sustainable Coastal tourism, environment, and sustainable local development explores the interface between social and environmental issues relating to coastal tourism. That coastal tourism is highly dependent on nature is not sufficiently understood. This results in an emphasis on promoting tourism without attention to the supporting systems and a classic 'golden goose' problem can ensue. The societal implications of this phenomenon can be serious as tourism can push out other prevalent activities, result in changed skills of the local populace, and effect a change in priorities. This suggests the need for cross-disciplinary perspectives to measure and monitor impacts and manage a coastal tourism that 'lasts'. This publication is among the products of a research project entitled nemoun

'Measuring, monitoring, and managing sustainability: the coastal dimension', supported by the European Union's INCO-DC programme over the period 1998-2002. It has involved three Indian and four European institutes. The contributions reflect a range of disciplines, including sociology, economics, biology, chemistry, hydrology, geography, and botany. The objective is to highlight (1) the interface between social and environmental issues in a coastal tourism context, (2) the issues that need to be considered in planning and managing for coastal development within a sustainability framework, and (3) the need for coastal policy-making to be more stakeholder-sensitive.

This publication provides a comprehensive, accessible account of the analyses, results, and decision tools developed to measure, monitor, and manage coastal tourism developments along sustainable paths and opens up fresh perspectives for the development of sustainable strategies. This book should be of interest to coastal planners, professionals in the tourism industry, researchers, and those interested in developing a 'sustainability science'.

Coastal tourism, environment, and sustainable local development

> Ligia Noronha Nelson Lourenço João Paulo Lobo-Ferreira Anna Lleopart Enrico Feoli Kalidas Sawkar A G Chachadi



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Editors

Ligia Noronha Nelson Lourenço João Paulo Lobo-Ferreira Anna Lleopart Enrico Feoli Kalidas Sawkar A G Chachadi



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Tourism: spatial dimension and driving force

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Introduction

ourism is today one of the world's largest industries and fastest-growing economic sectors, estimated to have generated 3.5 trillion dollars and almost 200 million jobs globally in 1999 (Burke, Kura, Kassem, et al. 2000). Tourism activities are responsible for employing three per cent of the total global workforce; this share rises to eight per cent if indirect/informal jobs are considered (UNEP 2002). According to the WTO (World Tourism Organization), there were about 697 million international tourist arrivals worldwide in 2000, 50 million more than in 1999. The high growth rate of 6.8% registered in the activity (one of the highest in the 1990s, which registered an average growth rate of 4.3%) was more intense in the regions of Eastern Asia and the Pacific, with growth rates of 14.6%, but sharing only 16% of the total market (WTO 2002).

For many countries, both developed and developing, tourism is a very important source of foreign currency earnings and employment. However, the differences among regions are significant. While 50% of all receipts are earned by Europe, America has a 26% share, Eastern Asia and the Pacific 18%, Africa 2.5%, the Middle East 2.4%, and South Asia 1% (WTO 2002). Though small, relative to world totals, the receipts from developing countries are significant to their national economies in terms of foreign currency earned, income generated, and employment created.

The expected growth in the tourism sector and the increasing reliance of many developing countries on this sector as a major employer and contributor to local, regional, and national economies highlights the need to pay special attention to the relationship between environmental conservation and protection and sustainable tourism (UN 2001). In fact, the quality of environment – both natural and man-made – is essential to tourism and this activity depends strongly upon the attraction power of the destination's resources.

The negative impacts of tourism development can gradually destroy the environmental resources on which it depends. However, tourism also has the potential to produce beneficial effects on the environment by contributing to environmental protection and conservation. It can be a means of increasing awareness of environmental values and serve as a tool to finance protection of natural areas and increase their economic importance.

The complex nature of tourism and its effects make it difficult to gain complete knowledge of this phenomenon. Nevertheless, as social and ecological aspects converge in tourism, we should opt for an integrated scientific approach. This approach can be achieved by gaining territorial knowledge of tourist dynamics and should take into consideration existing infrastructure as well as its integration at the regional and even international levels. In fact, much of the tourism activity in a particular territory depends upon the fluctuations in tourist destinations provided by the world market, which has gained increasing significance due to the growing tendency for globalization in economy.

Therefore, despite the increasing economic, social, and territorial significance of tourism activities in the world, upon which certain countries rely to fuel their economies, they are subject to some factors (political, social, environmental, economic, and technological) that are frequently far beyond the control of tourism suppliers, wholesalers, or operators (Brandon 1996).

This chapter first presents a description of the conditions for tourism development and puts the accent on concepts and forms of tourism and their relation with the space. Next, the tourism activity is analysed as a driver, which is in the origin of pressures over the environment. This analysis considers an integrated approach of the social, cultural, economic, and environmental dimensions of the tourism activity.

Socio-economic conditions for the development of tourism

The origin of the tourism phenomenon has been analysed by authors from different disciplines. Chadefaud (1987) has developed a systemic approach comprising social demand (the myth), supply (tourist product), and space as a projection of global society. This approach takes the value of mental images into consideration, including the interests of those social groups that constitute the leading classes. In fact, the reality underlying mass tourism in the present day is no more than the result of a wider strata of population in developed countries absorbing the ideological aspirations of the dominant class, which in the 18th and 19th centuries gave birth to the concept of a tourist journey during times of leisure. The Grand Tour of the British aristocracy, spas, nature, and fishing are ideas that spring from the ways of living of the leading classes. A specific social demand appears, composed of aspirations that progressively come to be assumed as needs, resulting in a set of mental representations (images and speech) whose duration in time give rise to a spatial myth, serving as reference to the less-favoured classes. This myth essentially feeds on the quest for spatial alternatives, for the search of the other, and stands upon the passion for nature, the recreation of rural space as the expression of the anti-city (Soneiro 1993). Improvement of incomes and increase of power of consumption, reduction of working hours and extension of the period of paid holidays, and the 'democratization' of public and private means of transportation - in short, the improvement of the standard of living felt in the last decades have brought about significant growth in terms of spatial mobility for purposes of leisure.

