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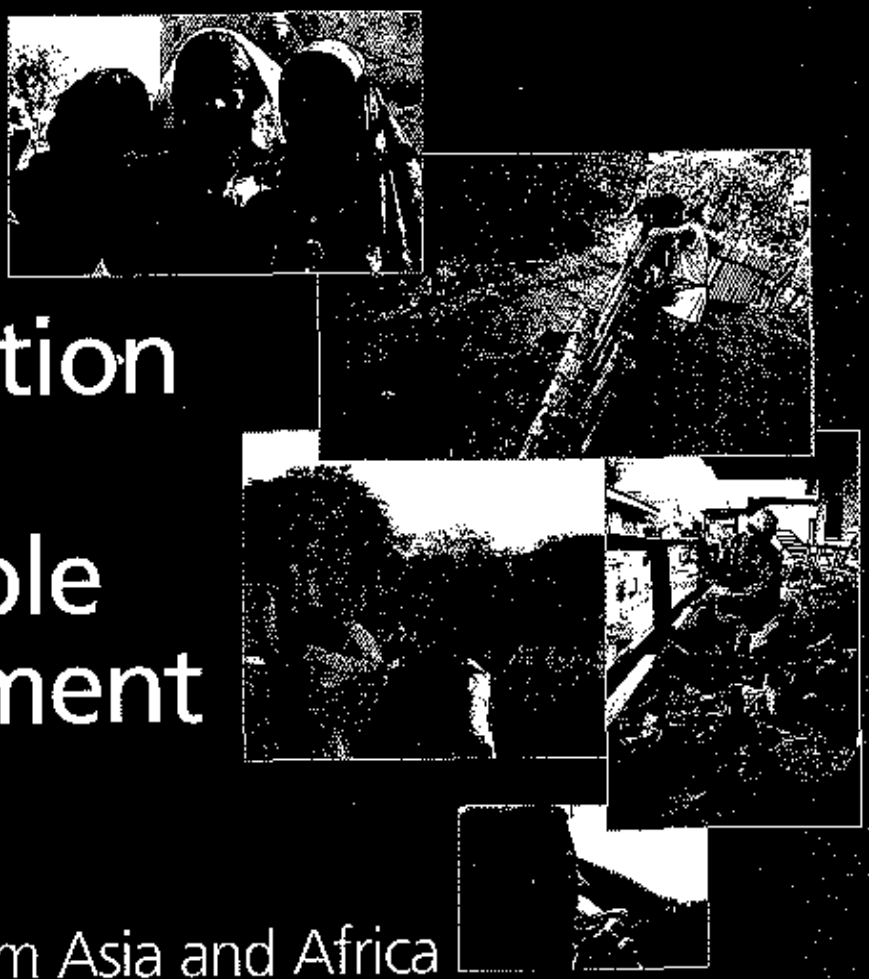

Tourism, conservation and sustainable development

Case studies from Asia and Africa

Harold Goodwin, Ivan Kent, Kim Parker, Matt Walpole

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TOURISM, CONSERVATION AND SUSTAINABLE DEVELOPMENT: CASE STUDIES FROM ASIA AND AFRICA

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The *'Tourism, Conservation and Sustainable Development'* research project was funded by the UK Department for International Development (formerly the ODA), and coordinated at the Durrell Institute of Conservation and Ecology, University of Kent between 1994 and 1997. This paper summarises the results of the research. Further detail is available in four unpublished research reports - Volume I Tourism Conservation and Sustainable Development: Comparative Report; Volume II Tourism Conservation and Sustainable Development: Keoladeo National Park, India; Volume III Tourism Conservation and Sustainable Development: Komodo National Park, Indonesia; Volume IV Tourism Conservation and Sustainable Development: the South-East Lowveld, Zimbabwe. All four volumes are available from Tourism Concern, Stapleton House, 277-281 Holloway Road, London N7 8HN, UK (tourconcern@gn.apc.org). Copies of these documents are also available on the DFID website - http:\\www.dfid.gov.uk.

DFID has also published guidance following consultation with the industry, the media and governmental and non-governmental organisations on the conclusions of the research. Copies of *Changing the Nature of Tourism* are available from the Environment Policy Department of the Department for International Development, 94 Victoria Street, London SW1E 5JL, UK (epd@dfid.gtnet.gov.uk).

ACRONYMS AND ABBREVIATIONS

CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CBO	Community Based Organisation
DfID	Department for International Development
DICE	Durrell Institute of Conservation and Ecology
DNPWLM	Department of National Parks and Wild Life Management
GDP	Gross Domestic Product
ICDP	Integrated Conservation and Development Project
ITDC	Indian Tourism Development Corporation
IUCN	The World Conservation Union
LAC	Limits of Acceptable Change
NGO	Non-Governmental Organisation
NP	National Park
ODA	Overseas Development Administration
OECD	Organisation for Economic Cooperation and Development
PA	Protected Area
PAC	Problem Animal Control
PHPA	Directorate General of Forest Protection and Nature Conservation
ROS	Recreational Opportunity Spectrum
Rp	Rupiah
Rs	Rupees
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VAMP	Visitor Activity Management Process
VIM	Visitor Impact Management
WTO	World Tourism Organisation
WTTC	World Travel and Tourism Council
WWF	The World Wide Fund for Nature

CONTENTS

EXECUTIVE SUMMARY

International tourism is expected to increase well into the next century, with a growing focus on destinations in the developing world. As the industry expands into new areas, it presents new opportunities and risks for host communities and natural environments. In response to new market opportunities, tourism has emerged as part of national and regional strategies to maximise foreign exchange earnings, increase employment and provide financial resources to preserve natural and cultural heritage. However, relatively little attention has been paid to the process of tourism development at the local destination level.

This report draws together the main findings from a three-year research project comparing the phenomenon of nature-based tourism at sites in India, Indonesia and Zimbabwe. It explores the complex relationship, at a local level, between tourists, 'host' communities, the tourism industry and the nature reserves and national parks where wildlife tourism takes place. The aim of the study was to document the response at each location to the increasing demands of international tourism. This report addresses four principal areas of enquiry: (1) trends in visitor numbers; (2) the contribution that tourism makes to local economies; (3) the contribution of tourism to the costs of park management and maintenance, and; (4) a review of the management of tourism in the three protected areas studied.

The prevailing image of the tourism industry is one of exponential growth, but tourism development proceeds unevenly as new markets develop and consumer tastes change. All three sites are experiencing rapid growth in visitor arrivals, at rates well above the international yearly increase in visitor arrivals. However, as the international market develops, local tourism industries are vulnerable to a range of national and global events that lie beyond the control of people at the local level. Political unrest and outbreaks of disease cause significant fluctuations in arrivals, whilst local climatic factors and leisure patterns in originating countries create marked seasonal variation. Furthermore, external tour operators and transport networks play a pivotal role in defining and maintaining tourism flows to remote rural destinations. The driving factors behind tourism growth are very largely beyond the control of local stakeholders.

At the national level, tourism has emerged as a significant component of export-oriented development programmes in many countries of the South. As a 'non-traditional' export in rural areas, the development of international tourism is consistent with the neo-liberal strategies of economic adjustment, which are apparent in all three countries covered by this study. By promising income, employment and infrastructural benefits for rural populations, nature tourism is frequently presented as a mechanism with the potential to offset the local opportunity costs of protected areas. However, tourism has also been criticised for perpetuating external dependency and reinforcing regional and international inequality. These processes are repeated at a local scale, and have a particular resonance for debates concerning the role of nature tourism in rural development.

In the absence of alternative sources of livelihood from protected areas, the tourism industry is making an increasing contribution to the local economy in all three study sites. However, there are many examples from the three case studies that demonstrate the leakage of tourism revenue, either to urban or extra-local interests, and the inequitable distribution of benefits locally. The potential for rural populations to participate in the nature tourism industry, and gain access to the financial benefits, is dependent on a range of factors, in particular the transferability of existing skills, patterns of land ownership and the ability of external interests to appropriate local services. Frequently, local benefits are maximised in the informal sector where the scale of capital investment is low. Those populations who reside nearest to the protected areas and who have therefore borne most of the costs of exclusion appear to participate least in the tourism industry. Research suggests that although tourism presents additional income and employment opportunities, rural populations remain marginalised from development associated with protected areas. Despite the rural location of national parks, the industry retains a distinctly urban bias.

Protected areas are regarded as important national assets; they are valued for their wildlife and for their contribution to the tourism industry. However, such areas are under increasing pressure to become self-financing. Government revenues are limited, and where the principal beneficiaries of protected areas are foreign tourists, rather than local people, the case for reforming public expenditure on national parks is especially strong.

National parks have traditionally been priced as merit goods. Consequently, park revenues fall below park operating budgets, and entrance (and other) fees are below the level that visitors are willing to pay. The increase in international tourism has raised the issue of whether national governments, especially those in the South, should be subsidising the use of natural heritage by foreign tourists. Although there appears to be considerable scope for raising entrance fees, the motives and rationale for increasing prices need to be carefully considered. Policy makers need to take account of the likely impacts on different types of visitors, and the resultant implications for local stakeholders and the local tourism economy. In light of these concerns, a direct revenue maximisation strategy may not be the most appropriate policy to pursue.

Effective tourism management entails balancing conflicting ecological, social, and economic pressures. Protected area managers must provide a quality tourism experience, that guarantees continuing revenues, whilst ensuring that conservation priorities are upheld. The difficulty lies in the fact that tourism, like any industry, incurs environmental costs. At the same time, protected areas are often the most fragile environments where small disturbances can have severe implications. To minimise impacts, a high degree of control over the interface between tourism and the natural environment is usually required. There is a basic level of operational tourism management in all three study sites, and in none were the ecological impacts of tourism considered to be severe; all would be reversible with appropriate remedial action. However, a lack of monitoring and quantitative time-series data leads to difficulties in substantiating any claims that tourism either is or is not having a significant impact.

Few protected areas are large enough, robust enough or sparsely visited enough to operate a *laissez faire* approach to tourism management; it is predominantly the case that active management must be employed. Effective visitor management entails controlling access to the site, limiting access and distribution within the site, and carefully regulating the activities that visitors undertake therein. Management of this nature requires an adequate level of skills, resources and infrastructure, coupled with a monitoring system that will ensure that fluctuations and changing circumstances are detected and addressed before serious damage or decline ensues.

Towards the end of the field research, workshops were held with key stakeholders (including tour operators, park administrators and members of local communities) to discuss findings and key issues. This report presents some of the findings as a series of guidelines tailored for different stakeholders, namely the tourism industry (section 6.2); planners, investors and donors (section 6.3); development NGOs and community-based organisations (section 6.4); protected area managers and conservation NGOs (section 6.5), and; tourists and the travel media (section 6.6). Recommendations for monitoring the impacts and performance of tourism are presented as an appendix.

1. INTRODUCTION

1.1 Introduction

International tourism is expected to increase well into the next century, at a rate of at least 4 per cent per annum[1] (WTO, 1998a). As the industry expands into new areas, it presents new opportunities and risks for host communities and natural environments.

Since the 1950s, non-OECD countries have received an increasing share of international tourist arrivals. Declining long-haul travel costs, changing demographics, and the new leisure demands of post-industrial societies have led to an expansion of the 'pleasure periphery' into new regions (Turner and Ash, 1975; Prosser, 1994). In 1996, international tourist arrivals to the developing world accounted for almost 30 per cent of the global total (WTO, 1997).

In response to new market opportunities, tourism has emerged as part of national and regional strategies to maximise foreign exchange earnings, increase employment and provide financial resources to preserve natural and cultural heritage. Relatively little attention has been paid at the local destination level to the process of tourism development. Where external investment in tourism is high, and local involvement low, few profits remain within the host economy. This, together with the industry's tendency to develop spatially in the form of enclaves, has led some to criticise tourism for reinforcing inequality and encouraging excessive foreign dependency (Pleumaron, 1994; Fenandes, 1994; Brohman, 1996).

National parks and other designated landscapes feature regularly in the itineraries of package tours and independent visits to developing countries. They make up an essential part of the idea of untouched or pristine environments, which fuels the expansion of the pleasure periphery mentioned above. As such the creation of protected areas has been viewed as an attempt to "sustain cultural products.... for the benefit of new middle class tourists" (Mowforth and Munt, 1998, p.156). However, the aim to combine conservation and tourism to provide substantial incomes for local populations has spawned hundreds of 'ecotourism' projects in rural areas and has renewed the tourism impact debate.

Through visitor expenditure, wildlife tourism can make an economic contribution to both local livelihoods and to the maintenance of natural heritage. New employment opportunities also have the potential to foster renewed political support for the maintenance of national parks. For park managers and conservationists, support from local populations is an increasingly important issue. In many locations, the relationship between park authorities and local populations is marked by antagonism following a history of displacement and exclusion. For tourism's detractors, the industry is characterised by an inability to distribute income and employment benefits, due to the leakage of profits to urban and foreign interests (Koch, 1997). In reality, very little tourism revenue accrues to local people from protected area management. As a result there is little or no incentive for local people to support conservation within protected areas (Roe *et al.*, 1997). A survey of integrated conservation and development projects (ICDPs) with a tourism component found that "it is unusual for any of these tourism revenues to be returned directly for park management and extremely rare for a revenue share to go to local people" (Wells and Brandon, 1992). In addition, while the income generating potential of tourism is used to justify the political and economic cost of maintaining protected areas, the environmental impacts of the industry have been a considerable source of

[1] The WTO uses statistics based upon international arrivals, combining business and leisure travel. 1989-1992 world arrivals average increase 5.7% per annum, for the period 1993-1997 4.3%. (WTO, 1998). See Chapter 2 for detailed figures on international visitors at the sites.

concern for the conservation movement itself (for a discussion of these, see Boo, 1990; Goodwin, 1996 and Roe *et al.*, 1997).

With a focus on national parks, this study compares the impact of tourism development at three locations - Keoladeo National Park in India, Komodo National Park Indonesia and Gonarezhou in the southeast lowveld of Zimbabwe - and discusses some of the mechanisms for increasing local benefits and minimising environmental threats.

1.2 Outline of this Report

This report draws together the main findings from a three-year research project comparing the phenomenon of nature tourism at sites in India, Indonesia and Zimbabwe.[2] It explores the complex relationship between tourists, 'host' communities, the tourism industry and the nature reserves and national parks where wildlife tourism takes place. Although tourism is a global industry, the focus of the research was primarily on impacts at the local level. The aim of the study was to document the response at each location to the increasing demands of international tourism. A range of research methods was employed to examine both the economic and environmental implications of increasing numbers of international tourists. Field research at each site was conducted over a single time period using similar methodologies in order to provide a comparative dimension to the investigation.

This report addresses four principal areas of enquiry:

1. trends in visitor numbers;
2. the contribution, in terms of expenditure and employment generation, that tourism makes to local economies;
3. the contribution of tourism to the costs of park management and maintenance; and
4. a review of the management of tourism in the three protected areas.

The *Tourism, Conservation and Sustainable Development* project at the University of Kent's Durrell Institute of Conservation and Ecology (DICE) resulted from funds announced by the Minister for Overseas Development in September 1992. The research project reflected the debate in the early 1990s, by no means resolved, about the role of nature tourism and the extent to which it can contribute to the maintenance of biodiversity either directly, by making a financial contribution to the maintenance of protected areas, or indirectly by enabling local communities to realise an economic value from their patrimony in the protected area (Cater and Lowman, 1994). The key issue was not to identify ecotourism, but to determine the extent to which international tourism in developing countries met the criteria of being low impact, contributing directly and indirectly to the management and maintenance of national parks; and to raising awareness amongst international tourists of conservation issues.[3]

Global figures suggest that 40 per cent of international travel is undertaken by American, British, French, German and Japanese nationals, and that they account for 47 per cent of international tourist expenditure. Between 1985 and 1995 international arrivals in developing countries grew at 7 per cent per annum, well above the 5.6 per cent per annum global trend (WTO, 1996). A collaborative effort between researchers from the UK, a major tourist originating country, and those from three

[2] The '*Tourism, Conservation and Sustainable Development*' research project was funded by the UK Department for International Development (formerly the ODA), and co-ordinated at the Durrell Institute of Conservation and Ecology, University of Kent.

[3] For details of the results of Ian Bride's international visitor survey at Keoladeo NP see Goodwin *et al.*, (1997), Vol. II India.

developing countries was therefore thought appropriate. Field research for this study was conducted in partnership: in India, with the World Nature Conservation Society of Bharatpur, a local non-governmental organisation (NGO); in Indonesia, with park staff; with the Wallacea Development Institute and the Directorate General of Forest Protection and Nature Conservation. (PHPA) both in Labuan Bajo and Bogor; and in Zimbabwe, with the Geography Department of the University of Zimbabwe.

Tourism to national parks involves both domestic (national) and international (foreign) visitors. Domestic visitors to Keoladeo NP in India currently constitute 70 per cent of total. Research at this site has shown that in comparison to foreign tourists, the total spending of domestic tourists is relatively low. However, domestic tourists make a substantial contribution to small-scale businesses, whereas much of the spending by foreign tourists circumvents the local economy. Domestic tourism could make a substantial contribution to the development of the low-season market, and offer opportunities for less capital-intensive tourism enterprises, at comparatively low risk. Despite this, many of the tourist enterprises surveyed during this research aim to cater for the foreign market due to the relatively high spend per visitor. In Indonesia domestic tourist numbers have been static in recent years and amount to only 10 per cent of total visits. In these circumstances the development of enterprises to meet domestic tourism demand is an unattractive option. In Zimbabwe the domestic tourism market is significant out of season and it could offer entrepreneurial opportunities for new entrants into the industry.

The primary focus of this research was on the extent to which nature-based tourism from the international tourist originating countries contributes to the maintenance of biodiversity in, and tourism to, national parks in host countries. The study is presented in six chapters with data drawn from each of the three research sites presented in Chapters 2 to 5. The emphasis is on a comparison of the three research sites, with details from case studies presented in boxes.

Chapter 1 concludes by introducing the three locations chosen for study. Each research site is known internationally for charismatic wildlife, and in this sense all three sites compete for tourists drawn from the same international market. However, the individual characteristics of each site, in particular their accessibility and proximity to other tourist sites, have important bearings on the different experiences of tourism development.

Chapter 2 compares the patterns of tourist visits and discusses the characteristics of each site from tourist and tour operator perspectives. Tourism is frequently cited as one of the world's largest and fastest growing industries (McNeely *et al.,* 1992; WTTC, 1997; Barnett and Cavanagh, 1994). However, although general trends are apparent, each site under study has experienced a different pattern of growth during the last 20 years. Uneven growth in foreign tourist arrivals at two of the study sites illustrates local vulnerability, not only to national and international events, but also to tourist perceptions of risk, and the loss of confidence by tour operators.

The increasingly competitive and demand-driven nature of the tourism industry means that the volume and character of tourism to a particular site is largely beyond the control of local stakeholders. These decisions are made in the tourist originating countries and by domestic tour operators based in metropolitan centres far from the locations under study. Chapter 2 also examines the views of international and national tour operators, and the foreign tourists who visit the study sites.

Chapter 3 considers the contribution of tourism to local employment and incomes. The potential for tourism to generate economic benefits by bringing large numbers of consumers into contact with local suppliers lies at the centre of the tourism and sustainable development debate. This chapter also considers the distribution of benefits - both geographically and socially. It examines the degree to

which profits 'leak' and 'bypass' local economic systems and compares the relative economic contribution of different types of tourist visit.

The generation of foreign exchange has traditionally provided a rationale for tourism development.[4] However, only recently has attention turned towards the potential for tourism to contribute towards the management and maintenance of protected areas. Revenues from admission fees, guiding and other facilities can make a substantial impact, but appropriate pricing mechanisms are rarely employed, and parks remain insufficiently financed. **Chapter 4** explores the current relationship between park expenditure and income through tourism. It discusses the variety of ownership, funding and management regimes found at the protected areas under study, and analyses revenue flows and pricing policies. Finally, it assesses the financial contributions made by different types of tourist and estimates the elasticity of demand exhibited by each.

The tension between the recreational and conservation objectives of protected areas has long been a source of concern although the environmental impacts arising from wildlife tourism are still poorly understood.(Roe *et al* 1997) **Chapter 5** discusses visitor impacts and management within each of the study sites, and places these within the context of conservation priorities, and the environmental threats posed by other factors.

Towards the end of the field research, workshops were held with key stakeholders (including tour operators, park administrators and members of local communities) to discuss findings and key issues. **Chapter 6** discusses some of these and suggests and agenda for change and a series of guidelines for tailored for different stakeholders. Recommendations for monitoring the impacts and performance of tourism are contained in the subsequent appendix.

DfID has published *Changing the Nature of Tourism* a set of guidance notes developed from this research following consultation with representatives of the tourism industry, the media and government and non-governmental organisations.

1.3 Background to the Research Sites

The research sites chosen for this study are located in South Asia, South-East Asia and Southern Africa. In terms of tourism, India and Indonesia are predominantly cultural destinations although both contain sites of significant wildlife interest. Tourism in Zimbabwe is predominantly wildlife orientated.

Keoladeo National Park in India (also known as Bharatpur) was chosen because of its high level of foreign and domestic visitation, its situation on the 'golden triangle'[5], and its importance as an international bird sanctuary (Box 1.1). This park contains no dangerous animals and many visitors are unescorted. The park offers unusually large numbers of employment opportunities for non-park staff.

Komodo National Park in Indonesia was chosen because of its remote location and the local tourism industry's dependence on one species of charismatic megafauna; a large monitor lizard the Komodo dragon *Varanus komodoensis*. The Komodo dragon is the national animal of Indonesia, and is locally known as *ora*. Komodo NP is accessible to tourists from Lombok and Bali and is on a rapidly

[4] In 1982, the IUCN affirmed that the 'tourist potential' of an area was an important factor in the selection of national parks and other protected areas (MacKinnon *et al.*, 1986).
[5] The 'Golden Triangle' is the most popular trail for visitors to India and includes the attractions of New Delhi (Red Fort), Agra (Taj Mahal) and Jaipur (Palace of the Winds).

developing backpacker and independent traveller route through the eastern part of Indonesia to Australia (Box 1.2).

Research in Zimbabwe was undertaken in the south-east lowveld in and adjacent to Gonarezhou National Park (Box 1.3). Gonarezhou NP reopened to foreign tourists in 1994. The lowveld has a wide range of institutional forms of wildlife tourism; a major national park, three conservancies, a charitable trust, a commercial lease farm and a major hotel company development within a CAMPFIRE area.[6] The primary focus of this research project was on tourism to formally protected areas, but the project reported on a wide range of other sites being developed as wildlife and some of these are mentioned within this study.

The three sites were chosen to represent a wide range of tourist experience. Keoladeo NP is small, easily accessible and well provided with a range of hotels in the immediate vicinity. It is a well-established tourist destination on a well-frequented tourist route and a visit can be included in other itineraries with very little effort or additional expense. Komodo NP is a maturing tourist destination. Being an island park, access is limited and, furthermore, although there is some accommodation on the island, the main hotel provision is to be found on the adjacent larger islands at the ports of Labuan Bajo and Sape. Gonarezhou NP is much larger than either of the other two sites and provides an opportunity to see a wide range of African wildlife. It is also relatively remote and tourist infrastructure is at a less developed stage.

[6] Communal Areas Management Programme For Indigenous Resources.

Box 1.1: Keoladeo National Park, India

Keoladeo National Park is situated in eastern Rajasthan, 50km west of Agra and 170km south of New Delhi. It lies just 2km south-east of the city of Bharatpur with a population in 1981 of 157,000. With a total area of just 2,873ha, Keoladeo NP is an artificially created and maintained wetland in the upper reaches of the Indo-Gangetic plain.

Much of the park is flooded to a depth of 1-2m throughout the monsoon (July - September). From October to January the water level gradually lowers and from February onwards the land begins to dry out so that by June very little water remains. During the peak tourism season, the area of inundated wetland is usually 1,000ha. Situated in a semi-arid biotype, the park has a locally exceptional high density of vegetation, hence its local name '*Ghana*' meaning thicket. The principal vegetation types are tropical dry deciduous forest, intermixed with dry grassland. Apart from the artificially managed marshes, much of the area is covered by medium-sized trees and shrubs (such as **kadam** *Mitragyna parvifolia*, **babul** *Acacia nilotica* and **ber** *Zizyphus mauritiana*), aquatic vegetation (*Paspalum distichum*) and in the drier sections **Khus grass** *Vetiveria zizanoides*.

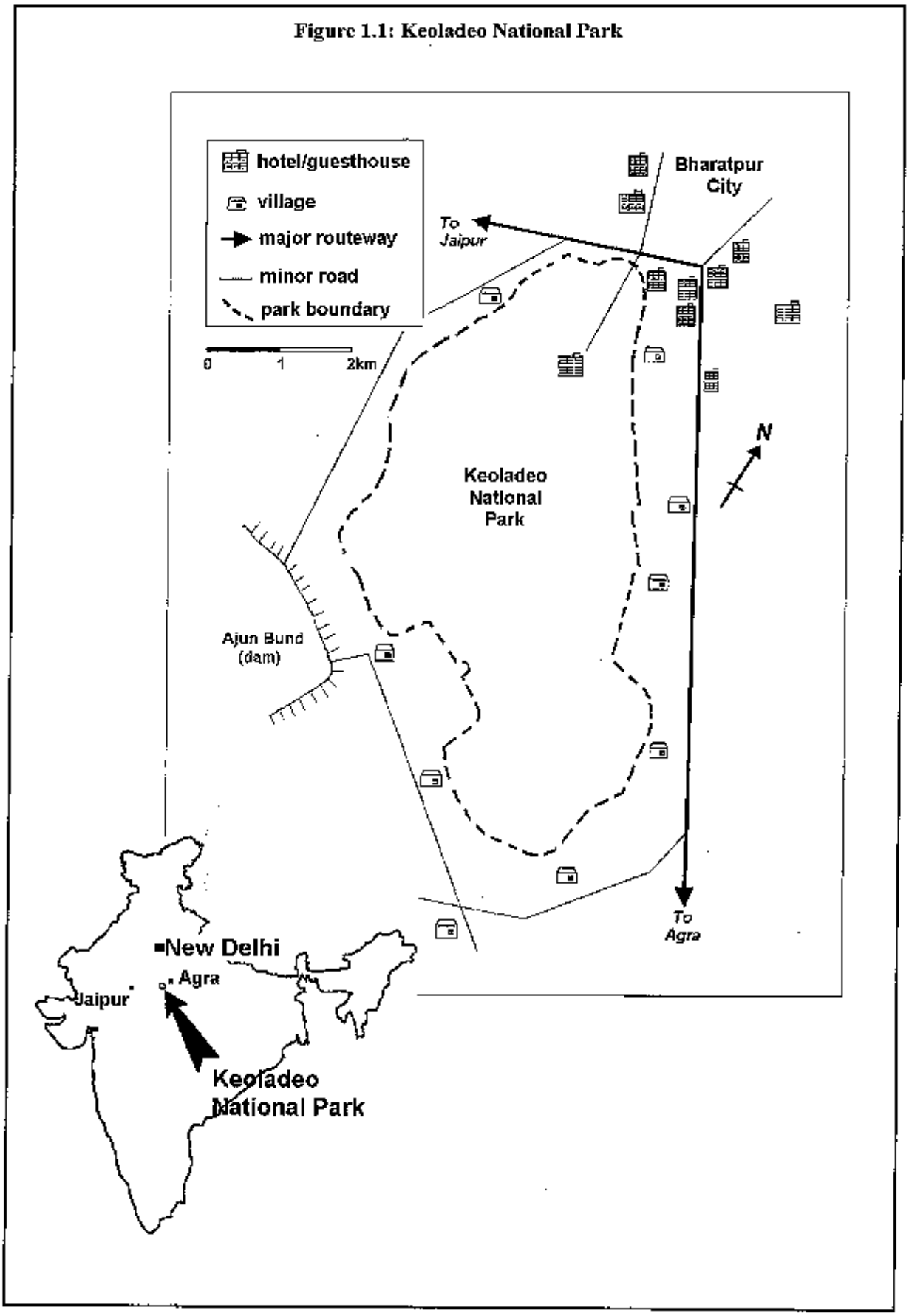
Altogether 282 species of flowering plants have been identified in the park, but the main attraction for tourists is the abundance of birdlife: over 364 species have been recorded. It is the major wintering ground of the western population of the endangered **Siberian Crane** *Grus leucogeranus*, an unrivalled breeding site for heron, stork and cormorant and an important wintering ground for large numbers of migrant duck.

