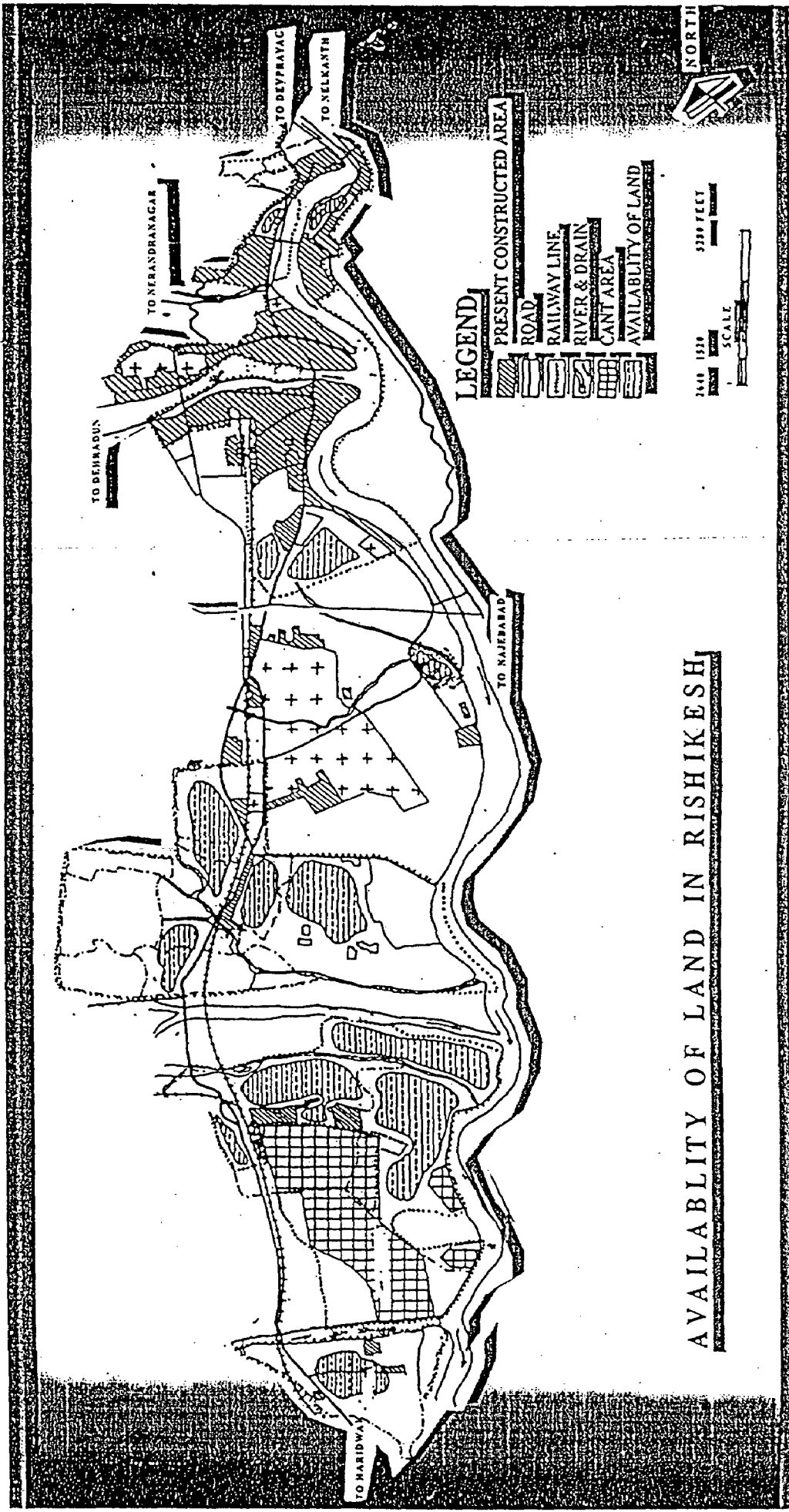
In 1930-40, The capital of Tehri, Narendra Nagar was developed by developing the Oadh village of Tehri hills. As a result of which, Rishikesh & Narendra nagar has been connected by road & Gangotri – Yamonotri journey became comfortable. After independence the physical development of Rishikesh. In 1949, Notified area committee was promoted to Nagar palika. In 1950, Rishikesh has been electrified and in 1954, water supply arrangement has been established. In 1968, I.D.P.L. was established in Virbhadra.

4.1.2 Direction of Development & Physical Barriers

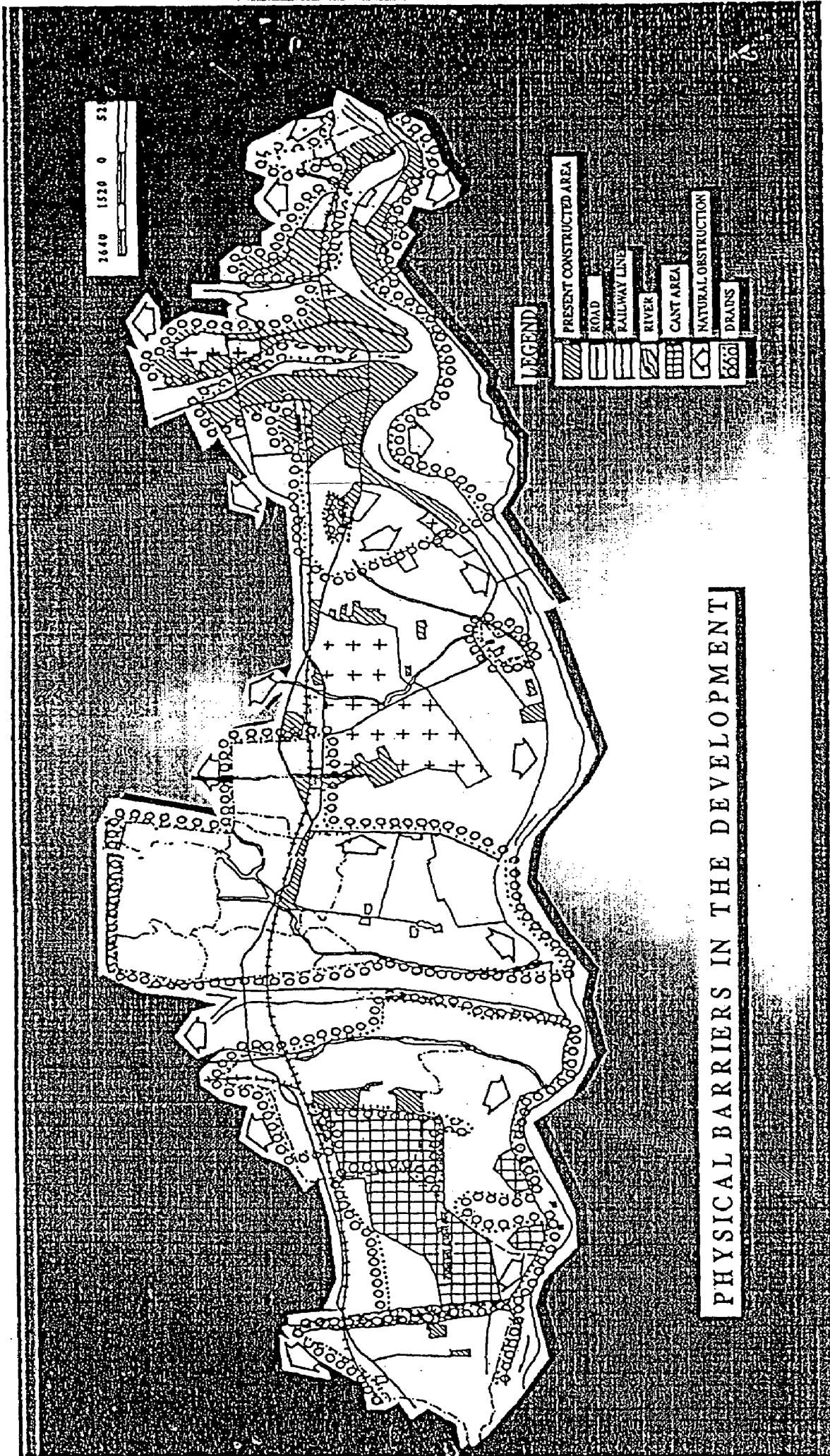
The physical development of town has been directed in south – east direction. The convenient & rapid physical development of town is not expected because of hills, in north of Dhalwala area & east of Swargashram area. Development of town is also affected due to forest in the west direction. The land for development is available only south situated I.D.P.L. and pashulok area. Land for development is also available near Shampur & Bhapugram area to some extent.

4.1.3 Topography

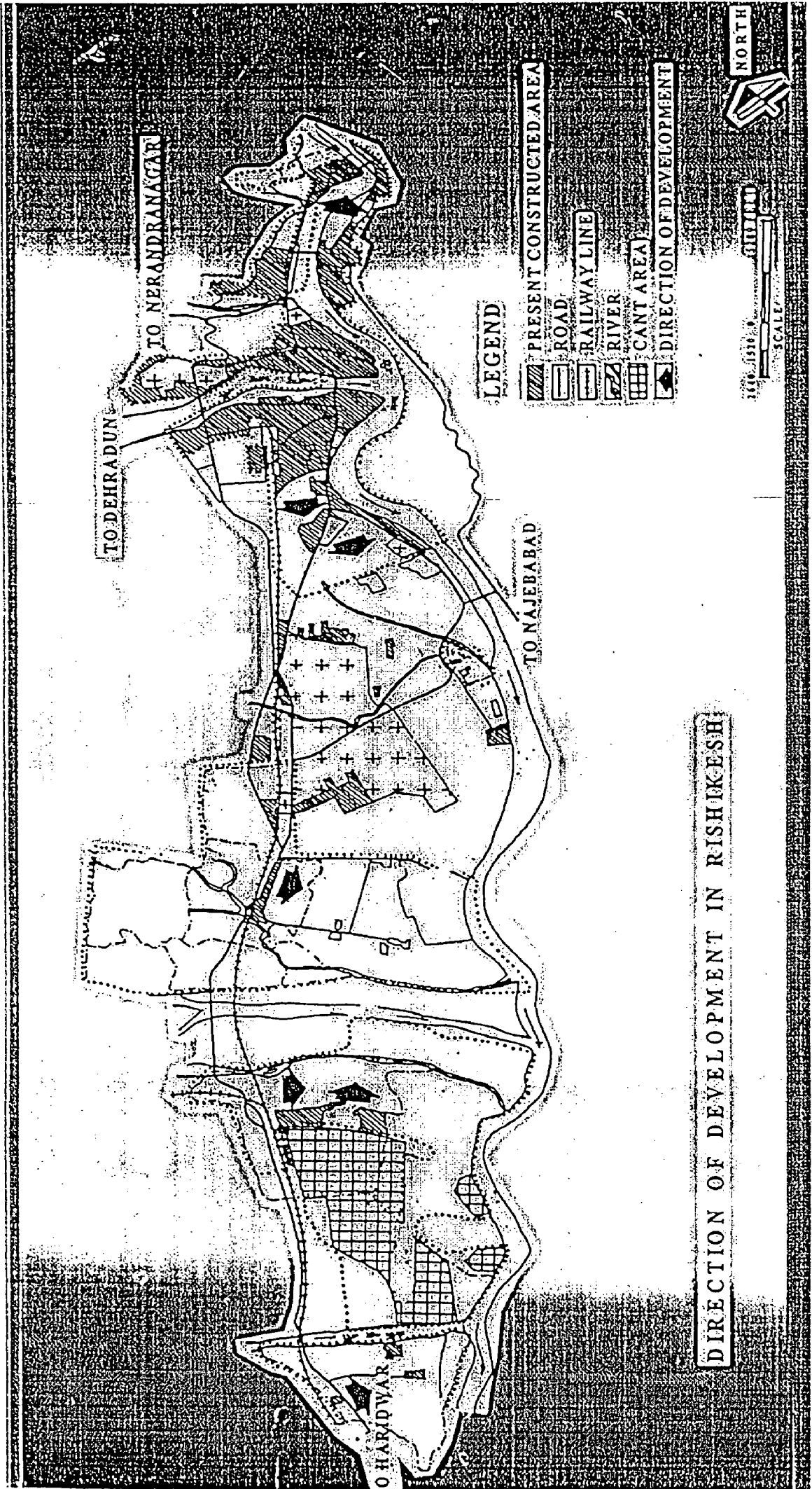
The land forms and its peculiar land characteristics play a significant role in assigning value system while designating use of various sites proposed to be brought under future urban spread. The study of topography may help in assessing the landscape assets and potentialities, which are very important in giving shape to an efficient city



AVAILABILITY OF LAND IN RISHIKESH



PHYSICAL BARRIERS IN THE DEVELOPMENT



The unplanned and haphazard growth of the town created mixed and incompatibility land use. In absence of any big commercial center commercial activities have already spread along the major roads of the town. Small-scale commercial shops are finding places in narrow lanes and streets of the residential area. Some private buildings are used as office building or primary schools.

Table 3: PRESENT LAND USE

LAND USE	RISHIKESH U.A.
Residential	287.20
Residential Tourist	55.36
Industrial	34.45
Commerce & Trade	17.76
Government & Semi Government Offices	10.88
Transport, Bustand and Main route	40.88
Gardens	62.08
Kumbh Mala	20.08
Community Services	30.52
Total	568.25

4.2.1 Residential

Accommodation is the third priority after food and cloths for human life, which is very complex. Though a large number of developed lands are used for residential purpose, even then there is acute shortage of residential units and low standard residences unhygienic conditions are spread in every town of the country. In the old living area of Rishikesh, There are many small houses without proper roads and open spaces.

Family Size

According to 1981 census the total population of Rishikesh was 29145 and no. Of families were 6461. As per 1991 census, population is 44, 487 and no. Of families are 9335. Thus the average family size is around 4.5.

structure. The study also highlights the land forms which would be helpful in achieving the most suited urban form in harmony with land characteristics. A study of topography thus brings out areas of constraints as well as areas of Opportunities or evolving future urban growth and pattern. A careful study Of topography shows that township is surrounded by the hills of Himalayas range in its eastern and forest on western side.

Although these hills are the constraints for development of in the east and west but present a very interesting landscape feature of the urban form and visual element. River Ganga also acts as a physical barrier for the development of Rishikesh. Thus the only land is available for future urban growth is in the south direction towards I.D.P.L. & Pashulok area.

4.1.4 Climate

The town of Rishikesh and the region, which surrounds it, can fairly claim to be one of the most attractive parts of the northern State. Rishikesh has an average attitude of nearly 365mt. from sea level.

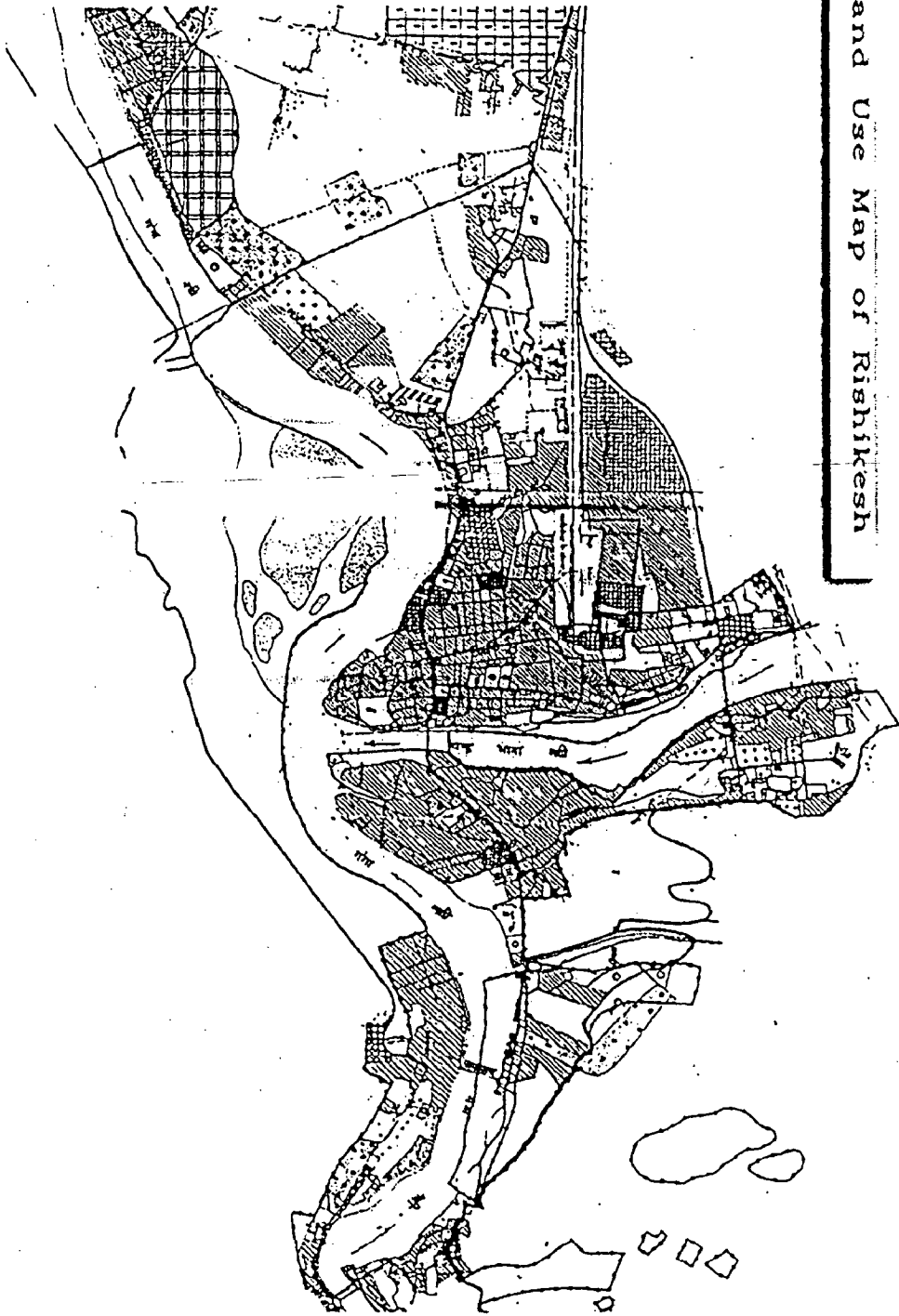
City experiences low temperature rather mild in winter, and slightly high in summer. In summer temperature varies from 41^oc to 35^oc. The lowest temperature occurs in January for winter season, the highest monthly temperature occurs during the end of and beginning of June. In winter temperature varies from 30^o c to 10^oc.