Tourism as an industry appeared when large numbers of middleclass persons began to travel as well. As societies became wealthier and people lived longer, it became not only possible but also probable that lower-middle and middle-class people with steady employment would retire in good health and with significant savings. Tourism, like any other form of economic activity, occurs when the

¹ The word *tour* gained common acceptance in the 18th century, when the Grand Tour of Europe became part of the upbringing of the educated and wealthy British nobleman or cultured gentleman. Grand tours were taken in particular by young people to complete their education. They travelled all over Europe, but notably in places of cultural and aesthetic interest, such as Rome, Tuscany, and the Alps. Tourism in the modern sense of the word did not develop until the 19th century; that was leisure travel, which today forms the larger part of the tourism industry (Wikipedia 2002).

essential parameters come together to make it happen. In this case, there are three essential parameters—(1) disposable income, i.e. money to spend on non-essentials; (2) time in which to do so; and (3) means of transport and infrastructure in the form of accommodation facilities. These facilities were important to the spread of the tourism phenomenon, to the extent that this spread is also the product of the changes in the types of facilities, such as new forms of accommodation. Besides the traditional accommodation facilities frequented by the wealthier classes, new forms of accommodation appeared, such as camping and travelling with a caravan, tourist camps, etc. Savings also represent an important condition for the creation of collective accommodation facilities. Additionally, according to Soneiro (1993), the new cultural habits, tax burdens, and/or the concern with inflation stimulate investment in, and are directing family savings into, the construction of secondary dwellings. Soneiro considers secondary dwelling to be the most typical form of accommodation of a given space for the purpose of tourism. This fact is a consequence of the improvement of incomes and the increase in saving power. These factors explain the proliferation of secondary dwellings in developed countries and the extension of these movements in developing countries, as will be seen later in the case study.²

In short, tourism activity responds to specific economic factors in action, among which the families' standards of living can be highlighted as indispensable conditions underlying all tourist movement, particularly the phenomenon of mass tourism. This condition, which was created earlier in developed countries, has gained significative importance in India, justifying the growing demand for some tourist destinations in this country.

Concepts and forms of tourism

Tourism is the expression used to define all relationships and phenomena associated with people travelling. According to Michaud

(1983), tourism groups the whole set of activities connected with production and consumption, which are at the base of certain successive trips, implying spending at least one night away from the habitual area of residence for the purpose of leisure, business, health, or participation in professional, sports, or religious gatherings.

The WTO defines the term visitor as '...any person travelling to a place other than that of his/her usual environment for less than 12 months and whose main purpose of visit is other than the exercise of an activity remunerated from within the place visited...' (WTO 2000). However, the broad concept of tourism refers to all activities of visitors, including both 'tourists (overnight visitors)' and 'same-day visitors'. Each of these types of visitors has a different set of expectations, needs, spending patterns, and impacts. Therefore, it is important to understand as much as possible about all these segments when developing a tourism plan.

Two basic forms of tourism exist—(1) domestic tourism, which is the tourism of resident visitors within the economic territory of the country of reference; and (2) international tourism, comprising inbound tourism, related to the tourism of non-resident visitors within the economic territory of the country of reference, and outbound tourism, related to the tourism of resident visitors outside the economic territory of the country of reference. Domestic and inbound international tourists generate different types and levels of impact. The WTO estimates that domestic tourism flows are 10 times greater than international flows (WTO 2000). Therefore, most people spend their free time in their home country, although there are significant variations among most developed countries. Some regions are primarily origins while others are destinations. As Cater and Goodall (1992) state, this depends mainly on the differences in terms of the country's size, tourism resource endowment, and level of affluence. In developing countries, domestic tourism is no more than an emerging or latent force. Domestic tourism often involves shortbreak holidays for which time and distance factors favour locations inside the home country.

An analysis of the different forms of tourism must bear in mind the fact that the market of tourist destinations is frequently divided into different components, organized according to the characteristics which condition supply and demand. Tourists are frequently seeking places, which stand out for the nature of their climate conditions, the

² In developing countries, the more recent phenomena of economic growth along with that of a worldwide tourist system are good conditions for the growth of the activity. The spatial strategy of multinational tourist operators is controlling the demand and offer for jobs, hotel prices, airline and transportation companies, and real estate business, as well as the perception of tourist areas through information control. The concept of distance is no longer measured in metres or time, but in terms of costs, as the price of a trip no longer depends solely on the distance (Soneiro 1993).

exoticism of their landscapes and societies, or the type of activities offered. More recently, increased awareness of environmental values has led to increased support for the growth of eco-tourism, especially in developing countries.

Tourism segments are diversified and Mourão (2002) identified the following market segmentation. Adventure tourism consists of programmes and activities with a connotation of challenge, expeditions marked by the element of surprise, in most cases for adults, involving daring journeys and the unexpected (climbing, caving, jeep safaris). Well-being tourism is related to programmes and activities intended to improve or balance the physical or spiritual condition of an individual or group of people (yoga workshops, detoxification clinics, spas). Cultural tourism comprises the programmes aimed at participants interested in learning the customs of a certain people or region (dance, folk tradition, gastronomy, wines). Sports tourism has specific purposes of promoting the practice of sports by amateurs and professionals (mountain climbing, golf, diving, fishing, windsurfing). Study tourism aims at learning, training, or increasing knowledge on site, involving students and teachers with local professionals. Incentive tourism consists of programmes and activities for companies or organizations, with the purpose of motivating or rewarding employees or teams to achieve production or quality targets (river and sea cruises, jeep safaris). Research tourism is the segment of tourism dealing with trips and expeditions for survey and/or study, developed by institutions or professionals interested in specific topics. Professional tourism, allows professionals to have direct contact on site with the fields they are involved in, allowing them to increase or exchange knowledge with other professionals. Rural tourism arose with the appreciation of cultural and rural activities in farmhouses.

All these segments of a tourist market act upon space, causing more or less intense impacts, mainly depending upon the greater or smaller number of tourists associated with the space in question. Nevertheless, from all territories where larger pressures can be noticed as a result of tourism activities, the areas that stand out most are coastal areas, mountain areas, and urban areas, especially those where built patrimony bears a very attractive cultural interest.