From the 1850s and until 1972, the *Ghana* was a private wildfowl shooting preserve of the Maharaja of Bharatpur. It was designated as a bird sanctuary in 1956, and declared a protected forest in 1967. In 1981 the wetland was designated a Ramsar site and became a national park on 10 March 1982 under the 1972 Wildlife (Protection) Act. It was inscribed on the UNESCO World Heritage list in 1987 and is listed under IUCN Management Category II (National Park) and X (World Heritage Site).

Keoladeo NP lies on the southern edge of Bharatpur city, the district capital and a major commercial centre. The park itself is surrounded on its remaining three sides by 18 villages. Although there are considerable links between the urban and rural areas, the contrast between suburban Bharatpur and its agricultural hinterland is distinct.

Settlements to the south, east and west of the park are predominantly agricultural, with cattle and buffalo husbandry playing a large part in the rural economy. For most of the rural population, livelihoods are comprised of a combination of seasonal agricultural work, informal employment in Bharatpur city and periodic migration to urban centres throughout India. Incomes from these activities are supplemented in the household by a range of natural resources (fodder, woodfuel, non-timber forest produce etc.) collected from the park.

Figure 1.1: Keoladeo National Park



Box 1.2: Komodo National Park, Indonesia

Komodo National Park is located in the Lesser Sundas islands of Indonesia, in the province of East Nusa Tengarra. Lying in the Sape straits between Flores and Sumbawa, it comprises the three islands of Komodo, Rinca and Padar, and smaller surrounding islands, plus the straits between the main islands and all waters within 1000m of shore. The total area of the park is 173,000ha, of which 35 per cent is terrestrial and 65 per cent is marine.

The islands are generally rugged, with sheer cliffs, numerous small bays, inlets and coral reefs. The predominant vegetation type is open grass-woodland savannah, mainly of anthropogenic origin, which covers some 70 per cent of the islands. Tropical deciduous (monsoon) forest covers about 25 per cent of the islands and a quasi cloud forest occurs above 500m on pinnacles and ridges. Komodo NP is best known for the Komodo monitor *Varanus komodoensis*, known locally as *ora*. First known to Europeans in 1910, its total population was estimated in 1991 to be 5,700 individuals, although more recent surveys within the park suggest that it is unlikely that more than 3,000 exist in the wild. It is found only on the islands of Komodo, Rinca and Gili Motong and in certain coastal regions of western and northern Flores. The waters around the park have a high degree of oxygenation and nutrient richness, which together with intense sunlight has produced a rich coral reef system fringing the islands.

Before the first establishment of reserves on the islands the Komodo monitor was protected by the Sultan of Bima, and hunting prohibited. The islands of Padar and Rinca were established as nature reserves in 1938 and protection was extended in 1965 when Komodo Island was gazetted by ministerial decree. Komodo island was accepted as a biosphere reserve under the UNESCO Man and Biosphere Program in January 1977. The protected area achieved national park status in 1980 and was included in the UNESCO World Heritage list in 1992 (on the grounds of geological, archaeological, landscape and threatened species significance). It is currently designated as IUCN Category II (National Park) and IX (Biosphere Reserve).

Komodo NP lies on the border of two provinces: East Nusa Tengarra (NTT) and West Nusa Tengarra (NTB). There are rural communities in bordering districts on both sides of the park as well as a number of settlements within the park itself. The islands lie between two ports which act as gateways to the park; Labuan Bajo on the west coast of Flores and Sape on the east coast of Sumbawa. The language and social organisation of the Komodo islanders is sufficiently different from those of Sumbawa for the islanders to be considered a separate ethnic group, the Ata Komodo. These original inhabitants are now thought to comprise only 18 per cent of the population of the islands, with the rest composed of other groups such as Bajo and Buginese. The most important economic activity is fishing, and although fishing rights within the park are restricted to local people the waters contain many boats from outside the area. Species such as turtle and dolphin are also caught. An important staple is sago, although rice has become more important with more frequent contact with the market centres of Bima (Sumbawa) and Labuan Bajo (Flores). Garden crops are planted near the villages, and some woodland products, particularly tamarind, are collected.

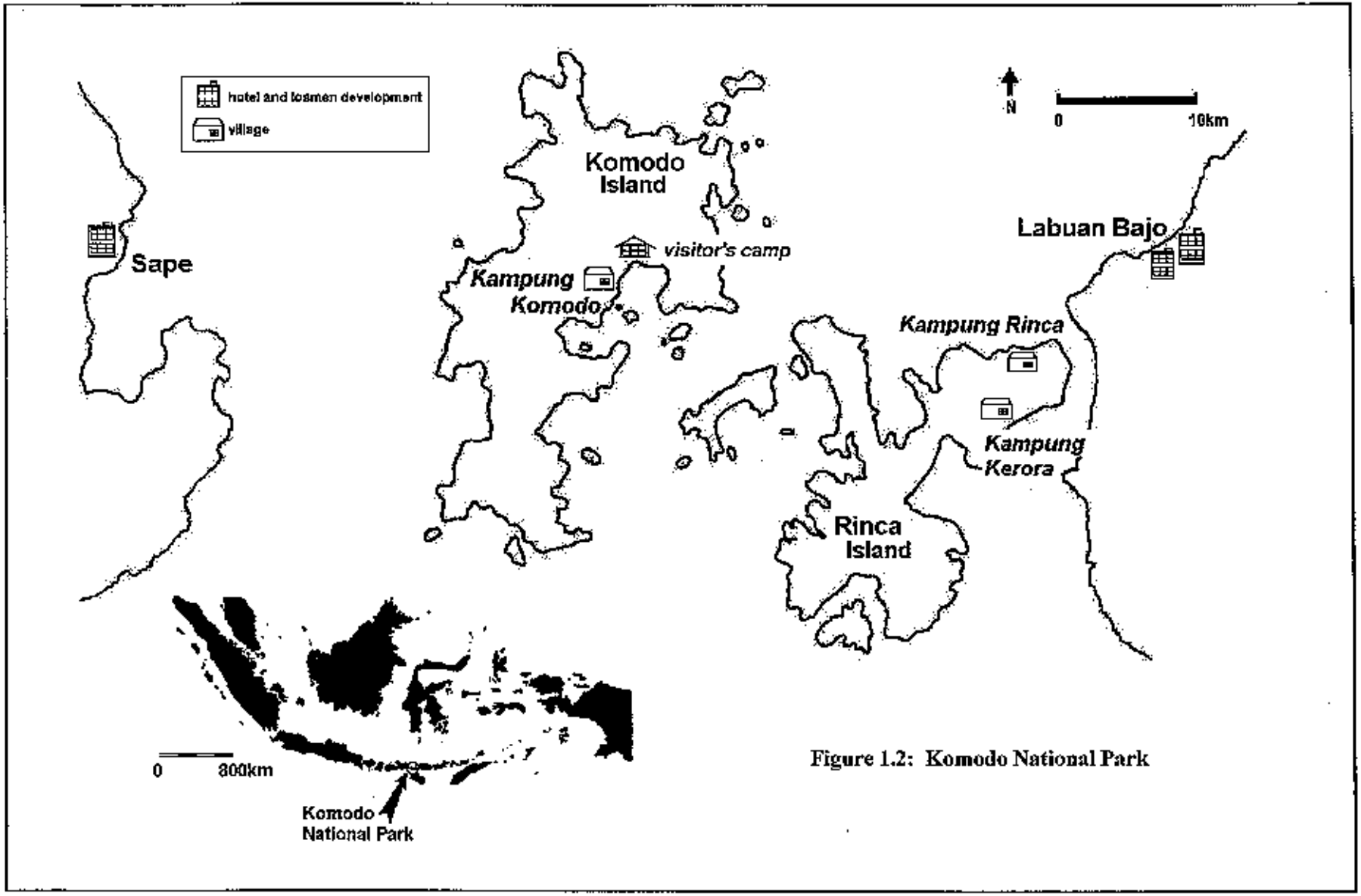


Figure 1.2: Komodo National Park

Box 1.3: Gonarezhou National Park, Zimbabwe

Zimbabwe's southeast lowveld is currently opening to international tourism, with a variety of public and private wildlife areas in development. These include a national park (Gonarezhou); a joint venture based on CAMPFIRE principles (Mahenye and Chilo Lodges); a charitable trust (Malilangwe); and three private conservancies (Bubiana, Chiredzi and Save Valley). The impacts and opportunities of wildlife tourism have been felt across the lowveld and a number of roadside handicraft stalls have located on the main access road to the region.

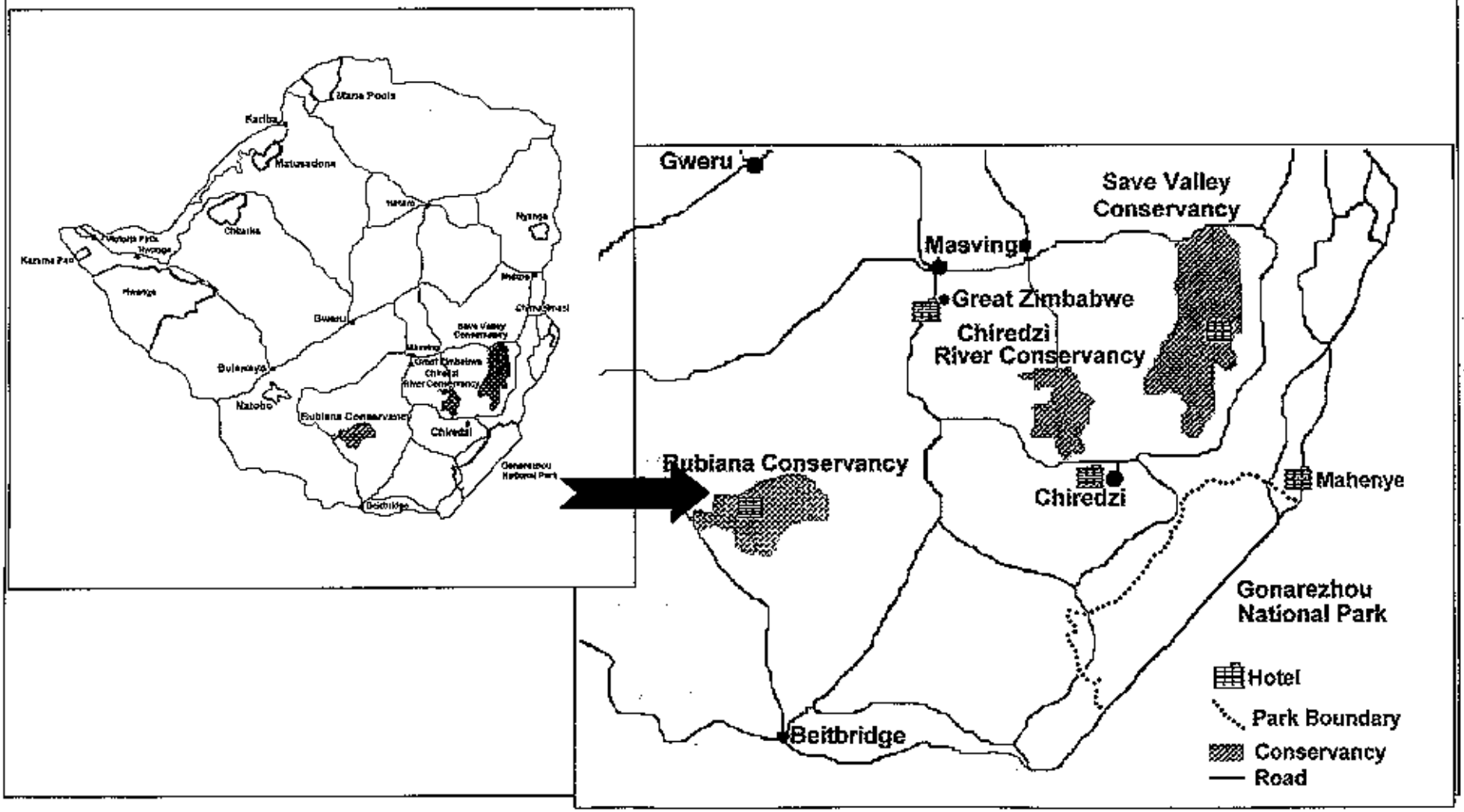
The south-east lowveld is dominated by semi-arid *Colophospermum mopane* savannah, with isolated patches of *Acacia-Combretum*. The climate of the region is characterised by high temperatures and low rainfall. A hot, wet summer season lasts from November to April when daily temperatures frequently exceed 40°C, reaching a peak in January and February. Annual rainfall is highly variable and although average figures are between 400-500 mm, the region received less than 150 mm during the drought of 1991/92. It is estimated that 1500 elephant, 620 hippo and 2700 buffalo died in Gonarezhou NP during the drought.

The area is very species rich; surveys from Gonarezhou NP alone show almost 1000 species of plant, 400 birds, 89 mammals, 104 reptiles and amphibians and 50 fish. Charismatic mammals include elephant, giraffe, zebra and hippo, together with populations of lion, leopard and cheetah. The elephant population has been regulated by illegal hunting and official culls; the last cull occurring in 1992 when over 300 animals were killed. In 1993, 670 live animals were sold by the park for translocation elsewhere. Several rare species have been re-introduced to the conservancies since their conversion from cattle ranching. Most significantly these include small populations of both black and white rhino.

With low and erratic rainfall, the south-east lowveld has some of the least productive land in Zimbabwe. Much of this is classified as Natural Region IV ('semi-extensive farming region') and V ('extensive farming region') and, according to the land surveys, suitable only for extensive cattle and game ranching. However, many of the Communal Lands surrounding the various game parks and private ranches have a relatively high population density. For example, Chingechuru Ward in the Mweza Hills, adjacent to Bubiana Conservancy, has a population density of more than 65 people per square kilometre. Livelihoods are largely based upon pastoralism, subsistence agriculture and migrant labour. The two major droughts since 1983 have had a major impact on cattle numbers, and the lack of draft power for cultivation has led to regional food shortages (Sparrow, 1994).

Gonarezhou NP has an area of 505,300 ha. It is situated on the Moçambique border and re-opened to foreign tourists in 1994. Mahenye and Chilo Lodges were built in 1994 and 1996 on Communal Land adjacent to the park, following an initiative between Zimbabwe Sun Ltd. and Chipinge Rural District Council.

FIGURE 1.3: MAP OF SOUTH-EAST LOWVELD, ZIMBABWE



2. MEETING THE TOURIST DEMAND

2.1 A Global Market

The World Tourism Organisation (WTO) recorded 594 million international tourist arrivals in 1996 (WTO, 1998b). While almost 70 per cent of international arrivals occur in OECD countries, visits to developing countries account for an increasing share of the global figure; 24.2 per cent of international arrivals in 1980 and 29.9 per cent in 1995 (WTO, 1996). The number of annual visits made by Europeans to developing countries rose by more than a third between 1992 and 1996. There are signs that both regional tourism (i.e. between adjacent countries) and domestic tourism are also growing in the South (Ghimire, 1997).

The prevailing image of the tourism industry is one of exponential growth, but tourism development proceeds unevenly as new markets develop and consumer tastes change. In the last two decades, many coastal resorts in the North have witnessed decline while visits to national parks and nature reserves have become increasingly popular. Between 1971 and 1994, the number of annual visits to US national parks almost doubled from 35 million to 62 million (Flint, 1998). Declining long haul travel costs, the popularity of wildlife television programmes and the ability of Northern travel businesses to promote visits to the South have made nature tourism in developing countries an attractive option. However, as the international market develops, local tourism industries are vulnerable to a range of national and global events that lie beyond the control of people at the local level. Keoladeo, Komodo and Gonarezhou National Parks are to some extent competing in the same international market. Local tourist economies are increasingly affected by global changes in consumer demand, in addition to developments in their own domestic markets. Despite the influence of the global market, each park continues to receive a different mix of tourists. The tourism industry is strongly demand-driven; regional, national, and international events have an important influence on development at the local level.

This chapter examines the pattern of tourist demand at Keoladeo, Komodo and Gonarezhou National Parks. Variables such as the rate of growth, the ratio of foreign to domestic tourists and the degree of seasonality have implications for both park management and local development as do the mode of transport used by visitors and the length of their stay. Analysis in this chapter is based largely on the entrance figures held by national park authorities,[1] and from field surveys conducted during the 1995/96 tourist season. Additional information is derived from surveys and interviews with tour operators.

2.2 Rate of Growth

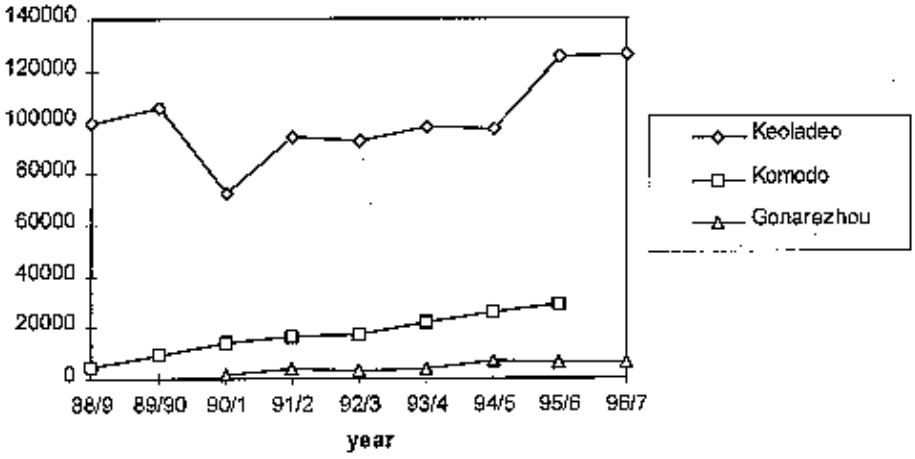
Keoladeo, Komodo and Gonarezhou National Parks all experienced a growth in tourist numbers during the early and mid-1990s (Figure 2.1). Between 1991 and 1995, annual growth rates were 7 per cent for Keoladeo NP, 15 per cent for Komodo NP and 10 per cent for Gonarezhou NP. Keoladeo NP is growing more slowly than the others, a reflection of its well-developed status and history of domestic tourism, which pre-dates the recent expansion of international travel. Keoladeo NP's location on the

1 Figures are based on the number of tourists passing through park entrances and do not take account of the length of visit. Whereas Keoladeo NP is primarily a day-trip experience, Gonarezhou NP offers varied possibilities for staying within the park. Keoladeo NP has several hotels close to the park and, as a result, there are many tourists who stay for several nights and make multiple visits to the bird reserve. Consequently, there are fewer tourist visitors to Bharatpur City (where Keoladeo NP is located) than immediately conveyed by the entrance figures.

tourist 'golden triangle' between Delhi, Agra and Jaipur, less than 200km from the Indian capital, also accounts for its popularity that existed long before it became a national park in 1982. In contrast, substantial growth in Komodo NP has occurred only in the last decade, even though national park status was conferred two years earlier than Keoladeo NP. This is largely a consequence of Indonesia's late entry into the international mass tourism market and the park's remote island location, some 400km from Bali and almost 1500km from Jakarta.

Figure 2.1: Annual Visits to Keoladeo, Komodo and Gonarezhou National Parks

(Keoladeo/Komodo Apr-Mar; Gonarezhou Jan-Dec)



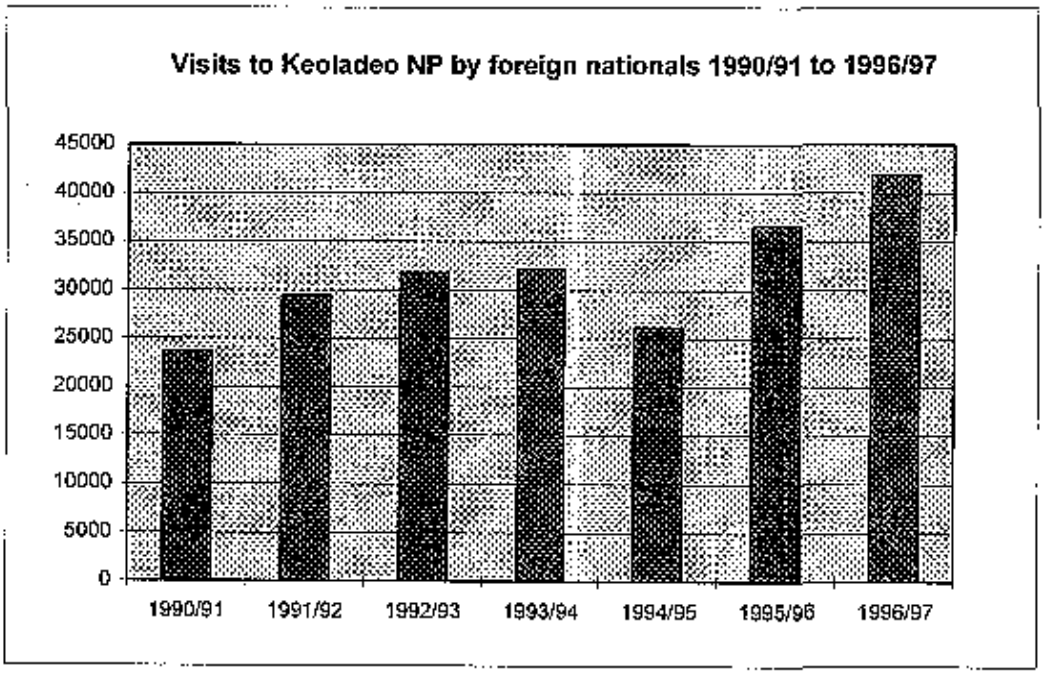
While the recent experience of tourism at Keoladeo, Komodo and Gonarezhou National Parks is broadly consistent with the general thesis of accelerated growth, it is also a testimony to less welcome impacts of globalisation. National, regional and international events, and their coverage by foreign media have an important part to play in the pattern of local tourism development, especially where foreign tourists make up a large contingent of the clientele.

During the 1990s, Keoladeo NP experienced uneven growth, largely as a consequence of international events (such as the Gulf War in 1991) and foreign media perceptions of the health and security risks of travelling in the Indian sub-continent (Box 2.1). An earthquake on the neighbouring island of Flores contributed to the slump in arrivals to Komodo NP during the first quarter of 1993. Tourism to the south-east lowveld in Zimbabwe has also been adversely affected by national and regional events, although its slow growth prior to the 1990s was also due to the industry's reliance on the traditional attractions of Victoria Falls, Hwange National Park, and Great Zimbabwe (Box 2.2). During the mid-1990s, a number of private initiatives were developed for international tourism in the south-east lowveld as commercial farmers abandoned cattle ranching (Chapter 3, Box 3.6).

Box 2.1: Tourist arrivals to India in the early 1990s - a period of instability

Foreign visits to Keoladeo NP during the early and mid-1990s were vulnerable to a number of events beyond the control of the local industry. In 1990 and 1991, the Gulf War, the crash of an Indian Airline A329 and student demonstrations all contributed to a downturn in tourist arrivals. Civil unrest in Punjab and Kashmir also contributed to the fall in international arrivals with the latter closing to foreign tourists in 1991. Sporadic communal violence in 1992/93 added to the climate of uncertainty. At the same time, one of the biggest tour operators in the UK, Thomson Tours, scrapped a package it had drawn up to send 30,000 additional tourists to India.

In the autumn and winter of 1994 the Indian tourism industry was hit by a small, but widely publicised outbreak of pneumonic plague in Surat on the north-west coast. In addition, the publicity surrounding incidents of cerebral malaria and the kidnapping of five foreign tourists in Kashmir severely affected international arrivals. The Department of Tourism reported a 26.8 per cent loss in foreign exchange earnings from the downturn in tourist arrivals during October 1994 alone (GOI, 1995). Hotel proprietors situated around Keoladeo NP reported that foreign tourist numbers had fallen by 40 - 50 per cent. Visits by independent travellers were affected less than those of package tourists and not all hotels felt the same impact; only 3 of 16 hotels covered by survey remarked that employees had been laid off. However, many local rickshaw pullers working within the park, whose incomes depend largely upon the visits of package tourists were unable to maintain a living. The effect of the 'Surat Plague' in 1994/95 on the number of visits entrances to Keoladeo NP is illustrated below.



Box 2.2: Visits to Gonarezhou NP - the impact of regional instability

The Zimbabwean tourist industry, which is largely based on the Parks and Wildlife Estate[2], was greatly affected by the national political turmoil in the 1970s and 1980s. Most of Zimbabwe's tourism is located in the north of the country: Hwange National Park, Victoria Falls, Lake Kariba and the middle Zambezi River. Foreign visits to the attractions of the south-east lowveld are dominated by regional tourists from South Africa. Tourism in Gonarezhou NP grew steadily between 1968 and 1975. Following independence in 1980, the number of domestic visitors to the parks estate fell as white settlers left the country (McIvor, 1994). The struggle for independence resulted in the closure of the park between 1976 and 1982, and incursions by Moçambiquean guerrillas forced another closure between 1988 and 1989. With the resolution of this conflict in 1990 it was opened for domestic tourism and in 1991 to tourists from Southern African Development Community (SADC) countries. The end of apartheid rule in South Africa led to a recovery of the regional and national industry during the 1990s and Gonarezhou NP reopened to overseas tourists in 1994. Geographical remoteness, poor park roads, drought, military conflict and regular closures have all contributed to the relative lack of development of the Gonarezhou NP, and also to its attraction as a 'wilderness' area.

2.3 Comparison with National Growth Rates

Despite increasing stability in the Zimbabwean tourist industry since the early 1990s, Gonarezhou NP has not been as successful in attracting visitors as has the country as a whole, and entrances to the park show a greater volatility than national trends (Figure 2.2a). In contrast, the numbers of visitors to Keoladeo NP and Komodo NP have kept pace with national rates of growth in India and Indonesia (Figures 2.2b and 2.2c). Between 1990 and 1995, annual growth rates for foreign arrivals were: India - 6.0 per cent; Indonesia - 14.7 per cent; and Zimbabwe - 16.0 per cent. The total number of foreign arrivals in 1995 stood at 1.8, 4.3 and 1.3 million respectively. The rates of growth for foreign arrivals to Indonesia and Zimbabwe are similar, with about a doubling in visitors over the five-year period. India has shown a steady growth since 1991, but at a lower percentage rate than the other two countries, a reflection of both national problems and increasing competition from the emerging destinations of South-East Asia and Southern Africa.