The greater part of the rainfall occurs during the period summer, southwest monsoon (branch of Bay of Bengal) which directed upto the Ganga valley. A distinct dry season occurs from March to May and with a short period with the decline of the year from October to early December.

4.2 Land use pattern

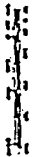
Land use analysis of any city or town is a direct measure of its functional efficiency, which is governed by disposition of amenities and facilities, land utilization rate, inter-relationship of work residence and priority for various uses. Land use pattern of Rishikesh is of mixed type like any other old Indian City. The residential activity mixed with commercial activity and small or house hold industries operating in residential areas.

Land Use Map of Rishikesh



LEGEND

- Residential
- Godan
- Tourist Residence
- Retail Commercial
- Mandi
- Trade
- Offices
- College
- Inter & High School
- Primary & Junior High School
- Hospital
- Veterinary Hospital
- Water Supply
- Electricity
- Police Thana
- Post & Telegraph office
- Temple, Church, mosque & Gurudwara
- Undefined Area
- Open Space
- Orchards
- Bus Stand
- Road
- Railway Line
- Crematorium Ground & Graveyard
- River & Drain
- Kumbh Mela Area
- I.D.P.L.



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Family and Residential Units

Like other towns of country, the houses are proportionately less in comparison of no. of families. As per 1971 census, there were total 4546 houses against 6856 families in Rishikesh town. Taking in to account one residential unit per family in 1997, there was a shortage of 2290 units, which increased to 6093 in 1981, and families reduced to 6461. Thus, there remained a shortage of only 368 units in this decade. As 1991 census, houses were 9226 against 9335 families resulting shortage of 109 residential units thus, during 1971 to 1991, there has been mathematical improvement in proportionate shortage of residential units in comparison of families but qualitative facilities reduced.

The condition of proportionate residential units against families in Rishikesh town group is similar to Rishikesh town, which is given table below.

Table 4: HOUSING SCENERIO IN RISHIKESH U.A.

YEAR	TOTAL POPULATION	NO. OF HOUSES	NO. OF FAMILIES	SHORTAGE OF HOUSES
1971	21728	4863	7324	2461
1991	60241	12525	12910	385

It is apparent from the above table – that in Rishikesh town group, there was a shortage of 2461 residential units in 1971. Which reduced to 385 in 1991. It indicates good sign of improvement in town residential problem.

4.2.2 Trade and Commerce

With business point of view, Rishikesh is the gateway to Garhwal Region, From where entire hill region is supplied the food grains and good for daily use Journey to all important religions places of hill region is passed through this town with the result, a large no. Of shops dealing in religions and things of tourist interest are functioning in Muni-ki-Rati and Rishikesh besides town population, floating population also play significant in its commercial development. But in uncontrolled way.

Present Retail and Whole Sale Business Activities

As per census, 1424 people were engaged in commercial activities in 1971 and 4061 people in 1991. According to data received for labor commission, (U.P.). There were 2293 business units out of which 50 were dealing wholesale and remaining 2243 business. The main markets are situated at Haridwar-Rishikesh road, Dehradun road and station road in old residential congested areas.

4.2.3 Industries

Industry plays the major role in development of any town. Industrialization affects the economic, social character of the town, and demands the auditioned Infrastructure facilities. To strengthen the economic condition industrial development is necessary which provides employment opportunity too. As per census in secondary class category 1271 workers (918.70% of total workers) in 1971, 2335 workers (20.32%) in 1981 and 5431 workers (930.30%) in 1991 were engaged in different industries. Thus in every decade, the number of Industrial workers increased in the town.

Type of Industry

There were 217 registered small-scale industries in Rishikesh in 1987 except large industry is mainly JG glass, sturdia chemicals having 4121, and 403 and 426 workers respectively. IDPL Manufacture medicines, JG glass manufactures glass bottles and sturdia chemical produces lime and other chemical. Adjoining Shampur, Dhalwala, IDPL are the main Industrial area. Dhalwala Industrial area is 45 acre having total 35 units out of 35 units, 1 is large, 6 are medium and 28 are small scale industry having about 1066 workers. There are following types of industry in the Rishikesh.

Pooja Luminaires Private Limited.

Poonam Breads Private Limited.

Prestige Light Limited.

R.M.I. Steel Limited.

Tehri Steel Limited.

Vimal Industries.

I.D.P.L.

J.G. Glass

Sturdia Chemicals
 International Lime Industry
 Cement Filament
 Uptron Private Limited.
 Arezons Private Limited.
 Garwal Steel.
 Mercury Bulbs.
 Totaria Pipes
 Gupta Socks Industry.

4.2.4 Govt. and Semi Govt. Offices

In Rishikesh mostly government offices are in the rented building. In 1987, there were 10 central offices, 21 Govt. Offices, 2 semi govt. offices in which 5187 men and 565 women were employed thus in all the offices, 5752 women were engaged.

4.2.5 Community Facilities

Community facilities are of paramount importance and are needed at mass level for systematic development of the society and its social welfare. It mainly covers education, entertainment, health medication facilities etc. According to population community facilities are functioning in the town.

Educational Facilities

In Rishikesh there are 43 educational institution besides an Ayurvedic medical college to impart higher education. The existing educational institutions are given in the table below.

Table 5: EDUCATIONAL INSTITUTIONS OF RISHIKESH

SI. NO.	LEVEL OF INSTITUTION	NO. OF INSTITUTION
1.	Degree College	1
2.	Inter College	4
3.	Junior High school	6
4.	Primary School	32
	Total	43

Health facilities

Health facilities for life are essential. In order to cater the health requirement of Rishikesh and its adjoining areas. There is one women hospital, one TB hospital and one Ayurvedic hospital Presently a 150-bed govt. general hospital at Dehradun road is functioning. Besides these govt. hospitals, there are 20 private clinics in addition to 20 beds charitable hospital two dispensaries and 3 private clinics at Muni ki Rati.

Entertainment facilities

Entertainment is necessary for mental development of human beings. Parks and playground have prominent role. There provide fresh air, natural beauty. There provides fresh air, natural beauty and healthy environment for the people library, cinema, clubs and community center is also the main sources of entertainment.

Park and Open Space

Presently there are 5 parks namely. Govind Park, Indira Park, Saklani Park, Ambedkar Park and Agassan park, covering an area of 1800 sq. meter. Keeping in view the importance of town, park area is insufficient but open riverbanks fulfill it.

Library

There are only 5 public libraries but journals, book etc are insufficient and maintenance is unsatisfactory too.

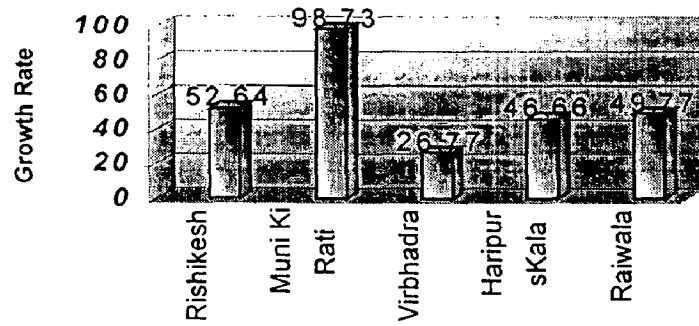
Cinema, Clubs and Community Halls

Cinema plays a vital role in commercial entertainment. There are two cinema halls. One is present closed and situated at station road Another cinema hall is situated on the Dehradun road. Besides it, there is a community hall, which is quite insufficient to cater the social needs of the people.

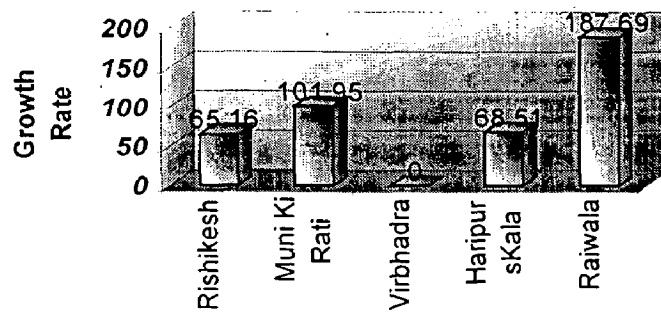
4.3 Demographic studies of Population

The population of any town reflects the problem of its developmental shape, which creates the need to give a planned shape to that town. Rishikesh town is the most populated town of not only districts Dehradun. But of the whole Gharwal region after Dehradun. The main reason for continuous decade wise population growth of Rishikesh is its religions and tourism importance. Besides this Rishikesh is also the main Business

Population Growth Rate During 1981-91



Population Growth Rate During 1971-81



outer, being the extreme direct rail link to hill regions of Tehri, Uttarkashi and Chamoli. During the pilgrimage season the heavy tourist population with its existing population gives it a new shape.

In 1908 before declaration of its town area, Rishikesh was a prominent halting station. Badrinath, Katernath Tournay was performed on foot from here, with its torsion into its town shape, the town development and construction of Ashrams and math of sadus started side by side in adjoining Tehri Gharwal district today this part is known as Muni-Ki- Rati Notified area. Like this during 1971-81, the developmental work in Rishikesh village progressed due to of the Tehri Dam rehabilitation evaluated persons and urban activities in its adjoining village also increased according to 1971 census this village was also declared as Rishikesh courses town. Keeping in view the development due to the establishment of I.D.P.L, Virbhadrā was also declared a notified area.

4.3.1 Population growth trend

The size and growth of population during 1971 to 91 in given in the table.

Table 6: POPULATION GROWTH RATE

NAME	POPULATION		GROWTH RATE	POPULATION	GROWTH RATE
	1971	1981	1971-1981	1991	--
Rishikesh	17646	29145	65.16	44487	52.64
Muni Ki Rati	1126	2274	101.95	4519	98.73
Virbhadrā	-	12607	-	15982	26.77

From the above table, it is clear that population during 1971-81 decade rapidly increased in Rishikesh, census town and Muni ki Rati, the reason is establishment of IDPL in virbhadrā and rehabilitation of Tehri dam evaluated people in this area. According to 1907 census the population of Rishikesh town was only 1515, which according to 1991 census increased to 441487. Thus the population of town from 1901 – 91 increased to the tune of 20836.43%. Decade wise population growth of Rishikesh town can be evaluated from the following table.

Table 7: POPULATION GROWTH RATE OF RISHIKESH NAGAR

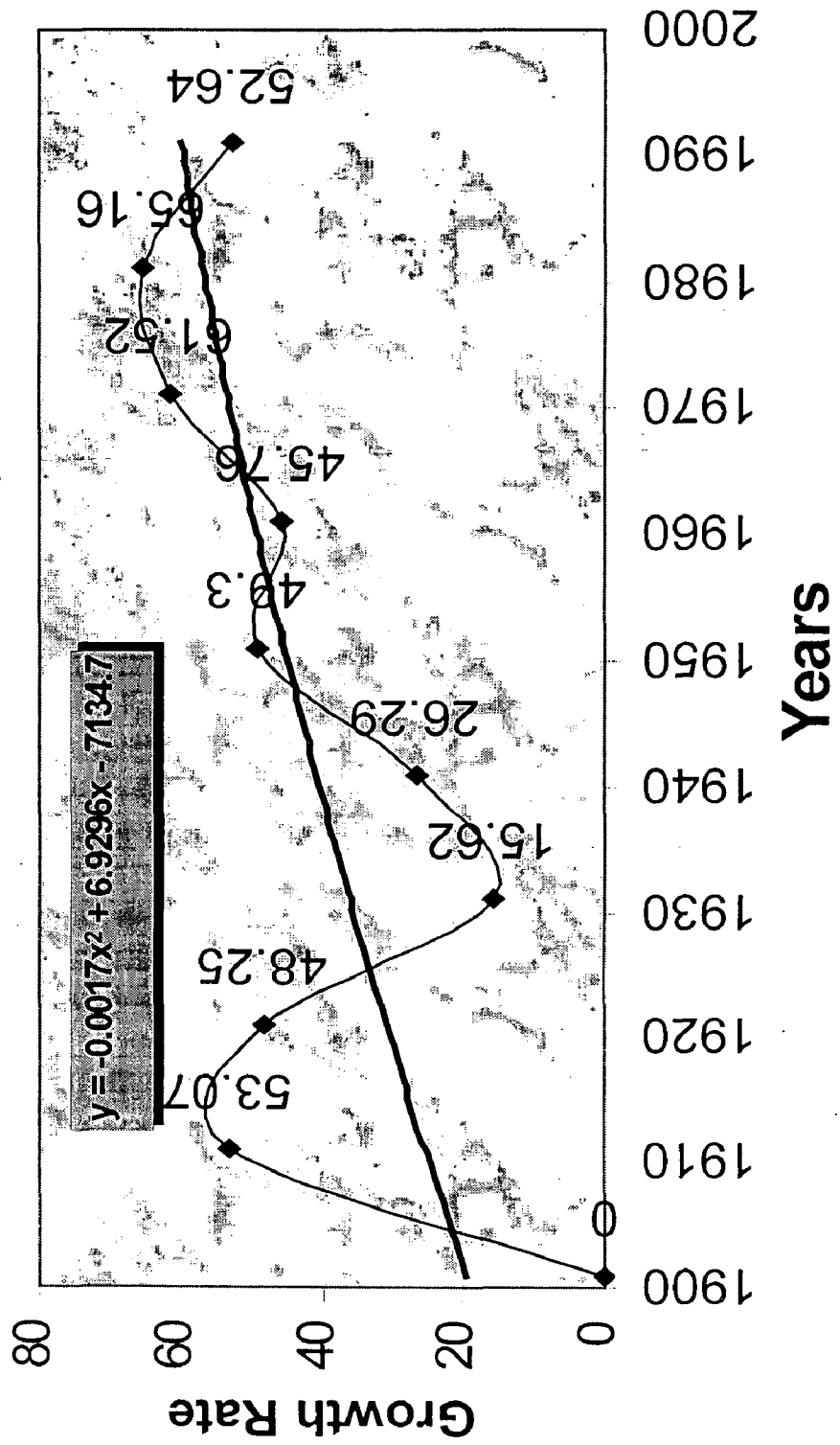
S.I.	YEAR	POPULATION	DECADE GROWTH	GROWTH RATE (%)
1.	1901	1515	--	-
2.	1911	2319	804	+53.07
3.	1921	3438	1119	+48.25
4.	1931	3975	537	+15.62
5.	1941	5020	1045	+26.29
6.	1951	7495	2457	+49.30
7.	1961	10925	3430	+45.76
8.	1971	17646	6721	+61.52
9.	1981	29145	11499	+65.16
10.	1991	44487	15342	+52.64

From the above table, it is clear that during the decades of 1967-71 and 1971-81, the population growth of Rishikesh town was comparatively much more, the main reason are establishment of I.D.P.L in virbhadra in 1968 and settlement of evaluated Tehri dam persons during 1971-81. In 1901 the population of Rishikesh town was only 1515 that was increased in 1991 to 44487.

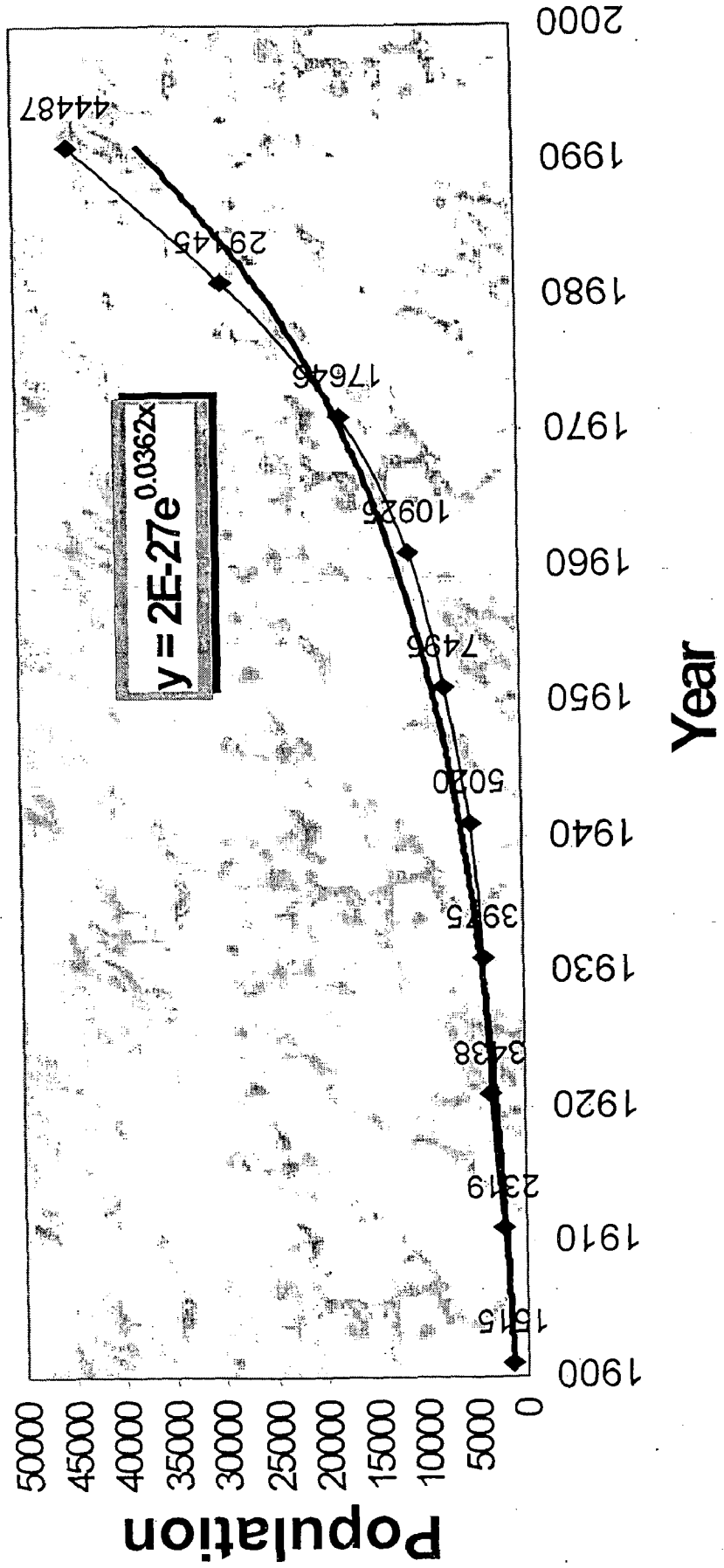
There is much difference in population growth rate between the nearby towns of distt. Dehradun and Rishikesh. In the table , population growth rate of Rishikesh, Haridwar and Dehradun is studied.