The spatial dimension of tourism activity

The study of the distribution of tourism must take into account different levels of spatial analysis, ranging from the local and regional to the national and global. The typologies developed in the course of studying this phenomenon are frequently based upon the analysis of the characteristics of spaces used for tourism activities. In fact, spatial characteristics are determining factors in terms of attraction or rejection, which consequently enable or hinder some leisure activities or their use for the purpose of tourism. Among the types of tourism, which are more strongly associated with spatial characteristics, the forms of development connected to coastal tourism, winter sports, water leisure, and rural tourism stand out.

The analysis of the evolution of spatial distribution of tourism activity reveals two unquestionable characteristics—(1) the irreversible growth of leisure activities within the range of tourism and (2) the nearly exclusive leadership of industrialized countries, in which tourism has been converted into almost a need, in order to stimulate the growth of their economies.

In fact, spatial and socio-economic impacts of tourism activity have been quite significant in some regions. Tourist activity has brought about changes in the economic structure, stimulated industrial sectors in crisis situations, contributed to the growth of the service sector, altered the physical environment, consumed natural spaces and agrarian landscapes, and caused changes in the spatial distribution of population, labour, and income.

Issues such as those concerning the relationship between social and spatial forms of organization have gained increasing interdisciplinary interest over the past decades for authors like Harvey, Soja, Lefbvre, and Urry. Sociologists, in particular, began to pay more attention to the importance of space in social interactions, considering the relationship between society and space.

While agriculture and cattle breeding affect large areas (and still strongly influence the image of agrarian landscapes) and industrial activities are organized in more concentrated areas (industrial landscapes), tertiary activities are located in points or nodes (service) or along the axes (transport and communication) that connect those nodes. As is the case, in terms of the spatial approach to other activities of the tertiary sector, the analysis of spatial organization and impacts of tourism can also be based upon the distinction between

activities corresponding to nodal services and activities organized in networks (Ory 1993). Thus, although tourism relies on the physical beauty or usefulness of a particular landscape for leisure purposes, it can nevertheless be considered a nodal service, required by clients of a specific area of influence.

The analysis of all services of nodal location must take three elements into consideration—(1) the place where the service stands, (2) the flows of spatial relationships produced between the users of such service and the place itself, and (3) the area of influence of the place, circumscribed by the range of the service flows over the territory. Consequently, one of the spatial impacts of tourism activities results from the changes operated in the hierarchy of places, as these activities lead to the creation of new settlements or to changes in terms of the importance of places (Mazón 2001). According to the theory of central places, the type of inhabitants³ and the type of services provided determine the location of tourist centres.

The spatial impact of tourism is strongly determined by the need for accommodation, which makes it necessary to create new infrastructure. These needs, however, depend upon the type of tourism promoted and planned in the destination under consideration (TERI 2000). For example, while residential tourist lodging is conducted at the margin of any formal network designed for its commercialization, distribution, and promotion, the hostelry sector, on the contrary, is connected by means of different structured networks (at different spatial levels) in order to seek for the largest possible number of visitors. Consequently, the model of tourist development, which rests upon residential tourism is controlled less by the central administration and more frequently associated with informal or illegal situations. Frequently, one of the most relevant problems regarding the type of tourist supply provided by the residential model resides in its interconnection with the real-estate business, based upon land speculation and the construction and sale of cottages (Mazón 2001).

Incentives frequently emerge from the need to continue developing tourism in order to maintain the local economy, while lacking the necessary land to create the infrastructure and services needed. Many conflicts arise in these areas, opposing interests in terms of real-estate growth and the presence of agricultural, forest, and natural spaces to be protected, as tourist activities are frequently at the source of significant changes in terms of vegetation and disappearance of existing flora and fauna.

Fundamental to the analysis of tourism as a social phenomenon, is a study of the relationship between forms of social organization and the way these are operated in spatial terms. Tourism creates specific forms of social space (Meethan 2001), by producing areas, which are not intended for work purposes but for the pursuit of leisure. Therefore, spatial analysis involves more than just an examination of the distribution patterns or the identification of typologies of spatial development of tourist resorts in terms of their evolution. It also means understanding the mechanism and processes through which spatial patterns are built and interrelate with socio-cultural values and perceptions.

Space as a tourist product

Tourist space only becomes a reality after economic and social agents decide to use it for tourist consumption. As many authors point out, the natural settings offer a range of potential resources, which require previous transforming intention, if they are to become tourist locations.

The analysis of the natural framing of tourist attraction must take into account the characteristics of the natural environment and landscape which, separately or combined, constitute one of the foci for tourist attraction. These can either be the landforms, the climate, the vegetation, the sea, the rivers, or the waters, in general.⁴

Consequently, tourism activity provides a product, which is no different from any other and which, just like any other economic good, has a determined life-cycle—creation, maturation, obsoleteness, and possible re-conversion. This product integrates three components acting in close connection—(1) accommodation facilities, (2) transportation facilities, and (3) equipment needed to ensure leisure activities during the stay.

³ A tourist destination accommodates four types of inhabitants—(1) permanent local inhabitants, part of which are connected to the tourism activity; (2) seasonal immigrant labour; (3) tourists who stay in the village or city; and (4) tourists who stay elsewhere but are attracted by its functional characteristics.

⁴ In the process of recognition of the importance of these elements, some authors developed climatic-tourist indexes to evaluate the potential of certain locations for tourist purposes, while others attempted to create methods for analysing the potential of a given natural space for leisure purposes, for example, combining the landforms, water surfaces, and vegetation (Soneiro 1993).

The tourist product is composed of two types of spatial products—(1) material, built, ordered, conditioned spaces (accommodation, transportation, recreational equipment) and (2) immaterial spaces, i.e. the *myths* or the images constructed by tourist promotion designed to sell the material space. Landscapes become 'images'. Tourist space is therefore a spatial projection of the tourist product, but one that feeds back the tourist product itself, as well as social demand (conditioned by the myth). Tourist space – material and immaterial – interferes with tourist supply and nourishes both the development of the myth and social demand. The relationship between supply and social demand (between the tourist product and the myth) is based on reciprocity—social demand gives origin to tourist supply but tourist product stimulates and nourishes the myth.