2.4 Seasonal Visitor Patterns

Tourism is highly seasonal, driven by climatic conditions in both the tourist originating and destination countries, and the timing of festivals and vacations. This has significant implications for both the employment of labour and the management of visitors. Figure 2.3 shows the seasonal variation in visits to Keoladeo NP, Komodo NP and Gonarezhou NP. Visits to Komodo NP and Gonarezhou NP show a strong peak in August, largely explained by holiday patterns of foreign tourists and reinforced in the case of Gonarezhou NP by the local climate. In Keoladeo NP, local conditions are much more influential (with the impact of the European August holiday season barely evident). Diurnal temperatures on the plains of Northern India regularly reach more than 45°C between May and June,

[2] Comprising of 11 National Parks, 16 Safari Areas, 6 Sanctuaries and 15 botanical gardens, which together constitute some 5 million hectares, or 13.1 per cent of the country.

Figure 2.2a: Annual visitors to Gonarezhou NP, compared with annual visitors to Zimbabwe

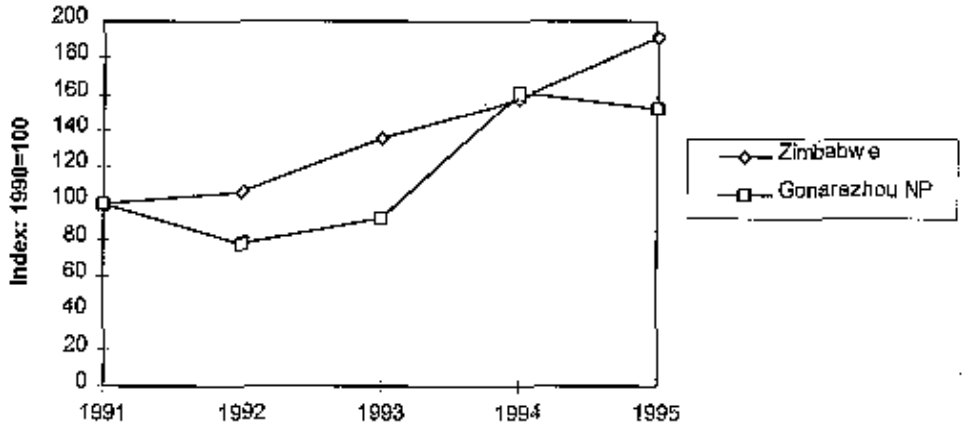


Figure 2.2b: Annual visitors to Keoladeo NP, compared with annual visitors to India

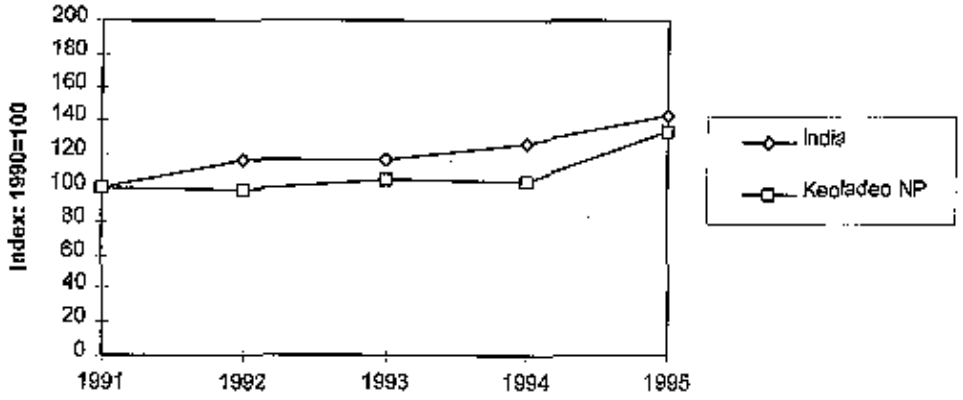
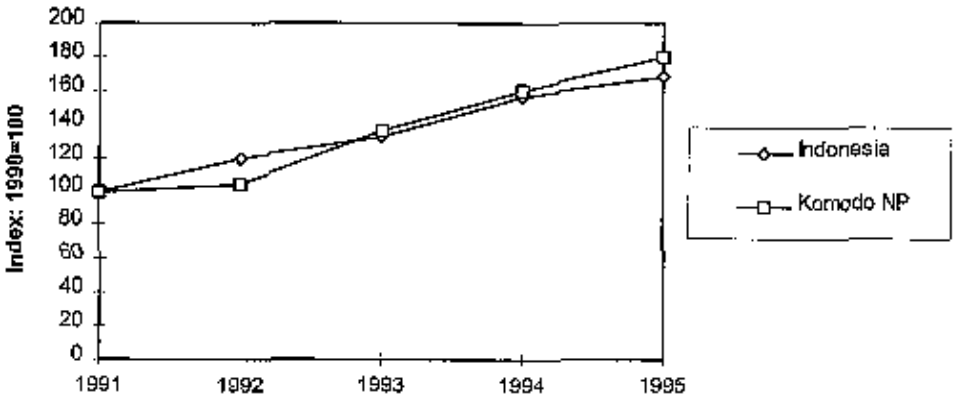
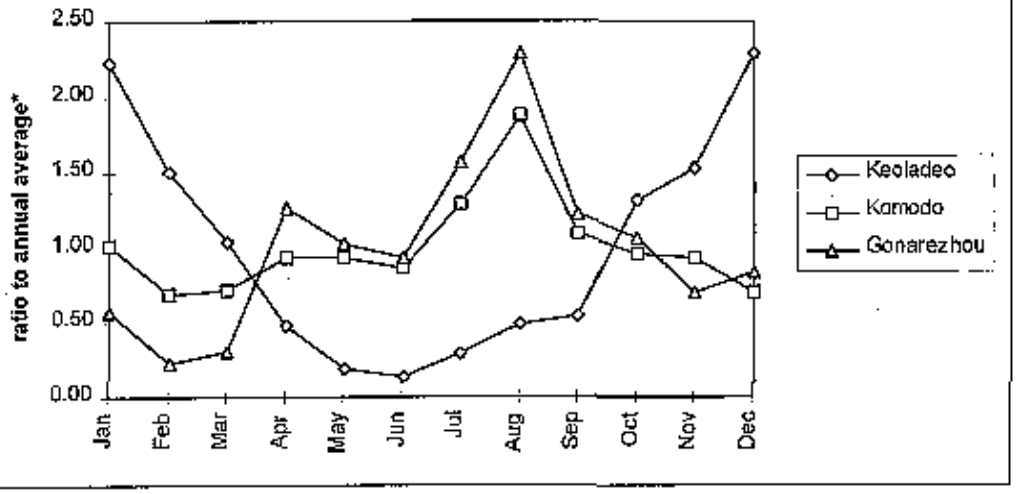


Figure 2.2c: Annual visitors to Komodo NP, compared with annual visitors to Indonesia



while monsoon rains begin in late June and continue until September. Climate also has a strong influence on the ecology of the park (Chapter 1, Box 1.1), with the greatest number of migratory birds, and hence tourists, arriving during the cooler months which coincide with the Christmas holiday season.

Figure 2.3: Comparison of seasonal visitor patterns



Note: Figures represent the ratio of visitor numbers in any particular month to the monthly visitor numbers averaged over a complete year, based on data from 1990-1995.[3]

2.5 Foreign and Domestic Ratios

The relative local impact of foreign and domestic tourism remains a neglected topic of empirical research. Ghimire (1997), suggests that domestic tourism may be less susceptible to international political crisis and economic recession, allowing a higher degree of autonomy. Depending on the relative influence of local and metropolitan elites (both as investors and visitors), domestic tourism in rural areas may also make a greater use of local labour and materials, thereby minimising the leakage of profits associated with tourism development (Chapter 3).

Domestic tourism certainly diversifies risk, and the relatively consistent number of domestic visitors to Keoladeo NP prevented a collapse of the local industry following the 'Surat Plague' in 1994. In 1995/96, domestic tourists made up 70 per cent of all entrances to the park (Figure 2.4). Neither Gonarezhou NP nor Komodo NP benefit from the same degree of diversification, with arrivals to Komodo NP dominated by foreigners who make up over 90 per cent of visits to the island. Reasons for the contrast between Keoladeo NP and Komodo NP in this regard are both geographical and cultural. Keoladeo NP's position on the edge of the city of Bharatpur, with its many transport links, makes it easily accessible to a large number of both resident and visiting domestic tourists. Domestic tourism also has a long history in India as a whole, with annual figures far exceeding those of foreign tourism. The increasing domination of visitor arrivals by foreign tourists in Komodo NP (domestic visitor numbers have remained static) reflects the active promotion of tourism to foreign markets in the late

[3] The seasonal factors were calculated using seasonal decomposition based on a multiplicative, centred moving average model (Anderson *et al*, 1989).

1980s, as well as improvements in transport services east of Bali. However, a trip to Komodo island requires a full day of sea travel, and despite new trans-Indonesian road networks it remains distant from the major domestic markets in Java.

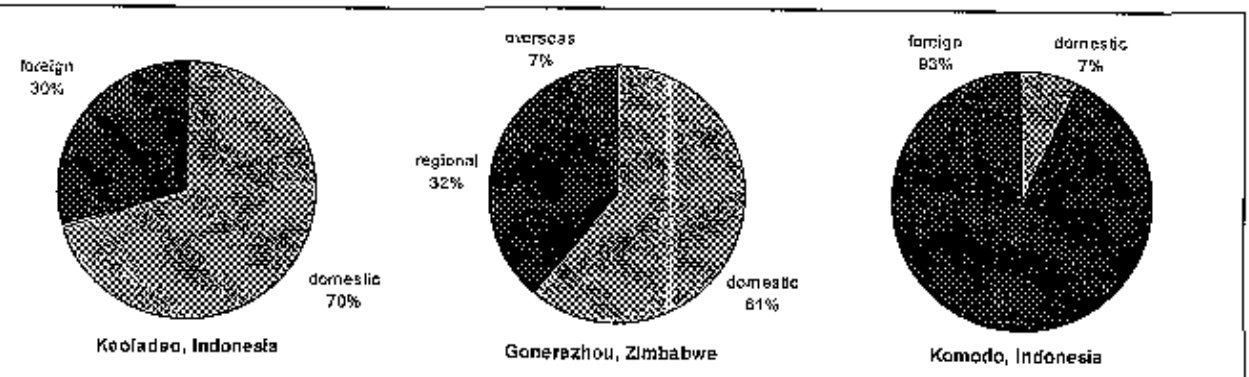


Figure 2.4: Domestic and foreign visitors to Keoladeo, Gonarezhou and Komodo National Parks - 1995/96

*Foreign visitors to Gonarezhou NP are further categorised as regional tourists (95 per cent from South Africa) and overseas tourists (from outside the African continent)

2.6 The Characteristics of Foreign Tourists

Tourism consists of a vast array of services, the magnitude of which cannot be accounted for by aggregate arrival or entrance figures alone. Individual tourists travelling to the same location exhibit different preferences, expectations and spending patterns, affecting the numerous businesses, institutions and individuals which make up the 'host community' in different ways. This report is primarily concerned with the impacts of nature tourism on local economies (Chapter 3), protected area revenues (Chapter 4) and environments (Chapter 5). The characteristics of tourists which have particular relevance to these concerns include the mode of tourist arrival (which may allow or prevent access to the local economy) and the length of stay (since longer stays permit a higher local spend).

2.6.1 *Mode of tourist arrival*

Geographical accessibility plays a large part in the transport options available to tourists visiting Keoladeo NP, Komodo NP and Gonarezhou NP. Keoladeo NP is situated only 5km from the main railway line between Delhi and Bombay, with the main Agra-Jaipur trunk road also running close to the park (Box 2.3). The road to the deserted city of Fatephur Sikri, itself a popular site with tourists runs alongside Keoladeo NP itself. In contrast, all visitors to Komodo NP must arrive by boat (Box 2.4). Gonarezhou NP lies in one of Zimbabwe's most remote regions, some 600km by road from Harare. Located in the extreme south-east of the country, access is possible from Chiredzi, on the road from Harare; from Chipinge in the eastern highlands, and from South Africa via the gravel road from Beitbridge on the border.

Research at Keoladeo NP and Komodo NP suggest a relationship between the mode of transport used by visitors, the length of visit, and the organisation of the trip (package or non-package). These variables have implications for visitor spending patterns, and hence the level of contribution to the local economy (Chapter 3).

Box 2.3: Transport to Keoladeo NP

A number of transport options are open to visitors to Keoladeo NP. The park lies on the edge of Bharatpur city, which has direct road and rail links to Delhi, Agra, Jaipur and Bombay. Visitors arriving by bus and rail are obliged to take local transport across the city in order to reach Keoladeo NP and the hotels which lie close by. In contrast, coaches and private cars are able to reach the entrance of Keoladeo NP directly and may also drive as far as the Forest Lodge hotel inside, thereby bypassing informal traders in Bharatpur city and at the park entrance. The results of a questionnaire administered to over 800 foreign visitors during the 1995/96 season suggest a close association between the way in which travellers organise their visit and the mode of arrival. 80 per cent of package tourists arrive by coach, and have little interaction with the city. Non-package visitors who describe themselves as 'independent' tourists arrive by private car or rail, and those calling themselves 'backpackers' use more public transport than any other category. As a result of their chosen mode of transport, both 'backpackers' and 'independent' tourists have a much greater opportunity to interact with the informal tourism economy of small traders selling snacks and souvenirs (Chapter 3).

During the high season, up to 70 per cent of all foreign visitors to Keoladeo NP are package tourists, which suggests that on the whole, tourists have little contact with local businesses in either Bharatpur city or at the main entrance to the park. However, package tourists are more likely to use locally-owned transport while touring the park. According to the survey, 81 per cent of package tourists hire the services of cycle rickshaw owners compared with 38 per cent of 'independent' tourists and only '23 per cent of 'backpackers'.

Box 2.4: Transport to Komodo NP

There are three means of transport to Komodo island: the local government-run ferry that travels between Sape and Labuan Bajo; chartered boats (which offer either a round trip from Sape or Labuan Bajo or a passage between Lombok and Labuan Bajo); and cruise ships from further afield, usually Bali. The mode of transport used by tourists has important implications for local income opportunities. Those using the ferry to visit Komodo NP generally stay the longest on the island, (99 per cent stay overnight) while cruise ship passengers make short visits since accommodation is provided on board as part of a package (none stay overnight). During 1995/96, 19.5 per cent of visitors to Komodo Island used the government ferry, 31 per cent of visitors used charter boats, and 48.7 per cent travelled to the island by cruise ship.

2.6.2 *Length of stay*

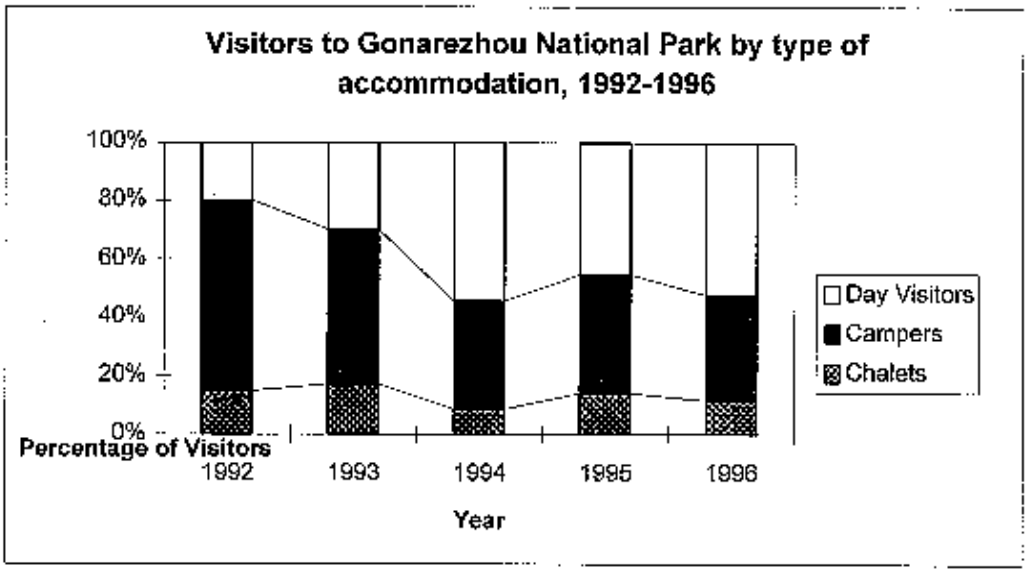
With improvements in transport infrastructure it is increasingly possible for tour operators to include day visits to national parks and nature reserves into tourist itineraries rather than overnight stays. Throughout the early 1990s, the proportion of visitors making short day trips to the national parks included within this study increased with fewer visitors staying overnight. Visitors who make extended visits are more likely to increase their local spend so this will inevitably have an impact on the local economy.

The position of Keoladeo NP on the main route between Agra and Jaipur, has made it a popular lunch stop for tourists travelling between the two cities. Recent high volume/low cost package holidays to Agra have also offered Keoladeo NP as an optional day trip, and the majority of foreign visitors now

stay for just a few hours. Similarly in Komodo NP, a rise in the number of cruise ship passengers visiting the island has led to an annual decline in the number of visitors staying overnight. Between April 1995 and March 1996, 24.5 per cent of visitors stayed overnight on Komodo Island, compared to 36.7 per cent in 1993/94. The number of visitors staying overnight also fell in real terms from 6,834 in 1993/94 to 5,915 in 1995/96, with a further fall reported for the beginning of the 1996/97 season. There were similar trends in the nature of visits to Gonarezhou NP between 1992 and 1996 (Box 2.5).

Box 2.5: Day visits to Gonarezhou NP

Visitors to Gonarezhou NP have the option of a single day entry or overnight stay. Campsites are available near both of the main entrances to the park (Chipinda Pools and Mabalauta), while chalet accommodation is only available near Mabalauta. Between 1992 and 1996, the proportion of visitors using chalets stayed fairly constant, while the proportion of day visitors increased and the that of campers decreased. In 1992, almost all visitors stayed overnight, but by 1996, 15 per cent were day visitors.



2.7 The Role of Tour Operators

Tour operators have a major role in presenting destinations to tourists and can have a decisive influence on the volume of traffic at a particular site. The marketing of each of these destinations is carried out in the metropolitan centres of the host country and overseas; both remote from the national parks themselves. For Keoladeo NP most of the domestic operators are based in Delhi, Agra or Jaipur; for Komodo NP they are largely based in Bali. Few have detailed knowledge of the parks or any significant commitment to the parks and their environs. In Indonesia and India the major domestic tour operators do not own accommodation or transport which is committed to the parks. In contrast, lodge owners in the Zimbabwean lowveld have fixed investments in the area and the commercial viability of their businesses is dependent upon marketing the lowveld and wildlife assets. However, they continue to be dependent upon marketing by a limited number of international operators (Box 2.6). UK operators that feature the three parks were surveyed, the average volume of their total business represented by each the three countries was under 20 per cent (Jordan, 1996)

Box 2.6: Market concentration in Zimbabwe

Decisions about the development of the industry locally and its linkages into the international market are not made locally. Local tourism industries do not have direct relationships with the international market. In 1993, the Zimbabwe Association of Tour and Safari Operators (ZATSO) wrote to the Department of National Parks and Wild Life Management expressing concern that the bulk of international tourists were handled and controlled by two international companies. This dependence upon a limited number of companies in the international marketplace exacerbates the vulnerability of a local tourism industry to changes in the international market.

UK tour operators place less emphasis on social, cultural and historical aspects of Zimbabwe than does the National Tourist Office An analysis of tourist brochures reveals that operators continue to highlight the 'Big Five' game animals and the quality of facilities (Pirie, 1996). Gonarezhou NP is not promoted because of it is considered a remote location, with a (erroneous) reputation for poor wildlife viewing, and most importantly because it is not well known. 52 per cent of tour operators contacted by survey agreed that they lacked sufficient information about the park. UK tour operators prefer to market destinations that are both established and accessible.

Tour operators, tourists and the local industry may have very different ideas about how a destination should be developed and marketed. Landscape, wildlife and culture rank as the top three motivations for travel amongst international tourists interviewed in all three parks (Table 2.1). Markets and shopping are least important in all three samples. 66 per cent of respondents at Gonarezhou NP reported wildlife as their most important reason for travel.. At Keoladeo wildlife is second to culture with 30 per cent of respondents rating wildlife as their primary motivation for travel. At Komodo wildlife is ranked third, with only 7.4 per cent of respondents rating it as their most important reason for travel. However, the mean scores for all three of the top ranked motivations are very similar and at the top of the scale. These interviews were conducted inside the national parks and it is likely that these respondents attach greater importance to wildlife than would be found in the general population of tourists to the destination countries.

	Visitors to Gonarezhou NP			Visitors to Keoladeo NP			Visitors to Komodo NP		
Landscape	2	20%	*4.5*	3		*3.9*	1	19%	*4.5*
Wildlife	1	66%	*4.8*	2	30%	*4.1*	3	7%	*4.1*
Culture	3	9%	*3.7*	1	45%	*4.3*	2	57%	*4.4*
History & Archaeology	4		*3.3*	5		*3.7*	6		*3.2*
Art & Architecture	5		*2.5*	4		*3.8*	5		*3.3*
Marine	-		-	6		*2.7*	4	7%	*3.8*
Markets and Shopping	6		*2.5*	7		*2.6*	7		*2.7*

Table 2.1 Foreign tourists' motivation for travel

Note: scores are ranked by % rating visit to national park "most important"; average scores on a 1 to 5 scale in italics

2.7 Conclusions

The decisions that determine the volume and character of tourism to national parks are not made locally. All three parks are, in different ways, characterised by being at the periphery of the centres of tourism organisation and control. This is true of both their international and domestic markets. Komodo

NP is either a side-trip from Bali or a stop-over on the overland route east. Keoladeo NP Cater and Lowman (1994):is a lunch stop or stopover on the road between the major tourist centres of Agra and Jaipur. The lowveld is marginal, struggling to establish itself as a destination beyond Great Zimbabwe. National parks and their dependent local industries remain isolated from the international market, receiving tourists but not understanding or playing any part in controlling the terms on which, and the processes by which, they arrive.

The growth of foreign tourism to the three countries is striking. The annual rates of growth of 15-16 per cent for Indonesia and Zimbabwe imply a doubling period of just under five years. The less spectacular growth rate of 6 per cent per year in India will still result in a doubling of visitors every twelve years. Whether such rates will be sustained is open to question, but the decreasing costs of long-haul travel and the increased accessibility of locations previously considered remote are established trends. As parks and the local economy adapt to incorporate tourism as a significant source of income, their dependency on the international tourism market increases. The international tourism market is a competitive and volatile one, and parks and local tourism economies are becoming more vulnerable to the loss of confidence by tour operators and individual travellers.

3. MAXIMISING HOST BENEFITS

3.1 Tourism and Development

The rapid development of tourism infrastructure in the areas bordering Keoladeo, Komodo and Gonarezhou National Parks is a response to new market opportunities brought about by the growth in demand for nature tourism. At the end of 1996, there were 18 hotels and guesthouses within 2 km of the entrance to Keoladeo NP. The coastal towns of Sape and Labuan Bajo, points of departure for sea passage to Komodo Island, contained 16 hotels and losmen (Indonesian guesthouses) receiving foreign tourists. Two safari lodges had been built by Zimbabwe's leading hotel chain close to the eastern entrance to Gonarezhou NP. Numerous restaurants, shops and local transport services were in operation at the two Asian sites, gaining a substantial proportion of their revenue from tourists visiting the national parks. New local economic strategies based upon tourism have presented many income and employment opportunities, but not all of these accrue to the populations living adjacent to national parks. Nature tourism has the potential to bring significant revenues to rural areas, but a number of factors prevent the host populations from maximising these benefits.

At the national level, tourism has emerged as a significant component of export-oriented development programmes in many countries of the South. As a 'non-traditional' export in rural areas, the development of international tourism is consistent with the neo-liberal strategies of economic adjustment, which are apparent in all three countries covered by this study. Advocates of tourism suggest that the industry has greater market stability than traditional commodity exports, and an ability to contribute significantly to foreign exchange (Eadington and Redman, 1991). The contribution of tourism to Zimbabwe's GDP was estimated at 5 per cent in 1992, with 2.6 per cent being attributed to international tourism receipts, amounting to 7 per cent of exports (EXA/CHL, 1993). The employment and infrastructural benefits of tourism have also led governments to promote tourism as a regional, as well as a national development tool.[1] During the 1990s, the growth in international tourist arrivals has been accompanied by increasing liberalisation and marketing of the industry overseas; 1991 was promoted as both 'Visit India' and 'Visit Indonesia' year.

However, tourism has also been criticised for perpetuating external dependency and reinforcing regional and international inequality (Britton, 1982; Brohman, 1996, Krippendorf, 1987; Pleumaron, 1994). This criticism is directed at processes of development which exhibit a dominance of external capital, a lack of adequate links with other sectors of the national economy and therefore a substantial leakage of profits. Debates concerning the economic merit of tourism invariably revolve around the relative magnitude of multiplier effects (whereby direct revenues from tourism spending induce subsequent rounds of economic activity) and the leakage of revenues (through non-local ownership and the import of foreign goods). These processes are repeated at the local scale, and have a particular resonance for debates concerning the role of nature tourism in rural development.

[1] The Government of India's Seventh Year Plan set targets to raise annual arrivals by 7 per cent each year on the basis that tourism 'promotes national integration and international understanding, creates employment opportunities and augments foreign exchange earnings' (Government of India, 1985). In 1988, the National Committee on Tourism added that 'anti-poverty and area development programmes should be integrated with tourism development in those areas which have high tourism potential. This will provide the local people with tangible assets and also supplement their income.' (Government of India Planning Commission, 1988)

3.2 Nature tourism, Local Development and Protected Areas

By presenting income, employment and infrastructural benefits for rural populations, nature tourism is frequently presented as a mechanism with the potential to offset the local opportunity cost of protected areas (Boo, 1992; Goodwin, 1996; Lindberg and Enriquez, 1994). National parks are under increasing pressure to provide an economic justification for their existence (Balakrishnan and Ndhlovu, 1992; McShane, 1990; Makombe, 1994) and tourism is frequently the only economic activity to be sanctioned by park authorities.

The logic of ecotourism suggests that political support for conservation is best generated where protected areas demonstrate a tangible economic benefit to local populations. Where people gain more from the use of, for example, a coral reef or wild animals through tourism, they are likely to protect their asset and may invest further resources into it (Goodwin, 1996). However, the central questions remain: what does tourism have to offer rural populations? Is tourism able to demonstrate any substantial contribution to local development? While there are certainly significant economic and employment opportunities to be gained, the magnitude and distribution of these benefits can not be assumed.

Despite its rural location, nature tourism retains an urban bias. There are many examples from the three case studies in this research, which demonstrate the leakage of tourism revenue, either to urban or extra-local interests. However, in the absence of alternative sources of livelihood from protected areas, the tourism industry is making an increasing contribution to the local economy. This chapter considers the magnitude and spatial distribution of income and employment from tourism at each of the research sites, and the extent to which these 'leak' from and 'bypass' rural economies.

3.3 The Scope of this Chapter

This chapter draws upon surveys and interviews with tourists, suppliers of goods and services, and members of local populations at Keoladeo, Komodo and Gonarezhou National Parks. At each site, the research followed three principal avenues of enquiry, and these form the central theme of this chapter:

1. What is the size, location and form of the local tourism economy?
2. What is the magnitude of local employment generation?
3. To what extent do the benefits of employment and revenue from tourism accrue to local populations?