From the table it is evident that populated growth rate in Rishikesh town is maximum.

Population Growth Rate of Rishikesh Town



Population Growth Trend



**Table 8: COMPRATIVE DISCRPTION OF POPULATION
GROWTH RATE OF RISHIKESH TOWN**

DECADE	RISHIKESH	HARIDWAR	DEHRADUN
1951-61	45.76	4.57	11.48
1961-71	61.52	32.22	30.87
1971-81	65.16	45.71	29.86
1981-91	52.64	30.39	27.72Ss

4.3.2 Population Density

According to 1991 census, the total residential density of Rishikesh is 210 persons per hectare and town density 106 persons per hectares respectively. Keeping in view the importance of town's religions shape and its tourist center, the population density appears more the reason for more density is due to scarcity of land in Rishikesh town as hills and forests surround it.

4.3.3 Sex Ratio

According to census of 1961, 1971, 1981 and 1991, the sex ratio of Rishikesh town was 475, 694, 762 and 787 respectively. It is evident that the women population per thousand men. During 1961 to 1991 decades have comparatively increased. Even after this increase this increase, their numbers in comparison of men are not same. The main reason is the excessive Ashrams where mainly men live. In the mean time in the urban areas of U.P. this ratio is 86.2/1000.

Table 9: SEX RATIO OF RISHIKESH TOWN

SI. NO.	YEAR	SEX RATIO
1.	1961	475
2.	1971	694
3.	1981	762
4.	1991	787

4.3.4 Literacy rate

The literacy in urban areas of Rishikesh town increased years 1971, 81 and 1991, the total literacy rate in Rishikesh town was 61.96%, 64.49% and 64.37% respectively. The literacy rate in Urban areas of U.P. in 1991 is 66.1% it is apparent that literacy rate of Rishikesh is touching U.P. average.

Table 10: LITERACY RATE

SI. NO.	YEAR	LITRACY RATE
1.	1971	61.69
2.	1981	64.49
3.	1991	64.37

4.4 Economic base

The main criteria for assessment of economic base of any town is the rate of participation of workers in Industries as well as business out of the total workmen of town population engaged in different economic activities.

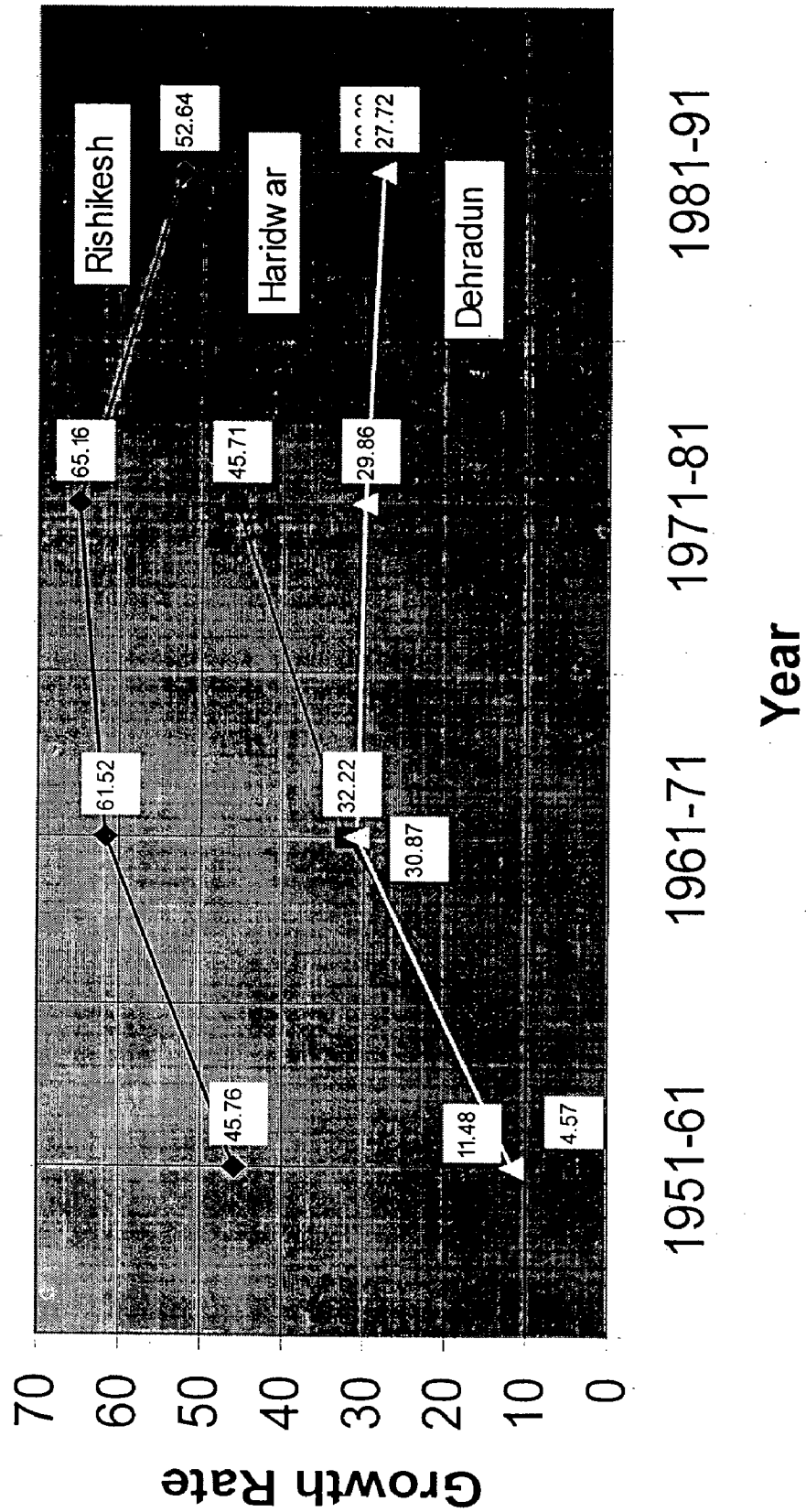
Characteristics of Man Power

Rishikesh town in developed as commercial and main service center, which is evident from the ratio of workers, engaged in different activities.

In 1991, the population of Rishikesh Municipal Corporation is 44,4,87 out of which 13,546 workers means, 13.4% of total population are workers and engaged in different economic activities.

Out of total workers 68.09% are tertiary class workers engaged in economic activities i.e. commercial/service activities though. It is learnt from the data of this category that 77.01% were engaged in 1971, which reduced to 74.08% in 1981. Thus the workers percentage reduced upto 1991 in comparison of 1971. The percentage of secondary class workers increased from 1971 to 1991 which is shown in table below.

Comparative Population Growth Rate



Comparative Population Growth Rate

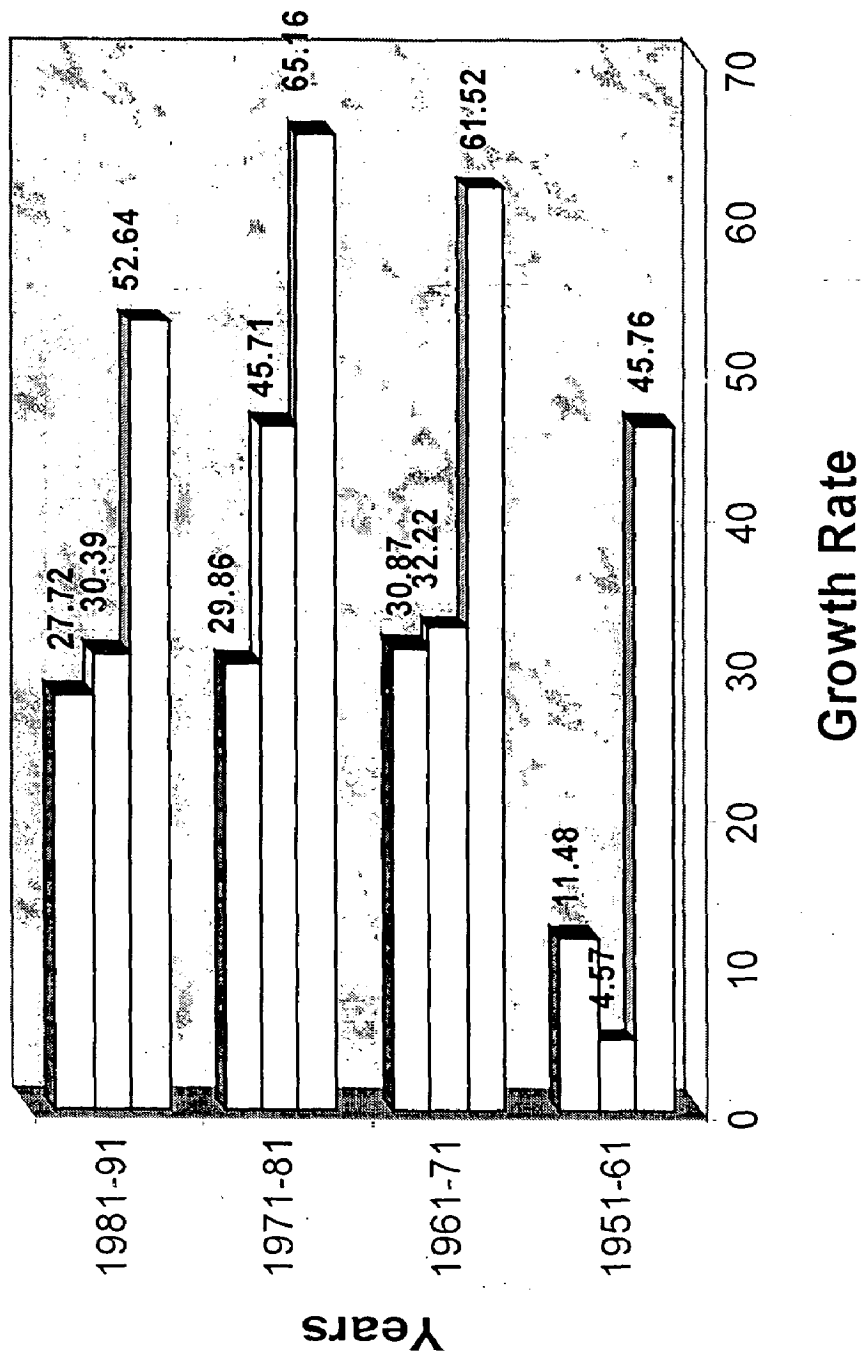


Table 11: NUMBER OF EMPLOYEES WORKING IN DIFFERENT ACTIVITIES IN RISHIKESH NAGAR PALICA AREA & THEIR %

S.I.	ECONOMIC CLASS	1971		1981		1991	
		No. Of Employee	%	No. Of Employee	%	No. Of Employee	%
1.	Primary Class	112	1.95	91	1.03	308	2.27
2.	Secondary Class	1206	21.04	2173	24.95	4016	29.64
3.	Tertiary Class	4415	77.01	6445	74.02	9222	68.09
Total Employ		5733	100.00	8709	100.00	13546	100.0
Population		17646		29145		44487	
Employees Participation Rate		32.4 %		29.9%		30.40%	

From the above table it is clear that the percentage of Tertiary class worker in Rishikesh town is slowly reducing whee as percentage of secondary class workers is increasing. This reflects that town is stepping up towards industrialization as well as a business cuter.

But today town development is not limited upto Rishikesh Municipal Corporation only. Considering adjoining Muni-ki-Rati, Rishikesh census town etc., the study of worker's participation in different activities of entire urban agglomeration is necessary.

According to census of 1971, out of the total population of 21,732, 6797 people were engaged as workers means rate of participation of town group was 31.20% which reduced to 29.90% (11,217 workers) in 1981 and 29.80% (17, 938 workers) in 1991. Though the workers percentage of town group remain higher (27.60) than the average workers percentage of urban town population of U.P.

According to 1981 and 1991 census maximum workers participation has been in tertiary class activities. Category wise workers percentage is given in table.

Table 12: PERCENTAGE OF EMPLOYEES IN THE RISHIKESH U.A.

S.I.	ECONOMIC CLASS	1981		1991	
		No. Of Employees	Percentage	No. Of Employees	Percentage
1.	Primary Class	336	2.99	1318	7.35
2.	Secondary Class	2335	20.82	5436	30.30
3.	Tertiary Class	8546	76.19	11184	62.35
Total Employees		11217	100	17938	100
Population of Town Group		37768		60241	
Employees Participation		29.90%		29.80%	

From the above table it is evident that up and down percentage rate variations of town grow is similar to Rishikesh town corporation areas. The up and down tendency is also apparent in the ratio of workers engaged in different economic activities in town group. In order to access the main economic activities caused these variation, the detailed study of different categories covered under, primary, secondary and tertiary classes from 1971 to 1991 is done.

Workers in the secondary category of home industry had reduced in 1981-91 decade whereas extra category workers increase. Its main reason is establishment of I.D.P.L. J.G. Glass and stadia chemicals factory. In Rishikesh U.A. the increase of workers in this industrial establishment and town population resulted proportionate enhancement of trade and economic activities. Consequently transport and telecommunication facilities are also increased in the town. So resultant workers increase in economic categories of transport and telecommunication during 1981-91 affected.

During 1981-91, the participation rate of workers remained almost constant in comparison of rapid growth in population. The main reason is comparative less employment opportunities.

Chapter 5

CHAPTER 5: TOURISM SCENARIO

5.1 Tourism Potential

Rishikesh, the place of 'Sages' is a celebrated spiritual town on the bank of River Ganga & is surrounded by Shivalik rang of Himalayas on three side. It is said that when Raibhya Rishi did hard penance's, god appeared by the name of "Hrishikesh" and this area henceforth came to be known as Rishikesh.

It is the starting point for the Char dham pilgrimage of the Hindus in which pilgrims go to Yamnotri, Gangotri, Kedarnath & Badrinath to seek spiritual salvation. On the way to Gharwal Himalayas & Sikh Shrine at Hemkund Sahib one passes Rishikesh

Rishikesh is the ideal destination not only for pilgrims but also for those who want to delve deeper into mediation, Yoga and other aspect of Hinduism. The spiritual haven of the various Ashrams is on the eastern side of Ganga, at Swargashram (on the other bank is the noisy business center). The ashrams provide lecture & courses to suit everyone's need and quench their thirst for lodging at reasonable cost.

For the adventure visitors, Rishikesh is the place of starting their trekking expeditions and excursion towards the Himalayans peaks, 10 Km upstream at Shivpuri is the site of River running, rafting activities, on the roaring of white water of Ganga, from Oct. to May. The international Yoga week, which attracts participation from all across the world, is held here every year from 2nd to 7th Feb. on the bank of river Ganga.

5.2 Different Parvas for Pilgrims

These following are the different parvas from pilgrimage point of view for taking dip in holiest river Ganga.

