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Setting and Methodology

The Setting

As has been mentioned in the foregoing chapter, the major objectives of this study include narrowing down the focus on particular tourist destinations; carrying out an in-depth study of the various aspects of tourism in the case study areas; and filling as far as possible the data gaps witnessed in the case of the Overview. Again, the interest in mountain tourism is essentially imbued with concerns for the development of the mountain areas and local communities. Tourism is thus viewed as an engine of development for these areas and communities, and as such will have to be informed with all the dimensions of sustainability if it is to perform this role with its full potential, i.e., it must be environmentally friendly; it must benefit local communities directly and involve them in all or most of the activities related to tourism in the area -- the area which is primarily their habitat; there must only be the least avoidable leakages of income and benefits; the extant carrying capacity of the tourism resource base must not be strained, while efforts must be made to extend this capacity; the culture, flora and fauna, and natural characteristics of the areas must remain intact -- in fact, they must endurably remain the core of tourist attractions in the areas.

The development of mountain tourism will fit into this context only if it forms part of a strategy to develop the mountain areas and to improve the lot of the local communities. Recreation for the visitors will thus be conceived *as a good for the good of the local communities*; its promotion as an activity will derive justification from the activities that it can promote for the host community; the environment of friendliness towards it will be conditioned by its friendliness to the environment; and "the more, the merrier" shall turn out to be true only if MORE will, in fact, be merrier.

Organisation of the Report

This introductory chapter is followed by a chapter on the setting and methodology. Chapters 3 and 4 are devoted to an introduction of the case study area -- Kalam and Hunza respectively. Chapter 5 contains an assessment of the impact and implications of mountain tourism in Kalam, while Chapter 6

studies the impact and implications in the case of Hunza. Carrying capacity considerations in Kalam and Hunza form the subject matter of Chapters 7 and 8, while Chapter 9 contains a summary of the major findings, and of the major implications of the findings for policies and programmes related to tourism and local community development along with recommendations for the mountain areas.

The development of mountain tourism bears upon the wide-ranging activities that affect the ecology and land use as a result of tourists visiting an area; the tourism-related employment that is generated (in the service sector, retail trade, hotels, transport, cottage industries, etc); the benefits that are retained by the communities and the disbenefits suffered by the local communities. Such a development is expected to contribute towards the betterment of the local communities; and to do so with a careful eye on the fragile resource base that has to sustain the existing and growing pressures of local numbers and visitors.

The local resource base, it should be noted, has to meet competing claims and accommodate competing uses. The local communities are greatly dependent on this resource base for their livelihood, with little options in the way of alternative sources of income and employment in the area. The use of mountain resources to meet the fuel and heating needs of the local communities leads to the exploitation of the forests and results in deforestation and the deterioration of the resource base. With an increase in population, there is demand for land for cultivation and housing, which prompts encroachment on to the higher slopes and the forest belt, this, in turn, leading to a receding forest line and the extinction of flora and fauna. In the process, the wildlife of the area loses its traditional habitat. This process is further complicated by the tourism sector, which competes for the same resources. The structure of the tourism industry is, however, such that it does not indemnify the local community for the losses they suffer; nor does the latter profit very greatly from the income and employment generated in this sector, except perhaps peripherally. The result is that expanded tourism may coincide with the impoverishment of local communities, the migration of their members to other places in search of income and employment, the encroachment on their habitat and culture, and, possibly, their eventual resentment.

All these factors need to be investigated more closely, and the problems and prospects of tourism, as a vehicle of area development through local community participation, brought into sharp focus. If tourism is, however, to

lead to sustainable development and be imbued with the considerations outlined above, the carrying capacity of the resource base will have to be given due weight. Carrying capacity aims at setting the threshold for the area beyond which the environmental, ecological, social, economic, and cultural quality of life of the people deteriorate. This capacity is a varying and dynamic concept, and there are no fixed limits for it. It will vary over regions and over time, with variations in the behavioural pattern of the actors (the tourists and the local population), in the different facilities available, and in the different abilities to manage the environment and resources. The carrying capacity may be predetermined by a number of factors, namely, environmental (including the resources, the level of the existing population, its rate of growth, and the number of tourists using the resources); economic (including the level of development of infrastructure and investment in the different sectors to plan for a quick response to demand from tourists while ensuring the livelihood of the local population); and links with macro-development (where national policies pursued can focus and target the needs of the mountain areas).

There are a number of factors which are deemed critical. A factor is termed critical when it has a positive or negative effect on the local communities and the resource base in the context of tourism activities. Some of the critical factors are given below.