For many tourist sites, the development phase is characterized by a long and intense growth in infrastructure, superstructure, and facilities, which sooner or later produce serious impacts on the environment (Casagrandi and Rinaldi 2002). In consequence, they can be abandoned in favour of other locations, which are more attractive or new in tourism markets.

The spatial dimension of coastal tourism

The natural beauty and environmental quality of coastal areas make them very attractive to tourists. However, these are sensitive areas, and uncontrolled expansion and mismanagement can harm the resources on which tourism is based. The importance of the coastal area as a study object has emerged in recent times. This increasing significance is due to the complex activities that are present in those regions. This complexity involves significant processes of population dynamics, which are expressed in population growth, demographic stress, and rapid and intense migrations (hinterland-coast, ruralcoastal). The importance of these areas also involves complex land-use and land-cover dynamics. These dynamics are shaped by different factors, which allow us to see the importance of physical drivers (such as geomorphologic, extreme events, and natural hazards) and social drivers (population dynamics, industrialization, external market forces, cultural and life style patterns, and policy regulations).

Thus, different scientific research domains contemplate this complexity.

The present research developed some considerations on integrated analysis of natural and social sciences in coastal areas, in search of a scientific expression for the political need to develop an integrated coastal zone management process. In fact, decisions regarding natural resources and land use are based on opportunities and constraints conditioned by both biophysical and socio-economic drivers. Thus, a more integrated approach is needed for human/environmental syntheses, which contribute to a better understanding of the biophysical and social driving forces. Besides, we need to understand the processes behind the patterns of occupation of a territory and the use of resources (Lourenço, Jorge, Machado, *et al.* 1999). Therefore, it is of great importance to establish the limits of what are considered to be coastal areas.

There is no single definition of the coastal zone. Some authors refer to the coastal zone as '...that part of the land most affected by its proximity to the sea and that part of the ocean most affected by its proximity to the land...' (Hinrichsen 1998).

In fact, for natural researchers, coastal areas are related to the sea's current and past influences in shaping these areas. This conception of coastal areas frames a region, with variations of its limits that include the coastal plain, the coastal cliff, and the coastal plateau. In the immersed area, the limits could also comprehend the continental shelves. However, in the framework of this study, coastal areas are considered as the regions located near the sea, where we can notice rapid and intense socio-economic and environmental changes. Such changes demand fast and appropriate policy responses, because they act as important driving forces over hinterland regions. They can be considered 'hot spot' areas in the sense that they are among the most dynamic areas of the planet.

However, coastal zones can be subdivided into different, often coexistent, coastal environments that are dynamic systems, which makes it difficult to identify exact locations and extent, or delineate clear boundaries between them (Burke, Kura, Kassem, *et al.* 2000).

Coastal areas as tourism destinations

A coastal destination may have a long history as a tourist centre or may have been developed more recently. Characteristics such as size, location, and climate; topography of the destination and its immediate surroundings (plains, mountains, islands); the general state of the environment; and the size of the resident population are factors that distinguish destinations from each other. However, coastal destinations can be broadly divided in two main types. There are those related to existing small- or medium-sized settlements (agricultural or fishing villages and administrative urban centres), which developed over time into larger urban areas where tourism is the main activity. Then there are those that involve seaside resorts built on the sea front. This type of destination is usually managed like a small town organized around a single socio-economic activity, and aims to produce and distribute leisure goods and services.

The aesthetic values of coastal areas have been great attractions for the people who move to coastal regions to live as well as to indulge in leisure, recreational activities, and tourism. Nevertheless, from the global perspective, it is rather difficult to differentiate inland from coastal tourism.⁵ Nowadays, in the context of globalization, traditional coastal destinations in developed countries face competition from other destinations located in different developing countries. This necessitates major investment in modernization of infrastructure and preservation of the natural assets of sea, beaches, and wetlands (EC 2000). Although still very significant, the trilogy of the sun, sea, and sand is no longer the sole focus of appeal for modern tourists, who expect to find a range of combined activities (leisure, sports, cultural and natural heritage, cuisine, etc.) and a variety of experiences to fulfil their expectations of quality tourism.

The sudden appearance and gradual expansion of the tourist phenomenon have exerted great pressure upon coastal areas. In several European areas, construction for tourist purposes has been concentrated in determined areas using but a narrow strip of coastal area and causing an imbalance between a densely populated coastal area and inland areas with a much lower rate of occupation. The intensity of land use and the transformation of coastal areas is, according to Mazón (2001), a consequence of the action of a number of mechanisms resulting from the development of mass tourism. The massive urbanization process associated with tourism has served to increase the duality between coastal and inland areas.

Another issue to be considered is that different types of tourist facilities spring up around massive housing areas associated with tourism. These include golf courses, recreational harbours, camping sites, waterfront promenades, and corresponding means of access and communication. Such infrastructure, frequently built upon fragile environments, strongly contributes to ecosystem degradation.

Such tourism, controlled by tour operators, has produced, as

Such tourism, controlled by tour operators, has produced, as Cater and Goodall (1992) state, 'a concrete sprawl of "identikit" resorts along coastlines'. Mass tourism leads to pollution, where the resort infrastructure is overloaded and the local environment cannot absorb the waste disposed.

Nevertheless, uncontrolled expansion of housing estates, holiday houses, and all types of tourist activities was only possible due to the permissive attitude of various decision-making agents. In several European countries, disorder, lack of uniform criteria, exploitation or mismanagement of natural resources, and destruction of the land-scape were almost constant situations in the speculative real-estate process, which accompanied the growth of mass tourism in coastal areas (Mazón 2001).