- 1 Kumbh
- 2, Ardh Kumbh
3. Shiv Ratri
- 4, Purnima (Baisakh)
5. Chaitra Amavasya
6. Baisakhi

7. AkadaShi (Baisakh)
8. Janamashtami
- 9 Ganga Saptmi 1
10. Akachya Iritya
11. Amavasya (Baisakh)
- 12, Mesh sankranti
13. Purnima (Ghaitra)
14. Ram Navami
15. Holi
16. Surya Garyan
17. Makar Sankranti
18. Basant Panchmi
19. Ram Navmi
20. Nav Samvatsar

Kumbh Mala

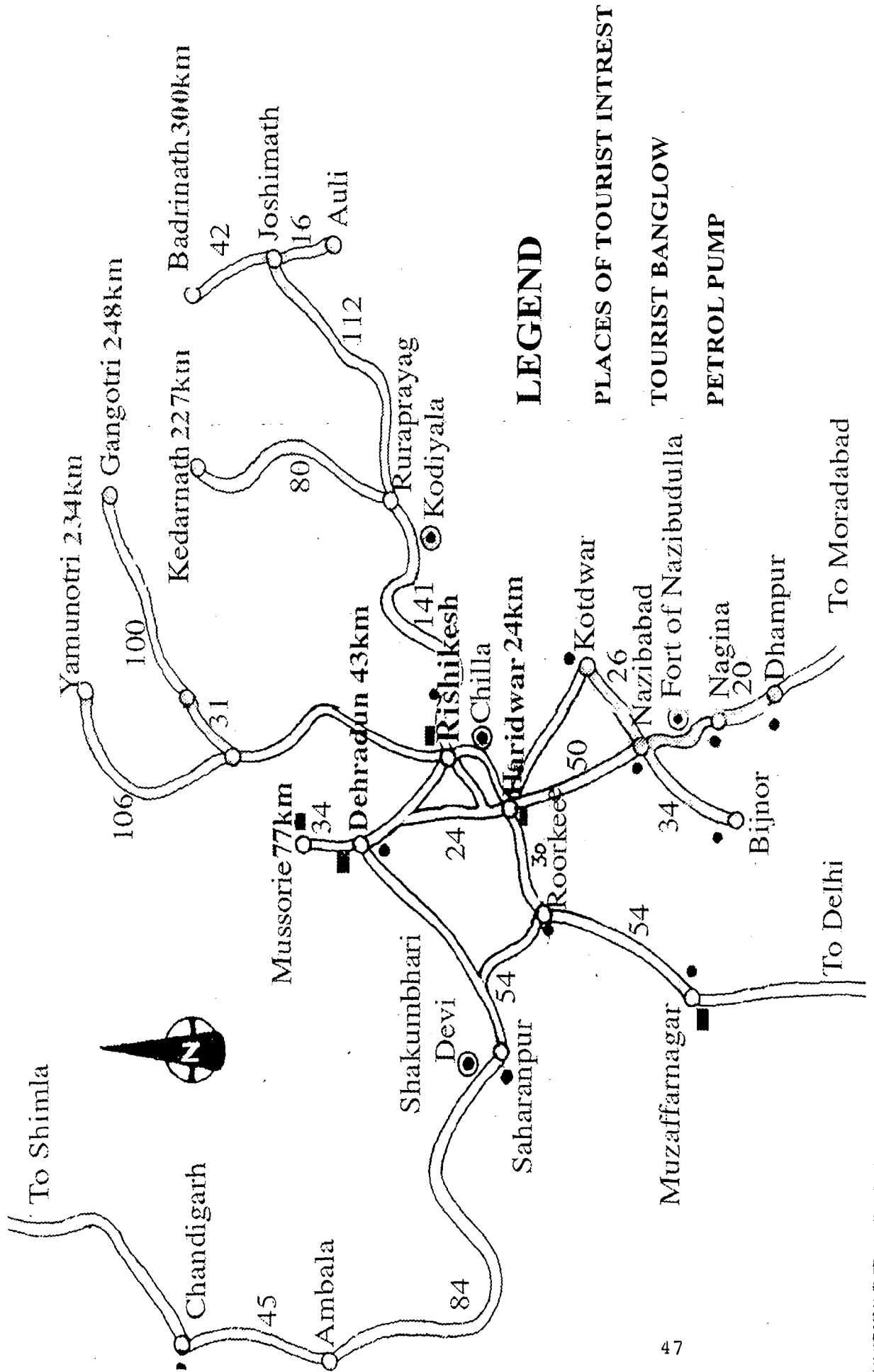
Every after 12-yr. Kumbh & 6 Yr., Ardh kumbh Mela begins. Consequently no. of pilgrims in Rishikesh increase. As per data available, in 1986 about 26.55 Lac pilgrims came in Kumbh mela and in 1992 about 4 Lac people in arch cumber (Basakhi) Mela.

5.3 Places of Tourist Interest

TRIVENI GHAT:

A sacred bathing spot on the bank of the river Ganga where devotees take holy dips and offer prayers. Devotees bathe here with the belief that the water has the power to purify them. Triveni Ghat is so called because it is believed to be the confluence of the Ganga, the Yamuna and the legendary Saraswati River. It is an interesting place to be at dawn when people make offering of milk to the river and feed the fish. After sunset, as a part of the Aarti ceremony, lamps are floated on the water and provide a spectacular view.

RISHIKESH EXCURSIONS



LAKSHMAN JHOOLA

A suspension bridge across Ganga situated 5 kms. From Rishikesh, on the way to Badrinath. It was built in 1929 to replace a rope bridge. It is believed that Ram's brother Lakshman crossed the river here on a jute rope. On the West Bank, there is a Lakshman temple also. This area is quieter than the town center and is very picturesque. Along the river on the northeast are secluded beaches.

RAM JHOOLA

A suspension bridge between the Shivanand Ashram and the Swargashram. It provides an attractive to a boat ride from one bank of Ganga to another. Its construction is similar to that of the Lakshman Jhoola.

BHARATMANDIR

The Bahrain Matt Maunder is the oldest temple in Rishikesh, near the Triveni Ghat. This temple is dedicated to Bharat, the younger brother of Lord Ram.

SHIVANAND ASHRAM (The Divine Life Society)

Founded by Swami Shivanand, this well-known spiritual center is renowned for its lectures on spiritual life. Meditation and Yoga classes can be attended in the mornings and evenings. A person can stay here for short-term study and for longer three-month courses, one must write at least a month in advance.

5.4 Rishikesh Excursions

Narendra nagar	- 16 kms
Shivpuri	- 16 kms
Chilla	- 18 kms
Haridwar	- 24 kms
Kunjapuri	- 27 kms
Kaudiyala	- 35 kms
Mussoorie	- 77 kms

5.5 Demographic Studies of Tourist Population

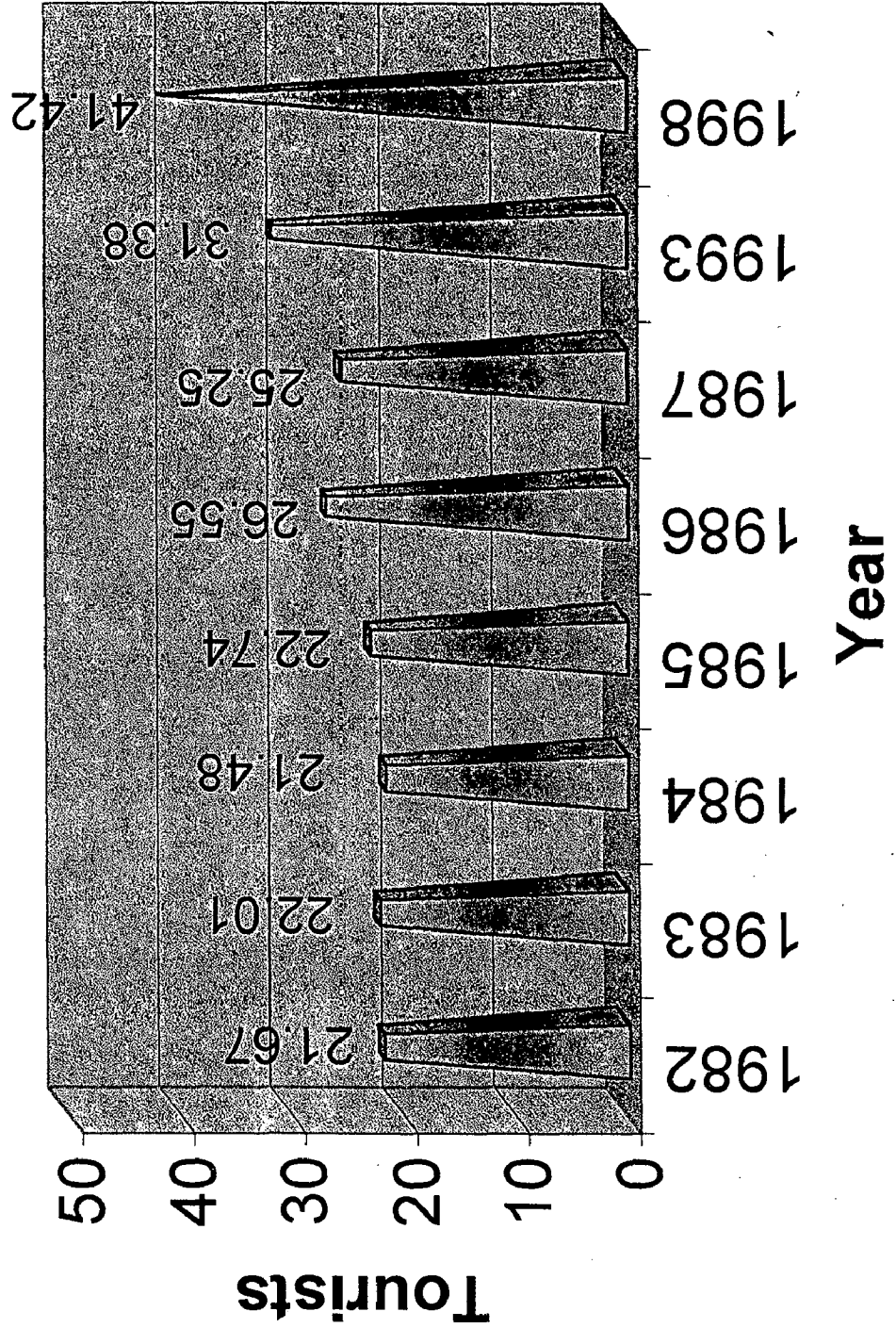
Rishikesh is highly influenced by the Haridwar from the tourist point of view. At the time of Kumbh & other important Parvas , the tourist inflow in the Rishikesh increases. Because of the main transition camp for char Dham Yatra & its own religious importance, the tourist inflow continues through out the year. In 1987 around 2525930 tourist came to the Rishikesh. It increases to 41 lacks in 1998. Mostly tourist comes Rishikesh by road. The yearwise tourist inflow is shown in the table below.

Table 13: TOURIST ARRIVAL IN RISHIKESH

YEAR	NUMBER OF TOURIST (IN LAKHS)
1982	21.67
1983	22.01
1984	21.48
1985	22.74
1986	26.55
1987	25.25
1993	31.38
1998	41.42

Although the tourist inflow is predominant throughout the year, But the tourist inflow from April to July-Aug. is maximum. It is clearly evident from the table.

Tourist Inflow



510,126

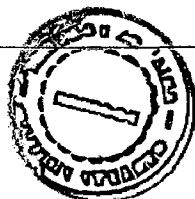
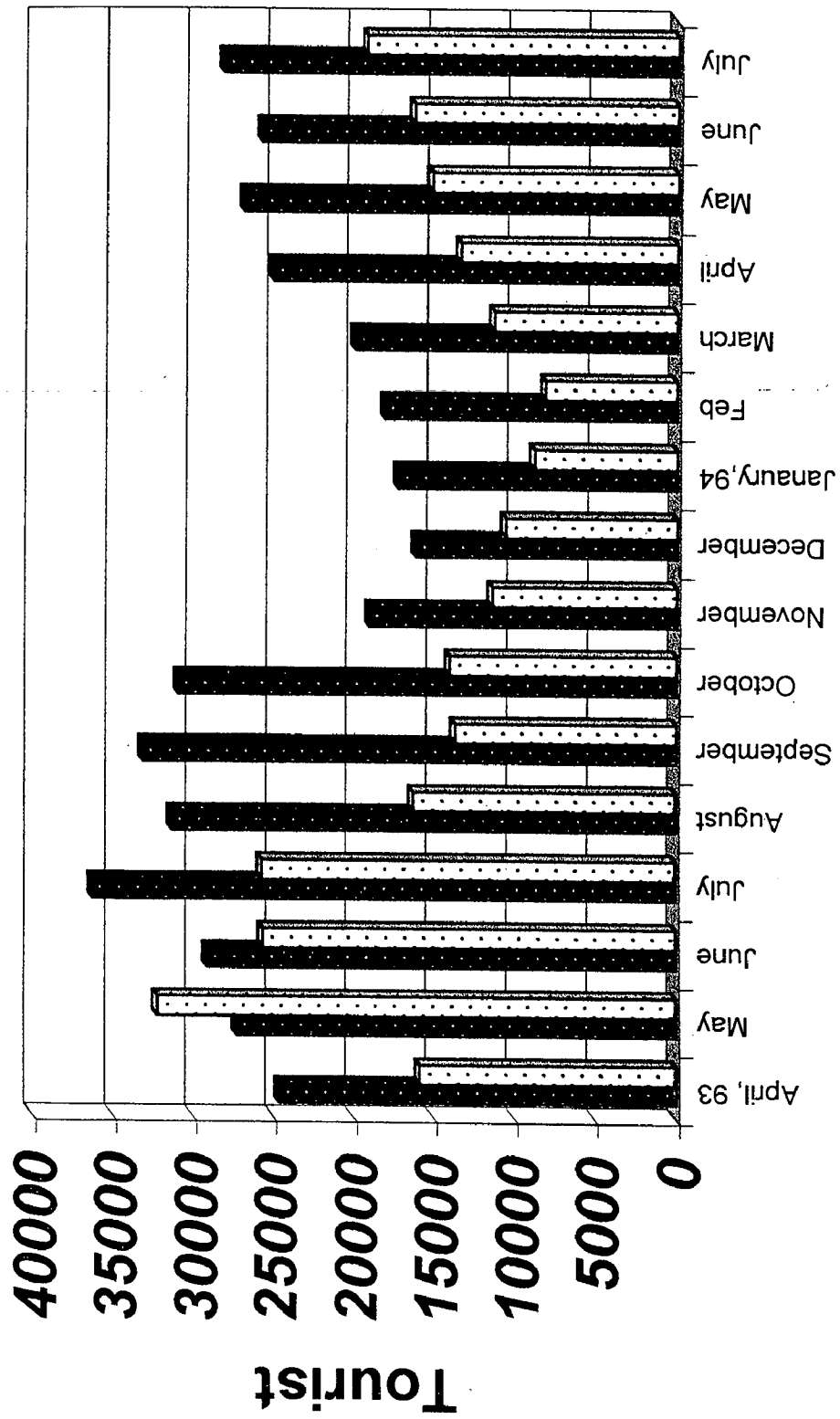


Table 14: NUMBER OF TRAVELER COMING BY TRAIN

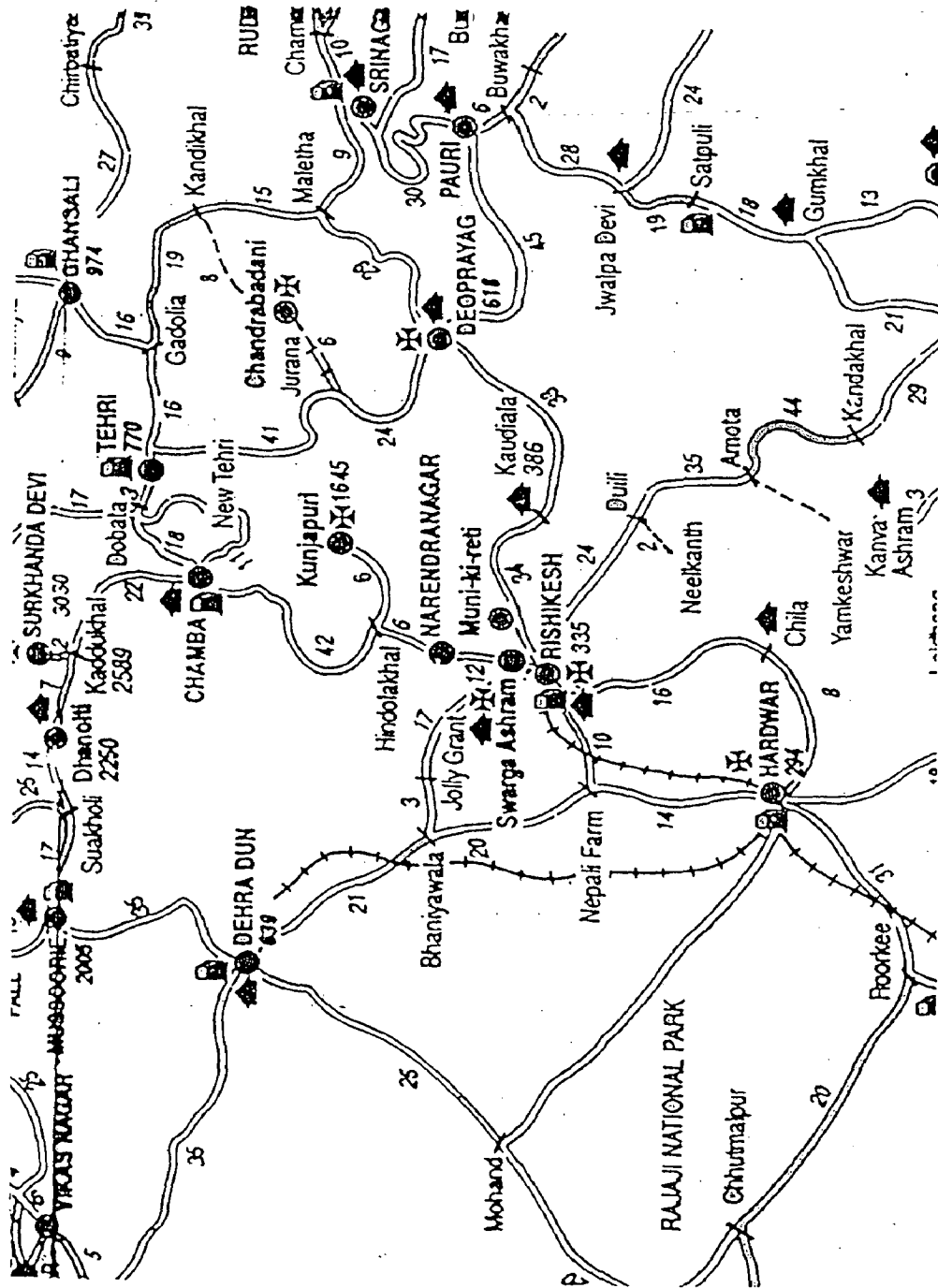
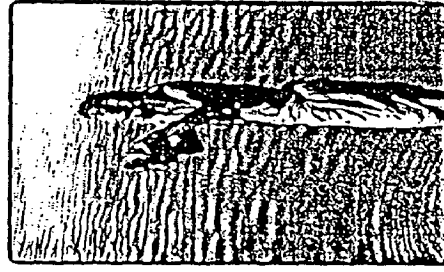
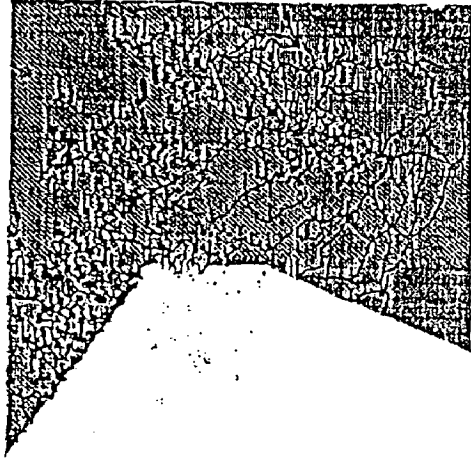
MONTH	NUMBER OF TRAVELLER	
	Arrival	Departure
April, 93	24630	15900
May	27318	32268
June	29177	25720
July	36344	25796
August	31380	16348
September	33193	13770
October	31005	14101
November	19080	11450
December	16177	10640
Janaury,94	17282	8880
Feb	18160	8196
March	20010	11380
April	25120	13480
May	26971	15260
June	25880	16371
July	28284	19344

The main reason is the Badrinath, Kadarnath yatra starts from this point of time & pilgrims first take the holy dip in the holy river Ganga at Haridwar & Rishikesh then move forward. The complete statistics is shown in the table below.