- Resources
- Regions and areas
- Attitudes and behaviour
- Institutions
- Infrastructure
- Social development
- Economic security

Resources become critical where human interference can lead to stress, and some areas are more prone to stress due to the fragility of the environment than others. Here, conservation is needed to make the resources sustainable. Resource development needs development of infrastructure, institutions, HRD, etc, and it is an important condition-in fact, the *sine qua non* of economic development. However, in the presence of constraints on resources (such as the competing uses of the same set of resources and the non-renewable nature of some of the resources), the types of development activities to be pursued will have to be identified, and this identification will have to be based on well-defined criteria of choice if these activities are to be beneficial to the area and the local communities.

Critical regions/areas refer to those areas that are relatively more fragile and prone to stress, and hence to degradation due to tourism-related activities. Every region/area has some vulnerable spots in this category. Besides the critical geographical regions, other areas that may become critical for tourism are facilities such as accommodation and food trails, camps, historical sites, etc- all cases in which tourist activities such as trekking, camping, and so on, may affect the environment and cause damage to it . Specific areas that may be affected are waterholes, glaciers, trekking routes, rivers, picnic spots, and camping sites.

Overuse of resources, littering of areas with non-degradable materials and garbage, and following of unhygienic practices, all contribute to making an area critical. With the identification of the critical areas, it should be possible to plan conservation measures and environmental management programmes.

Behaviour and attitudes become critical when individual and collective actions increase the level of stress felt by the area. This can have a far-reaching impact. For example, hunting can lead to the destruction of species (as is visible in some of the mountain areas in Pakistan), even as deforestation has led to soil erosion and other types of environmental impact. Similarly, tourist activities have led to pollution of land, water, and air. In such situations, changes in the habits and attitudes of the community, as well as in the habits and behavioural patterns of the tourists, become essential. This can be done by setting up 'codes' that need to be followed, providing incentives to confirm and punishment for non-conformity and also by providing training through community involvement and participation. Here again, the existence of alternatives to the use of natural resources, e.g., firewood, becomes critical.

Institutions play a critical role in providing the facilities that are essential for the development of tourism. The existence of intermediaries, such as travel agents, the transport sector, and the hotel industry, is vital. Moreover, institutions can get the local community involved in the supply of services and the development of small businesses through participation, which can take a number of forms. These institutions can also influence habits and behaviour by following and ensuring the following of a 'code' of behaviour in the use of resources and with the protection and preservation of the environment. At a higher level, the existence of institutions to formulate policies, establish codes (with built-in punishments), and coordinate the actions of the different actors are also critical for tourism development.

Infrastructure plays the role of providing the necessary essentials concomitant to development. This includes roads, buildings, accommodation, essential services, and the industrial and production base. Along with the provision of infrastructure, the involvement of the community in its operation and maintenance is equally important. It is thus important to assess the present state of infrastructure, identify the needs of the area for sustaining the level of existing tourist activities, gauge the intensity of use, and assign maintenance responsibility.

Social development here refers to the level of development in the social indicators of the local population, particularly in education, training, and HRD. This is critical for two reasons. Firstly, a trained labour force will be necessary if the local community is to be gainfully employed and involved in the process of development and to benefit from tourist-related activities in all sectors of the economy, and, secondly, a community with a certain level of social development will be aware of the level of environmental degradation taking place and the need to arrest the process and undertake conservation measures for the greater good of the community.

Economic security is critical if the community is to engage in a trade-off between the use of resources to meet their basic needs and the conservation of non-renewable resources. The economic development of mountain areas will require policies and planning to target these areas directly rather than through the so-called 'trickled down effect'. This is the only way benefits will accrue to the communities with minimum leakage. Backward and forward linkages can also be expected only in such a situation.

These factors, along with the existence of natural resources specific to tourism (including scenic assets, bracing climate and weather conditions, and facilities for utilising those natural resources), tourism services, government policies, management of resources, and institutions, all play a critical role in determining the impact of tourism and the carrying capacity of the area.

Methodology

In order to fill the gaps in the data relating to the specific areas of the case studies, and to determine the carrying capacity of the two areas selected, a well thought out methodology had to be adopted. It was, however, obvious that, in view of the multifacetedness of the case studies, no single method/approach would suffice. Thus, a whole assortment of methodologies

was selected and applied to secure the desired outcome. Also, it was necessary to adapt the various methodological components separately to the two areas. Hence, the methodologies used for the two areas vary from one another in some details. They are, therefore, given separately.

a) Kalam

Socioeconomic Survey

One of the principal components of the methodological mix was a socioeconomic survey of the area. Such a study was necessary in order to become acquainted with the socioeconomic fabric of the area, to ascertain the facts and figures, and to pinpoint the critical factors required for subsequent exercises. A team of trained researchers was sent to the area with an interview schedule meant to cover a random sample of tourists, hotel and restaurant owners, transport owners and operators, local officials and relevant KIDP (Kalam Integrated Development Project) staff, local people of the area, and a few employees/labourers. Some information was also obtained from the official records/documents of KIDP.

