

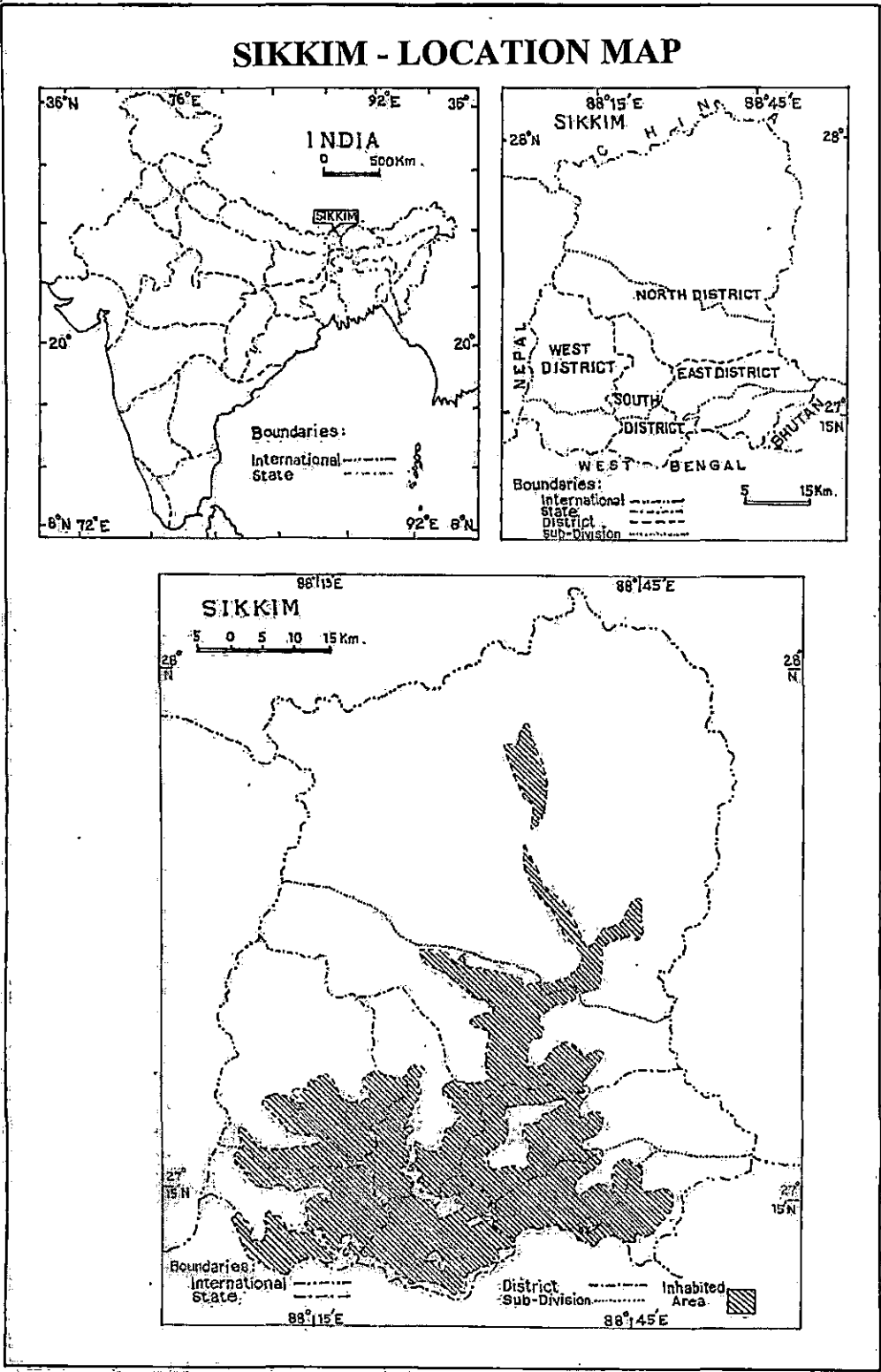
INTRODUCTION

STUDY AREA-AN OVERVIEW

Sikkim, a small vertical state is griddled between 27°04'46" and 28°07'48" North latitude and 88°58" and 88°55'25" East longitude with a total geographical area of 7096 sq km. The third highest mountain peak Khangchendzonga forms a major part of Sikkim. The glaciers in the Kanchendzonga belt are the main sources of water, which flows through river Tista and Rangit. The study area is bounded by Nepal in the west, parts of Bhutan and the Chumbi Valley of the Tibetan Autonomous Region of the People's Republic of China in the East, Darjeeling Gorkha Hill Council of West Bengal in the South, and the Tibetan Plateau of the Tibetan Autonomous Region of the People's Republic of China, in the north (Map 01) It extends 114 km from north to south and nearly 64 km from east to west with the altitude ranging from 300 m to 8598 m. The total of 447 revenue blocks (villages) accommodate total population of 5,40,493 (2001 census). The society is composed of three dominant ethnic groups mainly the Lepchas, the Bhutias and the Nepalese. The lingua-franca of the state is Nepali and it is included in the VIII schedule of the Constitution of India. At the state level, however there are seven other languages recognized by the Government of Sikkim. They are Bhutia, Lepcha, Limbu, Rai, Newari, Gurung, and Tamang.

Sikkim was a kingdom till the (Amendment) act of the Indian constitution was passed in 1974. Various developmental works were carried out as per the guidelines after it gained the status of an associate state of India. Of the total population, 53% are males and 47% are females. As per the census of 2001, sex ratio was 875 with decadal population growth rate of 32.98% during the year 1991-2001. The density of population was recorded at 76 persons per km². The state is administered from four districts namely, the North, South, East and West and nine sub-divisions. Each district has its headquarter with the state capital at Gangtok.

Fig. 01 Location of Study Area



Human Development Index (HDI) of Sikkim was 0.532 in 1998 lower than all India HDI of 0.563. However both per capita income and the HDI value fail to capture the true vulnerability of the people, the insecurity of the population and the challenges for ensuring sustainable human development. Despite the relatively high levels of per capita income the proportion of population living below poverty line has gone up from 36% in 1987-88 to 41% in 1993-94. Sikkim has diverse cultural, natural, social, environmental, political, historical background beautifully nestled in the slopes, valleys and mountain topography.

There is however a large disparity in the prevalence of income between rural and urban areas. In 1993-94, for instance, only 8% of the urban population lived below poverty line. The corresponding value for rural areas was more than five times (45%) than urban areas. The state remains extremely dependent on agriculture, which for instance accounts for nearly 40% of gross domestic product at current prices. In 1991, 65.6% of the main workers were dependent on agriculture, either as cultivators or as agricultural (Lama, 2001) labourers.