Flow of Tourist According to Mode of Transport

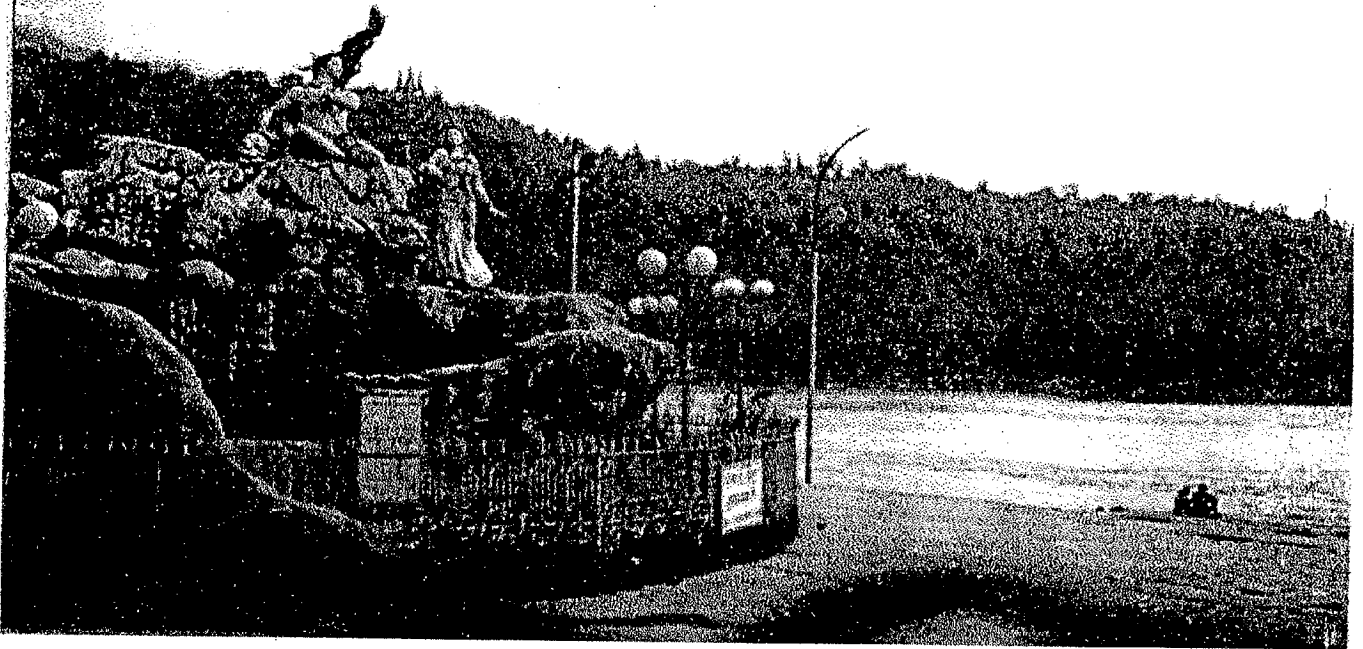


Tourist Map Of U.P. Hills

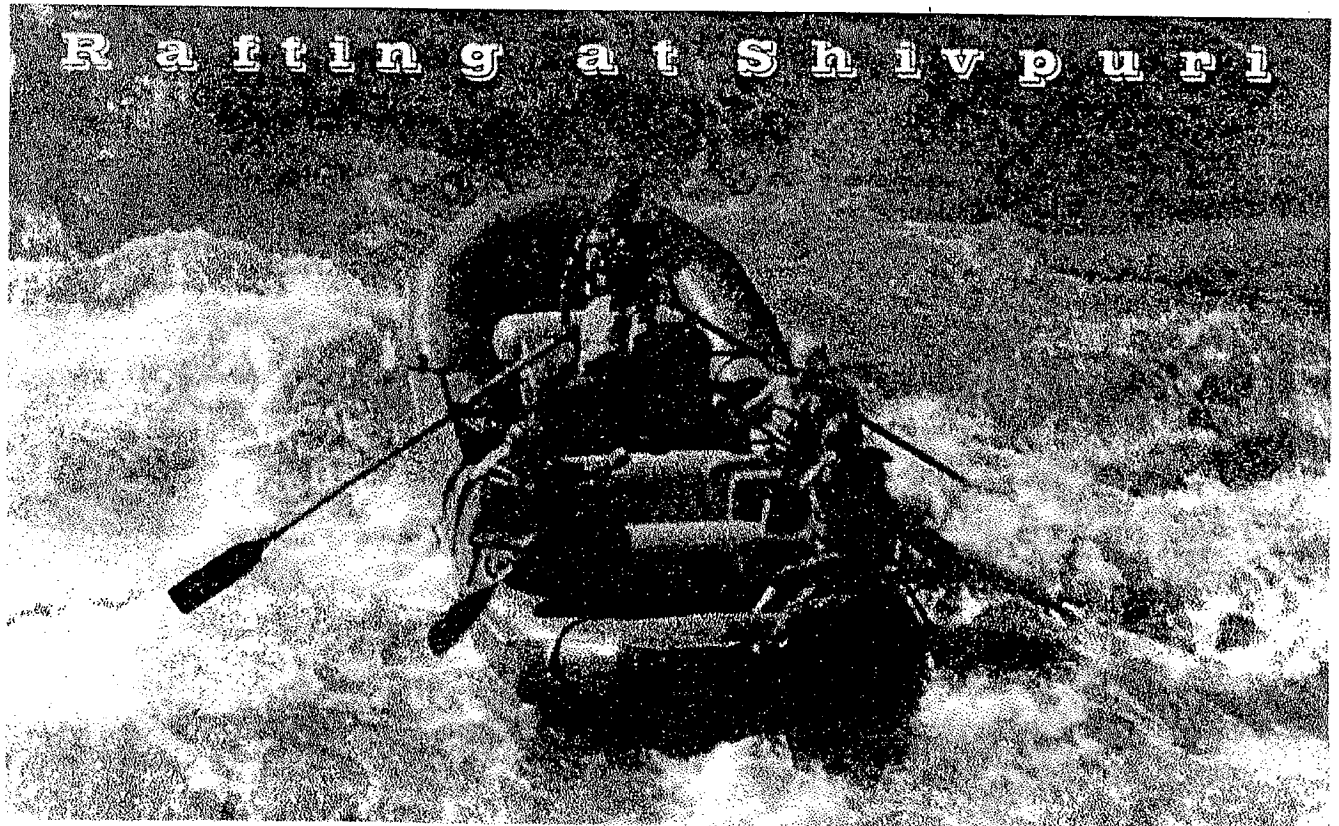


Rishikesh Excursions

T r e v e n i G h a t

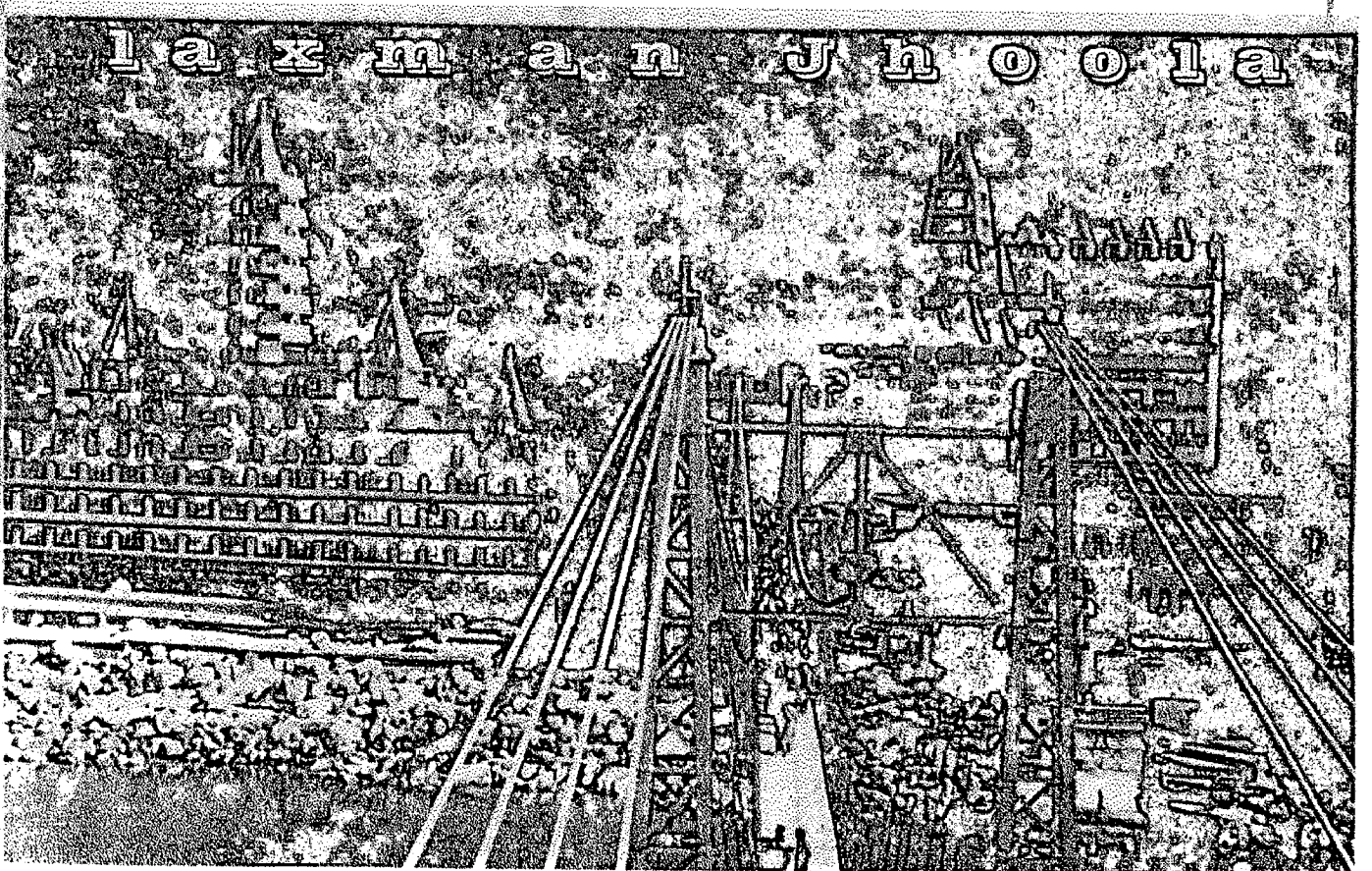
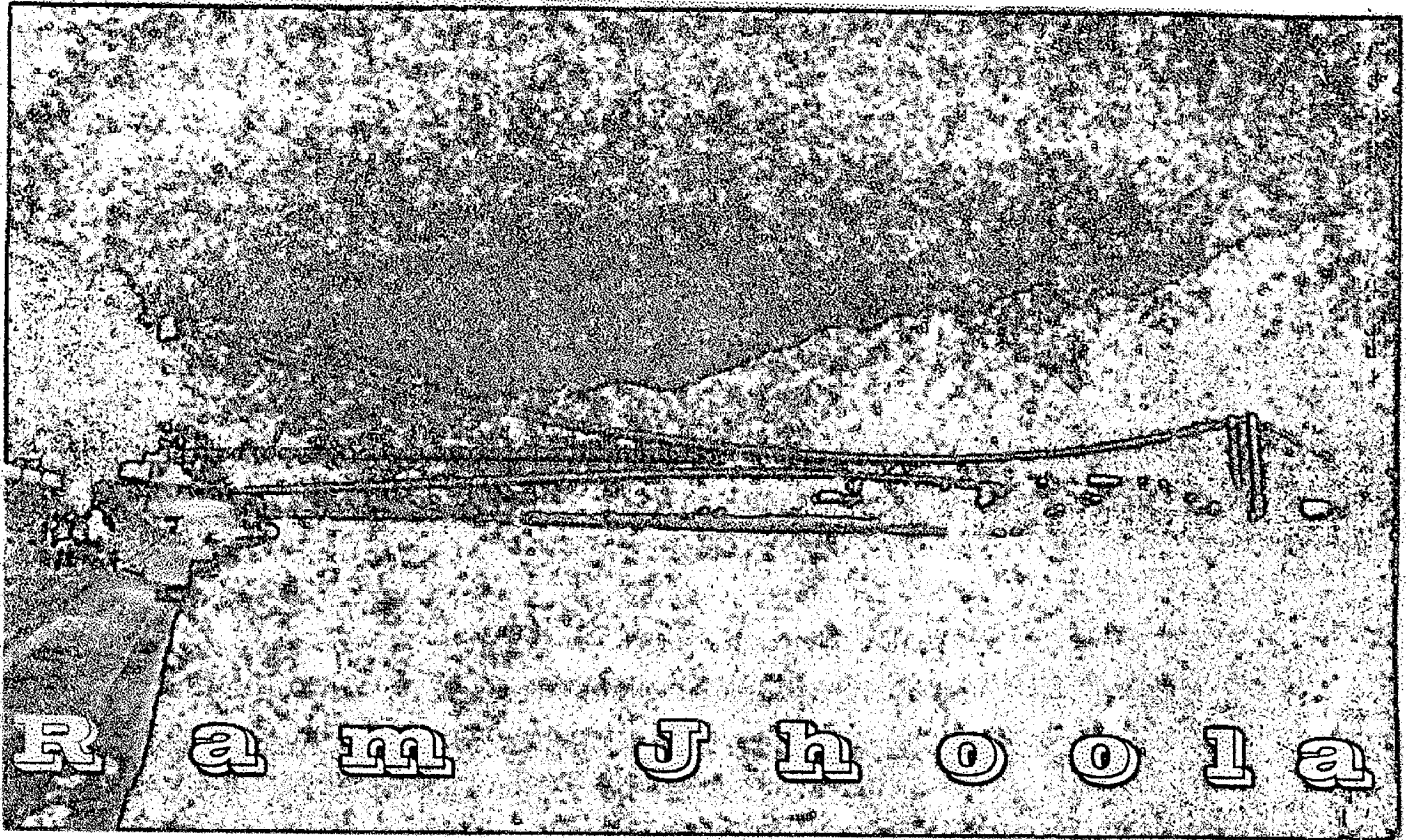