An assessment of the opportunity costs of nature tourism, and those of protected areas themselves is beyond the scope of this report. The analysis is principally concerned with the direct income and employment benefits of tourism. This chapter does not provide estimates for the 'multiplier effect', but identifies the magnitude of tourist spending within the local economy and the number of jobs which are directly dependent on tourism. The degree to which local populations participate in the tourism economy is a function of their access to the particular skills, capital, and landholdings that the industry demands. A number of factors are important. First, the location of tourism infrastructure itself, often directed by existing transport networks and capital, but also by the type of tourism marketed at each site. Second the range and number of employment opportunities available within the industry. Third, the ownership of land and capital. Fourth, the extent to which external interests (such as metropolitan tour operators) are able to integrate tourist services and bypass local businesses, often through the use of a particular mode of transport.

Although nature tourism is not synonymous with protected areas, it is important to place the emergence of local industries within the context of national park development. Although this report does not seek

to address the many conflicts between people and parks, for the populations involved, these are inextricably bound with tourism. If tourism is to make any adequate recompense for setting areas aside for conservation, it is for these communities, disenfranchised by the creation of national parks, that income and employment benefits will have to be generated.

3.4 Keoladeo, Komodo and Gonarezhou National Parks: The Emergence of Tourism

Each of the national parks included in this study has undergone a substantial economic transformation as a result of protected area legislation. At all three sites, the development of a local tourism industry is a relatively recent phenomenon. Hotel construction at the gateways to Komodo, Keoladeo, and Gonarezhou National Parks has largely taken place within the last decade. In this respect the growth of tourism is but one event in a long history of changing economic relationships between the rural populations and the local environment. In all three locations, tourism has emerged as the principal activity associated with protected areas, while alternative economies based on the extraction of natural resources have declined. The livelihoods of the Shangaan of Mahenye and the Gujjars of Bharatpur were severely disrupted by the creation of Gonarezhou and Keoladeo National Parks (Boxes 3.1 and 3.2), and it is these communities that have borne the cost of protected area legislation. The villages of Kampung Komodo, Kampung Rinca, and Kampung Kerora have retained fishing rights in the marine areas of Komodo NP, but have no rights, other than those of access, in terrestrial areas.

3.5 The Location of Tourism Development

Tourism infrastructure has developed to a different degree at each site. Situated on the one of the most heavily visited tourist trails in Asia, Keoladeo NP has a relatively well established tourism economy. Komodo NP lies on the principal backpacker route through Indonesia, but its island location makes access difficult and it is remote from the major attractions of Bali and Lombok. The southeast lowveld of Zimbabwe is yet to be fully established as a tourist attraction and the infrastructure at Gonarezhou NP remains largely undeveloped.

At Komodo NP, the location of tourism development has been strongly influenced by the arterial route that forms the main link for the Indonesian archipelago. Komodo Island's marine location has prevented infrastructural development in the immediate vicinity of the national park. Hotels and restaurants catering for visitors to Komodo NP have been built at the ports of Sape and Labuan Bajo on the adjacent islands of Sumbawa and Flores (Figure 3.1). Both are situated on the trans-Indonesian highway and are traditional gateways to Komodo island. The most rapid development has taken place at Labuan Bajo which is well connected with an airstrip, ferry terminal and a harbour for large vessels. In contrast, the settlement of Kampung Komodo has no formal tourist industry, and tourism-related income opportunities are limited to the provision of a shuttle boat service and the production of wooden dragon carvings (Box 3.3).

At Keoladeo NP, infrastructural development has taken place on the edge of Bharatpur city, and adjacent to the junction between the roads from Agra and Jaipur. When Keoladeo was designated as a national park in 1982, the arterial link running through the wetland between Bharatpur city and the rural areas was closed. In 1971, there were only four places for tourists to stay in Bharatpur (Sehegal, 1971) but by the late 1980s, hotel building had begun in earnest on the 1km stretch between the edge of Bharatpur city and the entrance to the park. Park authorities expressed concern at the loss of greenbelt land, suggesting that 'restrictions should be put on unauthorised urbanisation in the proximity of the National Park' (Rajasthan Department of Wildlife, 1991). Hotel development continued - during the course of this research four additional hotels were constructed on the narrow strip of land on the northern side of the park. Tourism development has been entirely absent from the rural areas, which lie

Box 3.1: Changing land-use in Keoladeo National Park

The system of dykes and jheels which irrigate Keoladeo NP were developed in 1899 to provide a private duck shoot for the local Maharajah. The wetland also served to protect Bharatpur city from floods, and provided a perennial grazing area for the local population. Lord Curzon opened the hunting area in 1902 and portions of the surrounding forest were soon cleared for settlement. Many resources were extracted from the wetland including honey, gum, *zizyphus* berries, and other minor forest products. Local industries were established to procure charcoal from acacia trees and perfume distilled from Khus grass (*Vetiveria zizanoides*). Cattle rearing became a major economic function of the *Ghana*.[2] and former transhumant cattle herders, known as *Gujjars* settled around the margins.

Towards the end of the British period, colonial administrators began to express concern at the rate of extraction from the wetland and surrounding forest. The Janglat and Shikar Department began planting *Acacia nilotica*, and a visit by a retired district forest officer in 1941 made the following recommendations:

> 'No goats and camels must be permitted inside the Ghana. In the area not regenerated and in regenerations over five years old, grazing of cattle may be permitted but in restricted scale. Grazing will have to be permitted only on a 'rotational system'... If grazing is allowed all over the area without any rest, grass will not grow and will deteriorate' (Pillai, 1941).

By the 1940s, a wire fence had been built around the wetland in order to prevent wildlife from raiding crops. Following Independence, pressures for land reform and threat of a diversion of water for irrigation purposes, led the Maharajah to relinquish control of his hunting grounds to the State Forest Department.

An IUCN delegation to Keoladeo in 1966 also recommended that grazing should be controlled, and facilities built for tourists (Scott, 1966). A report the following year lamented the disturbance to wild animals caused by villagers 'gathering berries, cutting and removing grass, collecting and drying water plants for livestock feed, collecting firewood, making charcoal, and so forth' (Spillet *et al,* 1967). The authors also suggested that the income from the wetland should be shifted from rents for grazing to tourist entrance fees and that the Sanctuary be included on all Delhi-Agra-Jaipur tours:

> 'If strong action along the lines we have suggested is taken as soon as possible, Keoladeo Ghana Sanctuary could become a very valuable economic asset to India. It is close to other major tourist attractions; it already offers good tourist accommodations and could easily offer more without disturbing the wild life; it already offers a great, but threatened, variety of wild animals and could easily offer these in fantastic numbers as well' (Spillet *et al,* 1967).

Concern about overgrazing and disturbance from villagers continued during the 1970s. Newspaper headlines suggested that 'domestic cattle were the most serious threat to the peace of Keoladeo' (Doctor and Patole, 1980). As the wetland became viewed as a refuge for wildlife and a source of tourist revenue, the pressure to exclude domestic cattle increased. In March 1982, Keoladeo Ghana was declared a National Park, under provisions made by the Wild Life Protection Act 1972, which formalised the acquisition of all rights by the state and explicitly forbade grazing (Section 35, paras 4b and 7). The gates in the two metre high wall (which had replaced the perimeter wire) were closed and a ban on grazing imposed. In November of the same year, continuing unrest precipitated a confrontation with the police and seven villagers were killed.

The rural economy around the wetland underwent a substantial change following the ban on grazing and the collection of forest products. The number of cows and buffaloes kept by the adjacent population declined, many local people turned to agriculture, and some left the area to find alternative employment. Despite the ban, fuelwood continues to be taken from the *ghana* and unproductive cows are lifted into the national park to be retrieved when they become healthy or start producing milk. The Forest Department has issued grass collection permits to the local population in order to keep the aquatic vegetation in check, and to maintain the number of visiting bird species. During the course of the research, several tourists expressed concern about disturbance of wildlife caused by local people cutting grass for fodder.

[2] The wetland is known locally as *Ghana*, meaning 'thicket'.

Box 3.2: Gonarezhou NP and the Shangaan

The Shangaan of Mahenye established settlements on the lower reaches of the Save River in 1838-40. These stretched as far south as the Runde-Save junction and across the border into Moçambique. When all game became the property of the Crown in 1891, the Shangaan were denied legal access to wildlife and their hunting activities were redefined as poaching. In 1934, an area of land bounded by the Moçambique border, the Runde and Mwenzi rivers and Matabi N° 2 Reserve (now Communal Land) was proclaimed as the Gonarez-hou Game Reserve. This was expanded in 1966 to include the west bank of the Save River. The Shangaan were evicted and resettled on the north bank of the river in Mahenye Ward, in the southern-most corner of Ndowoyo Communal Land. They had lost the mission station and school, their store and the recruiting post for the Midlands Shabani Mine. Several villages were established on Ngwachumeni Island (also known as Mahenye's Island) in the Save River on the boundary of the Park.

Tourism to Gonarezhou grew steadily and in 1975the Game Reserve was declared a national park, but the struggle for independence forced it to close a year later. Following independence in 1980, the Shangaan expected to regain their land, but this was not granted and the government re-opened the park in 1982.

Resenting the loss of their homeland, resettlement on impoverished land, and pressure from Moçambiquean incursions, the Shangaan people continued to hunt within Gonarezhou NP. There was open, and violent, conflict with Department of National Parks and Wild Life Mangement (DNPWLM) in 1980-1982 when the Mahenye people were widely believed to be assisting ivory hunters (Peterson, 1991). The Shangaan reasoned that they were being excluded from the Park because it was being preserved for tourists. If there were no animals the tourists would not come, so it made sense to hunt the wildlife to extinction and claim back the land (Dalton, 1992). One hunter is believed to have killed between 20 and 30 large elephant bulls each year for 15 years. The Shangaan also felt that the DNPWLM was slow to respond to requests for Problem Animal Control (PAC) for animals crossing the river and damaging crops. . The DNPWLM said they would deal with PAC once illegal hunting had ceased.

In 1982 the Mahenye Councillor invited the Gonarezhou Warden to Mahenye to discuss the conflict between the community and DNPWLM. Between 60 and 70 Shangaan elders took part in the meeting to express their views:

> 'The conflict between us and the Parks is over the wildlife. We were displaced and we don't have the game we used to have. We have to depend on our agriculture. We must grow our crops to survive. Their animals cross over the river and eat our crops. We have no food when our crops are eaten, so we have to eat their animals or we would starve. If they would control their animals, we could grow our crops. Then there would be no poaching' (Peterson, 1991).

The participants wondered whether the wild animals could be considered as livestock under local ownership as had been the practise with wildlife on commercial farms following the 1975 Wildlife Act. Once wildlife crossed the river from the park it would be 'owned' by the community. The Shangaan would be issued with permits to lease hunting concessions through safari operators to private hunters. Permits to hunt two elephants per year were allocated by DNPWLM between 1982 and 1984. It was a condition of the permit that the animals would be sold to foreign clients in order to gain foreign currency.

The hunts began in 1982, and although elephant meat was distributed throughout the Mahenye community, it took five years for Gazaland District Council to accept the principle, central to the CAMPFIRE programme, that the funds should go to wildlife producing ward. The revenues were not distributed until 1990 when Gazaland District Council achieved Appropriate Authority Status under the 1975 Wildlife Act (previously restricted to private landowners).

Between 1991 and 1995, the Mahenye Ward earned US$71,443 from consumptive tourism, 22 per cent of which was taken in community benefits and 78 per cent in household dividends.

on the south, east and west sides of the park, and access to these regions is difficult. The ready availability of goods and supplies for the tourism industry within Bharatpur city reduces regional economic leakage, but the urban bias creates a high level of rural dislocation. The presence of Bharatpur city also allows the domination of the industry by an urban elite with the necessary skills to participate and with existing connections overseas. Employment of members of the *rural* population has been confined to those resident in the two villages closest to the entrance of the park.

There is relatively little tourist infrastructure in the vicinity of the Gonarezhou NP, it is remote from Harare and not on any major tourist route. Unlike Komodo NP and Keoladeo NP, tourism development has been less influenced by transport networks, and more by the type of package sold by tour operators. To the east of Gonarezhou NP, a major Zimbabwean hotel company has built two lodges in Mahenye Ward in the southern-most corner of Ndowoyo Communal Land. Situated in the remote south-east corner of the country, and accessible only by rough road or air, Chilo and Mahenye Lodges cater specifically for 'conservation packages' organised by ZimSun Ltd. The lodges are the most significant tourist development associated with the park to date. Although owned by a metropolitan company, land is leased from the Mahenye community with an agreement that commits ZimSun to pay the local district council a proportion of annual gross trading revenue that is used for community projects and household dividends (Box 3.4).

At both Keoladeo NP and Komodo NP, the location of tourism development has been strongly influenced by existing transport routes. These are largely distant from rural areas with the closest historical economic and ecological links with national parks. At Keoladeo NP, there is a strong local urban bias due to the proximity of Bharatpur city. It is too early to evaluate the impact of tourism development in Mahenye, and much will depend on leasing and employment agreements between ZimSun Ltd. and Chipinge Rural District Council.

3.6 Employment in the Tourism Sector

Employment within the tourism industry is often criticised for being low-skilled, low-paid, seasonal and part-time (Lea, 1988; Pearce, 1989). Many jobs are dependent on skills that belong to an urban culture, and do not always compliment existing livelihoods. However, where existing livelihood opportunities are limited, the industry has the potential to offer substantial additional incomes. For rural populations, participation in the nature tourism industry is largely limited to low-grade employment in the formal sector and small-scale entrepreneurial activities in the informal sector. The more lucrative income and employment benefits are often captured by urban, or other non-local, elites. However, the research at Keoladeo, Komodo and Gonarezhou National Parks suggest that training programmes and positive recruitment policies can help to secure employment for limited numbers of the adjacent population.

Livelihoods in the Zimbabwean lowveld and the rural settlements around Keoladeo NP are largely dependent on agriculture. Fishing is the primary occupation of villagers on the edge of Komodo NP. The difficulty of transferring rural primary sector skills to a service industry such as tourism is evident in all three case studies. Between April 1995 and March 1996, the hotel industry adjacent to Keoladeo NP employed approximately 150 staff in the low season and 200 in the high season. Only 7 per cent of hotel employees resided in the villages adjacent to the national park. At the two ZimSun lodges in Mahenye, 63 per cent of the staff are from the local community (15.8 per cent of these are women). A few senior posts, for example, accountant, housekeeper, barman and cook are taken by local employees.

The involvement of the local rural population is highest in those services that are dependent on labour, primary production and those that require minimal capital outlay. Around Keoladeo NP and Komodo

Box 3.3: The local economic impacts of dragon tourism[3]

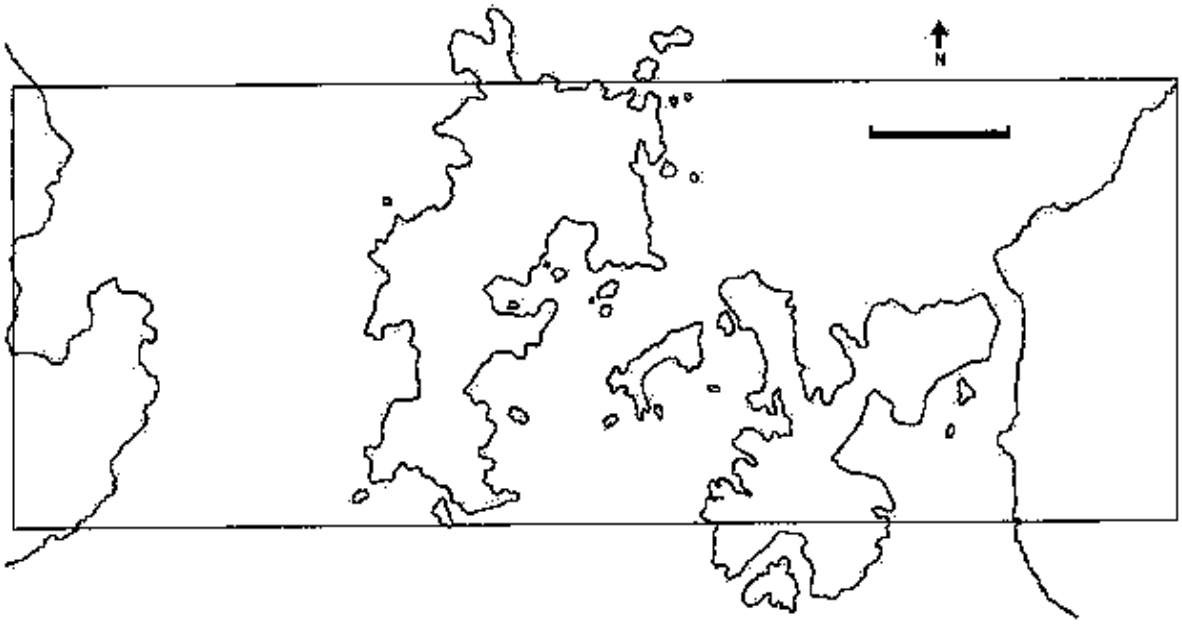


Figure 3.1: Map of Komodo National Park showing islands with Kampungs (villages), and major gateway towns. Population in bold (1994 figures: Sudibyo, 1995).

Although tourism to Komodo NP has grown rapidly in the last decade, few of the income and employment benefits reach the villages located on the islands within the national park. Between 1989 and 1996, the number of annual visitor arrivals to Komodo NP rose from 4,934 to 28,991. During the same period, at least seven hotels and twenty restaurants were built in Labuan Bajo and two hotels and ten restaurants were opened in Sape. In 1996, a total of 420 jobs in Labuan Bajo and 154 jobs in Sape were at least partially dependent upon tourism. In contrast, there were no tourism-related infrastructural developments at any of the village enclaves within the national park itself. Just 44 jobs in Kampung Komodo were associated with tourism.

Surveys of tourist-related businesses suggest that between US$0.6 million and US$1.6 million was spent in the local tourism economy in 1995/96. Of this, 99 per cent was spent in the two gateway towns of Labuan Bajo and Sape. Only 1 per cent accrued to people living within Komodo NP. Independent surveys with visitors staying in Labuan Bajo confirm the findings, and suggest that an estimated US$0.7 - 1.4 million was spent in 1995/96 in Labuan Bajo alone.

Compared to the ports of Labuan Bajo and Sape, opportunities for revenue generation from tourism for the populations within the national park itself are very limited. The villages of Kampung Rinca and Kampung Kerora on Rinca island receive no visitors. There are no tourist facilities at Kampung Komodo, although the proximity of the Loh Liang visitor camp provides a few income-earning opportunities. A few villagers operate small boats that shuttle visitors from the government-maintained ferry to the visitor camp on the island. In 1995/96 this generated approximately $US6,000, some of which is likely to have been retained by the boat owners residing in Sape. Others sell carved wooden statues of Komodo dragons through a staff-run co-operative at the National Park, and occasionally find casual employment as visitor guides and porters. Only 7 per cent of local tourism-related employment is generated at Kampung Komodo.

[3] See Walpole and Goodwin (forthcoming) for methodology

Box 3.4: Lodge development in Mahenye

Consumptive wildlife utilisation does not present an opportunity for further development in Mahenye Ward, since it is not possible to find sufficient trophy elephant to fulfil the quota. In 1991, Gazaland District Council received a joint venture proposal from Mahenye Ward and Clive Stockil to develop a safari lodge for tourists interested in 'conservation packages'. Mahenye Lodge was completed in 1994, with opportunities for tourists to take game drives into nearby Gonarezhou NP, and a second property, Chilo Lodge, was completed in 1996. In the Memorandum of Agreement, ZimSun Ltd. undertook 'wherever reasonably possible' to 'utilise and pay for labour available from the Mahenye Ward Community for purposes of constructing the required accommodation and supporting infrastructure'. During construction, 120 permanent and 40 casual local workers were employed on the project at a cost of Z$7.5million.

There is a binding on ZimSun Ltd. to pay a minimum lease of Z$220,000 per annum to the Rural District Council and 8 per cent to 12 per cent gross trading revenue over the ten-year lease. The Rural District Council takes an administration charge of 20 per cent, but has also contributed towards the cost of installing a power line. A show village has also been constructed close to Mahenye and Chilo Lodges to sell aspects of Shangaan culture to tourists. Infrastructural benefits of the development include a telephone, electricity and piped water. The two lodges employ 60 staff, 38 of whom are from the local area, contributing Z$34,483 per month to the local economy in 1995/96.

NP, local participation is highest within the local transport sector. Many of the rickshaw pullers working in Keoladeo NP held the same job in the domestic, non-tourist market before earning all or part of their livelihood from tourism (Box 3.5). Similarly, the small fishing boats of Sape and Labuan Bajo are easily adapted to provide passage for visitors to Komodo NP, and charter boats provide up to 42 per cent of the local employment in tourism. While entrepreneurial involvement of the rural populations around Gonarezhou NP remains low, over two thousand enterprises have appeared on the major transport routes from Harare. This trade is largely associated with traffic between Harare and South Africa, but tourists to the southeast lowveld undoubtedly contribute to the new income opportunities that have been brought to an area of low agricultural potential. Informal trading sites such as these are a key entry point for local populations wishing to engage with the tourism industry yet they receive less recognition than the major infrastructural projects which are more usually associated with tourism development.

The decision to invest in tourism is also dependent on the degree to which new forms of employment can be accommodated within existing livelihood patterns. Calculation of risk in all activities is a key determinant of involvement, and where the benefits are unknown, participation is low. Informants from one of the villages adjacent to Keoladeo NP stated that although they were aware of the potential for local handicraft production, labour was already taken up by cutting grass for cattle fodder for which the benefits are largely guaranteed. The seasonal nature of tourism has the potential to offset the cyclical problems of temporal variations in labour demand associated with agricultural economies. Unfortunately, the labour demands of tourism and agriculture often coincide. The peak tourism season in Keoladeo NP coincides with the busy harvest of *kharif* (monsoon) crops, and continues through the planting and care of high value *rabi* (winter) crops. Nevertheless, the expectations of tourism remain high, especially among populations with limited contact with the industry.

Participation in the tourism industry is not, however, synonymous with ownership or control. Although charter-boats operating to Komodo NP utilise existing transport skills, many of the owners are Javanese, since the capital cost associated with purchasing transport of this type is beyond the reach of many of the local operators. It is estimated that at least 50 per cent of visitor expenditure is leaked from the local economy surrounding Komodo NP as a result of non-local ownership and the import of goods and services. Park authorities, local governments and private enterprise have in some cases sought to

address the underemployment of local populations. Recruitment programmes for the training of rickshaw pullers and guides in Keoladeo NP have recently begun policies of discrimination in favour of low-income groups and the Safari lodges in Mahenye have a policy of employing local people 'where possible.'

Although many of the service skills within the tourism industry are more easily obtained by attracting labour from developed (often urban) tourism centres, nature tourism places a high value on local environmental knowledge. This is a skill that is marketed at all three sites. At Keoladeo NP, nature guiding probably offers the greatest opportunity for the development of local skills, although the necessary language skills have until recently restricted employment to wealthier, and therefore better educated, individuals. In terms of skill transfer, guiding has the advantage of sustained tourist contact and nature guides have the opportunity to study the market thoroughly. A few of the early guides at Keoladeo NP have progressed to establish careers in international tourism, undertaking regular trips overseas to secure contracts with foreign tour companies. These guides were mostly from Bharatpur city, but more recent trainees have also been able to establish connections within the national tourism industry. Guiding licences are highly prized by the local population. With the development of the lowveld in Zimbabwe, local guides, where provided with training for the necessary language skills, may also have good prospects for employment. However, the training and experience necessary to acquire a guide licence is expensive and this presents a significant hurdle to members of poorer communities.

The process of tourism development often challenges traditional social structures based on age. The Shangaan in Mahenye have raised problems of wage disparity as a particular issue of concern, where younger members of the community, contracted to work at the 'safari' lodges, earn more than their elders. In all three sites, employment opportunities in the tourism industry are biased towards younger members of the community. The visible employment of women is low, but the impact of tourism development on this particular group is unknown. Despite the low visibility of women in the local tourism economy at Keoladeo NP, the use of female labour is high in small-scale accommodation enterprises where family labour is the general mode of production. Women play an active role in the hotels, restaurants and shops in Indonesia, but the question as to whether this is a contribution to financial independence, or an additional burden warrants further detailed investigation.

Box 3.5: The rickshaws of Keoladeo NP.

The most significant direct contribution that nature tourism at Keoladeo NP makes to poorer rural families is through the local transport and guiding sector. The use of cycle riskhaws within the park is popular, especially with package tourists. During the 1995/96 there were 87 rickshaw operators within the park, each licensed by the Forest Department. New entrants are selected by the park authorities from applications and some have been assisted with start-up costs by the District Rural Development Administration (Rickshaws cost around $US100). Training is provided by park staff.

Each licensed rickshaw drivers pays the Forest Department US$4.50 per month to operate within the national park. Income is highly seasonal, and although daily revenues can be substantial during the peak season very few continue to operate throughout the year. Annual incomes are in the order of US$450 to US$600, but there is considerable concern among cycle rickshaw owners about the park issuing new licences, and increasing competition from nature guides, who sometimes hire bicycles on behalf of their clients.

The almost exclusively low-caste workforce is indicative of the low status attached to the job. Most of the licensed rickshaw pullers are Lavana Sikhs from Bharatpur city and Jatavs (low caste Hindus) from the rural areas surrounding the park. Some worked previously as rickshaw operators in Bharatpur City but many have family links to the wetland with fathers who had earned a living from wood collection, before the designation of the national park.

3.7 Access to Land

Patterns of land ownership have profound implications for the distribution of costs and benefits of tourism and the ability of local communities to gain access to tourists. In the case of Mahenye in Zimbabwe, regulations preventing the appropriation of land has facilitated a lease agreement between Chipinge Rural District Council and ZimSun Ltd. Communal land cannot be sold, and as a result, opportunities have arisen for the Shangaan to gain a share of tourism revenue from hotel operations. In contrast, extra-local interests, particularly Javanese speculators, have purchased many beachfronts at Labuan Bajo. At Keoladeo NP, a small group, which is part of the ruling (urban) caste continues to hold the most lucrative sites for hotels.

Land is a major factor of production for the hotel sector of the tourism economy. Nature tourism requires access to large areas of relatively undisturbed land for wildlife viewing. The opportunity cost of this is not borne by the tourism industry, although the existence of gazetted national parks is to the advantage of the industry. It is the existence of the parks, and the wildlife viewing opportunities which they present which attracts tourists to the area. Gonarezhou NP has been the least successful park in these terms and visitor numbers remain relatively low (see Chapter 2). In the lowveld commercial farmers are returning cattle ranching land to wildlife (see Box 3.6), a comparatively unusual example of private entrepreneurs creating a protected area.

It is the informal tourism sector (souvenirs, snacks and handicrafts etc.), that shows the highest level of local ownership (Cukier and Wall, 1994; Wu, 1982). However, this often lacks access to premium sites, and therefore trade. The activities of informal enterprises at Keoladeo NP and Komodo NP are constrained by the lack of sufficient trading space. At Keoladeo NP, the operation of small businesses at the park gate is dependent upon the unofficial sanction of park staff. Small businesses adopt a strategy of mobility (traders use trolleys and carts) to minimise the problem of insecure access. At Komodo NP, handicraft manufacturers from the nearby village lack a trading site of their own, and are prevented from selling products directly to tourists. All local products are marketed at the national park and a park staff co-operative retains 10 per cent of the revenue.