Impact Study and Carrying Capacity Analysis

The task of assessing the impact of tourism on the area and conducting the carrying capacity analysis was entrusted to another team consisting of a senior regional planner, an ecologist, a tourism specialist, and field researchers. The work was partly carried out at the Ministry of Tourism, partly at the premises of the DRG and its associates, and partly in the field. The main elements of the methodology adopted were as given below.

Desk Research

- Desk research involved obtaining topographic and other maps of Kalam sub-division; and
- delimiting the Kalam valleys on a map for purposes of the exercise in hand.

The catchment area of tourism based at Kalam has been delimited on Survey of Pakistan topo sheets nos 43 A/6, A/7, A/10, and A/11, comprising:

- Kalam proper,
- Ushu Valley (gol), up to Mahodhand Lake,
- Utrot Valley, up to Andrap Lake,
- Gabral Valley,
- upper watersheds of these valleys, and
- adjacent technical mountaineering areas.

- Pertinent mountain tourism traffic data were obtained from the Research and Statistics Wing, Ministry of Tourism, for quantitative estimates of the past volumes, trends, and projections of mountain tourism traffic in Kalam by season, class, and broad activity. The following steps were involved.

  - Information on the number of rooms was taken from hotel guides for various years. Room occupancy data were taken from the Tourism Division's survey report, *Lodging Industry in Pakistan, 1985-92*. The two sets of data were collated to estimate the number of hotel guests.
  - Given the estimate of the number of hotel guests, and using the parameters (adjusted) given in the report, "Tourism in Swat: A Survey Report", on the relationship between hotel guests and all categories of tourists, an estimate was derived of the total tourist flows to Kalam.
  - A monthwise breakdown of tourist flow was made using the occupancy data.
  - Tourist activities in Kalam were estimated using the parameters (adjusted) given in *Tourism in Swat: A Survey Report.*
  - The mode of transport used by tourist was taken as an indicator of their socioeconomic characteristics. Air and car travel was equated with the upper income group; wagon, jeep, and Suzuki with middle income; and bus travel with lower income.

- Undertaking an asset survey from maps of tourism plants, infrastructure, and of natural, man-made and cultural environmental factors.

  In Kalam, the focus is on resort tourism which includes wilderness experience, non-extractive use of nature parks, enjoyment of scenic beauty, individual and group rural recreation, and passive and active recreation around lakes. The estimates of the carrying capacity of the various tourism elements in Kalam proper and the surrounding valleys, in their present and future state of development, have been based on WTO (World Tourism Organisation) guidelines, which treat:

- rivers and lakes as prime environmental assets;
- crop areas as suitable for individual and group rural recreation;
- forest areas as nature parks, suitable for mushroom gathering and non-extractive activities;
- non-forested rangelands as suitable for wilderness enjoyment;
- fair-weather metalled and unmetalled routes as suitable for trekking; and
- steep and high mountain slopes above 4,000m as suitable only for technical mountaineering.

- Measuring from maps the areal extent of prime environmental assets.

  The areal extent of prime environmental assets was computed by using a Koizumi KP-80 digital planimeter and taking an average of five readings for each area. The length of treks was estimated by measuring a thread laid along the trail paths.

Field Research

Developing and administering questionnaires to a quote sample of 31 respondents consisting of local residents, the tourism service industry, and tourists in order to:

- measure the ecological, social and moral, and economic impact of tourism;
- assess the volumes and seasonality of traffic and the capacities of plant and infrastructure; and
- evaluate the degree of attainment of tourist image values.

Desk Analysis

An assessment of the residual capacity of Kalam and surrounding valleys with and without the development of tourism facilities was made through two approaches

- Normative: relating current and projected tourism traffic numbers to estimates of carrying capacity
- Intersubjective: analysing the responses of the local community, tourism trade, and tourists to questions administered through structured interviews to a quota sample of 31 respondents

b) Hunza

Socioeconomic Survey

A socioeconomic survey of the area was one of the components of the methodological mix in the case of Hunza also. A team of trained researchers was sent to the area with an interview schedule meant to cover a random sample of people -- tourists, hotels and restaurant owners, government officials and NGO representatives, and people of the local area -- to secure their responses and to record participant observations. Some information was also secured from documents released by the AKRSP.

Impact Study and Carrying Capacity Analysis

Another team, consisting of an ecologist, a regional planner, a tourism specialist, and field researchers, was entrusted with the job of assessing the impact of tourism on the local people and the area and of undertaking a carrying capacity analysis. The work was partly carried out at the Ministry of Tourism, partly on the premises of the DRG and its associates, and partly in the field. The main elements of the methodology adopted were as given below.

Desk Research

- *Obtaining maps of hunts*

  Since Survey of Pakistan GTS sheets for Hunza are restricted, the exercise relied on the Karakoram Trekking and Mountaineering Map on a scale of 1:200,000.