The occupational structure shows domination of primary occupation because 70% of its population is engaged in agriculture. According to 2001 census, 48.72% population comprised of workers and the remaining 51.28% were categorized as non-workers. The data revealed that cultivators shared 49.9%, agricultural laborers comprised of 6.4%, workers in household industry constituted 1.2% and other category workers contributed for 42.4% to total workers. Due to rapid development of infrastructure, per capita availability of different types of land has been sharply declining, owing to land heritance, fragmentation of land holding is prevalent in the state.

The economic activity especially livestock farming showed an increase of 66% in livestock during 1977 -1992; cattle population increased by 27% and Yak by 34% respectively. It is estimated that 22% of the area in Sikkim is available for fodder production and pasture.

There has been considerable increase of domestic and foreign tourists. The state is recognized as eco-tourism capital of India. With the mass

awareness and implementation of stringent policy of the Government, natural, cultural and adventure tourism are booming in the State. Steps are taken to promote village tourism with a view to percolate income towards the remote and inaccessible areas. Roadways dominate the transportation system; National Highway 31 is the lifeline of Sikkim. The biodiversity of Sikkim include 150 species of mammals, 550 species of birds, 650 species of butterflies and moths, 33 species of reptiles, 16 species of amphibians, 48 species of fishes, 4500 species of flowering plants, 36 species of rhododendrons, 9 species of conifers, 450 species of trees, 480 species of orchids, 362 species of ferns and allies and 175 species of wild edible plants. Besides, State reserves 19 percent species of mammals, 11 species of birds and 65 species of plants are categorized as threatened and endangered. Therefore conservation ethics needs to be inflicted into the minds of planners, managers and Government and non- Governmental agencies. The biotic and abiotic resources are found in the high altitude mountain ranges; hence tapping these resources need super technology. The total hydropower potential is estimated to over 8000 MW from two giant rivers namely Tista and Rangit.

According to Webster new word dictionary' environment means " all the conditions, circumstances, and influences surrounding and affecting the development of an organism or group of organisms". An environmentalist is a person working to solve environmental problems, such as air and water pollution the careless use of natural resources, uncontrolled pollution growth etc"

Ever since homosapiens set their mortal feet on this terrestrial globe an attempt at exploring natural resources for the benefit of human race is going on and there will be no end to this process (Sankaran, 1999) the mother nature is bountiful in accommodating all aspects of economic activities by offering free gift of nature, but the demand for food, fiber, fodder, firewood, timber, bamboo, cane, medicinal herbs, is greater than their regeneration and renewal able capacity.