3.8 Mode of Tourist Arrival - Enclave Development and Bypasses

Local access to the potentially lucrative tourist market is especially difficult where tour companies are able to operate a policy of vertical integration, retaining profits from transport, accommodation and guiding. In Indonesia, cruise ships represent the biggest source of tourist revenue leakage from the local economy. These allow Bali-based operators to combine transport, accommodation, food and guiding into a single package so that the only local spend is in the form of park entrance fees and occasional handicraft sales. A considerable proportion of tourist expenditure bypasses the local economy due to the market dominance of non-local carriers and package tour operators (Box 3.7). Through package transport of this kind, nature tourism assumes all the negative impacts of enclave developments more usually associated with beach tourism (*c.f.* Freitag, 1994). The many coach tours that make a brief stop at Keoladeo NP also exhibit a degree of enclave activity. After the opening of the national park, coaches were originally allowed to travel to the centre of the wetland. Protests led by naturalist guides led the park authorities to place further restrictions on coach travel within the park, and there are now many more opportunities for the employment of rickshaw drivers and guides. However, coaches continue to bypass the small group of businesses at the entrance to the park, and opportunities for the informal catering and souvenir sector are lost.

Box 3.6: The Lowveld Conservancies

The three conservancies, Bubiana Conservancy, Chiredzi River Conservancy and Save Valley Conservancy are all located in the southern lowveld of Zimbabwe. In each case a number of properties have joined together to form a single wildlife management unit large enough to enable the efficient management and development of shared wildlife for trophy hunting and high quality non-consumptive tourism. Formed between 1989 and 1991 each has evolved differently. The ranchers were increasingly concerned about the management of game on their properties and the implications of drought and overstocking of cattle.

A Price Waterhouse study published in 1994 used economic and agricultural production models to show that wildlife-based enterprises were economically more viable than cattle as a form of land use in the lowveld. Cattle enterprises lacked economic viability because of aridity, the controlled price of beef, restricted marketing opportunities because of veterinary restrictions and, in some cases, poor management. 'By and large, wildlife enterprises were shown to be more economically viable and efficient than cattle enterprises' in areas like the lowveld. In addition, the report highlighted the potential socio-economic benefits that tourism and hunting could bring to the region (Price Waterhouse, 1994).

The ranchers committed themselves to the collective stewardship of their wildlife, and to the collective purchase of game for reintroduction. The creation of the conservancies was given initial impetus by the requirement to create, and protect, sufficiently large areas to conserve and breed black rhino in a collaborative programme with the DNPWLM. By January 1997 the conservancies had been restocked with 2,600 wild animals, including 370 buffalo, 620 elephant and 600 wildebeest and Save Valley Conservancy had removed all cattle from its 345,000ha. The Price Waterhouse report projected a significant increase in employment associated with the change of land use; the limited figures that were available in early 1997 supported these projections.

The Conservancies have discussed ways in which the tourism businesses on the conservancies may be able to generate local economic development, an issue which is seen as central to the political sustainability of the land use. The Save Valley Conservancy has committed itself to the development of 'mutual interdependence'. According to Murphree and Metcalfe (1997) 'When conservancies are created which involve contractual relationships of benefit and responsibility between, for example, commercial and communal farmers, linkages of mutual benefit are put in place which instigate a process modulating inequity'.

There has been discussion of a wide range of initiatives designed to demonstrate interdependency. Community businesses have been suggested to produce food, curios, uniforms, furniture and soft furnishing; and services, such as game meat and fuelwood retailing and distribution, and transport for the conservancy businesses. There are a number of proposals for joint ventures and other community businesses designed to sell into the market that can be guaranteed when and if tourism develops. These proposals include accommodation, inclusion of communal land into the Save Valley Conservancy with associated ownership rights and community ownership of grant funded livestock re-introductions. The development of complementary tourism businesses with marketing and technical support from the conservancies is also being considered, including cultural tourism products, accommodation, show villages and community-based wildlife projects. A traditional show village is being developed at Gudo with a guaranteed market through Senuko Lodge.

Much remains to be done to realise these aspirations, not least in establishing the lowveld as a tourism destination.[4]

[4] Further details of the conservancies can be found in Vol. IV Goodwin *et al (1997)* pp.101-122 & 202-292.

Box 3.7: Mobile enclaves - cruise ship tours to Komodo NP[5]

Not all visitors to Komodo NP pass through the gateway towns of Sape and Labuan Bajo, and considerable amount of tourism expenditure fails to pass through the local economy. Package tourists, visiting the park on a three- to four-day cruise ship tour of Nusa Tenggara, spent an estimated US$6.5 million during 1995/96 on such trips. All food and accommodation is provided on board and the only contribution made to the local economy is through the occasional purchase of souvenirs.

Cruise ship tours, while marketed principally for their visit to Komodo NP, offer additional facilities when compared to other forms of travel. However, if only 50 per cent of the value of the tour is attributed to the visit to Komodo NP, then as much as 85 per cent of expenditure on all visits to the island bypasses the local economy. The small boats that bring tourists from Bali and Lombok on three day two night trips similarly contribute very little to the local economy.

At Gonarezhou NP local communities have no access to the independent tourists nor to groups on safari packages. Independent tourists do stop at the roadside craft markets, but those travelling on safari tours are effectively within an enclave, access is controlled by the safari operator. Safari operators are beginning to diversify their product and to develop joint ventures which involve local communities. Respondents to a survey undertaken of visitors to Gonarezhou National Park showed that there was demand for having an African meal in a village, local music and dance performances, local story telling and theatre and visits to local villages to buy handicrafts.[6]

3.9 Conclusions

The potential for rural populations to participate in the nature tourism industry, and gain access to the financial benefits, is dependent on a range of factors, in particular the transferability of existing skills, patterns of land ownership and the ability of external interests to appropriate local services. Research from Keoladeo, Komodo and Gonarezhou National Parks suggests that although tourism presents additional income and employment opportunities, rural populations remain marginalised from development associated with protected areas. Despite the rural location of national parks, the industry retains a distinctly urban bias.

Local involvement in the tourism industry depends largely on access to the market. Frequently, local benefits are maximised in the informal sector where the scale of capital investment is low. Interest groups outside the rural community (tour groups, hoteliers and government agencies) exercise more power within the formal sector because of their command over financial resources (Koch, 1997). The ability of the local population to gain access depends in part upon the expectations of tourists themselves and local suppliers have little control over the way in which the experience is marketed. At the Indian and Indonesian study sites, those populations who reside nearest to the protected areas and who have therefore borne most of the costs of exclusion appear to participate least in the tourism industry. Tourism in the south-east lowveld of Zimbabwe is not yet sufficiently established to measure the benefits for rural populations, although expectations are high.

[5] For methodology, see Walpole and Goodwin (forthcoming).

[6] In a self-administered survey 10.3 per cent responded positively to each of these suggestions without there being any real opportunity to participate in such activities in the lowveld and with no detailed knowledge of what could be made available. This is an important part of the approach of the Save Valley Conservancy, see Box 3.6.

Research in at least two of the study sites suggests that while protected area managers, tourism professionals and researchers prefer to make a clear distinction between the tourism and conservation objectives of national parks, the views of local inhabitants often combine them. Participation in the tourism industry is not always a prime concern of local populations; access to primary resources remains the key issue. While tourism is undoubtedly becoming an important component of development strategies for protected areas, it should not take precedence over more pressing issues of local accountability.

4. MAKING A CONTRIBUTION TO CONSERVATION

4.1 Introduction

Protected areas are regarded in India, Indonesia and Zimbabwe as important national assets; they are valued for their wildlife and species and for their contribution to the tourism industry. However, national parks are under increasing pressure to be self-financing. Government revenues are limited and there are strong demands for expenditure on other public goods such as education and health. Where the principal beneficiaries of protected areas are foreign tourists, rather than local people, the case for reforming public expenditure on national parks is especially strong.

Charges for access to national parks have traditionally been based upon the philosophy that national heritage should be available free, or at a nominal price. National parks have therefore been priced as merit goods. Revenue maximisation has not been a primary objective of government policy and entrance charges have been set with social or educational objectives in mind. Consequently, park revenues fall below park operating budgets and entrance (and other) fees are below the level that visitors are willing to pay. The relatively low cost of admission to national parks can contribute to overcrowding and exacerbate visitor management problems. In Gonarezhou NP, the allocation of chalets at peak periods is decided by a rationing system, while in Keoladeo NP there is considerable crowding at weekends and public holidays (Chapter 5).

The increase in international tourism has raised the issue of whether national governments, especially those in the South, should be subsidising the use of natural heritage by foreign tourists. Under-charging raises the cost (borne by domestic tax-payers) of maintaining the parks estate, and fails to maximise revenue from international tourists. A merit goods pricing policy for national parks also risks undercutting private nature tourism initiatives; an issue which has arisen in Zimbabwe where new initiatives on both communal and commercial farm land are now entering the nature tourism market (Chapter 3, Box 3.6).

Managers of protected areas are looking to nature tourism as a source of revenue for conservation and as a means of enabling local populations to gain an economic advantage from their proximity to national parks. However, while these two objectives are not necessarily incompatible, they are mutually self-limiting. Raising entrance fees may increase revenues to national parks, but it may also reduce tourist spending in the local economy.

This chapter investigates the contribution of tourism to the finances of the three case study national parks, and also considers the impact of entrance fees on foreign visitor numbers. It is divided into two sections. Section 4.2 investigates the financial costs and benefits of tourism by examining park accounts. It considers the various ways in which revenue from tourism is collected by park authorities and the contributions made by different types of foreign visitor. It then provides estimates for park expenditure on tourism, and finally compares park revenues with park expenditures. The levels of subsidy for each foreign visit to Keoladeo, Komodo and Gonarezhou National Parks are compared on the basis of these figures.

Section 4.3 explores the link between entrance fees, visitor numbers and park revenues. It also compares data from visitor surveys conducted in each of the three national parks to compare price elasticities of demand. It estimates the impact which a rise in the entrance fee may have for park revenues, and finally describes some of the implications of increasing entrance fees for local tourism economies.

All calculations are derived from data collected within the park during the survey period (see Chapter 1). Comparisons are made between the parks by using US$ exchange rates from March 7, 1997. In Section 4.2, both foreign and domestic tourism are accounted for with additional information on the spending patterns of different types of foreign visitors. The emphasis in Section 4.3 is entirely on the impact of changes in foreign tourist entrance fees.

4.2 Estimating the Contribution of Tourism to Park Finances

4.2.1 *Entrance fee policies*

	Gonarezhou NP (1995-96)	Keoladeo NP (1995-96)	Komodo NP (1994-95)
Total area of the park (ha)	505,300	2,873	173,000
Total number of visitors	6,179	122,628	28,991
Number of full-time staff	51	123	90
Number of tourist staff	9.5	30	21
Park Budget US$	110,522	295,426	372,285

Table 4.1: Comparison of size, staffing and budgets in the three national parks

As administrative units, Keoladeo, Komodo and Gonarezhou National Parks are very different in size, staffing levels and budgets (Table 4.1). The facilities and experiences available to tourists in the three parks are not readily comparable and entry charges differ considerably (Table 4.2). For example, an international tourist at Keoladeo NP pays a smaller entrance fee than a domestic tourist at Gonarezhou NP.

Tourist Type	Gonarezhou NP		Keoladeo NP		Komodo NP	
	Z$	US$	Rupee	US$	Rupiah	US$
Domestic	10	**0.90**	5	**0.14**	2000	**0.83**
International	-	**5.00**	25	**0.70**	2000	**0.83**

Table 4.2: 1997 Daily park entrance fees at March 7 1997 exchange rates

Gonarezhou NP and Keoladeo NP both operate a system of dual pricing to prevent the exclusion of domestic tourists. Dual pricing recognises that domestic tourists already contribute to the maintenance of parks through the national treasury and it is the domestic population that bears the opportunity costs of setting land aside for conservation. While some foreign tourists take offence at this strategy, the argument that national parks are maintained at the expense of the nation's citizens needs to be put. In a survey of over 800 international tourists in Keoladeo NP, 59 per cent agreed that domestic tourists should pay less.

Gonarezhou, Keoladeo and Komodo National Parks are all maintained and financed by government departments and all revenues are remitted to central treasuries.[1] Governments therefore also make

[1] In Zimbabwe the wildlife estate is managed by the national government, in India by the national and state governments and in Indonesia by the national, provincial and district authorities. This situation changed in

decisions about the pricing of admission to national parks. There is no direct relationship between the amount of revenue collected and the size of operating budgets in any of the national parks covered by this study (although revenue targets are issued for Keoladeo NP). India sets its entrance fees at the state level and they are of the same order of magnitude at all parks in the same state. In Indonesia there is some variation in entrance fees between parks, but as there is no dual pricing system in place, fees are uniformly low. All fees are set centrally and bureaucratically rather than locally and in response to market forces. However, in Zimbabwe a change in the relationship between the central government and the DNPWLM is a significant step towards a policy of revenue maximisation (Box 4.1).

Box 4.1: National parks in Zimbabwe - a step towards revenue maximisation

At the end of 1996 the DNPWLM became a fund-holding parastatal body. The department assumed responsibility for its own funds and the government grant to the DNPWLM was capped. As a result, national parks in Zimbabwe will become increasingly dependent on the revenues that they generate and in particular from revenues generated through tourism..

Although the DNPWLM has become a parastatal, fees are still set centrally. These were increased substantially on November 1st 1996. The entrance fee to Gonarezhou NP for a Zimbabwean citizen was doubled (from Z$10 to Z$20) and for a foreign tourist, the fee increased from Z$20 (US$1.80) to US$10. There was a vigorous campaign against the increases and they were halved in January 1997, with the day admission fee for a Zimbabwean reverting to Z$10 and US$5 for a foreign tourist.

4.2.2 *Park revenue: the financial gain from tourism*

Tourism is the most significant source of non-grant revenue to parks. In the case of Keoladeo NP, tourism revenue (from entrance fees and tourist related services) amounted to 89.7 per cent of the total in 1995/96. Non-tourism revenue (from the sale of permits for grass collection, seedlings from the tree nursery and the collection of fines) made up only 10.3 per cent. In the same year, all non-grant revenue received by Komodo NP was obtained from entrance fees and services to tourists (Table 4.3).

Source of Revenue	Gonarezhou NP	Keoladeo NP	Komodo NP[2]
Tourism Revenue	90.5%	89.7%	100.0%
Non-tourism Revenue	9.5%	10.3%	

Table 4.3: Tourism and non-tourism revenue (1995/96).

In each of the three protected areas, the revenues from entrance fees are collected directly by park authorities, but additional services and sales within the parks are collected by and from a range of organisations. In Gonarezhou NP, tour operators pay a block fee allowing entry for registered vehicles and their passengers.[3] In Keoladeo NP, guiding and transport by rickshaw are provided by individuals

Zimbabwe on 1st January 1997 when DNPWLM became a parastatal.

[2] For the purposes of this table, the Koperasi (see box 4.3) has been treated as part of Komodo NP.

[3] Block fees from tour operators at Gonarezhou NP have been excluded from all tables in this chapter. Registered

operating under permit, while a concession for operating the book shop is sold each year to the highest bidder (Box 4.2). In Komodo NP, tourism services such as guiding and accommodation are maintained by a co-operative known as the Koperasi (Box 4.3). The three parks therefore earn revenue from tourism in significantly different ways. While it is not possible to disaggregate all forms of tourist expenditure within the parks, Table 4.4 provides estimates of the major sources of tourism revenue. The contributions from each source are expressed as a percentage of the total tourism revenue accruing to park accounts.

Box 4.2: Concessions and permits in Keoladeo NP

The Forest Department maintains and collects revenue from many of the services within Keoladeo NP including admission fees, cafeteria sales, and tours by boat and electric van. The Forest Department also maintains a small guest house, although accommodation for tourists is in the Forest Lodge, owned and operated by the Indian Tourist Development Corporation (ITDC). Additional businesses also operate within the park, each of which provide revenue to the Forest Department. During the 1995/96 tourist season, the park authorities collected over Rs 13,000 (US$ 364) per month from permits issued to cycle-rickshaw and tonga drivers. Rs 35,000 (US$980) was also received from the leasing of the park book shop.

Box 4.3: The Komodo Koperasi

The Komodo Koperasi is a co-operative organisation that provides visitor services in Komodo NP. It was founded in 1987 to maintain restaurant facilities within the park and assumed control of visitor accommodation facilities in 1994.

The Koperasi is overseen by a steering committee of 12 park staff, chaired by the park director. It employs a manager and 18 ground staff. All 90 park staff are members of the Koperasi, and all are required to make an annual deposit. Dividends are paid to members according to the size of their deposit.

The Koperasi retains the revenue from overnight accommodation in the park and the profits from the cafeteria. It also retains a proportion of the revenue from guiding. The Koperasi does not pay dividend or lease fees to the park and the only source of revenue from tourism that accrues to the national park is the compulsory entrance fee. Although senior park staff controls the Koperasi via the steering committee, it is financially independent and is essentially a private tourism development within Komodo NP.

vehicles and their passengers are not included in park admission figures and the contribution made per visit cannot be calculated.

Source	Percentage of Total Tourism Revenue		
	Gonarezhou NP	Keoladeo NP	Komodo NP
Sales	3.5	0*	0
Vehicle Hire	0	8	0
Trails/guiding	0.7	0*	24.0
Concessions and Permits	1.6	7	0
Other	0	32§	0
Accommodation	49.0	5	37.5
Entrance Fees	45.2	48	38.5
Total	100	100	100

Table 4.4: Tourism revenue accruing to the park authorities

* revenue from these activities is collected through concessions and permits
§ includes concessions collected from the ITDC Forest Lodge Hotel in Keoladeo NP

Entrance fees contribute between 38 per cent and 48 per cent of total tourism revenues in the three parks. Revenues from accommodation contribute between 5 per cent at Keoladeo NP and 49 per cent at Gonarezhou NP. This variation is a function of visitor patterns (number of people staying overnight in the park) and the organisation of tourism. At Keoladeo NP the park authorities receive concession fees from the Forest Lodge, while at Gonarezhou NP, park authorities provide camping and the chalets and collect revenues for it. At Komodo, the Koperasi collects the fees for accommodation within the park.

4.2.3 *Contributions by different tourists*

The amount contributed by tourists depends largely upon the way in which the visit is organised (package or non-package), the length of stay and the way in which the tourists arrive. Foreign package tourists arriving at Komodo Island by cruise ship spend less than a quarter of the amount spent by independent tourists travelling by ferry. This is largely due to the brevity of their visit (Box 4.4). However, in contrast, package tourists making a day trip to Keoladeo NP generally spend more inside the park, because of the lunch facilities at the Forest Lodge Hotel and the popularity of tours by rickshaw.

4.2.4 *Park expenditure: the financial costs of tourism*

A full consideration of the indirect and opportunity costs of maintaining protected areas was beyond the scope of the study. This section considers only the direct financial costs of tourism that are borne by the parks on an annual basis. Keoladeo, Komodo and Gonarezhou National Parks are financed by annual grants from state or central governments[4]. The cost of developing and maintaining the parks is therefore recorded as expenditure from these accounts. By examining the accounts of each park, it is possible to estimate the proportion of the park budget, in any period, which is directly associated with tourism[5] (Table 4.5). Tourism-related expenditure (principally that associated with the provision of

[4] The figures are derived from accounts prior to 1997 when the Zimbabwe DNPWLM became a parastatal.
[5] Separating the financial costs of tourism from total park costs is problematic (Lindberg and Enriquez, 1994). Interviews with park staff were used to estimate those expenditures related to visitor management and the

visitor facilities and their management) is found to be a relatively small part of total budgets - ranging between 6.5 per cent and 12.5 per cent.

Box 4.4: Visitor spending in Komodo

All visitors to Komodo NP make an equal contribution to the park income via entrance fees, whether they arrive by charter boat, ferry or cruise ship. However, cruise ships provide accommodation on board, and so remove the need for accommodation within Komodo NP. Local charter boats also include accommodation, but some of these tourists prefer to use accommodation within the park. Ferry passengers are obliged to stay overnight and are more likely to stay longer since they are not confined by commercial tour schedules. The average expenditure made within the park by each type of visitor is shown in the table below. While ferry passengers constitute less than 20 per cent of the visitors to Komodo, they contribute almost 50 per cent of spending within the park. Conversely cruise ship passengers which make up almost 50 per cent of visitors contribute little over 25 per cent of expenditure.

Transport Type	Entrance Fees (US$)	Guiding (US$)	Accommodation (US$)	Total Expenditure Within the Park (US$)
Ferry	0.87	0.67	4.47	6.00
Charter from Sape	0.87	0.50	0.74	2.11
Charter from Labuan Bajo	0.87	0.49	0.37	1.72
Charter from Lombok	0.87	0.47	0.02	1.36
Cruise Ship	0.87	0.47	0.00	1.34

Average visitor expenditure on Komodo Island, according to mode of arrival

	Gonarezhou NP 1995-6	Keoladeo NP 1995-96	Komodo NP 1994-5
Total Park Budget US$	110,522	295,426	372,285
Tourism-related US$	14,042	36,177	24,485
Non-Tourism-related US$	96,480	259,249	347,800
Tourism Budget as a Percentage of the Total	12.7%	12.2%	6.5%

Table 4.5: Park expenditure: tourism and non-tourism budgets

construction and maintenance of tourist facilities.

4.2.5 *Park revenue and expenditure compared*

With increasing pressure on parks to become more reliant on their own earnings, if not fully self-financing, it is necessary to consider the relationship between tourism income and both tourism-related expenditure and total park expenditures. At the beginning of 1997 the DNPWLM in Zimbabwe became a fund-holding parastatal and is in a transitional period to self-sufficiency (see Box 4.1). There is also discussion at Keoladeo NP and Komodo NP about the possibility of becoming more self-reliant, although currently at both of these parks revenue is remitted to the treasury and they receive funding as a grant from government. One of the critical questions in assessing the claim that tourism can make a significant contribution to conservation, is whether the industry makes a financial contribution large enough to offset the maintenance costs.

Assessing the relative costs and benefits of tourism in national parks is problematic since there are conflicting perspectives on both the definition of tourism and the functions of protected areas. If national parks are deemed to be maintained solely for the benefit of tourists then the revenues from tourism should be compared against all the direct costs incurred by the park. Table 4.6 compares the direct costs (park expenditure) and benefits (revenue) of tourism according to this view.

In contrast, if parks have a range of purposes other than tourism, then it only the tourism-related costs which should be compared to the revenues from tourism. Table 4.7 compares the costs and benefits of tourism according to this view.

The results displayed in Tables 4.6 and 4.7 show the financial costs and benefits of tourism according to the two perspectives. If all costs are deemed to provide benefit for the visitor, then the revenue collected from tourism covers only a very small part of those costs. From this point of view each visit is subsidised by between US$.1.84 (for Keoladeo NP) and US$15.78 (for Gonarezhou NP).

However, if tourism-related expenditure is separated from total park expenditure, the subsidies for Gonarezhou NP and Komodo NP decrease greatly, and visitors to Keoladeo NP now appear to be making a net contribution to park costs. However, it should be remembered that this is an extreme interpretation. Visitors to Keoladeo NP do not visit the park in order to enjoy *only* those facilities provided as a result of tourism-related expenditure (staffing of the gates, administration of ticket sales, provision of picnic area etc.). Their prime interest is in viewing the birdlife, and that birdlife would not be at Keoladeo NP were it not for the fixed, non-tourist-related costs concerned with the provision and maintenance of the habitat itself. The apportionment of fixed costs to different users is always a problem in accounting, and national parks are no exception.

From the evidence presented, it is evident that the financial contribution of tourism to park finances is minimal and that in two of the parks the net contribution is negative - tourists are being subsidised. In Keoladeo NP, the revenues from tourism are just able to cover the cost of facilities provided exclusively for tourists (administration of ticket sales, provision of picnic areas etc.), while each visit in Gonarezhou NP and Komodo NP is subsidised by domestic taxpayers. By this analysis, tourism is currently generating little benefit to national parks. There may be potential for increasing revenues by raising entrance fees, but since these have been traditionally set at a nominal charge, the impact on visitor numbers of pursuing such a strategy at each park is largely unknown. The next section explores the link between entrance fees, visitor numbers and park revenues at each of the national parks.

	Gonarezhou NP 1995-6	Keoladeo NP 1995-96	Komodo NP 1994-5
Total Park Budget US$ (Total Park Expenditure)	110,522	295,426	372,285
Tourism Revenue US$	12,988	69,659	26,701
Net Expenditure US$	97,355	225,767	345,584
"Deficit"	88.2%	76.4%	92.8%
Subsidy per visit US$	15.78	1.84	13.40

Table 4.6: Tourism revenue as a percentage of total park expenditure

	Gonarezhou NP 1995-6	Keoladeo NP 1995-96	Komodo NP 1994-5
Tourism-related Park Expenditure US$	14,042	36,177	24,484
Tourism Revenue US$	12,988	69,659	23,446
Net Expenditure US$	+1,054	-33,482	+1038
Net Cost per visit US$	+0.17 (subsidy)	-0.27 (contribution)	+0.04 (subsidy)

Table 4.7: Tourism revenue as a percentage of estimated tourism-related park expenditure

4.3 Increasing Park Revenues

There is limited market evidence of the value of a visit to a national park. For most tourists, a national park is only one amongst a number of sites to be visited during a trip and park admission fees are an insignificant element of the total cost of a tour. In 1996, the average cost of a two night trip to Komodo National Park from Lombok or Bali was US$300, while the park entrance fee was less than US$1. A major UK package tour operator was offering a 7 night tour of Northern India in 1997, including room, breakfast and local excursions with guides at a cost of £495 (US$742). Keoladeo NP was available as an optional half-day excursion from Agra, including transport and lunch for £29 ($US43); the park entrance fee was 25 Rupees (US$0.70).

Although there appears to be considerable scope for raising entrance fees, a direct revenue maximisation strategy may have a serious negative impact on the local economy. The following sections draw upon visitor surveys conducted at each of the national parks to estimate the impact of increased admission fees on visitor numbers and park revenues.

4.3.1 *Entrance fees: how much are foreign visitors willing to pay?*

Market forces have not determined the price of entry to national parks, and it appears that visitors would be willing to pay considerably more to visit. The magnitude of this 'user surplus' has been examined using contingent valuation, an economic valuation technique which constructs a hypothetical market by exploring the response of visitors to hypothetical rises in entrance fee. The method is used

here to demonstrate the capacity for increased revenue generation by raising fees and to speculate upon the effects of such a rise on different types of tourists.

In each park a series of questions about willingness to pay were presented to visitors while they were in the park. Further details of the methodology and results from the Komodo NP survey are shown in Box 4.5. Results from the surveys can be extrapolated to estimate the revenue that would accrue to park authorities at different entrance fees. Table 4.8 presents a summary of the findings from all three surveys (it should be remembered that the current levels of entrance fee for the three parks are significantly different).

Proposed Entrance Fee	Proportion of sample willing to pay (%)			Projected revenue as a proportion of current revenue (%)		
	Gonarezhou	Keoladeo	Komodo	Gonarezhou	Keoladeo	Komodo
current	100	100	100	100	100	100
×2	79	91	93	158	182	187
×4	24	70	81	97	281	326
×8	8		62	65		495

Table 4.8: Proportion of respondents willing to pay hypothetical increases in entrance fee, and the estimated resultant change in total revenue.