R a f t i n g a t S h i v p u r i





A d v e n t u r e S p o r t s





T r e v e n i G h a t a t P a r v a s

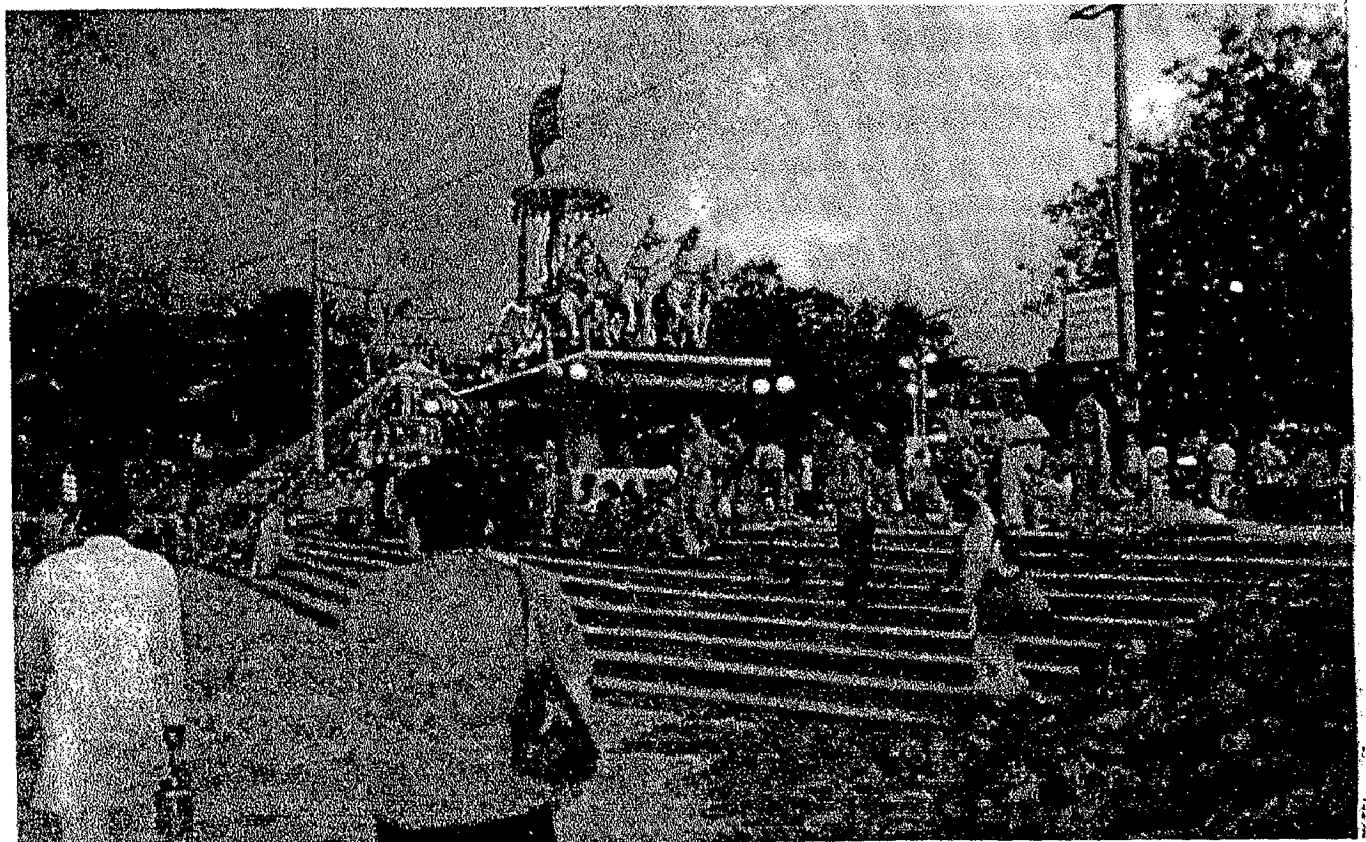


Table 15: NUMBER OF TOURIST GOING TO KADERNATH & BADRINATH

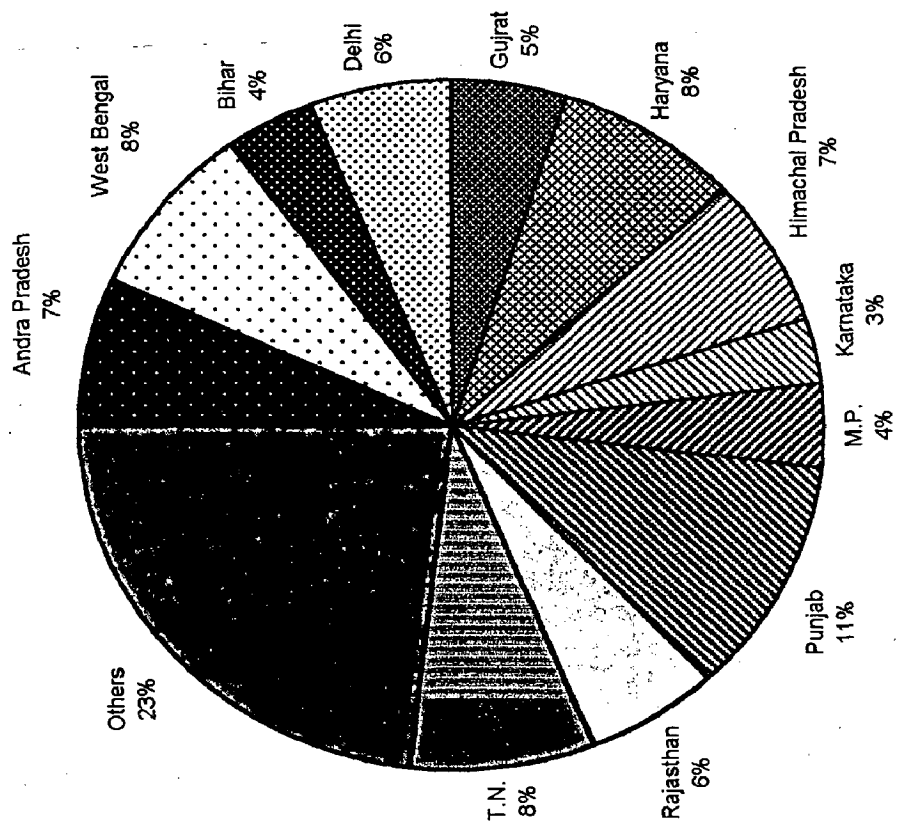
YEAR	NUMBER OF TOURIST (LACK)		
	1991	1992	1993
Kadernath	1.19	1.25	2.0
Badrinath	3.56	4.0	4.50

In Rishikesh most of the domestic tourist come from the pilgrimage point of view. But the foreigners are much more interested in Lusire, Adventure & Yoga. The complete breakup of all kinds of possible tourism here is shown in the table. It is also evident from the table below that the maximum tourist came Rishikesh from Punjab, West Bengal & T.N.

Table 16: Origin of Tourist

PLACE	PERCENTAGE OF TOURIST
Andra Pradesh	7
West Bengal	8
Bihar	4
Delhi	6
Gujrat	5
Haryana	8
Himachal Pradesh	7
Karnataka	3
M.P.	4
Punjab	11
Rajasthan	6
T.N.	8
Others	23

Origen of Tourist



Chapter 6

CHAPTER 6: TOURIST INFRASTRUCTURE AND FACILITIES

6.1 Accommodation Facilities

For accommodation of tourists, various facilities are provided by the Govt. as well as private agencies consisting mainly Hotels, Dharamshala & Ashrams.

6.1.1 Government Accommodation

As far as Govt. accommodation is concerned, there are only seven Rest houses. These Rest houses are generally used by the Govt. officers or the upper class peoples. The total accommodating capacity of these Rest houses are roughly around 110 families or 500 people per day. The detailed description of these Rest houses is as follows.

Table 17: GOVT. ACCOMMODATION

NAME OF THE REST HOUSE	LOCATION	ROOMS
Forest Rest House	Muni ki Reti . Reservation authority-D.F.O. ,	9
I.D.P.L. Guest House	Virbhadra, Reservation Authority G.M. , IDPL	7
P.W.D. Inspection House	Haridwar Road, Reservation Authority Exn. Er. P.W.D., Rishikesh,	12 15
T.H.D.C. Guest House	By-pass Road, Rishikesh Reservation Authority Deputy G.M.	14
Temple Committee	Laxman Juhla Road, Muni Ki Reti	
Tourist Bungalow	Rishikesh By-Pass Road , Rishikesh	50

6.1.2 Hotels & Lodges

Besides above, hotels & lodges facilities are also available for tourists. There are 34 hotels & lodges in the town. The total accommodating capacity of these are roughly around 657 families or 5000 people's persons per day. The complete description of these is as follows.

6.1.3 Dharamshala And Ashrams

Dharamshala facilities are available in the town where generally lower & middle class people stay. In the town, various trust & religious organisation where accommodating facilities are provided to the followers construct Ashrams. On availability of vacate place, other peoples are also accommodated. In the town there are roughly around 74 Dharamshala /Ashrams exist in the town with full residential facilities.

The charges of these Dharamshala /Ashrams are very nom. & varies from 25 to 50 per day.

6.2 Transport and roadways

6.2.1 Road pattern

Road Structure the physical development and economic, social activities of any town depends on the availability of transport and roadways facilities.

The transportation may be divided as below.

State highway

Major roads

Local roads

State Highway

In this category highway no 45 and 49 are kept. Highway number 45 connect Rishikesh with national capital Delhi and other main cities and highway number 49 connects Dehradun with Moradabad through its nearby village kherikurd. Highway numbers 45 passes through the heart of the town where main business units are

Table: 18 LIST OF HOTELS

NAME	BED CAPACITY	RATE STRUCTURE(RS)
Natraj	98	1150
Basera	66	500 to 300
Indralok	75	300 to 500
Ganga Kinera	68	1450 to 1550
Gangotri	72	250 to 350
Ganga View	62	900
Suruchi	72	280 to 480
Akash Ganga	48	350 to 550
Shivlok	46	250 to 500
Saket	40	50 to 250
Menka	28	150
Shipra	26	200
Ashoka	56	75 to 250
Hari	28	30 to 200
Social place	26	100 to 400
Jai tourist lodge	20	50 to 100
Maharaja	40	50 to 100
Surya	12	100 to 250
Gaurav	13	100 to 250
Adarsh	28	100 to 200
Digvijay	40	100 to 200
Yoga Bhawan	10	100
Patanjali	20	100
Niryana lodge	40	100 to 200
Neelkanth Hotel	20	100 to 200
Swis cottege	20	80 to 100
Isuyoga lodge	20	60 to 100
Arvind lodge	28	50 to 100
Midway Resort	24	1200 to 1500
Gagor	59	150 to 550
Gangaputra	52	150 to 450
Himalaya	36	150 to 250
Deepmay	16	150 to 250

Source: GVMN

established. Due to extensive encroachment, service capacity of road has been reduced to great extent.

Major Roads

In this category Dehradun and Tehri Bypass roads are taken Tehri bypass connects Narendra Nagar of Garhwal region with Rishikesh on the eve of Kumb Mela and festivals, transportation on this by pass tremendously increase.

Local Roads

Local roads cover municipal areas such as Tilak marg, Tagor marg, Maniram marg etc where the roads are at the most 15-ft to 30 ft wide. Business units are functioning on almost all roads which have become narrow as a result of encroachment.

6.2.2 Bus Stand, Taxi Stand and Truck Stand

Rishikesh has two bus stand, one is govt. bus stand which is situated in deuced populated area another is private bus stand, situated on the bank of Chandrabhaga river in municipality land Govt. Roadways bus stand is situated in about 15 Bigha rental land and about 368 Buses are here. In Rishikesh the direct bus service are available for Delhi, Lucknow, Agra, Aligarh, Mathura Brindavan, Dehradun, Nanital, Haridwar, Saharanpur, Ludhiana, Chandigarh, Shimla etc.

Similarly private bus stands extends direct bus services for hill region such as gangotri, Badrinath, Kedarnath etc. During off-season, about 50-50 bus carries about 1250-1250 passengers daily. During pilgrimage season about 250 buses more to Badrinath, Kadernath, Yamunotri and Gangotri.

Taxi Stand

Taxi stand office is situated at Rishikesh Haridwar road with its branches at Muni Ki Rati, Luxman Jhoola and roadway Bus Stand. About 300 taxies are available at daily service for Delhi, Haridwar, dehradun, Mussorrie, uttarkashi, Shrinagar etc. During Pilgrimage season, Taxies play for chomali, Joshimath Badrinath, Gansikund (Kedarnath), Gangotri and Yamnotri etc.

Presently there is no proper taxi stand. Few taxi parks at Haridwar road and some in Muni-Ki-Rati area.

Truck Stand

Presently there is no truck stand. There is two-truck union office. One is at Dehradun road from where about 700 trucks more to hills and another at Haridwar road from where about 1000 trucks more to plane area. In the absence of proper truck stand, truck finds their way along roadside and creates unsafe conditions for safe traffic flow.

6.2.3 Rail traffic

Rishikesh is directly connected through broad gauge line from dehradun, Agra and Haridwar. Five trains in both directions more from Rishikesh Railway station. Details of passenger traveled during 1993-94 are shown in table below.

6.2.4 Air Travel

An airport is situated in Jolly Grant about 7 km from Rishikesh in the area of about 2.0 sq. km.

6.2.5 Water Route

Since beginning Ganga had been the source of travel presently upto about 8-10km above at Shivpuri water sport facilities are available.

6.3 Utilities and Services

Utilities and services means the water supply, electric supply and sanitary without which human life is encumber some. A part from there, postal services, police station, Fire stations and Banks are also essential for human security and development of town.

6.3.1 Drinking Water

Hygienic and sweet drinking water supply arrangement in Rishikesh are satisfactory. As per Garhwal water Box, Rishikesh, 11430-liter water is supplied through

5419 connections in Rishikesh, Virbhadra and Muni-Ki-Rati. The detail of regular water supplies. No of connection and no. of over head tanks are shown in table given below.

Table 19: WATER DISTRIBUTION CAPACITY

S.I.	WATER SUPPLY	RISHIKESH & VIRBHADRA	LAXMAN JHOOLA & SWARGASHRAM	MUNI KI RATI
Total Connection	5085	162	334	558
Daily Supply Capacity	10350	100.80	1080	720
Per Capita Demand	0.2 KL/Day/Person	-----	0.2 KL/Day/Person	-----

6.3.2 Electricity

Electric supply to Rishikesh is done through 132 kW line under U.P. electric grid. Electricity distribution to some areas is done through 11 kW sub station of Municipality and remaining supply through 33 kW sub station situated at Dehradun Road. Muni-ki-rati area is fed through 11 kW sub station of shivanand Ashram and Juxman Jhoola area through 33 kW sub-station of Kailash gate, Muni-Ki-Rati. The electric supply to I.D.P.L. is done through 132 kW sub station situated in IDPL.

6.3.3 Sewerage and drainage facilities.

Due to lack of wide roads and narrow lanes, drainage pattern of the city is quite unsatisfactory. Almost 50% area of Rishikesh is covered with sewage facilities. There is a sewage farm within an area of about 12 areas at lakkar ghat.

6.3.4 Postal and telegraphic facilities

Presently, there is a main post office, 2 sub post offices in addition to a telephone exchange at Rishikesh.

6.3.5 Police Station

There is a police station in addition to 4 police post, which are essential for welfare and security of citizens.

6.3.6 Fire station

There is a fire station but this facility may not be awaited in the narrow lanes of the town.

6.3.7 Banking facilities

20 Banking units are functioning in town. All these units are running in the private building and lacking in the parking facilities.

Chapter 7

CHAPTER 7: IMPACT ANALYSIS OF TOURISM ACTIVITIES

7.1 Impact of Tourism on Land Use

Tourist population in Rishikesh town is increasing continuously. Besides the Tourist population, permanent population of Rishikesh is also increasing to cater to the increased Tourist population. But when the land of any town is limited. This phenomenon creates pressure on the land & it is getting congested day by day. The various impact due to Tourist population on different land uses are as following:

7.1.1 Impact on Residential Development

Rishikesh's core residential area is getting congested because of mixed activities, With increasing permanent population more housing is needed and for fulfilling this demand new residential developments occur at a fast rate and many old buildings acquire new stones. But in Rishikesh because of scarcity of land the land use is getting congested day by day & the land prices are continuously increasing. In the main tourist area i.e. Muni Ki Rati & Swargashram the land prices are maximum around Rs 8000 which is four & five times greater than the other parts of the town. This means simultaneous horizontal and vertical expansion. Similarly with the increase in the Tourist population or the construction of new hotels, Dharamshalas, Ashrams and Guesthouses etc. is under way. Housing is the primary need of the people. Any increase in the population whether it is permanent or floating has direct impact on residential development. At Treveni Ghat due to absence of planning imperatives with growing population the demand for housing may increase the building heights which would lead to congestion

7.1.2 Impact on Commercial Activities

To fulfil the requirement of tourist as well as local people the Commercial activities are coming up with new pace. Traders prefer to carry on their business inside the core area & around the main tourist centers along the roadside therefore the residential units along the roadside

converting into commercial centers. As a result of the invasion of commercial use, the town is fast losing its residential character. Further the proportion of commercial use in the core area is high.

7.1.3 Impact on Community Facilities

Impact on community facilities has been also seen due to ever-increasing permanent as well as Tourist population. Except open space and parks every type of facilities increases in the past decade. This is only due to increased population, but the facilities per unit population are continuously decreasing.

7.1.4 Impact on Transportation and Communication Facilities

Rishikesh Town is showing a haphazard and highly congested irregular traffic due to continuous increment in the floating as well as permanent population. Due to increment of Volume of traffic and encroachment of shops on the roads and public spaces causing reduction in the usable space. Main road of Rishikesh is not capable of taking up the peak traffic coming to it and problems of mixed traffic are also there. Bottlenecks present in the main road because of the irregular building obstructing the traffic and parking of Rickshaws and taxis in front of bus stand and railway, station are not properly managed due to increment in the total number of vehicles. Narrow roads leading to the temple places cause a great congestion to the people and traffic. The main reason for the all above mentioned problems are the vast traffic inflow in the town as the main national highway passes through the heart of the town & Rishikesh is also the Gateway to whole of the Garwal region.

7.2 Impact on the Natural Environment of Rishikesh

For a healthy environment it is necessary to maintain an ecological balance. As a part of development of the Rishikesh town roads, bridge and buildings are being constructed. For these purpose trees are being cut, soil is being disturbed. This causes deforestation and soil erosion disturbing the natural relationship. Natural flora and fauna has been unrooted. The wild life has been endangered. Due to increase in population sanitation, water supply problem is also becoming acute. Many industries are coming up in Rishikesh as a part of development. Activities resulting in pollution of river water and air. Traffic, noise, water and pollution are affecting the natural

environment of any city, which have resulted in substantial. Change in the environmental quality of the town. The main factors, which should be considered to assess or to minimise the environmental impact, are as follows:

Size of area and the useable space

Fragility of the environment

Topography and the vegetative cover

Number, diversity, and distribution of wild life

Sensitivity of flora & fauna to human visitation

Environmental impact of per capita solid waste generated (Pollution potential), and

Demand on environmental resources for energy

Impact On Forest Cover of the Area.

Trees are necessary for fertile land or soil. By destroying huge tracks of forest, man has changed many areas of forestland into barren areas unfit for cultivation. And which are once fertile and now are desert. Trees are also being constantly cut for use as timber and firewood. Rishikesh town is also not far away this problem. New areas are constantly developing after cutting down the forest & vegetative cover. This is all due to destroying the forest cover. Development should not be at the cost of nature.

Impact On the River Water

Rishikesh town water scarcity does not exist. But the river is polluted by industrial waste coming from different industries situated in the city and sewage of the city is often drained into the Ganga. There are mainly two cremation ghat & half burnt bodies of the people coming from these also polluted river water and cause the various diseases like typhoid, cholera, dysentery & viral hepatitis). To study the pollution in the River water the stretch of Ganga is divided into four stations i.e. Laxman Jhoola, Traveni Ghat, Virbhadrha Barrage & Satyanarayna Ashram.

Laxman Jhoola

The river Ganga upstream of this point can be considered as pollution free, on account of its travel through hilly terrain, very lean habitation, absence of industries, and agriculture practices that employs insignificant level of fertilizers and pesticides etc.