The mother gave us birth, nourished and saved us, fulfilled our demand and taught the lesson of need and not greed.

The mother earth is a metaphor. like mother she nurtures us and undergoes all the pain and agony to give us utmost comfort, mother earth is also indomitably elastic, and it adjusts with many changes around her like climate, soil, vegetation and natural calamities to maintain equilibrium in an ecosystem.

Life on 'planet earth' exists in a delicate balance with a system of interdependency among plants, animals, insects and the environment in which they live. The planet supports an infinite variety of ecosystems, each of which is directly or indirectly dependent upon other organism for survival. If a single habitat is destroyed or a single species becomes extinct, everyone on the planet is directly affected. An environmentalist therefore must be broader to include unborn generation before any advance decision on environment is taken.

The resources like water, forest, soil etc are free gift of nature but constant human tempering and encroachment to ecosystem for the last million of years made it scarce and short in supply. Only the demand of resource became renewal but resource became non-renewal. The predicament of environmental degradation rests with unlimited human greed, colonial exploitation and competitions to amass material wealth to be branded as wealthy and rich individual. By raping mother earth, the underdeveloped nations are trying to be labeled as developing nations and developing nations are also in the race of exploiting nature to be labeled as developed nations. This illogic and immaterial sense of competition has led to disparity, despair, deprivation, disease, death, and disaster resulting in untimely death of planet earth.

Mounting menace of green house effect, ozone depletion, sea level rising, glacial receding, temperature rising, El Nino and cyclone etc are the gift of environmental degradation.

During 1960's environment degradation became a catch phrase and awareness programmed penetrated towards district and grassroots levels.

After Earth Summit 1992, and Brundtland commission report of 1987, major strategies and policies were adopted to combat further deterioration. The concept of development is replaced by destruction. In the process of human civilization, human being initially clear forest for civilization. With the vigorous use of soil, they pollute the land and apply fertilizer and chemicals to maintain loss of soil nutrients. As a result, insect and pesticides destroy crops and seeds and human being as well. By killing the insects and rats, whole trees and jungle were murdered mercilessly. The Earth is badly wounded she needs rest and guard to strengthen and protect her. After industrialization, urbanization and population explosion, tourism revolution is booming across the length and breadth of the continents. It is reported that Onglokthang glacier had retreated by about 500 meters and Rathong Chu glacier by 600 meters. This may lead to devastating floods and ultimate dryness in river Tista (Down to Earth, 1999& Lama 2001)

In North Sikkim the phenomenon of glacial lake outburst flood on 26th September 2005 took lives of four mountaineers from Punjab Police. It happened while attempting to scale the 22,532 feet Chomo Yummo Peak in North Sikkim. (Sikkim Express, 28th Sept 2005) The torrential rain of 24th September 2005 took nearly 15 lives and left 174 families homeless in various places in Sikkim. All the roads were blocked due to landslide everywhere in Sikkim.(personal visit, 2005)In this natural disaster, not only the lives of animal and human were lost but massive loss of flora ,fauna and soil were transported by river Tista and its tributaries.

New York, Sept 28 writes, caught in a vicious circle of global warming, the polar ice pack has shrunk by 30 percent since 1978 and melting is speeding up causing the warmest summer in 400 years, an yet to be realized. (Sikkim Express, 29 Sept 2005). At a recent Lhasa declaration mountain expert sat on the roof of world and agreed that millions face glacial catastrophe. Average temperature across the mountains is increasing at 0.06 degrees a year. Glacial lakes that used to be small ponds 20 years ago are now 5 sq km and large. In Himalayan tsunami it reports that glacial melt is underway and the signs are alarming. Scientists revealed that there has been

a tenfold jump in such catastrophes in the past two decades\ as a result of global warming. A report in Nature said, future disasters around the Himalayas will include floods, droughts, land erosion, biodiversity loss and change in rainfall and the monsoon. There has been retreat of glacier for 5 kms since Tenzing and Hillary's ascent to the Everest. According to Nature, temperature in the region have increased by more than 1°C recently and are set to rise by a further 1.2°C by 2050, and by 3°C by the end of the century. This heating has already caused 24 of Bhutan's glacial lakes to reach 'potentially dangerous' status. An example of Luggye Tsho in Bhutan which burst its bank in 1994, sweeping 10 million cubic meters of water down the mountain. It struck Panuka, 50 miles away, killing 21 people. Now a nearby lake, below the Thorthormi glacier, is in imminent danger of bursting that could release 50 million cubic metres of water, a flood reaching to northern India 150 miles downstream. Eventually, the Himalayan glaciers will shrink so much their melt water will dry up, say scientists. A Greenpeace report last month suggested that the region is already experiencing serious loss of vegetation. The director ICIMOD said "we must make information travel faster than flashfloods." (Now newspaper dated 13-12-2005)