Coastal tourism in developing countries is an important, though unquantified, type of tourism. In this, developing countries have a comparative advantage over the developed countries on account of the natural resources of sun, sea, and sand. In countries of east Africa and south and south-east Asia, a large segment of the tourist trade is based on the coast. This is particularly true in The Maldives, Sri Lanka, coastal India, Malaysia, coastal Indonesia and Thailand, and The Seychelles. A number of environmental impacts of tourist developments have been recognized in these coastal destinations, some of which are summarized by Brown (1997), Wilson (1997a and 1997b), and Sawkar, Noronha, Mascarenhas, et al. (1998). While earlier the focus was exclusively on the sun, sea, and sand attributes of coastal tourism, the focus today is increasingly on 'quality' tourism, both in terms of what tourism offers as recreation and sport and the quality of the resources used for tourism-related activities. It is important, however, that the comparative advantage is not lost due to short-term gains and inadequate long-term vision.

In this book, the focus of attention is on tourism as an exogenous driver causing changes but engaging in local processes and influencing outcomes. In the section that follows, we draw attention to the impacts of this driver as a background to the chapters that follow.

⁵ In fact, most statistics related to tourism are aggregated by country; agencies and organizations compiling statistics typically do not make this distinction.

Impacts of the tourism driver

Tourism as a driver is here understood as a force of environmental change, which constitutes the underlying causes and origins of pressures on the environment. Its impacts on population, economy, and ecosystems describe the ultimate effects of changes of state in terms of damage caused. Tourism as a group of combined activities dynamizes the local economy (services, transportation, construction, and related industry) and is the key to organizing space and society. It has a multitude of impacts, both positive and negative, on people's lives and the environment. It is associated with the changes it brings about, the resources it uses, the local space it comes to appropriate, and the local dynamics it generates.

Why is tourism a driver? How does tourism act as a driving force upon natural and socio-economic systems? What effect does this activity have upon natural and social systems? The answers to these questions must begin with the analysis of tourism as a composite of activities, services, and industries.

Components of tourism supply

It is important to identify and categorize the set of supply components related to tourism, including their quality and quantity in a specific area. The comparison between supply components of different competition areas is a critical factor in determining the success of tourism. The supply components considered here are natural resources and the environment, built environment, operating sectors of tourism industry, and hospitality and cultural resources. These broad topics were analysed for the specific study area in Goa and some results are presented in other chapters of this volume.

Natural resources and the environment

Natural resources and the environment correspond to the category of resources available in any area for the use and enjoyment of visitors. The basic elements include air and climate, physiography of the region, landforms, soil, flora, fauna, water masses, beaches, natural beauty, and supply of water for drinking, sanitation, and other uses. A great variety of combinations of natural resource factors can create

environments, which are attractive to tourism development. The probability of the tourist success of any given area depends greatly on it possessing a wider appeal throughout the year, so the variety of supply is an important factor to consider.

Additionally, the productivity of the area's natural resources for tourism purposes depends upon the involvement of the workforce and management. The amount and proportion of these inputs will determine the quality and quantity of the output. Thus, the entrepreneurial ability of a population can largely determine the attractiveness of an area.

The natural resources, such as soil, vegetation, and beaches, will be affected by the intensity of use. According to Goeldner, Ritchie, and McIntosh (2000), proper planning, taking such concentrations of use into consideration, and aesthetic appreciation will help maintain the quality of natural resources for enjoyment by present and future generations of users.

The quality of natural resources must be maintained to sustain tourism demand. So, proper quality standards must be considered while planning and after construction, to ensure continued satisfaction for visitors. In fact, tourism is very sensitive to the quality of recreational use of natural resources; unless high standards are maintained, a depreciation of demand will inevitably occur. Thus, ecological and environmental considerations are vital.

Built environment

The built environment includes the infrastructure (all the underground and surface development construction such as water supply systems, sewage disposal systems, gas lines, electrical lines, drainage systems, roads, communications networks, and many commercial facilities) and the superstructure (facilities constructed primarily to support visitation and visitor activities, such as airports, railroads, roads, drives, parking lots, parks, marinas and dock facilities, bus and train station facilities, resorts, hotels, motels, restaurants, shopping centres, places of entertainment, museums, stores, and similar structures). In most cases, the operating sectors of industry are part of the built environment and provide much of the superstructure or facilitate access to physical supply.

The accommodation sector is among the most important part of the superstructure. Accommodation and lodging structures can be

⁶ The analysis of the supply considers the consumption of drinking water, as well as water used for agriculture, bathing, washing, swimming pools, and other commercial and industrial uses. Problems regarding water are not simply a matter of quantity and quality but also about the treatment of wastewater.

categorized into hotels, condominium apartments, timesharings,⁷ and, in a different kind of market, the bed-and-breakfast or household lodging.

As Goeldner, Ritchie, and McIntosh (2000) state, the goal should be to produce an architectural design and quality of construction that will result in a distinctive permanent environment. A boxlike hotel, typical of all modern cities, is not considered appropriate for a seaside resort dominated by palms and other tropical vegetation, nor is it likely to attract tourists. Tourists often find facilities designed in conformance with local architecture as part of the local landscape more attractive than a modern hotel. While some authors still defend the use of modern amenities such as air-conditioning in buildings that otherwise bear the characteristics of a particular region, others support the use of bio-climatic architectural techniques to maintain comfortable temperatures without using air-conditioning.

Ageing and degradation, in terms of housing quality, characterize real-estate processes in many costal areas. Proximity to the sea considerably aggravates the ageing and deterioration process of building structures; this is exacerbated by the low quality of materials used in construction.

Hotels vary tremendously in terms of the level of maintenance and cleanliness of physical facilities and the services provided. The satisfactory levels of these factors for tourists depend upon the kind of tourism. Hotels must provide physical facilities, price ranges, locations, and services that meet the expectations, wants, and needs of travellers. If the quality of facilities and services drops, demand will fall, translating into a serious blow to the tourism industry.

Hospitality and cultural resources

The development of hospitality resources is an important factor in tourism. Even the finest physical facilities will be worthless if the tourist feels unwelcome. Hospitality resources must deal with problems concerning staff recruitment and training (Goeldner, Ritchie, and McIntosh 2000). These training programmes can inculcate the

desirable attitudes. Also, improved cultural programmes can be important products for tourists.