4.3.2 *Price elasticity*

The amount by which demand falls for each doubling of price is an indicator of price elasticity (defined as the ratio of fractional change in demand to the fractional change in price). There are two ways of comparing elasticity; the differences between the three parks, and the changes that are evident at different price levels. For all three sites, the demand is least elastic at low prices since the proportional fall in demand associated with the first price doubling (from current to ×2) is always less than the proportional fall for either of the next two price doublings (from ×2 to ×4 and from ×4 to ×8). However, there are differences between the three. The demand at Gonarezhou NP is appreciably more elastic than at Keoladeo NP or Komodo NP (with Keoladeo NP slightly the more elastic than Komodo NP).

At all three parks, a doubling of price leads to an estimated fall in demand of no more than 21 per cent.[6] However, the figures suggest that a four-fold increase would lead to a much greater reduction in visitor numbers in Gonarezhou NP than in the other two parks, to around one quarter of its original level. However, visitors to Gonarezhou NP pay five to seven times as much as visitors to Keoladeo and Komodo, and the length of stay is longer. It is not surprising, therefore, that a four-fold rise in entrance fee (to around US$20) would have greater impact than a four-fold increase at the other parks (to around US$4-6).

The survey results for Komodo NP suggest that demand would be relatively insensitive to a four-fold increase in entrance fee. Analysis of the data shows that members of conservation organisations, older people, and those who had seen a significantly higher number of 'dragons' were all more likely to be willing to pay higher entrance fees. Those willing to pay higher entrance fees were also those who were paying more for their trip to Indonesia (and staying for a shorter time in Indonesia) and those with a significantly longer stay in the park.

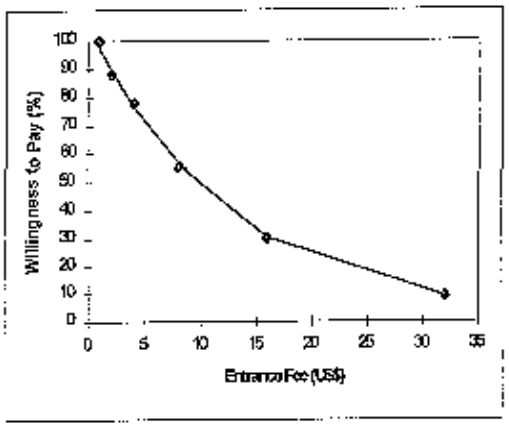
[6] Calculations for Gonarezhou NP are based on the cost normally incurred by small groups travelling together in a private vehicle and intending to camp.

Box 4.5: Willingness to pay entrance fees to Komodo National Park

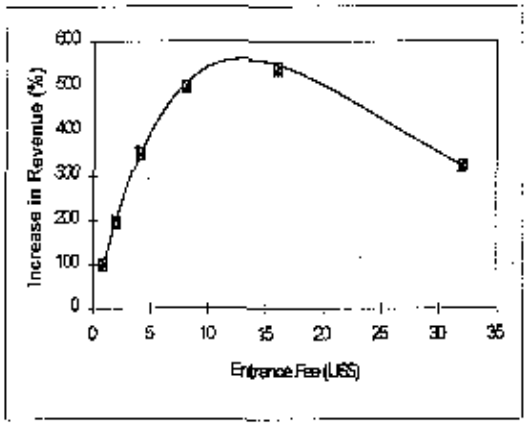
In order to explore the relationship between the entrance fee at Komodo National Park and the number of foreign tourists prepared to pay it, a questionnaire was administered in the visitor centre on the island of Komodo. Between August and November 1995, a total of 524 responses were collected. Respondents were asked whether a certain level of entrance fee would prevent them from visiting the park. They were not expected to take into account any improvement in facilities or change in the quality of the experience.

The form of questioning was a dichotomous choice, with follow-up bids of half and double the amount of the starting bid. Three variations of the questionnaire, with different levels of starting bid, were distributed randomly amongst the sample. Starting bids were US$4, US$8 and US$16, with follow-up bids ranging from US$2 - US$32. Package tourists (and particularly cruise passengers) were not represented in the sample. These individuals do not pay entrance fees directly (it is included in the price of the package) and a separate survey carried out with tour operators to estimate the effect of entrance fee rises on the magnitude of their business, reported it to be very marginal.

The results from the survey can be used to construct a demand curve for the hypothetical market in entrance fees. Estimates of the projected increase in park revenues can also be calculated.



Willingness of respondents to pay hypothetical increases in the entrance fee to Komodo NP.



Proportional increase in revenue to Komodo NP at hypothetical increases in the entrance fee.

It is likely that willingness to pay is influenced by the tourist's proximity to the park and the money already invested in arriving at the gate. Willingness to pay data has to be interpreted with caution. Nevertheless, the data from this visitor questionnaire would suggest that, all other things being equal, the current entrance fee is not a limiting factor in terms of visitation.

The demand for entrance to the park appears to be relatively inelastic as far as price is concerned. Demand is relatively insensitive to price for even four-fold hypothetical increases in entrance fee. However, caution should be placed on the interpretation of results for larger rises in fee, since they become less reliable with distance from the existing fee.

For Keoladeo NP the demand for entrance is relatively inelastic for a doubling in entrance fees, but more elastic than Komodo NP for a four-fold increase (see Box 4.6 for a discussion on the differential impacts of entrance fee increases at Keoladeo NP).

From further interviews with tourists, there is anecdotal evidence that the response of tourists to increases in park admission fees would be more favourable if rises were incremental and if it was clear that the money raised would be:

- reinvested in parks for conservation;
- reinvested in visitor facilities to raise the quality of the experience;
- used to offset costs;
- used to the benefit of people living in, or near, the park.

4.3.3 *Entrance fees: tour operators*

For travellers entering the parks as part of a 'package trip', whether the package is purchased in the originating or destination country, the cost of the park entrance is marginal to the total cost of the park visit. Decisions about the content of the tour package are made by the local or international tour operator on behalf of the park visitor.

At a workshop in Bharatpur in September 1996 incoming operators in India were asked what they felt would be a reasonable entrance fee. The average figure from the tour operator survey was Rs 82/- (US$2.30). Their comments included *'the price increase would not affect our business'*, *'the fee is not so important'*, *'raising the fee to Rs100/- (US$2.80) would not affect the price of the tour'* and *'the rise in fees... should be proportionate to the enhancement of the product experience.'* They felt strongly that any increase ought to be staged and that it ought to be made clear what the increased revenue was being used for. Notices at the main gate and elsewhere making clear that the increased revenue was being used for conservation measures in the park or for local development projects would, in their view, significantly reduce the hostility likely to be engendered by entrance fee increase.

Indonesian operators were also asked how a five-fold increase in entrance fee would affect their business. This was not considered to be a problem, although the feeling amongst some respondents was that the price itself was not as important as the way that the revenue was used. According to one operator, structural adjustments should be made to allow the park to retain its entrance fee revenue. 80 per cent of respondents said that a fee of Rp10,000 (US$4.33) would not affect their business, since this only represented 1-2 per cent of the cost of a typical package. This suggests that demand is even less elastic for package tourists than it is for independent visitors.

4.3.4 *Additional impacts of raising entrance fees*

It is important to note that the data presented above should be interpreted with caution and each park must be considered individually. There are considerable uncertainties attached to the methodology and inherent in the hypothetical nature of the inquiry. People were asked how their behaviour would change in response to one hypothetical change, but in reality they may behave otherwise, and in any event it is likely that other changes would take place by the time fees were raised which might have an impact on visitors' decisions.

The authors of this report **do not** advocate a rise in entrance fees to maximise revenue to any particular park. We present the data only to indicate that there is potential to raise revenue by raising fees. The pursuit of self-interest by a park should be tempered by the likely effects on those who make all or part of their living from tourism to the park locally or nationally, and on the local and national economy. It is clear from the surveys at both Komodo NP and Keoladeo NP that there is significant variation in willingness to pay amongst different types of tourists and that the impact on different groups of tourists needs to be part of the decision making process about park entrance fees. There is considerable potential for exacerbating conflicts between parks and their local communities through price rises. The detailed figures from research at Keoladeo NP illustrate this point (Box 4.6).

4.3.5 *Other sources of income to parks*

There are a range of services and facilities for the use of which tourists are prepared to pay during their visits to national parks, and each of which may provide an opportunity to improve the quality of the visitor experience and generate additional resources for the park. They include accommodation and camping fees, guide services, boat trips, and cycle hire. In some circumstances it may be possible to rent out platforms and hides, as at Gonarezhou NP where fees are charged for their overnight use. At Keoladeo NP revenue is earned from the permits required by the rickshaws, and Gonarezhou NP issues fishing permits and sells firewood. There are also opportunities to let further concessions and to sell souvenirs and literature concerning the parks.

In considering whether or not particular protected areas should pursue revenue maximisation, policy makers and decision makers need to take account of the likely impacts on visitor numbers and the differential impacts on local stakeholders. Revenue maximisation may benefit the park at the expense of members of neighbouring communities; and consequently may not be the appropriate policy to pursue.

Box 4.6: The impact of price increases on different foreign visitors to Keoladeo NP

Entrance Fee		All foreign Visitors	Tourist 'Type' (Self Ascribed by Questionnaire)			Number of Visits Made	
Rs /-	US$		Package Tourists	Independent. Travellers	Backpacker	3 or less	4 or more
50	1.43	91%	97%	89%	87%	91%	91%
75	2.14	81%	94%	78%	70%	82%	76%
100	2.85	70%	87%	69%	52%	72%	52%

Keoladeo National Park proportion of respondents prepared to pay hypothetical increases in entrance fee by self-ascribed category of tourist and number of visits made

The comparative data in the table is drawn from further surveys to show the impact of increases in park entrance fees on different types of tourists. It indicates that the impact on package tourists is limited; entrance fees are invisible in the overall price of the tour. For the independent and backpacker tourists the anticipated effects are more marked. The difference between them is probably attributable to the planned daily budgets within which they operate. Those who make more visits to the park, mainly the keen birders, would be more affected than those who make fewer visits to the park. By contrast at Komodo NP visitors pay a single entrance fee for up to 7 days. Those staying longer are less affected by hypothetical increased entrance fees.

The consequence of Keoladeo NP following a revenue maximisation strategy would be to change the profile of visitors to the park. Reductions in the number of independent travellers and backpackers would have significant effects on the local tourism industry, on the hotels, restaurants and other enterprises which service the tourists, especially those within the budget sector (it is in this budget sector that local involvement is strongest). The impact of entrance fee increases on the rickshaw operators and the guides would be to adversely affect their incomes. There would also be secondary revenue effects in the park itself, particularly on boat trips and bicycle hire.

5. MANAGING TOURISM IN PROTECTED AREAS

5.1 Introduction

Effective tourism management entails balancing conflicting ecological, social, and economic pressures. All three study sites have an explicit conservation agenda that assumes priority over other objectives. Equally, all have a commitment to providing opportunities for visitors to view wildlife. Tourism is increasingly perceived as an economic tool for conservation and local development rather than as simply a social function of protected areas (see Chapters 3 and 4). If it is to fulfil this role, protected area managers must provide a quality tourism experience, that guarantees continuing revenues, whilst ensuring that conservation priorities are upheld.

This chapter examines the ways that tourism is managed within protected areas, and the conflicting pressures that may lead to deterioration and decline. The difficulty lies in the fact that tourism, like any industry, has environmental costs. At the same time, protected areas are often the most fragile environments where small disturbances can have severe implications. To minimise impacts, a high degree of control over the interface between tourism and the natural environment is usually required.

Such control is rarely achieved. Park managers rarely have effective control over the pattern or volume of visitation, which is largely in the hands of commercial operators or individuals. The resultant periodic overcrowding can exceed both physical and social carrying capacities. Although a certain amount of regulation is imposed on visitor access and activities within each park, unofficial guides and ill-informed visitors still cause significant disturbance.

There is clearly a trade-off between total protection and providing an adequate visitor experience. For example, wildlife can be very difficult to observe in its natural habitat, whilst visitor expectations are often high, fuelled by close-up images and dramatic action sequences portrayed in wildlife films and documentaries. As a result, artificial or intrusive means to enhance viewing opportunities have been used at all three sites, with implications for habitat and wildlife disturbance. Managers must seek acceptable compromises whilst also re-educating visitors to harbour realistic expectations. Promoting other attractions and improving visitor awareness and interpretation facilities may enhance visitor satisfaction where target species are elusive.

One of the principal limitations to effective management is a lack of manpower, skills and resources to deal with increased tourism in the face of other traditional pressures such as fire, poaching and habitat maintenance. Furthermore, there is a paucity of available data with which to assess the impacts of tourism and on which to base appropriate management strategies. All three study sites would benefit from the development of integrated monitoring and management frameworks, using negative feedback mechanisms based on the evaluation of a set of cross-disciplinary performance indicators.

5.2 The Scope of this Chapter

The literature contains hundreds of individual studies of the environmental impacts of tourism, and many authors have reviewed the subject (Speight, 1973; Wall & Wright, 1977; Mathieson & Wall, 1982; Edington & Edington, 1986; Roe *et al.*, 1997). From this wealth of research it is clear that few simple, generalisable relationships exist between activity and impact. More importantly, the complexity of ecological change requires that tourism impact studies draw upon long term data sets of multiple variables if the ultimate impacts of tourism are to be identified and managed. Such data are largely absent from protected areas (Giongo *et al.*, 1993).

A prolonged period of ecological fieldwork was beyond the scope of this study. Therefore the approach

taken was to examine the effectiveness of current management practices in the light of conflicting tourism and conservation pressures. Qualitative and quantitative data on tourism impacts were derived from existing records (where available), rapid field assessments, and interviews with park staff and visitors. Similarly, data were collected regarding tourist use patterns and attitudes. These data were set in the context of existing management practices, in order to identify ways in which management might mitigate conflicting pressures. This approach also provided a means of identifying the types of information which managers require for effective decision-making, and appropriate monitoring techniques for obtaining such data.

The following two sections of this chapter (5.3 and 5.4) examine how visitor access, distribution and activities are managed, and identifies the environmental implications of current approaches. The following section (5.5) considers the impacts of resource consumption, pollution and litter. The constraints to effective management are considered in 5.6. The concluding section (5.7) presents some recommendations for the improvement of tourism management in protected areas.

5.3 Visitor Access and Distribution

Access to all three parks is unregulated, and park managers have no control over volumes of visitation. Visitors arrive either independently or with commercial operators as part of a package tour. In both Keoladeo NP and Komodo NP visitation patterns are strongly seasonal and display marked peaks on certain days. Such lack of control results in periodic overcrowding which can affect visitor satisfaction and overload infrastructure and management (see boxes 5.1 and 5.2). In Gonarezhou NP, the increase in visitation has been greater in the wet season than the dry since unlimited year-round access was permitted. Research in Masai Mara National Reserve, Kenya, suggests that wet season vehicle access is more damaging to soils and vegetation (Muthee, 1992). This implies that the deregulation of visitation to Gonarezhou NP could be adversely affecting habitat. Park managers could consider placing strategic controls over access, such as daily limits, seasonal closures, or differential seasonal pricing, to limit such problems.

The distribution of tourism infrastructure and of visitors within each park is concentrated into specific zones. Tourism infrastructure is minimal in all three parks. It is essentially limited to simple accommodation facilities that are situated close to peripheral access points and staff headquarters in Keoladeo NP, on Komodo and Rinca Islands, and at the north and south entrances to Gonarezhou NP (Figure 1.1, 1.2 and 1.3). Development within each park is otherwise confined to wooden viewing hides or platforms and, in the case of Gonarezhou NP, some artificial waterholes close to access roads. Gonarezhou NP has an additional number of campsites along the Runde River in the north. During a survey in the park, 79.4 per cent of visitors reported that 'being in a wild landscape' was important to them. However, given the size of the park, overnight capacity per unit area remains low and such additional low-level development can be absorbed with minimal impact. Keoladeo NP has a temple situated at its centre, which serves as a religious and cultural attraction for domestic visitors. This draws many visitors into the heart of the park, and as a result a picnic site and kiosk have been developed whilst a tarred road links the site to the entrance gate (Map 1). Nevertheless this remains the only significant development within the park.

Visitor distribution within each park is confined to access routes (roads, trails, or dykes). Furthermore, although such routes may give widespread access, particularly in Keoladeo NP and Gonarezhou NP, visitor distribution remains concentrated in small areas. For example, on Komodo Island 98 per cent of visitors remain within the intensive use zone between the visitor camp and the dragon-viewing site that comprises less than 1 per cent of the area of the island. Similarly, in Keoladeo NP, over 60 per cent of visitors remain on the tar road between the entrance gate and the temple. This is principally a function of the activities which visitors choose to undertake and the ways that park management has catered for

them. On Komodo Island the major attraction, the Komodo dragon, can be viewed best at the designated viewing site close to the visitor camp, whilst at Keoladeo NP the majority of visitors are local day-trippers who come to picnic at the temple. However, such concentration is also a function of accessibility. Routes further from the entrance points to each park take longer to complete and are frequently less well-maintained or more difficult to traverse. This effectively limits most visitors to the more developed zones.

Visitors have greater access to remoter areas in Gonarezhou NP than in the other parks because transport is by motor vehicle rather than by foot or bicycle. However, the limited distribution of designated viewing points and the distance to remoter areas along difficult roads serves to restrict most visitors to routes close to the Runde River in the north.

The skewed spatial distribution of visitors and infrastructure in each park may serve to reduce disturbance and habitat damage. By concentrating visitors in controlled, 'honeypot' areas, managers can shield the majority of each park from tourism impact. In doing so, managers may have to accept a certain level of degradation within such intensive use areas and manage the consequent environmental pressures. For example, heavily used trails in Komodo NP show signs of physical wear and create aesthetic scars on upland landscapes. Managers need to understand the physical and behavioural mechanisms that result in such patterns of wear, so that preventative and remedial action can be implemented.

Concentrating visitor distribution can bring additional pressures, particularly overcrowding. This can adversely affect visitor satisfaction, as demonstrated in Keoladeo NP (Box 5.1). Combined with unregulated access, such limited visitor distribution and a focus on key sites can overload the system and cause visitor management to break down. Such a situation has been witnessed on Komodo Island at peak times (Box 5.2). These types of situation could be averted by imposing adequate control mechanisms on visitor arrivals, or by a wider dispersal of visitors at lower densities. The latter approach, however, risks spreading tourism impacts more widely, particularly in sensitive environments that are easily damaged by even low numbers of visitors.

5.4 Visitor Activities

Apart from the domestic temple visitors at Keoladeo NP, visitation to all three parks is wildlife oriented. Visitors to Keoladeo NP are attracted by the huge variety of birdlife, whilst visitors to Gonarezhou NP are motivated by opportunities for large mammal viewing. Komodo NP is primarily a single species destination, although fringing coral reefs provide an additional attraction. The desire amongst visitors to see such wildlife at close quarters has resulted in animal and habitat disturbance in all three parks.

In both Gonarezhou NP and Komodo NP, artificial means of attracting wildlife to accessible viewing sites have been employed. In the former, artificial waterholes were constructed in order to create concentrations of game in readily accessible places, resulting in habitat modification and degradation (Box 5.3). In the latter, goats were supplied at a viewing site to attract dragons, which caused a localised increase in dragon density and habituation to feeding (Box 5.4).

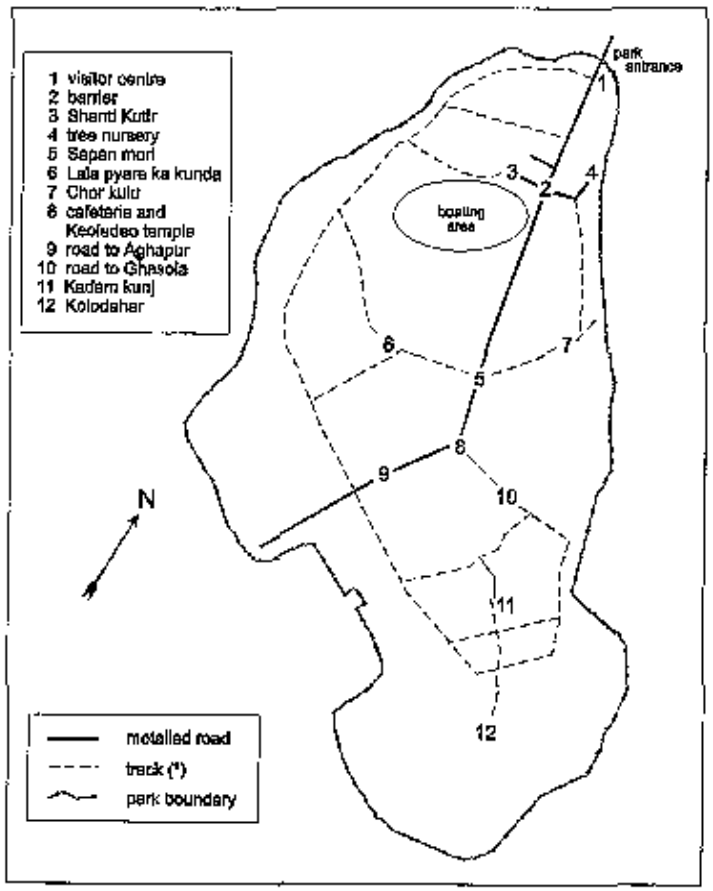
The high density of birds, which attracts visitors to Keoladeo NP, is entirely the result of human interference with river drainage creating an artificial wetland in an otherwise dry floodplain. This creates its own set of problems in terms of recurrent management intervention to maintain the system in its current state. However, the more important issue with regard to tourism is the lack of regulation over access to sensitive target species. Visitors are not restricted from moving very close to birds and other

Box 5.1: Visitor distribution in Keoladeo National Park

Location	proportion visiting
1 Visitor Centre	70%
2 Barrier	96%
3 Road to Shanti Kutir	27%
4 Tree Nursery	12%
5-6 Track to lala pyara ka kunda	34%
5-7 Track to Chor kulu	10%
8 Cafeteria and Temple	66%
9 Road to Aghapur	31%
10 Track to Ghasola	37%
Boating Area	19%
11 Kadam Kunj	5 %
12 Kolodahar	6%

Table 5.1: Visitor distribution (Numbers refer to locations shown in Map)

Source: Tourist Questionnaire and Field Surveys



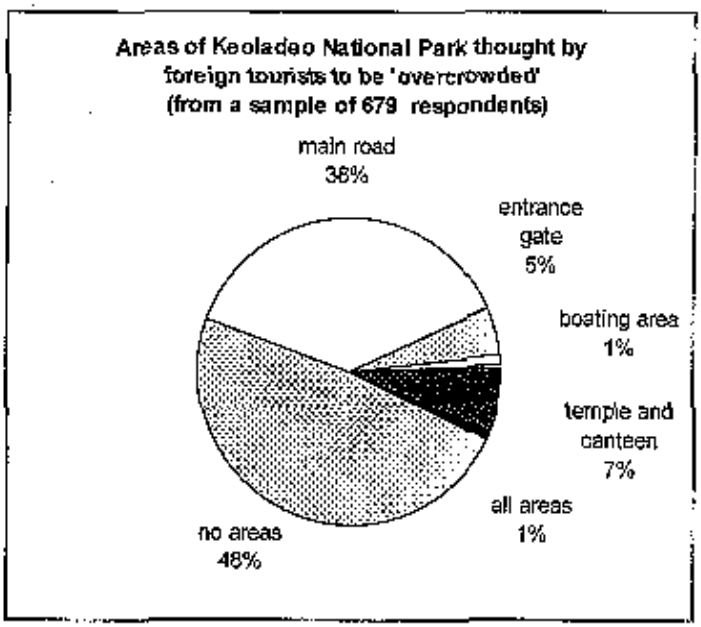


Figure 5.1: Foreign visitors' views concerning 'over-crowding'

Source: Tourist Questionnaire

Although overcrowding might not have significant effects on wildlife, the large numbers of tourists on the main road during the December months has been a cause of concern for tourists. In general, overcrowding is not perceived to be a problem, but it is sufficient to deter some visitors during the busy weeks. A survey among 679 foreign tourists showed that 48% thought that no areas of the park were crowded. Although 38% suggested that overcrowding on the main road was significant (figure 5.1).

Box 5.2: Patterns of access and distribution in Komodo National Park

Access to Komodo NP is by boat, and visitors arrive by government ferry, charter boat or cruise ship, with a handful of private yachts visiting each year. Without a booking system or control over access, this system leaves the park vulnerable to overcrowding during busy periods, particularly given the seasonal pattern of arrivals to the park *(Chapter 2)*. Visitor arrivals and activity patterns were examined using park records spanning several years to examine this issue.

Monthly totals for overnight visitors exhibit some seasonality, with July to September being the busiest months. Bed occupancy over the year averaged 34%, with a low of 21% in December and a high of 60% in August. On particularly busy days in August, demand has exceeded supply, and visitors have been forced to sleep on the floor of the cafeteria. However, overnight visitation has been stable or declining in recent years, with a shift towards charter and cruise visitation. As a result, this problem is limited to few occasions. Nevertheless a prior booking system would alleviate any problems.

The increase in cruise visitation presents other problems of overcrowding. Although these visitors do not stay overnight, the arrival of larger and larger vessels results in groups of up to several hundred visitors arriving on particular days. Groups of 100 or more now regularly arrive twice weekly. The geographic spread of visitors is very restricted. Much of the terrestrial part of the park is Sanctuary Zone and out of bounds to visitors. Most of the remainder is Wilderness Zone in which visitors are restricted to trails whilst accompanied by guides. The Intensive Use Zone, within which tourism development is permitted, is restricted to the visitor camps and the single viewing site on Komodo Island. Over 97% of visitors to the island remain within the Intensive Use Zone, which effectively covers less than 1% of the area of the island. Although this arrangement limits ecological impacts, when a large cruise ship arrives it causes overcrowding at the single viewing site. Nominal limits to group sizes of no more than thirty visitors are regularly exceeded, and when large cruise ships arrive staff are forced to spend entire days accompanying visitors to the viewing site, to the detriment of other management activities. Furthermore, although the evidence is only anecdotal, the arrival of large tour groups adversely affects the experience of smaller groups of independent visitors.

wildlife, and numerous incidents of disturbance have been recorded. Moreover, local people acting as informal guides have been known to deliberately disturb sensitive species in order to provide visitors with better views (Box 5.5). This scenario reflects that of many parks in microcosm. Whilst park managers may accept some disturbance in order to maintain tourist revenue flows, so informal guides will deliberately disturb wildlife to boost their own income with higher tips from visitors. A similar situation is witnessed with official (but nevertheless unregulated) tour guides in Masai Mara National Reserve driving off-road to get closer to large predators. In Komodo NP, tour operators take visitors to a small bay to snorkel over coral. There is increasing concern over damage inflicted to the reef as a result of this unregulated activity, namely the impact of boat anchors and unwary visitors tramping on coral in shallow water.