TOURISM –A CONCEPT

Tourism is a dynamic subject, expands like a parachute, covering all aspects of Geography, Environment, Botany, Zoology, Geology, Meteorology, Economics, History, Sociology etc. Similarly the definition of tourism has changed over time. It stands today as the largest smokeless industry in the world. This is a service-oriented industry with massive potentials to generate employment and income. According to Hunziker, Krapf and International Association of Scientific Experts in tourism (AIEST) "Tourism is the sum total of phenomena and relationships arising from the travel and stay of non-residents, in so as they do not lead to permanent resident and are not connected with any earning activity" (Burkart, 1974). However, staying with friends and relatives and travel for less than 24 hours do not fall under the definition of tourism.

Travel from the earliest time has held a fascination for mankind, the phenomena of exploring new places and seeks a change is an established and dynamic concept of the glamorous world of travel. The world has shrunk so much that the movement between the continents is the matter of hours only. The tourism industry is highly labor intensive, which offers wide range of employment opportunities in multi-faceted tourism development activities. In modern approach, tourism has acquired the status of the largest smokeless industry in the world. Literally, the word 'tourist' has been derived from the word "tour", which has its root in Latin word 'tornus', meaning a circle of a turner's wheel. The term 'tourist' in Indian context means, a foreigner having no residence or occupation in India, whose stay doesn't extend beyond three months, who has no objectives visiting India other than recreation and sight seeing. The tourism industry is expected to maintain its high rate of employment growth; tourism industry has seldom fallen into a serious long-term downturn, making it one of the world's most dependable revenue generators. By the advent of transport, communication and information technology rapid expansion of tourism has witnessed mass tourism across the globe, estimation has been made whereby air travel would increase by 100 percent over the next (Bhatia, 1997) fifteen years:

According to WTO "Tourism is the world's largest growth industry with no signs of slowing down in the 21st century. A receipt from international tourism has increased by an average of 9 percent annually for the past 16 years to reach US and 423 billion in 1996. During the same period, international arrivals soared by a yearly average of 4.6 percent to reach 594 million in 1996. WTO forecasts that international arrivals will top 700 million by the year 2000 and one billion by 2010".

VISITOR, EXCURSIONIST AND TOURIST

According to United Nations conference on travel and tourism in 1963 at Rome, define a 'visitor' as someone who visits a country/region other than that in which he usually resides for purpose other than that of earning money. The 'visitors' are subdivided into 'tourists' and 'excursionists'. 'Tourist' is a

temporary visitor who stay at least 24 hours in another country/region for recreation, health, study, pilgrimage, sports, business, meeting and family purposes. But the present study concentrates on those visitors who visit for the purpose of leisure and recreation. Those visitors who do not stay overnight in a country should be classified as 'excursionists' or 'day visitors' (United Nations Statistical Commission, 1967). The present study concentrates mostly on tourist rather than 'day visitors' or 'excursionists'.

Tourism is a fastest growing international industry (Sinha, 1998) and movement of people is an (Sing, *et al*, 1992) unending process.

COMPONENTS OF TOURISM

There are three components of tourism. They are: -

- 1- *Transport and communication* – The mobility of man depends on the mode of transportation.
- 2- *Accommodation*: Types of hotels, ranging from low budget to high budget. Besides star hotels, resorts, Yatri Niwas, tourist home, caravan, campsites, tents etc. influence tourism development.
- 3- *Locale*: The site and scenic attraction determine the flow of tourists. Besides peace, friendliness, accessibility, security, climate, stability etc. are prominent components.

ELEMENTS OF TOURISM

CULTURAL	-	Site of art, architecture and historic & religious Monuments.
	-	Museums, culture and folklore.
	-	Fairs and festivals.
SCENIC	-	Natural beauty.
	-	Wildlife and National Parks.
	-	Flora and fauna.
	-	Beaches, deserts, coast and mountain.
ENTERTAINMENT	-	Parks, Zoos and aquariums
	-	Cinema, exhibition, theater.