Shopping is an important tourist activity and thus an essential element in terms of tourism supply because it affects the success of the tourist destination area. Shopping tourists are particularly interested in handicraft items that are typical or indigenous to the particular locale or region. Since local markets can be very rich in ethnicity and have much local 'colour', they are popular among visitors.

Entertainment and recreational activities are also important components of tourism. Cultural expressions in music, drama, poetry, literature, motion picture, television, ceremonies, festivals, exhibits, shows, food and beverage services, and tours are some examples. Museums, art galleries, and sporting events can also be key factors in terms of attraction for a tourist area.

Supply functions are always constrained by demand. Providing an ample tourism supply to meet the anticipated demand is a challenge for planners. However, anticipating tourism demand is risky business.

Another problem is the necessary involvement of financing for the creation of supply components. As Goeldner, Ritchie, and McIntosh (2000) point out, it is unrealistic to expect all supply components to perfectly match the demand at any given time. On the one hand, excess supply means unused facilities, which is uneconomic; on the other, inadequate supply results in overcrowding with resulting depreciation of the vacation experience.

The environmental impact of tourism

The environmental impact of tourism development is a serious concern. In some popular destinations, the area's natural sources of attraction have been damaged or destroyed due to overbuilding and irresponsible development. Tourist behaviour can have adverse consequences, both deliberate and unintentional, as far as the environmental sustainability of the tourist destination is concerned.

As tourists have to visit the place of production in order to consume the output, it is inevitable that tourism activity will be associated with environmental impacts. Tourism, like other sectors, uses resources, generates wastes, and creates environmental, cultural, and social costs and benefits in the process. Given the increasing current societal sensitivity to environmental concerns, environmental

⁷ Timesharing is a technique for multiple ownership and/or use of resort and recreational proprieties and can be applied to hotels, motels, condominiums, and other structures. The advantage is that it allows purchasers to own or have occupancy rights in a resort accommodation for a specific period of time each year in lieu of a fraction of the purchasing price of the entire unit.

degradation can affect holiday choices, and reduce future tourism-related earning. Tourism and recreation can impact natural environment to such an extent that there are changes in the markets. This is of particular concern in some European countries and regions, which might feel tempted to develop unsustainable tourism as a 'quick-fix' to assist economic recovery or maintenance. Tourism-environment interactions need to be better understood before recommendations can be made for a balanced relationship with the environment (Cater and Goodall 1992).

Much of the damage done to the environment as a result of tourism is caused by the pressure of the volume of visitors arriving at destinations, which are not used to supporting people in such great numbers. Growth in visitor numbers also puts a severe strain on the local capacity of specific geographical areas, such as coastal areas, mountains, and wetlands.

Uncontrolled conventional tourism poses potential threats to many natural areas around the world. It can put enormous pressure on an area and lead to impacts such as soil erosion, increased pollution, discharges into the sea, natural habitat loss, increased pressure on endangered species, and increased vulnerability to forest fires. It often strains water resources and can force local populations to compete for the use of critical resources.

Arising from such research is the idea that each destination has a tourism carrying capacity. This suggests a tolerance limit, which, if exceeded, leads to an unacceptable degree of damage to the character and quality of the destination environment or the tourist's experience and satisfaction.

The sociocultural impact of tourism

Tourism has the potential to promote social development through employment creation, income redistribution, and poverty alleviation. Other potential positive impacts of tourism include encouragement of peace, strengthening of communities, benefit to local residents from facilities developed, revitalization of culture and traditions (McKean 1976), and encouragement of civic involvement and pride.

On the flip side, tourism can cause change or loss of local identity and values, brought about by several closely related influences—commodification, homogenization, loss of authenticity and staged authenticity, adaptation to tourist demands, culture clashes,

economic inequality, irritation due to tourist behaviour, job level friction, income inequality, cultural deterioration, conflicts with traditional land use, access deprivation, ethical issues, crime generation, child labour, prostitution and sex tourism, and social stress due to resource-use conflict (Hall 1997; Wood 1991; Shaw and Williams 1997; UNEP 2002).

The reason that tourist activity can have negative impacts in terms of demographic aspects relates to the fact that its job offer is notoriously seasonal (D'Souza 1997). However, there are advantages and disadvantages of seasonal employment of labour for tourist purposes in a coastal area context. The advantages relate to spatial distribution of population because it helps stop a migratory process, which would otherwise be irreversible; allows for cyclical migration; contributes to spatial redistribution of income, as part of this income leaves to their place of origin when the seasonal emigrants return; and allows for diversification of livelihoods. The disadvantages linked to this type of work derive fundamentally from the fact that it is casual, the income is not steady, and people may have free time but not know what to do.

From the spatial point of view, tourism is responsible for population movements between regions, from rural areas, which are more marginal in economic terms, to urban areas, which are strongly affected by the growth of this activity, as also are seaside regions. This phenomenon represents an acceleration factor with regard to rural exodus between regions, frequently from inland to coastal areas, thus contributing to intensify the depopulation affecting the inland, which, from the economic point of view, has become a peripheral area.

It is not a unanimously accepted fact that the creation of tourist establishments undoubtedly results in population growth in host areas (Soneiro 1993). Observation shows that the real dynamics in these areas depend upon a combination of factors, which, although impossible to generalize, is based upon the particular relevance of its ability to rejuvenate demographic effectives due to settling of permanent working population. In fact, a tourist establishment can reverse the previously noticed tendency to demographic regression by rejuvenating the biological structure to reduce the intensity of demographic decline or even helping invert it.

The attraction exerted by the tourist sector on the active agricultural population results from the frequently high profit to be gained in that activity together with the increase in prices of soil for speculative purposes, which lead many farmers to sell their estates and look for work in tourism-related sectors (especially construction and hostelry). As a result, the structure of the active population changes, with an increasing number in the tertiary sector and a strong decrease in young active farmers and the consequent ageing of agricultural employment.