- *Delimiting the Hunza tourism area on the map for purposes of the exercise*

  The delimitation was made with reference to common circular treks, with the base station at Karimabad, and/or base camps at Nilt, Minapin, Aliabad, Nagar, Hopar, Hispar, Gulmit, Ghulkin, Pasu, or Sust.

  Areas for treks based out of Chalt into the Bar Valley, along the Naltar Valley and across Diantar Pass, have been excluded on the basis of ground information that Gilgit is becoming the more usual base station for these treks.

- *Obtaining pertinent mountain tourism data from the Research and Statistics' Wing, Ministry of Tourism*

  - Information on the number of rooms was taken from hotel guides for various years. Room occupancy data were taken from the Tourism Division's survey report, *Lodging Industry in Pakistan, 1985-92*. The two sets of data were collated to estimate the number of hotel guests.
  - Given the estimate of hotel guests, and using the parameters (adjusted) given in the report, *"Tourism on KKH: A Survey Report*, on the relationship between hotel guests and all categories of tourist, an estimate was derived of the total tourist flows to Hunza.
  - A monthwise breakdown of the tourist flows was made using the occupancy data.
  - Tourist activities in Hunza were estimated using the parameters (adjusted) given in *Tourism on KKH: A Survey Report*.
  - The mode of transport used by the tourists was taken as the indicator of their socioeconomic statistics. Air and car travel was equated with the upper income group; wagon, jeep, and suzuki with middle income; and bus travel with lower income.

- *Assimilating the technical categories and the rules governing trekking*

  The focus of this study is on trekking. The estimates of demand for trekking need to be related to the various technical and legal categories of treks in the Hunza area.

  The following categories have been established by Travelwide Services (Pakistan) Limited.

  - *Grade A, Easy*: Comprising fair-weather metalled and unmetalled tracks at altitudes between 2,000 and 3,500m, suitable for persons with basic physical fitness but no technical knowledge or experience.
  - *Grade B, Moderate*: Unmetalled tracks, averaging 2,500 to 3,500m, with plenty of hill walking and an occasional pass crossing at 4,500m, suitable for persons with good physical fitness but no technical knowledge or experience.
  - *Grade C, Strenuous*: Treks to altitudes of 3,000 to 4,000m, with passes crossing over 5,500m; requires very good health plus basic use of ice axe, crampons, and rope.

- *Grade D, Alpine*: Climbing to altitudes from 4,000m to 5,999m. Climbing knowledge with good experience and prime fitness is mandatory.

Trekking Zones

Pakistan's treks are classified into three zones: open, regular, and closed. Regular treks require a permit, the escort of a licensed guide and mandatory briefings and debriefings at the Ministry of Tourism, Islamabad. The open treks do not involve such formalities. No treks are permitted in the closed zones.

All treks in Hunza are in the open zone. Thus, there are no restrictions or official records of trekking expeditions in the area.

A list of 35 registered tour operators in Pakistan was obtained (Annex 2). Major operators among the adventure tourism trade were identified, and data on the number of trekking, mountaineering, and white-water rafting tours handled by them for the Hunza area from 1992-94 were obtained. In addition, these major operators were requested to make estimates for the whole industry.

- *Undertaking an asset survey of natural, man-made, and cultural environmental factors*

  This entails delimiting the high mountain peaks, glaciers, trekking trails, and whitewater stretches in Hunza as prime tourist attractions on the basis of government and private sector publications.

- *Measuring the areal extent of prime environmental assets*

  The areal extent of glaciers was computed by using a Koizumi KP-80 digital planimeter and taking an average of five readings for each area. The lengths of treks and whitewater stretches were estimated by measuring a thread laid along the trail/stream paths.

- *Estimating current and potential carrying capacities*

  This entails applying WTO and other specialist guidelines for acceptable (at current levels of development) and maximum (with full development) densities to the areal extent of prime environmental assets.

Trekking Zones

Developing and administering questionnaires to a quota sample of 21 respondents, comprised of local residents, the tourism service industry, and tourists, in order to:

- measure the ecological, social and moral, and economic impact of tourism;
- assess the volumes and seasonality of traffic and the capacities of plants and infrastructure; and
- evaluate the degree of attainment of tourism image values.

From October 19 to 25, 1994, two field researchers interviewed ten local residents, five tourism service operators, and six tourists in Karimabad, as per the structured questionnaire in Annex 2.

Desk Analysis

An assessment of the capacity of the Hunza tourism catchment to absorb more tourists, with and without development of tourism facilities, was made through two approaches:

- normative: relating current and projected tourism traffic numbers to estimates of carrying capacity; and
- intersubjective: analysing the responses of the local community, tourism trade, and tourists to questions administered through structured interviews to a quota sample of 21 respondents.