- Discos and nightlife.

GEOGRAPHICAL - Climate, accessibility etc.

ADVENTURE - Trek, surf, climb, ride, raft, rope etc.

MOTIVATION OF TOURISTS

According to MC Intosh, motivation can be grouped into the following: -

- 1- *Physical motivator*: They are related to physical relaxation and rest, medical treatment, leisure and adventure sports.
- 2- *Cultural motivator*: Individual interest to know about culture, art, archeology and history of other countries. Such tourists visit museum, archeological site, folk centres etc.
- 3- *Interpersonal motivator*: Decision to meet relatives, friends etc.
- 4- *Status symbol*: Travel for business, education and personal interest to impress people about one's way of life.
- 5- *Educational motivator*: where students attend meetings, trainings, conferences and conduct research tours.
- 6- *Religious*: Visits to pilgrim centers.

CLASSIFICATION OF TOURISM PRODUCTS

It is revealed from the study that there are mainly three types of tourism products in Sikkim, which can be broadly classified into the following:

- 1- *Natural tourism product*: - It includes natural tourist attractions such as mountain, river, glacier, lakes etc.
- 2- *Socio-cultural tourism product*: - It includes manmade attraction, which reflects the society, culture and tradition. Such as fairs and festivals, temples, monuments, art and architecture, museum, painting etc.
- 3- *Symbolic tourism products*: - Such product bears both the character of natural and socio-culture such as stadiums, parks and sanctuaries.

- 4- *Adventure tourism products*: - It include white water rafting, mountain biking, skiing, hang-gliding, skating, rock climbing trekking etc.
- 5- *Pilgrim tourism products*: The individual faith in religion and their act of wishfulfilling centers are temples, monasteries, churches etc.

The subject matter for present study is to access whether tourism is bliss or blight? the pros and cons of tourism and analyses on dualism of destruction versus development. There is an urgent need to address unwanted and undesirable side effects of tourism development in the seismically sensitive mountain ecosystem of Sikkim. Besides, aspect of cultural erosion and economic impact is the crux of present study. With mass tourism in the Himalayas mountain region like Sikkim and natural resources being the only tourist destination, pressure on flora and fauna is sure to be exerted. Hence, rate of tourism growth would be directly proportional to rate of extinction of natural resources. Mountains of the world seem to be predestined for tourism for all their excellent land-architecture, climatism, recreational flora and fauna. Hindus of the Himalayas gave them a kind of apotheosis, calling their snowy mountains as (Singh, 1992) "home of gods".

The rate of deforestation in case of Nepal as studied by Mieczkowski (1995) reveals that in Himalayas one tourist uses 6.4kg of firewood per day, which equals the daily needs to two Nepalese families. (Batta, 2000) The additional tourist growth requires additional infrastructure and recreation which leads to digging, earth cutting and landuse change at the expenses of ecosystem. As a result, hill station like Shimla and Darjeeling face severe problem of pollution, congestion and amenities. In Darjeeling, during tourist seasons a bucket of water costs Rs 5. The present study focuses on socio-cultural, environmental and economic impact of tourism in the context of Sikkim Himalayas.

Sikkim is covered with mountain and hills, except for very small tract, which are characterized by valley, plateau, tableland and undulating terrains. This phenomenon embodies the tourism magnetic diversity of both nature and culture. Tourism normally refers to the practice of making tours for pleasure,

in other words it refers to those business or activities, which are related to providing accommodation, services and entertainment for visitors who visit a place for pleasure. Therefore tourism in general is the business of providing hotel and other accommodation, facilities and amenities for those traveling or visiting or staying in a place for a relatively limited period of time for leisure and pleasure.

As tourism is as old as the emergence of man-environment relationship, tendency of human beings have been to move from one part to another in order to perceive the beauty of natural environment. However the climatic conditions also affect the rate of tourist inflow in a particular place. Secondly the cultural factors or man made factors such as entertainment, recreation for tourists have greatly influenced the tourism environment at a given place. Therefore it is a prerequisite to find out the above-mentioned factors of a given place while studying the tourism environment in the surrounding. The present paper attempts to examine the status of Sikkim with regards to tourism environment, major tourist destination and their potential to attract tourists.