For a variety of reasons, host communities often are the weaker party in interactions with their guests and service providers, unable to leverage any influence they might have. These influences are not always apparent, as they are difficult to measure; depend on value judgments; and are often indirect or hard to identify (UNEP 2002). In developing countries, there are also instances of host communities being weaker parties in places for tourism development relative the government and tourist planners who sacrifice local interests to tourism development (Dantas 1986).

The positive consequences of tourism can occur only when tourism is practised and developed in a sustainable and appropriate way (UNEP 2002). Involving the local population is essential. A community involved in planning and implementation of tourism has a more positive attitude, is more supportive, and has a better chance to profit from tourism than a population passively ruled – or overrun – by it. A core element of sustainable tourism development is community development, which is the process and capacity of making decisions that consider the long-term economy, ecology, and equity of all communities.

The economic impact of tourism

Tourism is the world's largest and fastest growing industry. Tourism's actual and potential economic impact is astounding. According to the WTO, 697 million people travelled to a foreign country in 2000, spending more 478 billion dollars. International tourism receipts, combined with passenger transport, currently total more than 575 billion dollars, making tourism the world's leading export earner, ahead of automotive products, chemicals, petroleum, and food.

The economic advantages provide the main driving force for tourism development. The tourism industry generates substantial economic benefits to both host countries and tourists' home countries. Especially in developing countries, one of the primary motivations for a region to promote itself as a tourism destination is the expected economic improvement, often perceived to be the 'passport to development' (de Kadt 1979). In fact, the foreign currency inflow due to tourism is an important factor for the balance of payments of many host countries. This approach, however, is primarily economic in its perspective and ignores larger questions of the environment and culture.

The assessment of the economic impacts of tourism must take into account aspects such as (Cooper, Fletcher, Gilbert, et al. 1998) direct, indirect, and induced effects; leakages of expenditure out of the local economy; and displacement and opportunity costs. A tourist's expenditure on a particular good/service will cause a direct effect on the local economy after subtracting the leakages. The indirect effect is seen when the direct benefactor extends its suppliers again after subtracting the leakages. The spending of income accrued as a result of the initial tourist expenditure generates further rounds of economic activity, known as the induced effect.

The positive economic impacts of tourism related to foreign exchange earnings, contributions to government revenues, and generation of employment and business opportunities, are the main reasons that tourism is strongly supported by governments of less developed countries. Other positive impacts arise from stimulation of infrastructure investment, such as better water and sewage systems, roads, electricity, telephone, and public transport networks, all of which can improve the quality of life for residents as well as facilitate tourism. Tourism can be a significant, even essential, part of the local economy. In certain regions, tourism is so important to local economies that it can be difficult to deal with the impacts when it is disrupted.

As the environment is a basic component of the tourism industry's assets, tourism revenues are often used to measure the economic value of protected areas. There are other local revenues that are not easily quantified, as not all tourist expenditures are accounted for. Money is earned from tourism through informal employment such as street vendors, informal guides, rickshaw drivers, etc. The positive side of informal or unreported employment is that the money is returned to the local economy, and has a great multiplier effect as it is spent over and over again.

However, tourism can have unfavourable economic effects on the host community, many of which are hidden costs. The least developed countries have the most urgent need for income, employment, and general rise of the standard of living by means of tourism, but they are often the least able to realize these benefits from tourism. Among the reasons for this are large-scale transfer of tourism revenues out of the host country and exclusion of local businesses and products. According to UNEP (2002), other negative aspects of tourism's economic boom is that tourism pays 20% less than average employers in other areas, that it employs 13-19 million children, and that it displaces traditional resource use and workforce from traditional occupations. Also the production of tourist goods and services requires commitment of resources that could otherwise be used for alternative purposes (Cooper, Fletcher, Gilbert, et al. 1998). Furthermore, if there is a shortage of skilled labour, it may be necessary to import labour from other regions or countries, which will result in additional economic leakages. Similarly, the use of capital resources in the development of tourism-related establishments precludes their use for other forms of economic development.

There are two main ways in which leakage occurs (UNEP 2002)—(1) import and (2) export leakage. Import leakage commonly occurs when tourists demand standards of equipment, food, and other products that the host country cannot supply and often imports. This is true in many developing countries where much of the income from tourism expenditure leaves the country again to pay for these imports. The average import-related leakage for most developing countries today is between 40% and 50% of gross tourism earnings for small economies and between 10% and 20% for most advanced and diversified economies (UNEP 2002).

Export leakage of tourist destinations in developing countries is produced by external investment. These external investors take their profits back to their country of origin. The impact of the leakage varies greatly across countries, depending on the structure of the economy and the tourism industry (UNEP 2002).

• Enclave tourism The 'all-inclusive' vacation package⁸ reduces the income prospects of local businesses, which otherwise thrive on tourism-related activities.

- Infrastructure cost Tourism development can usurp a major portion of the state budget through subsidized infrastructure and tax benefits, thereby diverting or reducing government investment in education, health, and other critical areas.
- Increase in prices The tourists' increasing demand for basic services and goods will often cause price hikes that negatively affect local residents, whose incomes do not increase proportionately. The goods imported neutralize a part of the benefits gained by foreign currency inflow. This can also result in dominance by outsiders in land markets and in-migration, which eliminates economic opportunities for the locals.

The increasing dependence of local communities on tourism (UNEP 2002) carries significant risks to economies. Economic recession, political instability and insecurity, impacts of natural disasters, such as tropical storms and cyclones, as well as changing tourism patterns can have devastating effects on the local tourism sector and economies.

The seasonal character of the tourism industry creates economic problems such as job/income insecurity, difficulties in getting training, employment-related medical benefits, and unsatisfactory housing and working conditions for destinations that are heavily dependent on it.

Tourism occupation of rural areas

Rural areas, especially in developed countries where the economic globalization has been intensifying the crisis of traditional farming activities, face a structural process of economic, social, and symbolic marginalization. However, not all rural areas are condemned to the process of agony of the traditional rural world. Some rural areas, not related to the agricultural world, have emerged. In this process, there is a decrease in significance of two of the dimensions that structured the pre-industrial rural areas—(1) the prime function of these areas is not inevitably to produce food and, therefore, (2) the prevailing economic activity is no longer agriculture.