Traveni Ghat

This station was chosen to indicate the pollution effect of 1 major drain and 7 minor drain of Muni Ki Rati, meeting Ganga upstream. The effect of bathing can also be observed here, in

addition to that of two major drains of Rishikesh i.e. Saraswati drain and P.W.D. drain. The other drain, which supplements the discharge of Rambha River, meets the River just down stream of Virbhadra Barrage.

Virbhadra Barrage

This station was chosen to depict the effect of pollution from Rishikesh Ghat, Muni Ki Rati & Ashrams drain together with the purification attained by River till its impoundment at this barrage.

Satya Narayan Ashram

This station was chosen to study the combined effect of all the pollutants including the effluent of Indian Drugs & Pharmaceuticals Limited.

The main sources of organic pollution in the river Ganga are municipal sewage & industrial Sewage.

Municipal Sewage

The main sources of municipal sewage are as follows:

- ❖ Rishikesh Drain
- ❖ Muni Ki Rati Drain
- ❖ Rishikesh Sewage
- ❖ Ashram Drains

The Rishikesh wastewater is finding its way to River Ganga via a set of stabilization ponds. The sewage after biological secondary treatment through ponds was meant for irrigation of Pashulok farms 125 hectares in area. As at present the sewage farming is kept abeyance, on account of low quantum of sewage reaching the treatment site. The sewage system is lying in dilapidated conditions, and the bulk of the community waste water is finding its way into the River Ganga through the two major drains i.e. Saraswati drain and P.W.D. drain. The main reason for malfunctioning of this system is:

- 1) Only 30% of the household have connected their water closet to sewerage system.
- 2) The total Municipal area is not seaward. The unsewered area therefore contributes towards pollution load, through small drains, which ultimately discharge into the major drains.
- 3) On account the hilly terrain surrounding the town, the silt load brought by storm water, contributes to blockage of sewers.

- 4) The night soil & garbage of town are dump indiscriminately at different places from where it ultimately finds its way into the major drains and finally into the River.
- 5) Muni Ki Rati town is not having any sewerage facility. The total wastewater of the community is therefore contributing to pollution of river Ganga through drains.

Impact On the Air & Noise

In Rishikesh because of more traffic, automobiles, trains and factories air is getting polluted day-by-day. Smoke left by automobiles is very much injurious to health of the people and directly proportional to traffic volume and traffic volume is proportional to population, permanent as well as tourist population. In addition to the disturbances in Land air and water a new kind of disturbances has been experienced lately. This is called noise pollution and has become more accurate in urban areas because of the different kinds of sound produced by various Machines varying from a small transistor to a big industry. Constant exposure to loud sounds and noise results in deafness also increase blood pressure nervousness, heart trouble & disease of mind & eyes, such effects have been particularly among factory workers who are exposed to constant noise from their machine. In Rishikesh noise pollution is also automobiles and industries create increasing which mainly.

Impact On Open Spaces

In Rishikesh because of scarcity of land & different terrain conditions the opens spaces are continuously converting into residential or commercial land use to meet the needs of vast tourist inflow as well as permanent population, which in turn disturbing the natural environment of the town.

7.3 Impact on Economic Base of Rishikesh

Economy of the people belonging to Rishikesh town is very much affected by the Tourist population. A large number of people are running that type of business, which is totally dependent upon the visitors, pilgrim's etc. These include making sticks, kavarrh, printing of religious books, making of jars etc. for Ganga water, which are purely required by the pilgrims. Some of people are engaged in running hotels, restaurants etc. and some make Mala out of flowers. The percentage of people whose business is totally dependant upon the pilgrims, visitors etc.

Income through Taxation

A tax of 50 paise is levied on each tourist and the total income therefore depends on the number of tourists visiting in a year.

Table 20: INCOME THROUGH TAXATION

Year	1982	1983	1984	1985	1986	1987	1993
Tourists(Lacks)	21.67	22.01	21.48	22.74	26.55	25.25	31.38
Income(Lacks)	10.83	11.005	10.74	11.37	13.27	12.62	15.64

Income through expenditure by tourists

Economic activities of the tourist town are based on the expenditure of the tourists in the town. This expenditure is direct income for the town. This money spent by the tourists has a multiplier effect.

Average expenditure pattern on different aspects such as food, Transportation, shopping and accommodation has been obtained by the primary surveys. This is shown in the table given below:

Table 21:EXPENDITURE BY TOURISTS

Income Group	Remarks
> 5000 per months	25% expenditure on shopping, 75% accommodation
3000-5000 per months	50% do shopping, 75% accommodation
1500-3000 per months	25% Shopping, 30% accommodation
<1500 per month	20% Shopping, Stay in Dharamshala& Ashrams

Among the foreign tourists expenditure on all items is greater. 50% of them do shopping and 90% of them stay in hotels. It is estimated that a large proportion of town's income comes from tourists. Thus if Tourism is facilitated in the town the general income of the town and of the people can be increased. Not only income but also the employment in the town both directly in terms of providing services and indirectly through the income multiplier effects can also be increased.



Chapter 1

CHAPTER 8: PLANNING FOR TOURISM BASED DEVELOPMENT

8.1 Concepts and Approach

- 1) Tourism planning is more art than science. The basic concept for Tourism development in Rishikesh is to maintain its evolutionary image as tourist and religious center and its recent development into an important transit town to whole of the Gharwal Region and to integrate it with all the nearby areas or excursions with proper infrastructure facilities. The two basic principles to achieve this goal are regional integration and environment compatibility.
- 2) Regional Integration
- 3) Tourism plan prepared in isolated and site-specific manner with little or no concern about possible spin-off effects on adjacent areas or environment may lead to problems related to regional imbalances. Called for is an integrated approach of planning and design of tourism development.
- 4) Environmental Compatibility
- 5) Planning and design of a facility in harmony with its environment should become an integral part of planning process. Tourism development, by no means, should be restricted to only one component-the visitor. The needs and desires of the local community and environmental compatibility of the area must be integrated with the plan.

8.2 Major Problems Related to Tourism

The main problems associated with the tourism development in Rishikesh are as following :

- 1) Most of the tourism activities are concentrated in a few centres which are facing problems of carrying capacity, leading to environmental degradation of the area.
- 2) Lack of information about the other centres which are equally good or even better than the present tourist destinations, in terms of attraction.

- 3) Lack of infrastructural facilities including accommodation, basic services, communication and transport facilities, etc. in most of the areas.
- 4) In spite of its multiple attractions and opportunities for adventure tourism activities, the Garhwal region is not attracting many international tourists (only about 0.5 per cent of the total tourist arrivals in 1991). This is losing out in terms of net economic gains arising due to high expenditure patterns of international tourists.
- 5) Pilgrims are the major segment of the total tourist arrivals (67 per cent in 1991). But pilgrimage is mainly confined to four months (May, June, September, October), of the year.

8.3 Strategy for Tourism based Development

Because of vast potential of tourism and increase in tourist inflow, it is essential to tap this potential by preparing a separate development strategy for tourism development. It implies that by giving a boost to the tourism industry, the region's economy and other related sectors will be improved. Thus, tourism will lead to an integrated development of Rishikesh. Therefore, an attempt has been made to formulate tourism development strategy and also recommendation for the sectors related to tourism. Main element of the strategy are:

1. Dispersal of Tourism Activities in Different Parts of the Region

It includes the shifting of focus of tourism development to new area, i.e. Neelkanth, Surkunda Devi, Chilla, Shivpuri and other nearby excursions. It will release the burden on Swarg Ashram area and Triveni Ghat area.

2. Diversification of Tourist Product

Adventure Tourism

- 1) Trekking to be organized as a main tourism activity
- 2) With the help from Government assistance, i.e. purchasing of rafters, river rafting to be developed at Shivpuri with proper safety measures. This type of adventure has vast potential and can provide economic benefits.
- 3) Among other adventure sports, horse riding to the Neelkanth and Ram Jhoola, Luxman Jhoola corridor should be started.

Pilgrim Tourism

1) Rishikesh is the well-known pilgrimage center for Hindus. Therefore, all the ancient temples and places of religious importance should be developed as a major pilgrimage node. The places should be provided with proper infrastructure facilities and proper management.

2) At Triveni Ghat and other ghats proper bathing spaces, shades and safety measures should be provided.

Camping Tourism

This can fulfil the desire of tourists to live close to nature and help in spreading tourism activities to the remote localities of Shivpuri towards Neelkanth, Chilla and other nearby places.

Health Tourism

Rishikesh is also a well-known spiritual center for yoga, meditation and naturopath. Therefore, local body should take initiatives to promote, assist and highlight such kind of activities.

3. Improvement of Infrastructure Facilities

(1) Upgradation of existing road network specifically with proper fueling facilities.

- ❖ Haridwar – Rishikesh Corridor (24 km)
- ❖ Rishikesh – Badrinath Corridor (300 km)
- ❖ Rishikesh – Yamnotri Corridor (234 km)
- ❖ Rishikesh – Kedarnath Corridor (227 km)
- ❖ Rishikesh – Gaangotri Corridor (248 km)
- ❖ Rishikesh – Kunjapuri Corridor (271 km)
- ❖ Rishikesh – Chilla – Hardiwar Corridor (35 km)

(2) Construction or improvement of bus stands; taxi and auto stands should be made to enhance the amenities for the tourists

(3) Strengthening and improving the existing drainage, sanitation system and developing parking facilities in almost all tourists places

(4) The existing accommodation of rest houses, hotels and restaurants managed by private parties do not meet the requirements of low income tourists, therefore government must take care of this aspect.

4. Development of Human Resources

- 1) Government intervention is needed to give tourists the taste of local identity rather than creating same type of facilities as existing elsewhere in plains.
- 2) Local people should be educated to view long term gains of tourism. Without the participation of local people in this industry, tourism can not grow properly. The Tourism Department should provide subsidy and training to local entrepreneurs for construction, guiding, catering, housekeeping, tracking, adventure sport and other activities

5. Development of Specific Sector Activities

- 1) Tourist touches almost all the sectors of the economy. So, it becomes important to develop their specific sectors and activities.
- 2) With the tourist inflow, tourists want to see the local handicraft, cultures and art, so it is right time to establish the local craft industry.
- 3) In order to promote this area to the inter domestic and foreign tourists in its proper perspective. There is a need to develop packages tours and publicity material.
- 4) Re-strengthening traditional fairs and festivals through the local bodies and religious communities

8.4 Transportation Plan for Rishikesh

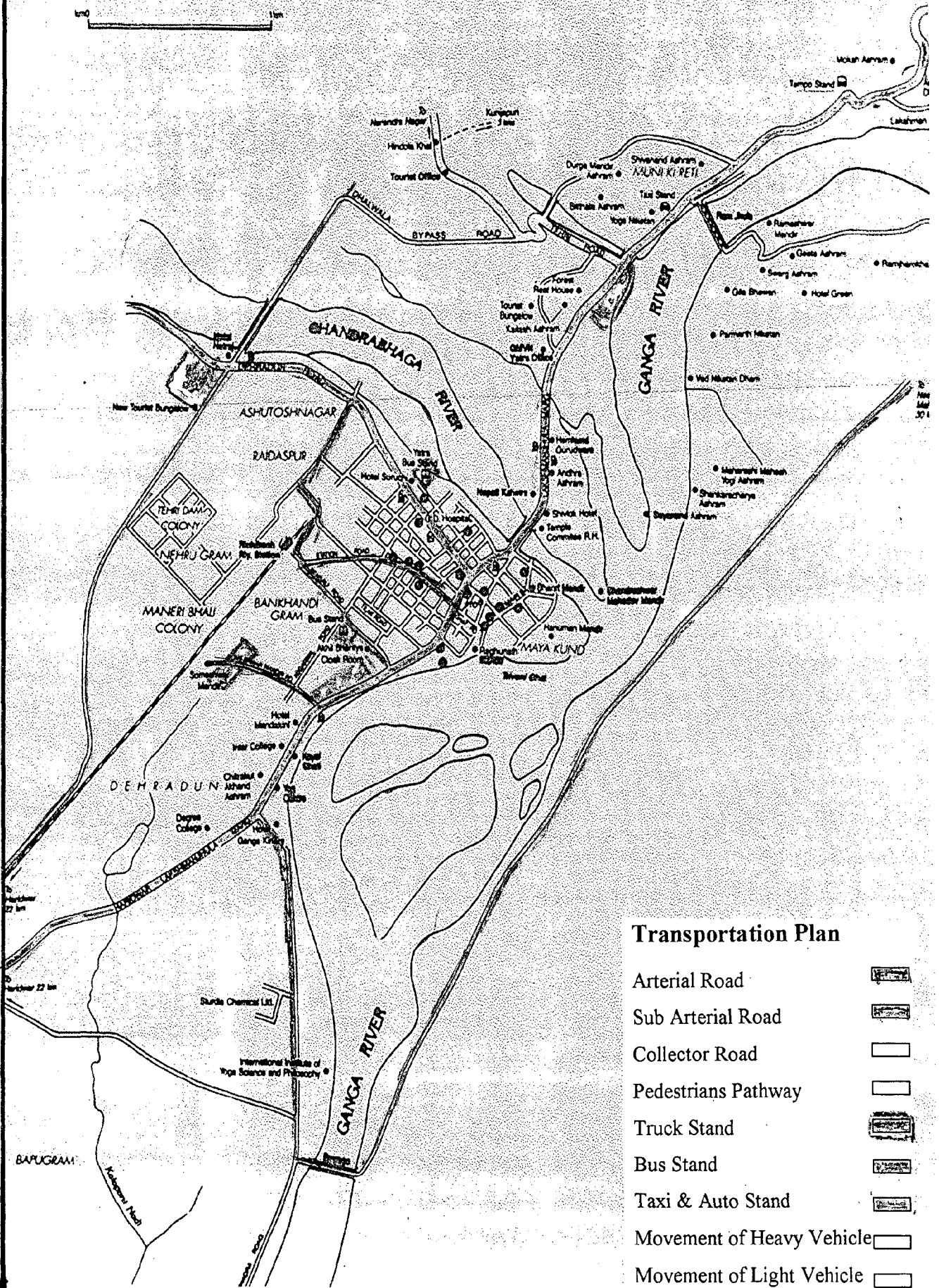
The traffic problem in Rishikesh is confined only in few months at the time of vast tourist inflow. Therefore these proposals are mainly related to traffic management with certain improvements, The existing traffic & transportation system of Rishikesh has been discussed earlier.

Proposals

- ❖ Truck stand should be shifted to the site near to Bharat Mandir inter college.
- ❖ Taxi & Auto stand must be shifted to the site just adjacent to Hotel Ganga view.
- ❖ All the vehicles going to the upper reaches of Himalayas should be diverted to Rishikesh bye-pass.
- ❖ Heavy vehicles are only allowed on the arterial roads, but it should not be allowed to enter in the main city in day hours.
- ❖ Auto should be allowed on the sub arterial and arterial roads. On road parking of these vehicles should be prohibited strictly.
- ❖ On collector streets, only two wheelers should be allowed.

RISHIKESH

km 0 1km



Transportation Plan

- Arterial Road
- Sub Arterial Road
- Collector Road
- Pedestrians Pathway
- Truck Stand
- Bus Stand
- Taxi & Auto Stand
- Movement of Heavy Vehicle
- Movement of Light Vehicle

- ❖ At the main tourist centers only pedestrians entry should be permitted.
- ❖ All the important should be designed properly.
- ❖ All the encroachments along the main roads should be removed forcefully.

Table 22: CLASSIFICATION AND PROPOSED IMPROVEMENTS ON THE MAIN ROADS

Name of Road	Type of Road	Right of Way	Length	Remarks
Bye-pass Road	Arterial	40m	14 Km	Two lane
Haridwar-Rishikesh Road	Arterial	40m	11 Km	Two lane
Dehradun Road	Arterial	40m	2 Km	Two lane
Virbhadra Road	Sub-Arterial Road	35m	4Km	--
Railway Road	Sub-Arterial Road	35m	1 Km	--
Other Roads	Collector	18-20 m	--	--

8.6 Implementation of the Plan

The following main programmes must be adopted for enforcing the development plan.

- ❖ Improvements.
- ❖ The open spaces should be enclosed and improved with proper plantation.
- ❖ The road should be widened with proper lighting. The road intersection must be improved with better traffic control.
- ❖ Existing condition of infrastructure and utilities requires a great deal of improvements.
- ❖ Removal and Re-development.
- ❖ This process mainly deals with slum areas, encroachment, in-authorized construction, open spaces & essential activities.

Administrative Setup

The study Area Comprises of three districts i.e. Dehradun, Pauri Garhwal and Tehri Garhwal. The local administration is being looked after by the Rishikesh municipal council, muni-ki-Reti, Notified area committee, the vibhadra notified area committee and the Grave Dabha for Swargashram. A body works guidelines of Haridwar development authorities.

Legislation to Control Development

The following legislations shall be used for acquisition, control and development of the area:

- ❖ Land Acquisition Act 1894
- ❖ UP Municipal Act 1916
- ❖ UP Improvement Act 1919
- ❖ U.P. Development Authority Act
- ❖ The water (Prevention and Control of Pollution) Act 1974, 1977
- ❖ The Air (Prevention and Control of pollution) Act 1958
- ❖ The Ganga Action Plan 1986
- ❖ The U.P. State Regulation of Buildings Operation Act 1958
- ❖ The U.P. Slum Areas (Improvement/Clearance) Act 1976
- ❖ **The Land Acquisition Act 1894**

The Act empowers the Government to acquire any land or immovable property required for public welfare. The additional land required for future development in the area may be acquired by the R.D.A. under the provisions of this Act.

❖ U.P. Municipal Act 1916

This Act defines the set up of Municipal organization, the functions and responsibilities of the Council. The Municipality can frame bye laws For Various Purposes.

❖ UP Improvement Act 1919

This Act allows the preparation and implementation of various town-planning schemes to guide's development along proper lines.

❖ U.P. Development Authority Act

This Act empowers the State Government to create a Development Authority for any specified area for its future development.