Sikkim, which falls under the Eastern Himalayan biodiversity zone shares a large variety of species of flowering plants, fungi, lichen, mammals, birds, butterfly and rhododendron. In between the bewitching scenery of natural heritage there squeezes diverse socio-cultural environment. Ethnic diversity, way of life, pilgrimage sites, art and architecture etc. are the most appraised cultural resources in Sikkim. Besides adventure sports, mountaineering, trekking, boating, biking are some ideal sites.

The rapid growth of tourism industry is associated with corresponding increase in infrastructure. Hence during peak season, demand is not met with the existing infrastructure. At this point, pressure on environment increases tremendously and ethics of carrying capacity erodes leading to ecological imbalances.

VISITORS PROFILE

Tourist traffic is increasing annually in Sikkim. In the year 1980 only 15434 tourist-visited Sikkim, out of which about 83% were Indians and 17% foreigners. Since 1984 there has been a steady increase in the tourists flow. In 1989 about 46,416 tourists arrived Sikkim in which 96% were domestic and 4% from abroad. Whereas in 1996 about one and half lakh persons visited Sikkim out of which 93% were domestic and 7% from foreign countries. Tourist inflow in Sikkim follows two seasons, firstly, during the month of October-December and secondly from March-May. This type of seasonal concentration generates unemployment problem as well.

The study area is considered a heaven especially for the scholars of life sciences and theology. In the year 1994, majority of tourists around 60-70% had visited Sikkim for recreation. About 35% of foreign tourists were trekkers, while 20% were domestic and only 1% percent foreign tourists had visited for official and business purposes. However, this trend of tourists' inflow, it is clear that there is progressive change that has been taken place in the trend of tourist flow in Sikkim through different successive years.

REVIEW OF RELEVANT WORKS

The concept environmental study grew in 60's when people confronted with water scarcity, amenities, ozone hole, green house effect, sea level change and disease killing human being. In the ancient days, pilgrim tourism became important and Macca and other religious and spiritual centers grew as tourist destination. After the advent of jet and concept of paid holiday, social and mass tourism grew fast. The growth of adventure also reached its pinnacle in the west. The movement of tourists were initially generated from the western world. At this time, (Murry 1930), discussed about recreational activity in northern Michigan. He gave a geographical account of land utilization in depth. The economic importance of tourism was placed by Brown (1935) while discussing magnitude, pattern of tourism. Need of statistical data was realized by Phophet (1947) he stressed on research and development. The importance of recreation site was studied by Deasy (1949) and Zierer

(1952) in western United States. While explaining values, patterns, forms of recreation, Hedrick (1934) prepared maps of various recreation elements discussed on environmental aspects of tourist destination. With first ever-recreating mapping, Jone (1933) and Booth (1949) studied the recreational regions of Canadian Rockies with a mining town in British Columbia. Study of lakes as recreational center also carried out with special reference to Washington. It was Carlson (1938) who studied economic significance of recreational activities to local and state government. The major work on map preparation, route and distance measurement, accommodation took place during the period from the late 1940s to early 1950s. However systematic study of tourism did not take place, some geographical study helped in finding routes and relief feature of earth. In Europe the British geographers played an important role in the study of travel and tourism. The publications of Robinson (1976) made tourism a subject matter of geography. During this period attempts were made to simplify movement and packaging of travel was designed. Other prominent geographers contributing to the literature on tourism include Mitchell (1984), Collins (1979) and Clawson (1984), Butler (1978), Rojotte (1975), Wall (1989), Ruppert (1984) and Ritter (1989) Mercer (1978), Pearce (1981) and Pigram (1983). The contributors were from Canada, Germany, Austria, Italy, Russia, Australia and South Africa. At this time many geographers had studied various components of tourism and western geographers specialized in tourism studies. The research of tourism studies in the 1970s shows highly diverse and study of tourist potentialities and accommodation for visitors became important theme (Carter, 1973). In Ireland, tourism was comparatively studied with tourism activity and economic (Johnson, 1973) gain. The aspect of national and its problems and prospects was discussed (Hamilton, 1973) and taxations and employment aspects became the center of study. (Nicholson, 1973). In Netherlands growth of indoor and outdoor recreation was done. (Lambert, 1973) With the help of correlation analysis, population and distance were studied and predictive gravity model was prepared (Moseley, 1973). A series of papers on employment and tourism in mountain areas of Alps with an outline in the