This valuation of the non-agricultural dimension is socially constructed, and draws away from the conception of patrimony, both natural and cultural. In fact, nature conservation and protection are valued in the context of sustainable development. On the other hand,

⁸ A major contributor to leakages

cultural conservation and protection values are specific identities in opposition to the current trends of cultural standardization. Furthermore, attributing an economic value to the landscape is the expression of new consumption patterns, improvement of quality of life of significant segments of population, and of the value attributed to tourism and leisure activities.

Therefore, it is the urban demand that drives the future development of these rural areas, where agriculture no longer has prime significance. In symbolic and political discourse, the more educated, urban population regains the rural world or at least one of its fundamental dimensions—the landscape. Countryside tourism (rural tourism, agricultural tourism, ecotourism, green tourism and agrotourism) is among the strategies to promote the development of these areas, which have witnessed a shift from a minimalist use for recreation to the explosion of tourism as a highly active and dominant agent of change in the countryside and associated rural communities.

However, this type of tourism if developed in coastal rural areas, should be very different from the sea, sand, and sun model that has prevailed until recently and should adapt to the surroundings and to the different circumstances of the host zones, in accordance with the principles of sustainable development. A tourist boom can also have a significant impact on the local community. While communities often want the benefits of tourism, they may lack a realistic understanding of what is involved in achieving this development and the likely impacts of tourism (Hoffmann 2002). At the same time, the economic importance of tourism for these rural areas must be recognized. Tourism is often vitally important in sustaining the population. Consequently, there are complex issues regarding the management of tourism.

Visitors to a community or an area create social relationships that typically differ greatly from those among the local population. This applies not only to tourist—host relationships but also those among inhabitants. The presence of visitors in a country affects the living patterns of the local population. The way visitors conduct themselves and their personal relationships with citizens of the host country often have a profound effect on the way of living and attitudes of local people (Goeldner, Ritchie, and McIntosh 2000). Generally, this brings about an increase in the quality of life in the society visited.

The arrival of the tourist phenomenon causes a break-up of the structure of localities. This activity replaces agricultural, fishing, and workmanship activities with tourist activities, extending their horizons and deeply altering the sociological character of its unity. The traditional way of living is altered and, as stated by Mazón (2001), changed into an exchange value or service value. The tourist avalanche implies a radical change in terms of people's economy, which till then had been based on cultivation of the land, exploitation of the sea, and small industry.

The impact of tourist activity on rural space is frequently the object of discussion. If, on the one hand, tourism is a voracious and insatiable consumer of rural space, on the other, it is frequently also its sole guarantee of survival (Soneiro 1993). This discussion is frequently polarized into two extremes—there are those that defend the conservation of the natural environment and paying the price for denying all progress in hypothetical host areas and there are those that are aware of the limited response power of marginal areas and consequently defend a wild consumption of rural space for leisure purposes.

In many European areas, the existence of secondary dwellings is one of the main agents of change for rural environment nowadays. Rural areas, which were being abandoned as a result of the ageing process caused by the exodus of young people, thus received important financial inflows and were given equipment capable of maintaining and even attracting labour. The negative effects are high densities and standardization of ways and styles of construction, which may result in vulgarizing the habitat or even destroying the pre-existing rural landscape.

The pressure of demand exerted by the secondary dwellings may also give rise to processes of soil speculation. If this is combined with increase of taxation in order to sponsor the new need for equipment and the inflationary process unchained by demand, the result is increased cost of living to be borne by the population, which does not always stand to gain from the presence of secondary residents (who leave behind less benefits than would be expected in rural environments).

The changes in terms of the structure of agrarian systems of host areas – the reduction of active agrarian population in the face of offers of better wages in industry and services – frequently removes

part of agriculture's demographic weight, while tourism absorbs the capital and entrepreneurial capacity as wages improve and the price of rural soil rises as a consequence of demand for urban expansion and other services, making agricultural activities not very profitable.

There is an additional need to reconvert cultivation systems in order to respond to the reduction of people active in the agricultural sector as well as to the new demand for tourist consumption. The most important effects are the following.

- Land is abandoned for the simple purpose of speculation in response to the rise in prices of rural land.
- Previous or traditional systems of cultivation are converted, which, in some cases, corresponds to increase of irrigated agriculture, strongly capitalized and oriented in accordance with a number of productions that are more than or adequate to tourist demand.
- Agriculture is maintained as a part-time activity by active workers who have shifted to the tertiary sector but kept their lands for working part-time.

Many of these impacts are witnessed in the case study examined in this volume. In the chapter that follows, we see the transitions that the tourism driver creates, engages with, and is part of.

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The Baga-Nerul watersheds: tourism, local stakes, and transformations

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ourism is advocated and promoted by many development specialists and governments for its ability to generate local employment and opportunities. In this chapter, we discuss the extent and nature of involvement of local households in the tourism industry in one location representative of tourism, the study area in Goa, with a view to understanding local stakes in this activity and their implications for tourism policy.

This chapter is inspired by studies that suggest that tourism should not be seen merely as an external variable creating change, but as an activity that plays out through other social processes (Hussey 1989; Wood 1991; Noronha, Siqueira, Sreekesh et al. 2002). Studies elsewhere in the world show linkages between resident perception and attitude towards tourism relative to the level of development of tourism and related economic activities (Johnson, Snepenger, and Akis 1994). Geoffrey Wall's (1996) study on perspectives on tourism in Balinese villages suggests that resident perception of tourism undergoes a sequence of stages from euphoria to apathy to irritation and finally to antagonism known as Doxey's stage of resident perception. These resident perceptions, according to Wall (1996), are influenced by temporal as well as spatial components. Thus, the emphasis is on both the depth and extent of tourism development, which have strong implications for resident populations. In earlier studies on tourism in the villages of the Baga-Nerul watershed, it has been argued that local people are definitely implicated in this activity (Wilson 1997; Siqueira 1999; TERI 2000).

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