❖ **The Water (Prevention and Control of Pollution) Act**

The Act puts require industries to use control measures to reduce effluent discharge. It also controls the setting up of noxious and polluting industries.

❖ **The Air (Prevention and Control of Pollution) Act**

The Act is applicable to the whole of India.

❖ **Ganga Action Plan 1986**

The plan provides for treatment of all the effluents prior to its discharge into the river. Considerable amount of improvement has been noticed since the Ganga Plan was launched.

❖ **U.P. Slum Areas (Improvement and Clearance) Act 1976**

The Act provides for removal of the slum conditions as well as improvement of areas covered by slums.

❖ **U.P. State Regulation of Building Operations**

The Act empowers the declaration of an area covered by a Master Plan as a regular area. The Act also empowers the authority to regulate the building activity under its jurisdiction. It puts restrictions on the manner and extent of use of any land by its owner.

Financial Resources

❖ Financial aspect is the most important aspect to execute any development activity.

The main source of revenue is as follows:

- ❖ Passengers tax.
- ❖ Stamp Duty.
- ❖ Electricity Duty.
- ❖ Entertainment tax.
- ❖ Government assistance packages

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C h a p t e r 1

CHAPTER 9: MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

9.1 Major Findings, Conclusions

From the analysis of primary, secondary data and general observance the following characters can be revealed:

- 1) Most of the tourists travel in families around 60%, while 30% travel in-group and the rest alone.
- 2) Around 60% of the tourists are from outside the State and 5% of the tourists are foreigners
- 3) For around 50% of the tourists, it was the first trip but rest repeats their visits. These are mostly pilgrims.
- 4) Around 60% of the tourists come Rishikesh by road. Therefore, proper transportation plan is formulated for smooth flow of tourists.
- 5) Around 75% of the tourists use the Vikram as a mode of transport within the town. Mostly of them are overloaded and highly polluting.
- 6) Tourists are of varied background i.e. service class, businessmen, retired people and farmers etc. Most of them come from pilgrimage.
- 7) **General observations:**
 - ❖ Cultural activities +ve
 - ❖ Building Orientation and Architecture -ve
 - ❖ Open Space and Visual Access to the River Front -ve
 - ❖ Recreation activities -ve
- 8) Commercial activities are concentrated on the core of the city along main roads and around the tourist center.
- 9) Expansion in Northeast direction is limited because of hills. Expansion in the Northwest is limited because of dense forest. The land is available only in Southeast at Pashulok area and Southwest at Shampur area.
- 10) Traffic problems are confined only in few months at the time of parvas and in summer season.

9.2 Recommendations

- 1) Rishikesh is not only the tourist center but also a service center to whole of the Garhwal Region. Tourist seasons are mainly confined only for few months. Therefore, to boost up the economy in the lean season there is a need to develop Rishikesh as a Service Center for the Higher Reaches of Himalayas. For this, the roads, which are major means for passengers and goods transport, should be improved. Not only buses, trucks and taxis but also bus stands, truck stands, taxi stand, petrol pumps with proper parking facilities should be provided.
- 2) There must also be proper distinction between ordinary buses used by the local people, semi-deluxe buses or first class buses with smart uniformed staff equipped with A.C. and video facilities for Higher Classes and foreigners.
- 3) Cleanliness of any town is a striking feature. Therefore, the local government bodies must concentrate to keep the town, ashrams, dharamsalas, busstand, hotels, commercial centers etc. clean.
- 4) In Rishikesh, tourists come from all the corners of the country. Variety of food and beverages are quite missing. Therefore, Tourism authorities should take initiative to establish different kinds of hotels to meet this demand.
- 5) Besides pilgrimage, other major thrust areas for promotion are as follows :
 - ❖ Adventure Tourism
 - ❖ Forest and Wild Life Tourism
 - ❖ River Tourism
 - ❖ Plantation Tourism
 - ❖ Eco-tourist/Eco-friendly Tourism
 - ❖ Development of Amusement Parks
 - ❖ Tourist Circuit Planning
 - ❖ Marketing of Tourism Products
- 6) For the heritage of main characters of town big scale industries must not be encouraged in this area because of the scarcity of land and pollution.
- 7) There is also a need to promote the small sale industries, handicrafts, jewelry etc. for indirectly boosting the economy.
- 8) There is also a need to increase the average stay of tourists to increase the expenditure on shopping etc. to generate additional income.

- 9) Different festivals or carnivals should be organised by the government at different parvas.
- 10) Adventure tourism should be promoted in tented accommodation on campsite along the riverfront areas. It may attract foreign tourists.
- 11) Strong legislative measures should be taken to demolishing the unauthorized construction and encroachment along the main roads and important places.
- 12) Proper parking lots should be provided to check traffic congestion around the main tourist center
- 13) Drainage and sewerage condition of Dharamshalas and Ashrams should be improved.
- 14) Regulatory Measures should be taken to control the movement of beggars and hawkers around the main tourist center.
- 15) There should also be limit fixation on the land given to the Ashrams and Dharamshalas as it accommodates less number of people.
- 16) Recreational area should be developed to decongest the central area and to increase social interaction.
- 17) Removing unauthorized construction should provide visual access to the riverfront.
- 18) Government authorities should take concrete steps to ensure strict enforcement of bylaws i.e. height control, opening, projections etc. Women participation should be increased by proper education.
- 19) In Rishikesh two ropeways, one from Luxman Jhoola to Kunjapuri and other from Ram Jhoola to Neelkanth can also made with the government assistance to attract the Tourists, after complete feasibility analysis.

9.3 Recommendation on Environment

- ❖ Soil erosion should be checked by the modern techniques
- ❖ Deforestation must be prevented to conserve the natural landscape of the town
- ❖ Industrial and domestic wastes must be treated first than discharge into the River Ganga
- ❖ Automatic Exhaust should be checked from time to time to meet the standard norms.
- ❖ Open spaces and parks must be provided for every new development as per standards



ANNEXURE

POPULATION GROWTH RATE OF HARIDWAR TOWN

YEAR	POPULATION	DECADE GROWTH	GROWTH RATE (%)
1901		----	---
1911	25597	3085	12.05
1921	28682	2082	7.26
1931	30764	2523	8.20
1941	33287	7536	22.64
1951	40823	16515	40.46
1961	57338	2622	4.57
1971	59960	19317	32.22
1981	79277	36236	45.71
	115513		

Source: Master plan

NUMBER OF EMPLOYEES IN THE POPULATION OF HARIDWAR

YEAR	TOTAL POPULATION	TOTAL NUMBER OF EMPLOYEES	PERCENTAGE OF LABOUR IN THE TOTAL POPULATION
1971	79277	23145	29.18
1981	115513	31723	27.46
1991	238360	72700	30.5
	306514	98000	32.0

Source: Master plan

TOURIST FLOW

YEAR	DOMESTIC TOURIST	FOREIGN TOURIST
1980	2907295	1695
1981	3237737	1755
1982	3345617	1900
1983	3536075	2125
1984	3965272	2230

Source: Master plan

SEASONAL TOURIST FLOW

MONTH	BY ROAD	BY TRAIN	TOTAL
January	174583	54885	229468
February	176480	76127	252607
March	272804	73666	346470
April	395496	Not Available	Not available
May	440410	111442	551852
June	598064	173240	771304
July	501345	125087	626432
August	400277	96218	496495
September	268996	83087	352083
October	361137	86237	447374
November	182342	38130	220472
December	193328	47754	241082

Source: Master plan

TOURIST ACCOMODATION FACILITY IN HARIDWAR

S.I.	Description	Total	Condition of Buildings					
			Good		Average		Poor	
			No.	%	No.	%	No.	%
1.	Dharmshala Hotel &	148	82	55	59	40	7	5
2.	Lodges Ashram	48	25	53	21	43	2	4
3.		148	77	52	65	44	6	4

Source: Master plan

COMMUNITY SERVICES

SERVICES	NUMBERS
Education	
1. Primary school	59
2. High school	13
3. Colleges	5
4. Technical colleges	5
Health	
1. Hospitals	6
2. Primary Hospitals	3
Other facilities	
1. Post office	1
2. Sub post office	1
3. Branch post office	22
4. Kotwali	1
5. Police station	3
6. Police choki	7
7. Fire station	1
8. Parks & play ground	6
9. Cinema hall	7
10. Library	14
11. Bank	15
12. Auditorium	6

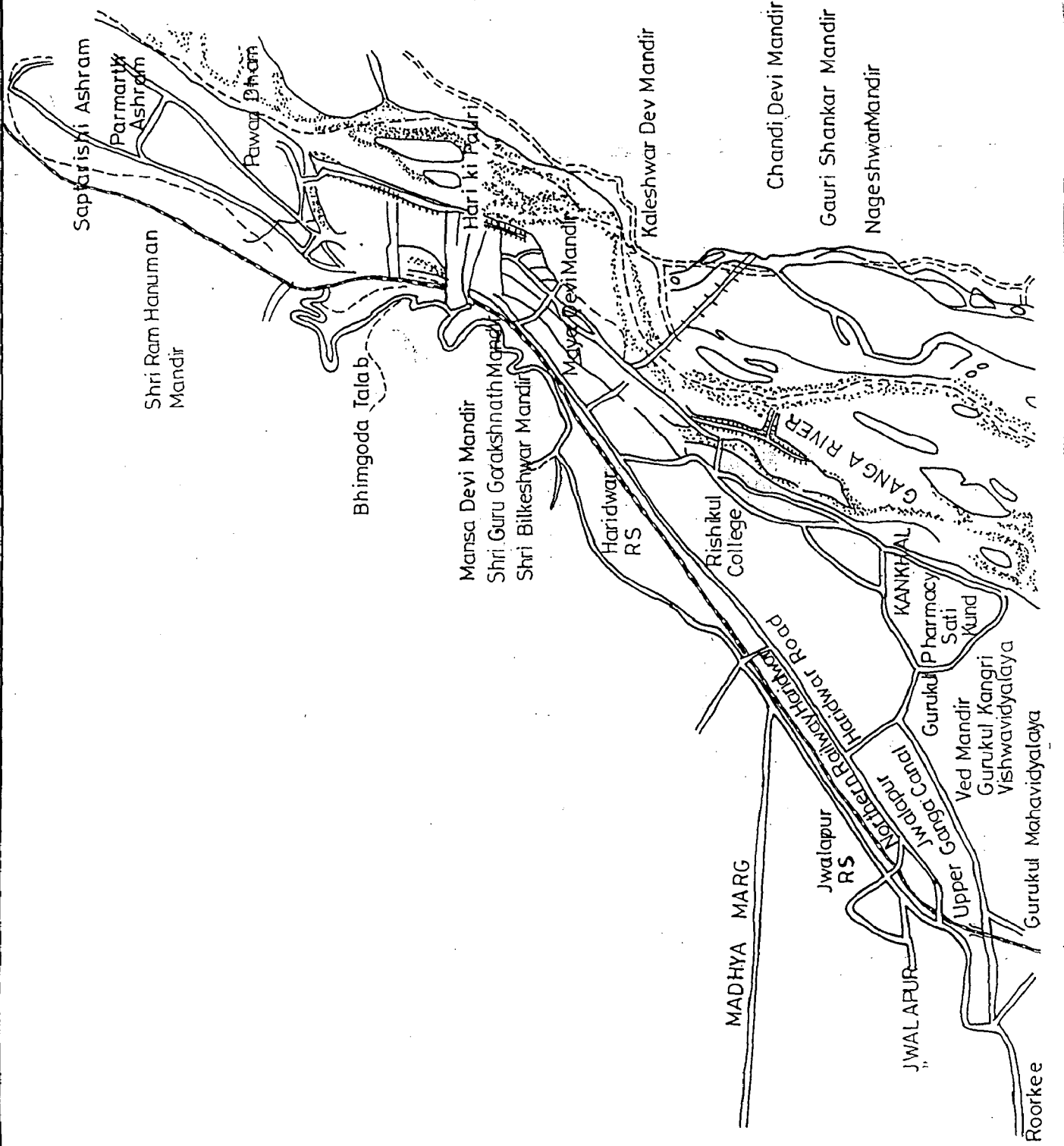
Source: Master plan

LAND USE OF HARIDWAR

Land use.	Area (acres)	Area (Sq. Km)	% of total area	% of dev.area
I. Developed area				
1. Residential	627.89	2.54	21.4	38.7
2. Commercial	30.58	0.12	1.0	1.9
3. Industrial	148.55	0.60	5.1	9.2
4. Community services	148.76	0.60	5.1	9.2
5. Transport	105.78	0.43	3.6	6.5
6. Govt. & Semi govt. offices	33.68	0.14	1.1	2.1
7. Religious area	242.98	0.98	8.3	15
8. Camping area	277.48	1.13	9.5	17.1
9. Tourism	4.95	0.02	0.2	0.3
Total	1620.65	6.56	55.3	100.00
II. Undeveloped area				
10. Open area	468.18	1.90	16.0	
11. Orchards	252.69	1.05	8.6	
12. Agril.	315.74	1.28	10.8	
13. Forest	42.35	0.17	1.4	
14. Water bodies	232.23	0.94	7.9	
Total	1311.19	5.34	44.7	
Final total	2931.84	11.90	100.00	

Source: Master plan

HARIDWAR PLAN



HARIDWAR TOWN

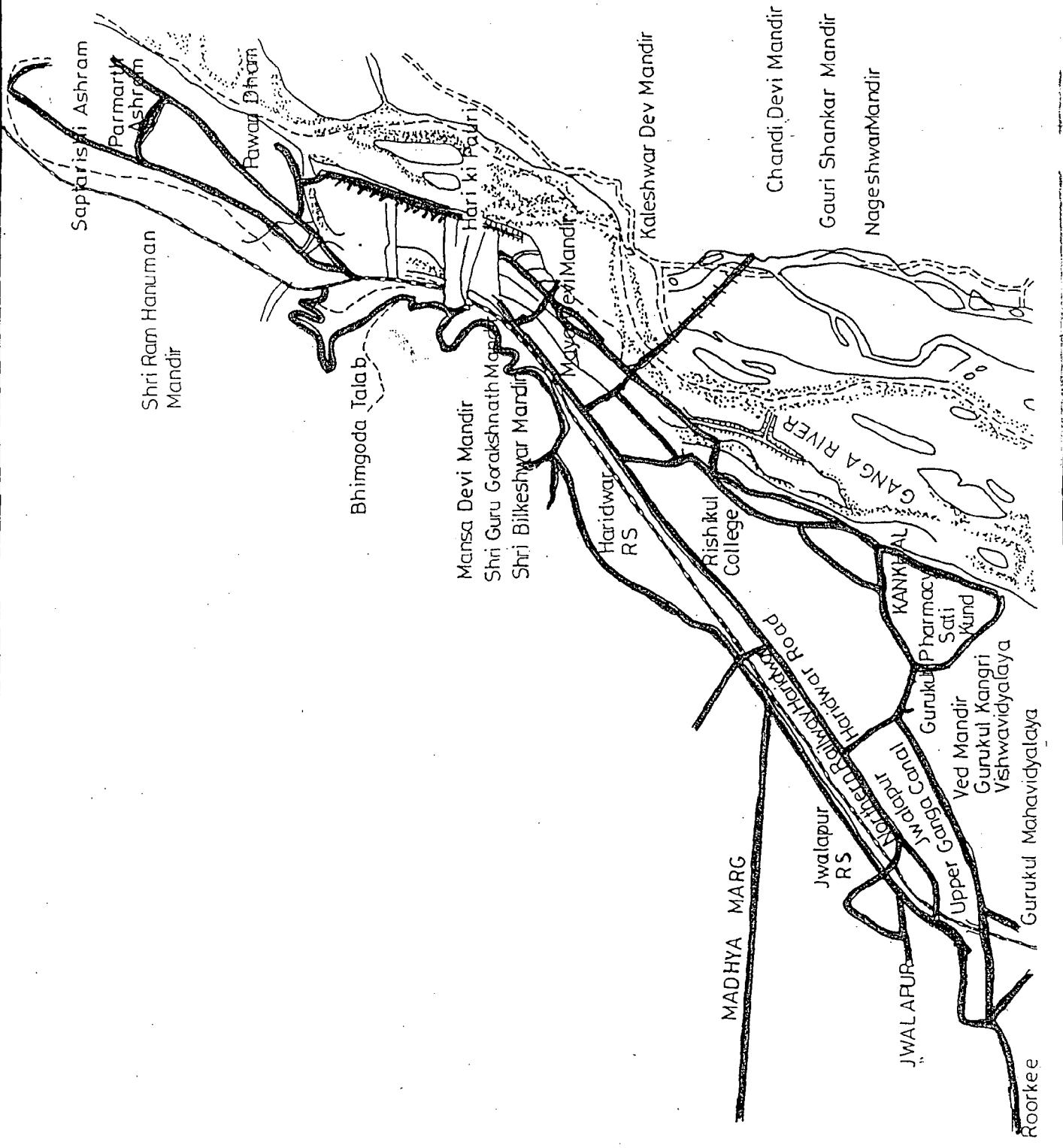
LEGEND



ROAD NETWORK

ROAD NETWORK

SCALE
1:60,000



BIBLIOGRAPHY

- ❖ Lonati, R.C., "Tourism and recreational development".
- ❖ Lal, Kanwar, "Holy cities of India", Asia Press, New Delhi, 1961.
- ❖ Raj, Kuldeep, "River as a landscape resources for a city", Department of urban and regional planning, School of Architecture and Planning, New Delhi, 1963.
- ❖ Census Hand book of India, Union Government of India, 1991.
- ❖ Integrated tourism Development and planning, SDR.
- ❖ Impact of floating population on the development of Haridwar, M.U.R.P. Dissertation,
- ❖ Char Dham Yatra Master Plan.
- ❖ Rishikesh Master Plan.
- ❖ Haridwar Master Plan.
- ❖ Yojna, July :
- ❖ Ganga action port.
- ❖ Development plan of Rishikesh, SPA