diversity of tourism phenomenon and employment opportunities appeared. (Clout, 1974). Tourism business is concerned with all aspects of knowledge and information. The basic components of tourism are motivation and preferences of tourism in guest and host communities, economics benefit, ecology, quality of tourism services and education (Bagri, 1995). In India, tourism was carried out by Chib, who is known as the 'father of Indian tourism'. He contributed a lot covering different aspects to tourism industry. Other contributors are Seth and Bhat (1993), Bhatia (1991), Kaul (1994), Dhar (1984), Basu and Basu (1984), Goswami (1982), Rai (1993), Sharma (1991), Sethuramalingam (1993), Khanka and Jalal (1983) and Bagri (1995) etc. the study covered elements of tourism from Jammu and Kashmir to Rajasthan. The atlas based study was done by NATMO for the development of tourism industry in India. Prof. Bagri highlighted on the importance of human resource development in tourism sector. Scholars like (Sinha, 1983), Kayastha (1964), Bharadwaj (1973) and Kaur (1985) stressed on the importance of tourism studies in relation to Geography. Climate was considered important element of Indian tourism, where Kaur (1982) emphasized on pilgrim and religious tourism. It was Bharadwaj (1973) a cultural geographer who is credited to have included the importance of cultural element in tourism development. Other stressed on (Mishra and Thangamani 1982) tourism planning. The only contributor in studying impact of tourism was Krishnaswami (1982) who detailed out the economic impact of tourism. Some other aspects of tourism included papers presentation by Singh (1996) and Bhattacharya (1996, 1997) wherein adventure tourism is discussed with long listed parameters. In Sikkim, it was Chakravarti (1991) who produced papers on tourism in Himalayan Mountain. Similar paper was presented by Nita Mitra (1991) on environment degradation of Darjeeling Himalayas. Further, Chakravarti explained on tourism in Sikkim Himalayas. Lately in 1991 Jana (1991) edited a volume on environmental degradation and development strategies in India and carried out numerous studies in the subject.

In the field of environment literature are found from the ancient time. In 1960's major environmental aspects were discussed and later in 90's, (Sing 1991), Batta (2000), Shankaran (1998), Husain (1996) came up with extensive literature. The UN declaration, Earth Summit, (1992) followed by Environmental Protection Act, Wildlife Act 1972, garbage and hazardous waste handling Act made environment studies more extensive. The Nature, Down to Earth and Hindu environment reports, Himal magazines contributed amply in providing literature in environmental related issues.

PROBLEMS IN TOURISM PROMOTION

The major problems can be broadly grouped into two categories:

- A **Physical** The steep slope and rugged topography limits the accessibility of the region. During monsoon rain, landslide and road blockage are commonly found everywhere. Due to rush in peak season, demand for accommodation and infrastructure increases manifold. As a result, the land under cultivation, forest, etc. is heavily disturbed.
- B **Socio Cultural** The negative socio-cultural problems are associated with the development of tourism. The local culture and traditions are invaded by foreign culture and local communities tend to imitate western culture. The drug, alcohol etc. prevailing in our society are the outcome of such interaction. During peak season, society faces various problems such as crime, rape, murder and ultimately local people tend to loose their own tradition and adopt alien culture. Price hike, conflict and tension, rural – urban migrations are some sensible unsolved problems.
- C **Environmental** An increase in tourist inflow leads to corresponding increase in demand. As a result the following problems are noticed:
 - i Heavy movement of traffics, causing air and noise pollution.
 - ii Water pollution.
 - iii Traffic and sewerage problems.
 - iv Health and hygiene.
 - V Garbage disposal.

vi Drainage and sanitation.

- D **Political** The international relation with the other countries also influences the tourist flow pattern. During political instability and insurgency, fluctuating trend in the flow of tourist movement is recorded. For example an increasing trend in the growth of tourism activity in Sikkim is mainly due to Kashmir and Gorkhaland problems. Besides, some tourist spots are not made open to foreign tourist and special "inner line permit" is required. Recently in Sikkim, the State Government has restricted Kanchanjunga expedition in order to maintain the sanctity of that area.
- E **Economic** The Living and maintenance cost exhibit high rate of fluctuation. The concentration of tourists during peak season causes economic problems. It is noticed that fancy price is charged for the goods and services. As a result tourism is becoming an expensive phenomenon.
- F **Destination management** The rapid flow of tourists adds to multi-problems such as migration, urbanization, rise in pollution level etc.
- G **Accommodation** The growth of tourism must correspond to growth of accommodation. During peak season, lack of accommodation is felt in the places like Gangtok, Pelling, Lachung and Lachung.
- H **Transport and communication** The transport and communication required is upto the mark due to unsuitable relief feature.

Besides, other associated problems are scarcity of amenities facilities, erosion, problems of law and order etc.