A certain level of disturbance may be considered acceptable given associated benefits. Such is the case with waterholes in Gonarezhou NP, which provide both wildlife viewing opportunities for visitors and dry season water supplies for wildlife (Box 5.3). Furthermore, intervening to limit disturbance without addressing the implications for tourism can be equally damaging. When park authorities in Komodo NP intervened to limit dragon disturbance, viewing opportunities declined (Box 5.4). Although the decision to cease feeding of dragons on Komodo Island was appropriate from ecological and conservation perspectives, it risks alienating visitors if they are given no alternative means to view dragons. Similarly, when staff tried to prevent visitors in Keoladeo NP from disturbing Siberian Cranes, there was serious conflict (Box 5.5).

Box 5.3: The impact of artificial waterpoints in Gonarezhou National Park

The Management Plan for Gonarezhou National Park maintains that artificial waterpoints should only be established for drought relief and for the conservation of endangered or sensitive species (DNPWLM, 1993). It also highlights the need for further research into the effects of artificial waterpoints on the environment of the park. Despite this caution, some boreholes in the park are pumped, in locations close to access roads, to allow easy viewing of good concentrations of wildlife by tourists.

In 1995, a study of the impacts of artificial waterpoints was conducted, in conjunction with the DICE/DFID program, in the southern Mabalauta sub-region of the park (Rodríguez, 1995). The study compared wildlife visitation and habitat degradation at natural and artificial waterpoints, and at control points away from waterpoints.

The study found a slightly increased concentration of wildlife at the artificial waterpoints, although not to the same extent found by other researchers. Associated with this was an increased impact on vegetation surrounding artificial waterpoints. The two most notable impacts on surrounding vegetation were increased tree regeneration and a decrease in grass cover.

The decrease in grass cover surrounding both the artificial and natural pans was a result of trampling and grazing by mammals visiting the waterholes. The decrease in cover was most marked closest to the waterpoints, and decreased with increasing distance. The natural waterpoints showed a complete 'recovery' in grass cover to the level of the control sites within 500m radius, whilst the artificial waterpoints continued to show some degradation at 500m.

The complete eradication of woody species, which has been found in other studies, was not apparent during this study. Although there was a decrease in the proportion of canopy trees (>4m tall) within 500m of both natural and artificial waterpoints, there was an overall increase in tree density. Within the 500m belt transects, over 67% more trees were found at the artificial sites than at the control site, comprising mostly small (<2m tall) trees. This suggests increased tree regeneration concurrent with the loss of shade trees that might inhibit juvenile growth. The increased fertilisation of the soil associated with increased mammal density may also play a part. However, smaller trees are more susceptible to fire damage. The study revealed a low level of fire damage to trees, suggesting a lack of fire in recent years in those areas of the park. Were fire to occur more frequently, it could result in woodland decline.

Although the establishment of artificial waterholes has had an impact on the vegetation surrounding these pans, the provision of water to wildlife in a drought prone environment and the inclusion of tourist revenue for the Gonarezhou are important management factors which must be considered. The impact on vegetation of 25 years of permanent water supplies is not as severe as has been suggested for Hwange and other African national parks. However, other factors such as the elimination of crustacean species, the alteration of grass cover from perennial to annual species, and the increased predation success which is associated with artificial waterholes must also be considered (adapted from Rodriguez, 1995, pp.59-61).

Box 5.4: The impact of feeding dragons and its cessation on Komodo Island

Like many carnivores, Komodo dragons are difficult to observe in the wild. They do not come regularly to water, and basking sites are predominantly inaccessible to casual visitors. As a result, goats were used as bait to attract dragons, following on from scientific studies which had used bait to facilitate behavioural observations (Auffenberg 1981). A feeding site for dragons was established in the early 1980s at a clearing above a dry streambed, an easy 2 km walk from the visitor centre and jetty where visitors arrive and depart the island. Groups of up to 30 visitors were taken by guide to an enclosure at the feeding site. Goats were slaughtered and tied to a tree outside the viewing enclosure, to attract wild dragons that could then be observed feeding. As visitor numbers rose, so the frequency of feeding increased, with several goats being provided during twice-weekly sessions in the early 1990s.

The issue of supplementary feeding to facilitate viewing of wildlife is contentious, and concern over the potential negative impacts of feeding on the dragons, particularly habituation and health problems, led to a cessation of feeding in August 1994. Currently tourists are still taken to the viewing enclosure at the ex-feeding site, where a residual group of dragons remains.

Using daily dragon counts from the feeding sites and visitor questionnaires, this study examined the effects of artificial feeding and its cessation on dragons and tourists. The results clearly show that feeding resulted in an artificially high concentration of dragons at the feeding site, but that this declined in the aftermath of cessation (fig. 5.2). This suggests that temporary habituation to feeding did occur, and that cessation removed this impact. From an ecological perspective, the decision to stop feeding achieved the desired results.

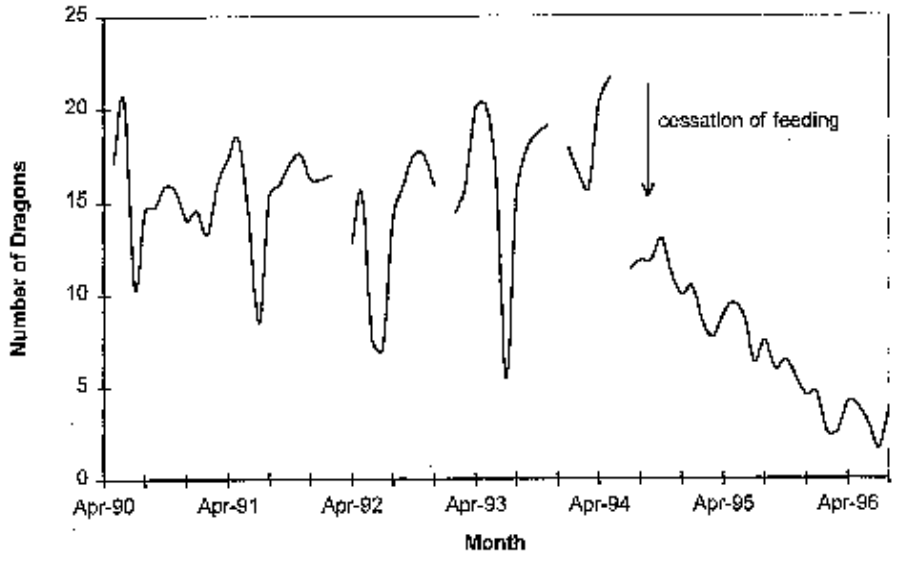


Fig 5.2: Average daily dragon sightings each month at Banu Nggulung, Komodo Island, April 1990 - August 1996.

However, the decline in dragons at the feeding site has made it more difficult for visitors on a standard brief shore visit to view dragons. Evidence from a contingent valuation survey suggests that visitors would be willing to pay higher entrance fees if more dragons were visible. Moreover, an increased proportion of groups visiting the old feeding site no longer see dragons. This has clear implications for visitor satisfaction and the long-term viability of the park as a tourist attraction.

Park managers are investigating other ways of providing visitors with guaranteed dragon sightings. Water is being pumped to the dry river bed where feeding took place in order to attract other wildlife, with the hope that increased prey density in the area will entice dragons to remain there. Other possibilities include reinstating feeding on an erratic or infrequent basis that would be less damaging than regular feeding but which might entice some dragons to remain. Unless visitors stay longer and walk more widely within the park, the use of some artificial method to attract dragons to a suitable viewing site may be inevitable.

Visitors arrive with high expectations fuelled by wildlife documentaries and in some cases by reports contained in out-dated guidebooks. Managers have a duty to limit tourism where it threatens the integrity of a protected area. However, they must equally provide a quality visitor experience if tourism is to be maintained as a function of protected areas. The solution may lie in a combination of marketing, education and product reorientation.

Consider Komodo NP as an example. The cessation of dragon feeding has made it more difficult for visitors to see dragons in a standard 2-3 hour shore visit. Equally, some visitors are still arriving expecting to see feeding taking place, unaware that it ceased in 1994. However, it is not necessary to resume feeding in order to satisfy visitors and provide a quality experience. Advanced publicity on prominent notice boards or in the form of leaflets distributed to hotels or at ferry terminals at gateway towns, could explain to visitors why a non-feeding policy had been adopted, whilst outlining the types of activity offered and how to get the most out of a visit. By forewarning visitors of what to expect, unrealistic expectations and subsequent disappointment are minimised. Such an approach can also be used to explain pricing policy and the relationship between the park and local communities (see Chapters 3 and 4). Pressure can be alleviated from the prime attraction, viewing dragons, by highlighting the unique environment in which the dragons live. Natural history interpretation can be provided by guides and in the form of signboards and labels. Equally, to offset the possibility of visitors not seeing dragons, a film documentary of the park and dragons could be shown at the visitor centre.

These ideas are not new. Most of them were suggested, unprompted, by visitors during questionnaire surveys and informal interviews. Less intrusive means of attracting dragons, such as an artificial waterhole or intermittent feeding, combined with viewing hides, may also be considered. An alternative would be to encourage longer stays, although this has other environmental implications and would entail the co-operation of commercial operators to adapt tour schedules.

5.5 Resource Consumption, Pollution and Litter

The presence of visitors inevitably results in the consumption of resources and the production of waste. How these activities are managed will determine their impact.

Consumptive use of wildlife by tourists only occurs in Gonarezhou NP, namely freshwater fishing. The unregulated off-take by recreational fishermen is a cause for concern, and data suggests that this is affecting the population dynamics of certain species. In addition, the removal of mahogany and other hardwoods outside the park for the production of handicrafts for sale to tourists has virtually eliminated these species from local areas around craft markets in the lowveld. The consumption of fresh water on Komodo Island is a constraint on the development of tourism, and may have as yet unforeseen environmental implications.

Human waste, such as litter and sewerage can cause marine and terrestrial habitat damage by introducing minerals, nutrients and toxins into the environment. Regular deposits of food waste may lead to wildlife habituation. In Keoladeo NP, litter bins provide food for monkeys, babblers and crows, while dragons and deer scavenge from litter bins and the cafeteria on Komodo Island. In smaller parks with high visitation rates and restricted distribution, litter becomes a significant problem. In both Komodo NP and Keoladeo NP the authorities recognise litter to be a source of environmental impact and a wildlife health risk. In Gonarezhou NP, there are fewer visitors, mostly day-trippers. The reduced density of visitors results in litter not being perceived as a problem, whilst there is no evidence to show whether or not it is accumulating. There is a risk of litter pollution at campsites, which has attracted

Box 5.5: Wildlife disturbance in Keoladeo National Park.

In Keoladeo NP, visitors are permitted to travel unaccompanied around the park. Although there are codes of conduct to which visitors are meant to adhere, there is a lack of awareness of these regulations, and as a consequence wildlife disturbance does occur.

Of particular concern is disturbance to the Siberian Cranes that migrate south to over-winter in the park. Numbers have been declining for many years, and for three seasons until 1996 no cranes visited Keoladeo NP. In February 1996, four individuals arrived and remained within the park for 4-5 weeks. Two incidents of visitor disturbance occurred during the time the birds were in the park. The first involved a fight between two tourists and a forester over the visitors getting too close to the birds in order to photograph them. It seems that the forester was taking photos close up and the tourists decided to do the same. The forester tried to prevent them, but had no proof of authority and a fight ensued in which the forester's companion was assaulted with a camera tripod. In a second incident, a rickshaw driver was discovered wading chest deep into the water in order to lead tourists close to the birds.

Unregulated guiding of this nature is also a particular concern for park management, and causes widespread disturbance. Guides are inclined to take visitors too close to wildlife, since the closer they get, the more likely they are to receive a good tip. One informant cited an example of owl disturbance. A barn owl (the first sighting of one in 1996) arrived to nest in a tree near Keoladeo Temple. A great number of visitors were shown the bird and a considerable amount of flash photography took place. The owl abandoned the area the same day (L. Mudgal, *pers comm.*). Guides often stop along the main roads at trees with nests in and point these out to visitors. On one visit, six groups were observed under different trees between Shanti Kutir and Keoladeo Temple, trying to get close enough to take the best photographs. Such disturbance at a critical time such as nesting may have severe implications for population dynamics of sensitive species.

The issue of unregulated guiding extends to local village children who act as unofficial tourist guides. This has led to significant disturbance of pythons in the park. In the winter period, pythons use porcupine (and sometimes jackal) burrows to keep warm at night, often coexisting with the original residents, and bask outside these holes during the day. This coincides with the tourist season, and pythons are often disturbed from burrows by visitors that are led to the burrows by rickshaw drivers, guides and young boys. Some disturbance and interruption of mating also occurs when visitors come across copulating pairs at burrows. Some holes where several pythons were seen earlier in the season appear to have been vacated due to visitor disturbance. Of a sample of 195 package tourists, 41% had been taken to see a python. Evocative names in the park such as 'python point' encourage tourists to seek pythons. Python viewing has become a source of income for 'informal guiding' at the park. Local youths will often take tourists to the same burrow, many times a day.

scavengers such as baboons and hyaenas. As with many other sources of visitor impact, the effect of litter on species populations is yet to be established. The aesthetic impact of litter is more clearly apparent, and may affect visitor satisfaction.

Vehicles create both noise pollution and emissions. In Keoladeo NP, the location of the Forest Lodge (the major hotel) and also the Forest Department offices creates regular vehicular traffic between the main gate and the Shanti Kutir barrier (Map 1.1). On a typical high season day, 5 coaches, 38 scooters and 39 cars visited the Forest Lodge between the hours of 6am and 6pm. During the same period there were 82 scooters, 51 cars and 3 coaches travelling up to the barrier. However, both the Forest Lodge and the park offices are relatively near to the park entrance, and some distance from the central wetland areas of the park where vehicular traffic is prohibited. In Gonarezhou NP motor vehicles are the only form of transport. Increasing volumes of traffic may affect roadside vegetation through both exhaust pollution and dust, whilst vehicle noise may disturb wildlife from areas close to roads. Equally, vehicle

associated pollution is cause for concern in the marine environment in Komodo NP, due to the increasing number of motor boats using the waters of the park. These are relatively unstudied aspects of tourism impact, and further research is necessary before clear relationships can be identified.

5.6 Constraints to Comprehensive Tourism Management

Current levels of control over tourism are generally low (Table 5.2). At none of the study sites is access, and hence visitor volume, controlled. Whilst there is some form of spatial zoning in place for all sites, there is no real control over visitor distribution. Only Komodo NP operates a compulsory guiding policy using trained park staff as a means of controlling terrestrial visitor distribution.

	Keoladeo NP	**Komodo NP**	**Gonarezhou NP**
Control over access/entry	None	None	None
Spatial zoning	Picnic and Birdwatching Zones	Intensive use, Wilderness, and Sanctuary Zones	Proposed
Internal restrictions over access and distribution	None	Guide compulsory, limited trail network.	None
Monitoring visitor arrivals and activity	Visitor arrivals	Visitor arrivals, visitor activities	Visitor arrivals
Monitoring ecological impacts	None	Dragon numbers at the viewing site	None
Monitoring social impacts (attitudes)	None	None	None

Table 5.2 Monitoring and management of visitor impacts in each of the three national parks

A number of factors may contribute to the lack of clearly defined tourism management. Firstly, managers may have neither the skills nor resources to implement effective management. Staff are rarely trained in tourism management, and limited resources are more often deployed in traditional management roles such as security patrolling and maintaining non-tourist infrastructure. While tourism may be viewed as an important source of revenue, expenditure on tourism is infrequently prioritised. Furthermore, management jurisdiction and capability rarely extends beyond the boundaries of a protected area. There are no means to regulate or limit arrivals to any of the study sites, and no compulsory prior booking mechanisms to prevent overcrowding.

Secondly, management policy towards tourism is often based on maintaining revenue flows rather than regulating access. In Keoladeo NP and Gonarezhou NP there is an emphasis on revenue generation from tourism, not on sustainable management. The former has revenue quotas to fulfil from tourism each year. The latter, whilst only recently re-opened for tourism, faces the probability of having to become self funded. This could result in more emphasis being placed on revenue generation than on other concerns such as environmental management.

Thirdly, tourism is not ranked highly as an environmental problem requiring regulatory or remedial action. In each of the three parks, there are other environmental concerns that to some extent outweigh those associated with tourism. In Keoladeo NP, the major factor influencing the ecology of the park is the management of flooding levels. In addition, changes to the regulations concerning usufruct rights

have resulted in habitat changes, particularly in the wetland areas. Dryland areas appear to be declining as a result of increased flooding, and particular species are being displaced by alien competitors. Some management-related activities in the park (bulldozing, collecting of aquatic grasses) may be causing wildlife disturbance. Also, the presence of pollutants in the floodwater that drains into the park is a severe health risk for aquatic bird species. Tourism does not appear to be ranked highly as an environmental problem in the park.

In Komodo NP, the major environmental impacts associated with the marine environment are the over-exploitation of marine biodiversity by fishermen, who use illegal practices such as dynamite bombing and cyanide poisoning. These practices have significant impacts on coral reef and pelagic fish stocks. For the terrestrial environment, and the dragons in particular, there are two related threats. One is the poaching of dragon prey species (principally deer) and the associated release of hunting dogs onto the islands, which subsequently turn feral and compete with dragons for prey. The other is the deliberate burning of the grasslands on the island by poachers to flush out deer. Although fire is a natural phenomenon in Komodo NP, the increased frequency of human-induced fires poses a threat to the wildlife and the habitat of the park. Tourism is an added drain on management resources, but in the context of these other threats it is perceived as relatively benign.

In Gonarezhou NP, the three major ecological problems are drought, poaching and fire. The 1992 drought resulted in massive wildlife mortality. The additional pressure of poaching by local people and Moçambiquean trespassers has resulted in a paucity of wildlife in the park. Fire, sometimes started deliberately by poachers, has spread uncontrolled over large areas of the park. In addition to these problems, habitat management is a serious issue, with implications for the control of the elephant population that seriously affects vegetation. Tourism is currently at a fairly low level and, although increasing, is not perceived as a serious ecological threat. However, managers are concerned at the extra resources that will be needed to deal with visitor impacts, particularly the restoration of roads associated with the opening of the park in the wet season.

One of the reasons that regulating tourism is not rated highly as a management priority is a lack of objective evidence of either the ecological or social impacts of tourism. Tourism is viewed as relatively benign in all three study sites. However, a lack of monitoring and quantitative data leads to difficulties in substantiating any claims that tourism either is or is not having a significant impact (Table 5.2). Although the cessation of supplementary feeding of Komodo dragons is generally accepted as positive from ecological and conservation perspectives, there is little direct scientific evidence to support it. Without an effective monitoring capability, management decisions will continue to be made on subjective grounds in all three sites, and subtle or long-term visitor impacts, and associated impacts of management intervention, may be overlooked.

A questionnaire study of the implementation of visitor management strategies in 319 national parks around the world revealed that monitoring of biophysical impacts were only occurring in 50% of parks in developed countries, and in 35% of parks in developing countries (Giongo *et al.*, 1993). Direct management tactics were employed in less than 50% of parks included in the study. The conclusion reached by the authors of this study was that, in parks in developing countries, 'an adequate level of basic infrastructure, information exchange, and training must still be reached before visitor and resource management issues become the focus of attention.' (Giongo *et al.*, 1993, p.104).

5.7 Conclusions

There is a basic level of operational tourism management in all three study sites, which provides infrastructure, viewing opportunities and some limited visitor regulation. In none of the study sites were the ecological impacts of tourism considered to be severe. All would be reversible with appropriate

remedial action, as demonstrated by the cessation of supplementary feeding of dragons on Komodo Island. In this respect they are at the mild end of the spectrum of tourism impacts (Speight, 1973). However, this conclusion is tempered by a number of important caveats.

1. Detailed long-term data on ecological and social impacts was not available for any of the parks under study. As a result, potentially important impacts may remain undetected.

2. Tourism is increasing to all three parks, placing pressure on existing management and infrastructure. This will result in increased impacts and an increasing pressure for new areas within each park to be opened up or developed for tourism.

3. The principal impacts detected in each park were closely associated with the principal viewing activity or attraction, which was also the most sensitive aspect or conservation priority of each park. Relieving this pressure whilst maintaining the accessibility of major attractions is a key challenge for protected area managers.

Few protected areas are large enough, robust enough or sparsely visited enough to operate a *laissez faire* approach to tourism management. Although such an approach has been considered for larger savannah parks in Africa (Potts *et al.*, 1996), it is predominantly the case that active management must be employed. Effective visitor management entails controlling access to the site, limiting access and distribution within the site, and carefully regulating the activities that visitors undertake therein. However, such controls must be balanced against the provision of a quality visitor experience that first defines and then meets visitor expectations. Management of this nature requires an adequate level of skills, resources and infrastructure. Just as important, given the fragility of natural environments and the unpredictability of international tourism, is a comprehensive monitoring system linked to an adaptive management framework that will ensure that fluctuations and changing circumstances are detected and addressed before serious damage or decline ensues.

A number of research-based planning and management systems have been developed to assist the implementation of sustainable visitor management in protected areas. Perhaps the most well known of these is the Limits of Acceptable Change (LAC) system (Stankey *et al.*, 1985), although a number of other systems exist, including Recreational Opportunity Spectrum (ROS), Visitor Impact Management (VIM) and Visitor Activity Management Process (VAMP) (Graefe *et al.*, 1990; Giongo *et al.*, 1993). Each of these shares four principal planning steps:

1. determining the current situation;
2. deciding what situation is desired;
3. establishing how to get from the current to the desired situation;
4. monitoring and evaluating progress or success in attaining the desired situation.[1]

The emphasis in these systems rests not on defining limits to the number of visitors, but rather on defining the degree of change that is acceptable within the system. This refers to social as well as ecological factors, and is based on evaluating the state of the system by reference to a number of suitable performance indicators. Once indicator limits have been defined, direct and indirect site and visitor management tactics can be implemented. Whilst some such tactics are employed in the three study sites described here, and in other parks in developing countries (Giongo *et al.*, 1993), fully integrated adaptive management remains elusive.

[1] quoted from Giongo et al., 1993.

6. AN AGENDA FOR CHANGE

6.1 A Stakeholder Approach

Central to the debate on tourism, conservation and sustainable development are the issues of how employment and other benefits to destination countries can be maximised at the local level (see Chapter 3); how revenues to conservation can be maximised (see Chapter 4); and how negative environmental impacts can be minimised inside parks (see Chapter 5). Based on the three case studies this chapter addresses the ways in which existing patterns of tourism in developing countries can be improved and new tourism developments planned, so as to maximise their contribution to local sustainable economic development and poverty elimination; and to conservation.

National parks bring significant numbers of tourists to rural areas and this sector of the tourism market (both international and domestic) continues to grow strongly (see Chapter 2). The private sector has been the real engine of tourism development. Companies based in the tourist-originating countries dominate international tourism, whilst in the destination countries, the established entrepreneurs in the metropolitan centres dominate the national industry. It is at the destination level (in our case studies, in and around national parks) that the opportunities for local people to gain from this export industry need to be maximised.

Tourists are often enjoined to "leave only footprints" in order to minimise adverse environmental effects - the greater challenge is to find ways of leaving a larger economic impact in the local economy by increasing local tourist spend. If the potential benefits of tourism are to be localised a number of challenges need to be met. These challenges include issues of ownership, economic leakage (from the local economy and through imports), local employment, benefit distribution, social and environmental impacts and dependency. These problems can only be effectively addressed at the destination level with the active participation of the local communities.

Tourism can contribute to local sustainable economic development by providing realisable opportunities for economic diversification. The balance between different economic sectors in any local area needs to be determined locally - however, tourism monocultures are unlikely to be appropriate in rural areas where agriculture and fishing remain the predominant means of livelihood, and these activities are themselves part of the tourism value of the destination. A tourism monoculture adversely affects the inherent quality of the destination and over-dependence on tourism increases the economic vulnerability of the area to decisions made elsewhere by consumers and investors.

It is clear from the three case studies that local conditions play a significant role in shaping tourism in particular places. Local people and conservationists can maximise their earnings from tourism at the local level, but they do so under conditions not of their own making. This chapter discusses some of the strategies for maximising the returns from tourism to local communities and to conservation that arose in the workshops held in each destination towards the end of the field research.

Tourism development has often been focused at the macro level, on international promotion, attracting inward investment and major hotel and resort developments and on national and regional master planning. There needs to be a shift towards building partnerships which bring to the international and national market places tourism experiences which reflect the

characteristics of the destination, involving local communities and giving them a degree of control as hosts. There needs to be a shift from top-down to bottom-up approaches to tourism development.

There are opportunities for park managers, responsible for the management of the major tourist attractions in the destination area to work with local communities and other stakeholders to shape tourism in order to maximise benefits to local communities and to ensure that tourists contribute more to the maintenance of parks.

The Department for International Development (DfID) has published guidance notes drawing upon the results of this research and consultation workshops held with the media, the tourism industry, governmental and non- governmental organisations.[1] Drawing on the research and upon the local workshops held in 1996, this chapter suggests ways in which some of the major stakeholders can make a difference. Each section addresses the opportunities for a particular stakeholder group to make a contribution to change. Section 6.2 addresses the tourism industry and focuses in particular on what the industry can do to contribute to change. Section 6.3 focuses on what contribution planners, investors and donors can make in shaping the industry in the construction phase. Sections 6.4 and 6.5 address development NGOs and community-based organisations (CBOs); and protected area managers and conservation NGOs respectively. Section 6.6 considers what the media could do to contribute to changing the way we take our holidays in developing countries.

Each group of stakeholders has a contribution to make to changing the nature of tourism, the success of each stakeholder in so doing is dependent upon the contribution of others and there are evident overlaps. Addressing specific stakeholder groups risks some repetition of parts of the arguments, but each section is designed to stand alone in addressing the particular audience. Section 6.7 suggests the kind of information which needs to be collected and used locally in order to empower local communities, local government, conservationists and local entrepreneurs to participate in shaping the industry to the benefit of the hosts.

6.2 The Tourism Industry

Since the 1992 United Nations Conference on Environment and Development (UNCED) in Rio, the travel and tourism industry has been in the forefront of debates about how to create a sustainable future. Business leaders in this global industry have the opportunity to make a difference. The industry brings marginal rural areas in developing countries into the global market. This often brings modernisation and development to areas that were previously remote, economically isolated and relatively unspoiled.

Decisions that determine the volume and character of tourism in a particular destination are not generally made locally. These decisions are made in the tourist originating countries and in the gateway cities by incoming operators. There is very limited long-term commitment by operators to any particular destination area; the industry moves on as new destinations emerge and tastes change. Hoteliers and other owners of accommodation are, by contrast, committed to particular places, their local communities and tourist attractions, for example, national parks and other conservation areas. The industry responds quickly to market forces but it also shapes the market and can use its marketing and promotion strategies to develop sustainable tourism in the world's rural and sometimes fragile environments. In many rural areas there is scope for developing accommodation and attractions for domestic tourists. This is a less volatile market and one which may be more accessible for local entrepreneurs.

[1] Department for International Development, Changing the Nature of Tourism (forthcoming).

There are groups within the industry encouraging companies to adopt environmentally sustainable approaches, with some success. Furthermore, there is increasing interest in ethical tourism and in fair trade in holidays and these concerns will help shape tourism for the next century. This section highlights some of the issues that the industry should consider in developing tourism in order to address these agendas. Tourism has the potential to contribute both to eliminating rural poverty and to the conservation of biodiversity.

6.2.1 Environment and culture

The industry markets the world's cultural and biological diversity because of the interest of travellers in visiting other peoples' environments and cultures. Enlightened self interest dictates that the industry plays its part in maintaining the resource base upon which tourism depends; unspoilt natural heritage and cultural difference.