AIMS AND OBJECTIVES

The present work is framed with the objectives of studying the following parameters independently and in combination with overall environmental degradation of Sikkim.

1. To study the type of relief and drainage, climatic zones, and bio-geographic divisions of the study area.
2. To access the population explosion and its impact on environment, distribution of ethnic groups inhabiting various regions and their attitude

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towards conservation techniques of natural resources and environmental awareness.

3. To find out the major industrial units, mining and other development programs, vehicular traffic, tourist flow, hydropower causing environmental degradation.
4. To study various tourist destinations in Sikkim and their impact on local inhabitants.
5. To assess overall environmental degradation in Sikkim as a whole with special reference to tourism.
6. To highlight the importance of ethnicity, culture and tradition, art, dance, folklore, fairs and festivals of the study area.
7. To find out major impacts of tourism on environment, society and economy.
8. To study the prospects and practices of eco-tourism in the state.
9. To suggest a plan to improve the economy of the state by tourism with the help of proper environmental planning.

METHODOLOGY

The methodology adopted for the present study include:

Step I Study of relevant books, journals, articles etc. related to tourism and environment (Library work) and framing of questionnaires related to study.

Step II Collection of primary and secondary data.

- a) Field visit and collection of field data of various places by sampling (30-35%)
- b) Information from other sources related to infrastructure and amenities.

Step III Preparation of maps and diagrams and their analysis by suitable statistical methods.

Step IV Compilation and analysis of data (Laboratory work) and finally preparation of the Thesis.

RESEARCH QUESTIONS

The major questions before researcher are -

1. Is environmental degradation taking place in Sikkim?
2. Are all the tourist destinations facing severe environmental degradation?
3. Is tourism an agent in bringing about socio-cultural, economic changes in the state?
4. Whether, tourism has scope in future?
5. Is tourism development causing environmental degradation?
6. Should there be no tourism development in Sikkim to save the environment and natural beauty?
7. Does eco-tourism practices prevail in the study area?

HYPOTHESIS

The focus of present study is to analyse the present environmental scenario in the state of Sikkim. In the hilly state like Sikkim, industrial development is not feasible hence tourism attributes lion share in revenue generation. The state government has fully geared up to promote tourism. Hence the study of environmental problems due to tourism development is inevitable. The present data shows rapid increase in tourist population and new tourist destinations are opened up with all facilities of accommodation, transport, communication and services. In order to meet the demand generated by the movement of tourists, serious problems have cropped up, which has become the crux of the study.

The major hypothesis can be categorized as follows:

1. The seasonal concentration of tourist affects the carrying capacity of a tourist spots.
2. Economic problems affect the local communities and tourist.
3. There is an impact of tourism on society and culture.
4. Environmental problems such as deterioration of quality of air, water, land and life is associated with tourism development.



5. Destination management and sustainable development remains a far cry.
6. The agents of environmental degradation are mining, deforestation, over population, hydropower development and rural transformation.

SIGNIFICANCE OF THE STUDY

The study on environment degradation in Sikkim is highly relevant in the present day scenario. Firstly the mountainous topography is prone to degradation due to physical factors such as landslide, earthquake, erosion, subsidence, sinking etc. Secondly, in order to fulfill the socio-economic needs industrialization, urbanization, mining, hydropower development, housing, electrification etc. are taking place at faster rate. Thirdly, tourism is vital for Sikkimese economy, hence top priorities has been laid down to develop tourism industry. As a result, three fold impacts of tourism have emerged they are socio-cultural, economic and environmental impacts.

SCOPE AND LIMITATION

The present study aims at finding overall environmental degradation and tourism activity in Sikkim. It is an approach to study the various environmental problems existing in Sikkim and suggestion to improve the same. The current study would take into account the major agents of environmental degradation. The identification of problems will help the planner and decision-makers for planned development and management of tourism and other environmental related developmental activities in Sikkim.

Therefore, the study would be beneficial for planner, decision-makers and Govt. for further development. The researcher shall endeavor to refer the studies being undertaken in different parts of the country, especially relating to environment and tourism.

DESIGN OF THE STUDY

CHAPTER-I	Historical and Geographical background of the study area.
CHAPTER-II	Population dynamics and socio-economic characteristics.
CHAPTER-III	Tourist destinations.
CHAPTER-IV	Agents of environmental degradation in Sikkim
CHAPTER-V	Impact of tourism – An analysis.
CHAPTER-VI	Eco -tourism prospects and practices.
CHAPTER-VII	Conclusion and recommendations.