The industry needs to ensure that the integrity and attractiveness of natural and cultural heritage areas is maintained and enhanced. The entrance fees and other charges paid by international tourists are a minor part of the cost of the holiday. From Bali and Lombok tourists pay US$300 for two night packages to make the trip to Komodo Island to see the "dragons", while the national park takes just US$1 to maintain the attraction. Charges need to be increased to ensure that tourists make a contribution large enough to cover the costs incurred by their visit, sufficient to fund the conservation of the resource. The industry needs to build partnerships with other stakeholders and conservation bodies to effectively manage visitor numbers and activities within the carrying capacity of the sites.

6.2.2 Tourism and local communities

All too often, particularly in rural areas, local people are denied significant opportunity to enter the tourism market. Cruise ship tourists at Komodo Island, safari tourists in Zimbabwe and coach tourists at Keoladeo National Park have very little contact with local people. There are very limited opportunities for local people to trade with "enclave" tourists, although local communities seek economic linkages. The industry needs to consider how it can encourage local economic development linked to tourism, diversifying the local economy without displacing the traditional economic activities that characterise the area.

Those who live in or adjacent to heritage areas bear the costs of setting areas aside for conservation, by being denied the opportunity to hunt, gather fruit, graze livestock or cut grass for thatch or fodder. Some tour operators support the concept of rural development funds financed from tourism revenue. 65 per cent of UK tour operators surveyed for this study agreed that there should be an entrance charge levied for a rural development fund. Mechanisms need to be found to realise this support for integrated rural development. The industry has the potential to make a real difference to local economic development by adjusting the way it staffs and supplies its operations and develops its linkages into the local economy.

The industry can make a difference by employing local men and women and by training them for promotion within the industry. Linkages in the local economy can be fostered, encouraging the development of small businesses to supply food, transport, souvenirs, guides and other goods and services. Over 60 per cent of UK tour operators agree that local people should be assisted to develop tourism-related businesses. There is scope for co-ordinated

efforts, working with local institutions, to ensure regularity of supply and the development of successful local enterprises.

6.2.3 Developing destinations

There are considerable benefits to be gained by the tourism industry through engaging with local communities and the local industry to enhance the quality, diversity and sustainability of the tourist experience. Local entrepreneurs and communities play little part in developing the tourism product. The focus of nature tourism is often on charismatic species; the Big 5 in African savannahs, the dragons of Komodo or the rare migratory birds of Keoladeo. Tourists arrive with high expectations of getting close to particular target species resulting in considerable pressure on these species. Focusing on habitats rather than on the species and diversifying the product could alleviate this pressure.

Surveys of tourists, conducted inside national parks, show high levels of interest in culture and landscape as well as wildlife (see section 2.7). This presents opportunities for diversification, increasing the length of stay and extending the season, thereby increasing the contribution of tourism to the local economy. Focusing on cultural attractions provides opportunities for rural communities to offer tourism experiences that enable them to secure a stake in the industry and to diversify household incomes. Diversification of the local economy through tourism is to be preferred over generating dependence on tourism which may place unsustainable strain on water supplies at the expense of the rural poor and distort the local economy, threatening local food supplies. Tourism can generally contribute more successfully to sustainable development though integrated rural development than though the development of a tourism monoculture, with the inherent dangers of over dependency.

6.2.4 Host communities

Many tourists are interested in visiting villages with a guide from the community, sampling local food and drink, seeing local crafts made and buying direct from the producer, experiencing storytelling, music and dance. Local communities can develop many of these elements of the tourist experience with little or no capital outlay, with some help from the industry in design, marketing and promotion. Often there are other attractive sites nearby waiting to be developed that would enhance the destination, offering opportunities to extend the length of stay and season.

Local guides are often highly valued by tourists in providing them with the opportunity to understand more about the local area and giving them a local perspective (see Box 6.1). Guiding offers relatively well paid employment to members of local communities and the opportunity to shape the forms of tourism which host communities experience. Good local guides enhance the quality of the tourism product and the industry can assist by encouraging appropriate licensing, assisting with training and employing local guides.

6.2.5 Local partnerships

Although tour operators have the flexibility to change the destinations which they feature each year, for some, particularly those which are vertically integrated, there is a market advantage in developing long-term relationships with destinations and working with local communities and the local industry to enhance the quality of the product. The international

Box 6.1: Local guides

A simple but very effective way for local people to become involved in tourism is through their employment as guides. Local knowledge is a skill that is marketed at all three sites. In Keoladeo NP, where guides are optional, nearly half of the package tourists, one third of the independent travellers and a fifth of the backpackers use the services of a guide.

The survey of UK tour operators conducted as part of the study asked whether their clients were willing to pay extra for a "fully trained local guide around the park". 73 per cent of UK tour operators said that they were at Keoladeo NP, and 55 per cent and 54 per cent at Gonarezhou NP and Komodo NP respectively (Jordan 1996).

In Keoladeo, nature guiding probably offers the greatest opportunity for the development of local skills, although the necessary foreign languages have until recently limited employment to wealthier individuals. In terms of skill transfer, guiding has the advantage of sustained tourist contact and nature guides have the opportunity to study the market thoroughly. Early guides at Keoladeo NP were mostly urban, but even the few from rural backgrounds have been able to make connections within the national tourism industry. Guiding is a highly regarded job amongst the community.

With the development of the lowveld in Zimbabwe, local guides at the Save Valley Conservancy also have good prospects for employment, although the process of indigenisation is slow. Both local people and visitors in Zimbabwe expressed a desire for the development of cultural attractions around parks, such as village tours, to complement their wildlife experiences. This is another area where local guides can enrich the tourism experience. There is some pressure from the industry in Zimbabwe to abolish the rules requiring a licensed professional hunter/guide on private and communal land in favour of the quality of guides being entirely a matter for the operator. Some operators are arguing that the very high qualification for guides in Zimbabwe is unrealistic because it results in a shortage of guides and inflated wages. The point is also made that local people are excluded from undertaking guiding because of the licensing requirements.

One of the best ways to ensure a quality experience for tourists in parks is by the provision of adequately qualified local guides. Besides being well placed to manage visitor distribution to avoid overcrowding, guides offer the best opportunity to educate and inform visitors, both in terms of natural and cultural history and in terms of management policy. 62 per cent of respondents to the follow -up visitors survey at Keoladeo NP reported that the local guides were their primary sources of learning about the park and its wildlife. Only 19 per cent of those in accompanied tour groups reported that their tour guide was their primary source.

Systems of guide training which establish high quality standards may be inappropriate for the needs and interests of many tourists and the regulations may function to prevent local people earning a living by guiding. Conversely, where there is no regulation of guides, standards may be so low as to cause dissatisfaction. For example, Keoladeo NP organises guide training and certification for local people.

Local nature guide training and selection should be based upon a clear agreement of recruitment practices with participation from existing guides, protected area managers, and rural development associations. It is necessary to train guides in languages, natural history, interpretive skills and visitor management.

industry is reliant on the capacity of the local industry and communities to maintain the attractiveness of the destination. Hoteliers have a long-term commitment to the areas in which they manage their hotels and resorts and a particular interest in extending length of stay and season. The tourism industry is complex with many different players, each needs to consider what it can do alone, or with other partners, to bring integrated rural development. Much is to be gained by international and metropolitan tour operators and hoteliers working with local communities and the custodians of cultural and natural heritage attractions to develop quality, locally-controlled tourism products, to maximise revenues for local people and to work in the long-term interests of the industry.

Key Questions for the Tourism Industry

- Can airlines use their in-flight magazines and videos to encourage tourists to make a greater contribution to the local economy through their choice of activities and the purchasing of products and services?
- What can airlines and tour operators do to encourage tourists to be culturally sensitive?
- Can tour operators provide more information about destinations and local activities and encourage tourists to diversify their experience?
- What can tour operators and hoteliers do to enable local people to engage in the industry by providing goods and services?
- What can the industry do to encourage tourists to pay a fair price for local attractions?
- How can hotels be developed more sensitively to avoid enclave practises?
- Can hoteliers host local craft producers to demonstrate their skills and sell their products?
- Can tour operators work with local communities to develop markets where tourists can purchase local art and crafts?
- Can the hoteliers work with local entrepreneurs to develop a wholesale market where they can source food and other consumables?
- How can the industry foster partnerships for more positive change at the local level?

6.3 Planners, Investors and Donors: Making the Right Investment

The global tourism industry has experienced unprecedented rates of growth in the last decade, its frontiers extending rapidly into the new destinations in the South. With their high biodiversity and landscape values, peripheral locations have a comparative advantage in tourism. However, tourism development needs to be managed carefully in order to avoid marginalising local communities and destroying the very resource base upon which the industry depends. This section highlights some of the important issues for planners, investors and donor agencies when considering the options for tourism development. Planners, investors and donors should not discount the domestic market which may be less volatile and which may provide business opportunities for genuinely local entrepreneurs, with less access to capital and often without international contacts. For local entrepreneurs and community based tourism initiatives the domestic market may be less risky and more lucrative.

6.3.1 *Maximising local gain*

Where tourism is carefully managed within a fully integrated local economy it presents three important opportunities for local gain:

1. additional skilled and semi-skilled local employment;
2. an additional market for local producers and new entrepreneurs, offering accommodation and other services;
3. new infrastructure in the form of roads, electricity, piped water, telephones etc.

However, the extent to which local communities gain from tourism development depends upon the capacity to supply new goods and services, the degree of linkage within the local economy, and access to decision making. Appropriate investments for tourism development can build on local capacities for change.

6.3.2 *Mobilising local skills*

Investment in training can help diversify local incomes, transfer existing skills and create new jobs. At Keoladeo NP, local government and park authorities work together to provide training and licensing for cycle-rickshaw operators and local nature guides. Familiar skills are used in new profitable ways, and economic benefits reach communities who might otherwise be marginalised by development. Local participation in the tourism sector is often highest in informal enterprises - those that are small-scale, labour intensive, and operate in highly competitive markets. Donors can build new confidence, identify market opportunities, and increase collective efficiency by supporting producer networks and clusters. Barriers to small-scale investment can be removed through locally managed micro-credit schemes and revolving funds.

6.3.3 *Building economic linkages*

There are many opportunities to build linkages in the local economy and to minimise leakage of assets. Small informal enterprises can gain from tourist expenditure by developing closer linkages with the formal sector. Lodge operators in the southeast lowveld in Zimbabwe have developed employment and sourcing policies to encourage local participation (see Box 3.6). Where economic participation is difficult, there are opportunities for donors to encourage creative partnerships between local communities and the formal sector by raising funds for development through levies on entrance and accommodation fees. Government tourism departments might consider the development of local economic linkage as a key objective in addition to their promotional function.

6.3.4 *Promoting appropriate development*

Tourism is an aggressively demand-driven industry and host communities have little choice as to whether guests arrive or not. However, planning and investment controls can help to encourage appropriate types of tourism development. The Indian Department of Tourism provides grants for the conversion of old royal palaces to luxury hotels to encourage up-market, low-volume tourism. Planning controls and zoning ordinances can be used to prevent tourism development on land important for local agriculture or other local businesses or for

conservation. In the absence of effective planning controls tourism development occurs on land designated as 'green belt' (at Keoladeo NP) and in Labuan Bajo the seafront is being purchased for hotel development and local businesses are being displaced.

6.3.5 Creating opportunities for trade

The siting of hotels and tourist facilities needs special attention. Hotels and lodges situated inside wildlife reserves prevent access by local traders and lead to enclave practices that bypass the local economy. Coach tours and cruises that visit exclusive attractions can also prevent opportunities for small businesses. Local access to the tourist market helps to create a more diverse set of experiences for visitors, encouraging them to stay longer and to make a larger contribution to the local economy. Local suppliers of goods and services require effective and ordered access to tourists through the establishment of handicraft markets, village and agricultural tours.

6.3.6 Planning for the future

The environmental impact of tourism development is contingent on a range of factors including the type of tourist, their activities and behaviour, the type of infrastructure, the nature of the environment, the climate and the season. Investors and donors can ensure that their developments are planned in consultation with local stakeholders and are subject to comprehensive environmental and social impact assessments. New developments can bring additional infrastructure in the form of roads, electricity, piped water and telephones which can also be situated according to local requests through the application of planning gain.

6.3.7 Safeguarding access to decision-making

Opportunities will be maximised where local populations make effective contributions to the planning process from the start. Donor agencies can act as intermediaries, facilitators and guiding institutions to improve participation by invisible stakeholders - the landless, poor and marginalised who may have the most to lose from tourism development. External interests can quickly purchase local assets where tourism inflates land prices and where ownership rights are freely traded. Donors can provide support to communities whose existing land rights are under threat, and strengthen legal frameworks designed to protect them. In the communal areas of Zimbabwe, land rights are inalienable and hotel land has to be leased from the local communities (see Box 3.4)

6.3.8 Building networks and establishing fora

Communities with no experience of tourism experience difficulty making informed choices about the options for change. Donors can play a role in building networks between NGOs with a common purpose and interest. In some countries there are opportunities for coalitions of local interest groups to influence national tourism development plans. At a local level, the authorities who act as gatekeepers to tourist attractions (such as national parks, museums and monuments) have a pivotal role in shaping tourism development. Changes in entrance fees can affect all sectors of the tourist economy, by changing tourist visitation patterns. Investors, donors and planners can encourage new partnerships between the state, private sector, NGOs and local communities to coordinate policies and maximise local gain.

Key Issues for Planners, Investors and Donors

Supporting Local Traders

- What capacities exist at the local level to meet the demands of the tourism industry?
- What are the existing strategies of local traders?
- What problems do small traders face and how might they be overcome?
- What are the implications of change for the most vulnerable groups?
- Who is a suitable implementing partner and what are their aims?

Investing in Development

- What is the most appropriate scale of development and type of tourism for the area?
- How can enclave practices be avoided?
- How can market access for small traders be assured and managed?
- What are the seasonal patterns of local labour availability?
- What is the scope for planning gain?

Access to Decision-Making

- What are the forums for managing change?
- How are "invisible stakeholders" represented?
- What is the scope for building national coalitions?
- How can land rights be defended and secured?

6.4 Development NGOs and Community-Based Organisations

During the initial stages of tourism growth, both development planners and host communities have high expectations of local benefits. However, the risks of engagement are high, and the demands of the tourism industry can leave local populations disenfranchised. Attitudes to tourism development often change as the small scale of the economic gains and the negative *cultural and social impacts of tourism become apparent. Where tourism has become a* significant sector of the economy, NGOs and CBOs are therefore faced with an important challenge in supporting local efforts to maintain a stake in development and change.

6.4.1 Supporting the informal sector

Where skills are transferable, and access to the market assured, tourism can make a significant contribution to local livelihoods. The analysis in this study suggests that participation in tourist enterprises by the rural poor is highest in the informal sector - in those activities which are small scale and labour intensive. Substantial gains may be achieved by helping to secure access to credit, training, market information and outlets for informal traders. Partnerships between local producers and the tourist sector can also help to identify new markets and tourist preferences. Training schemes have provided woodcarvers in Komodo NP, and nature guides in Keoladeo NP, with new skills and access to tourist markets.

Tourists often seek the lowest price for comparable services, and the highly competitive nature of the market means that producers are forced to operate on tight margins. NGOs can

facilitate links between producers to develop clusters, networks and cooperatives to maintain a fair price for goods. Licensed bicycle rickshaw operators in Keoladeo NP have agreed to a standard charge that is sanctioned and advertised by park authorities.

6.4.2 Promoting links between formal and informal sectors

The main components of the tourism economy (accommodation, transport and attractions) are usually provided by formal sector operations - those activities that are large scale and capital intensive. Ownership and management opportunities in this sector are usually secured by those with the relevant language skills, access to capital and a good knowledge of urban and international markets. Local employment in this sector can therefore be low, but some operators have developed policies to establish links with local producers. Without these links, tourist enclaves can develop which make local participation difficult and encourage a high leakage of capital from the local economy.

NGOs can play a useful role in encouraging the formal sector to integrate with the local economy through employment and sourcing of produce. Local elites who might otherwise act as gatekeepers to the tourist market can be encouraged to play a key role in mobilising local income generation. There are also opportunities for CBOs to enter into partnerships with the formal sector to raise local funds through levies on entrance and accommodation fees.

6.4.3 Tourism which complements local livelihoods

Opportunities from tourism are more easily realised where new activities complement existing livelihoods or provide a secure enough income to outbid them altogether. Labour availability can be a constraint to local involvement, especially where the tourist season coincides with other busy periods such as harvest. In the lowveld of Zimbabwe, participation in the handicraft trade is highest in areas where agricultural potential is low and where few alternative opportunities exist for income generation. However, the risk of entering an unpredictable, demand-driven market can be a significant deterrent to participation in the international tourist sector. The existence of a global competitive market means that incomes based on foreign tourism are susceptible to a high degree of both annual and seasonal variation, which lie beyond local or even national control. As a result, small producers do not usually depend upon foreign markets alone, and often cater for domestic tourists or use tourism to supplement existing livelihoods. There are opportunities for NGOs and CBOs to liase between the tourism industry and local producers to identify market preferences and appropriate production methods.

The handicraft stalls that line the Masvingo-Beitbridge road on the way to the lowveld in Zimbabwe have all the characteristics of the informal sector. In Zimbabwe, women play a key role in the marketing of produce and tourism has brought a new income opportunities to an area of low agricultural potential. Of the two thousand enterprises that line the route, almost three quarters of the owners are women. (Chitakira, 1996) Informal trading sites such as these are a key entry point for local populations wishing to engage with the tourism industry yet they receive less recognition than the major infrastructural projects which are more usually associated with tourism development. With average incomes of Z$638, the handicraft industry represents a sizeable income to women. There are opportunities for strengthening local capacity of other marginal groups where existing social relations and the needs, wishes and skills of potential producers are clearly understood.

6.4.4 Securing legal rights and ownership

The natural and cultural environments that form the basis of tourism in emerging destinations are the product of centuries of local management and activity. The distinct habitats of many of the world's national parks are based on the legacy of ancient grazing regimes, vegetation use and water management. In the search for tourist 'authenticity,' landscapes, monuments and artefacts become valuable commodities over which local populations need secure rights. Issues of ownership and control are therefore important if local communities are to have a stake in tourism development. Many NGOs and CBOs have a long tradition of advocacy on behalf of local communities and in many cases, it may not be appropriate for them to enter the tourism industry as an active participant. NGOs can support rural populations in safeguarding rights to resources upon which they depend for their livelihood, whether they choose to participate in the tourist economy or not.

With their long tradition of advocacy on behalf of local communities, NGOs need to consider carefully whether or not it is desirable for them to enter the industry as active participants. Does the NGO have the skills to make a success of tourism? When an NGO encourages a local community to invest in a lodge or create a tourist attraction, does that NGO take an appropriate share of the risk incurred by the local community? Is the NGO consciously and transparently changing its role? Who will act as advocate for the community when its partner NGO wants to cut prices or complains about the quality of service delivery?

6.4.5 Building networks and alliances

In the past, many of the decisions for tourism development have taken place without adequate input from local stakeholders. Without information and access to decision making, local populations are unable to make informed choices about the pace of development, or to influence change. NGOs can play a key role in providing information about the costs and benefits of tourism development through the provision and facilitation of networks and alliances. Negotiations with donors, investors and local government can raise the profile of invisible stakeholders, encourage local representation in decision making, and increase participation in the wider political process.

6.5 Protected Area Managers and Conservation NGOs

Nature-based tourism is growing even faster than world tourism, and protected areas are increasingly becoming an important focus for international visitors to developing countries. Tourism brings opportunities for protected areas to generate substantial benefits, both for conservation and for surrounding rural communities. Tourism also presents a challenge to ensure that economic benefits are not outweighed by environmental and social costs. Protected area managers are confronted with complex issues and choices about how best to develop and manage tourism to the benefit of conservation and local people. This section identifies some of the important issues for conservationists to consider.

Key Issues for NGOs

Supporting the Informal Sector

- What is the nature of the market for existing and potential products?
- What are the roles of men and women in production and marketing?
- What are the constraints faced by existing producers?
- Which local skills and products might be transferred to the tourist sector?
- How can local producers ensure a fair price for their work?
- Will increased production lead to improved security or increase the burden of work for the poor?

Links with the Formal Sector

- What are the opportunities for increasing local employment rates?
- What are the opportunities for apprenticeships and training?
- How can tourist enterprises make better use of local suppliers?
- What are the opportunities and risks of raising community funds through levies on accommodation and entrance fees?

Strengthening Local Capacity

- Is there a need for advocacy on behalf of local communities?
- Can NGOs help to liaise between the tourism industry and local people?
- What are the forums for decision-making in land-use, employment and development?
- How can communities assess the options for change?
- How can existing rights over land and resources be safeguarded for the future?
- What are the prospects for building support through local and national networks?

6.5.1 Ensuring a balance between conservation and tourism

The impact of tourism varies with the type of tourist, their activities and behaviour, the type of infrastructure, the nature of the environment, the climate and the season. But tourism does not have to be damaging. The key is to maintain effective control over visitor activities to ensure that they do not conflict with the conservation priorities of the area. Some international conservation NGOs are seeking to develop tourism operations. If the gamekeepers become poachers, who will blow the whistle?

Problems can be reduced by regulating access to sites, and maintaining control of visitor activities and behaviour within a conserved area through the use of zoning and compulsory guiding. However, it is important that tourism personnel (be they park staff or external guides) are adequately qualified and accountable. While unregulated guiding can lead to increased disturbance of threatened species, established and certified systems, such as that in Keoladeo NP, can keep ecological impacts to a minimum (see Box 6.1)

One of the most important objectives is to recognise and identify problems before they arise. This can be difficult when resources are limited. Simply dealing with tourists can divert staff away from more pressing issues of protection and management, so that effective monitoring of tourism remains a low priority. If management is to be proactive rather than reactive, it is

important that suitable indicators of the performance and impacts of tourism are identified and monitored regularly.

6.5.2 Increasing the benefits for conservation

Entrance fees to protected areas have traditionally been set at low levels to allow unrestricted public access. As a result, revenues are low and do not adequately offset the costs of maintaining them. The question of whether to attempt to increase revenues depends upon a number of considerations (see Box 6.2). These include the (ecological, social and economic) functions of conserved areas, the purpose of revenue generation, the likelihood of continued government subsidy and revenue generation from non-tourism sources, and the likely implications of increased prices for conservation, visitors and local stakeholders.

Tourism has a great potential to generate large revenues for reinvestment in conservation. Foreign visitors to conserved areas in developing countries are generally willing to pay substantially more than current entrance fees to visit these areas. However, the affects of raising fees are more complex, and revenue maximisation may not be the most appropriate strategy for sustainable tourism development.

Not all types of visitor are willing or able to pay increased fees. Price rises may discriminate against less affluent visitors such as domestic tourists or low budget independent travellers, and reductions in these types of visitor can have significant adverse effects on local benefits from tourism (see Box 4.6). A solution to this problem may be to introduce dual pricing which allows domestic visitors discounted entrance. There are numerous benefits from the introduction of discounted or lower-cost accommodation and transport options within and around protected areas. By attracting domestic visitors, these facilities will encourage both local public support for protected areas and other designated landscapes and the development of a domestic market to buffer seasonal and irregular fluctuations in international arrivals.

6.5.3 Increasing local benefits from tourism

Tourism has the potential to provide substantial local benefits in terms of revenue and employment, which can serve to reverse people-park conflict and create political support for protected areas amongst local communities. However, local benefits are not guaranteed by a *laissez faire* approach to tourism development. Protected area managers can use their position at the interface between visitors and rural communities to ensure a fair deal for the latter that will enlist long term support for conservation.

Box 6.2: Admission fees

A number of considerations need to be taken into account in the process of deciding on park admission fees.

1. What is the appropriate revenue goal?
2. Is the objective income maximisation?
3. Is the objective to raise revenue to share with local communities?
4. Is the objective to cover the costs of tourism to the park?
5. Is the objective to improve visitor facilities?
6. Is the objective to make national parks self-financing?
7. Is the objective to reduce subsidies to foreign visitors?

8. Should the visits of particular host population groups be subsidised?
9. To what extent is it appropriate to have standardised national charges?
10. Should decisions about fees be decentralised and set site by site?
11. To what extent is it important that national parks show their use value (or their lack of use value) through demonstrating people's willingness to pay to enter and use the park?
12. What are the implications for local communities, and for park-people relations, of any projected changes in visitation patterns which would result from changes in admission charges?.
13. Will changes in park visitation patterns adversely impact on particular sections of the host community, causing hardship and adversely impacting on the already strained relationships between parks and local people?

Policy Considerations

1. Parks have a number of purposes, the most important of which is the maintenance of the ecological integrity of the park and the conservation of habitat and species. Visitor fees income should be supplementary rather than core income, the maintenance of biodiversity for future generations could be considered as properly a government responsibility.
2. Entrance and other fees need to be structured to ensure that the host population is able to have access to its national parks for recreational, spiritual, artistic and educational purposes; national parks are their national heritage. There is a good case to be made for dual pricing systems.
3. Parks departments have traditionally been regulators of use rather than operators. The two roles should not be confused.
4. In the pursuit of increased revenues from tourism park managers need to consider the purposes of the park(s) for which they are responsible and to balance a number of competing management goals, arguably the first of which is conservation.
5. The setting of park entrance fees is one aspect of the total management of national parks. The setting of park entrance fees is a complex policy issue involving a number of 'trade-offs'.
6. These decisions need to be made within the framework of the park management objectives. The pricing of entrance fees and other services and facilities can reflect multiple management goals.
7. Tour operators and individual tourists often made two points:
   - increases in entrance fees and other charges should be staged (and tourists' expectations of charges are influenced by out-of-date guide books);
   - the reasons for increased fees and charges should be explained.
8. There is clearly some scope to increase entrance fees to national parks and to increase revenue; however the consequences of raising fees and charges need to be carefully considered.
9. Revenue maximisation may lead to increased conflict with local communities if tourism revenues in the local community are reduced or lead to forms of development within the park which undermine the conservation purpose of the protected area.
10. The best way in which to test the market is through market based reactive management of park entrance fees and other charges, through raising fees incrementally, to achieve specific management objectives including:
    - controlling over-crowding;
    - raising funds for habitat and species management;
    - improving visitor facilities;
    - maximisation of revenue to the national park and local people;
    - raising money for reinvestment in the park;
    - management of the mix of visitors who have access to, and use of, the park;
    - managing visitor use of the park;
11. Periodic surveying of tourists and tour operators can assist in the determination of prices for services and facilities and monitoring visitor satisfaction surveying to identify opportunities.

The major constraint for local communities is access to the tourism market, whether physically (due to enclave practices), financially (through lack of capital) or operationally (through lack of skills and time). Some of these issues can be addressed by providing wider

training and employment opportunities for local people within protected areas. In Komodo NP local villagers were trained in the art of woodcarving, and their products are marketed by a local co-operative operating within the park. In Keoladeo NP a tourist guide training and certification scheme operates for cycle-rickshaw drivers. Training local tourist guides to work in parks provides a valuable visitor service and a means of controlling visitor activities, whilst allowing other staff to concentrate on other duties. Entrance gates can be organised so as to provide opportunities for informal sector entrepreneurs to have access to tourists through small markets selling only locally produced crafts. Ideally there would be opportunities for visitors to purchase directly from the craft workers and to see the production process.

Greater links between protected areas and local communities can be created by establishing joint forums for development planning, and considering the introduction of revenue-sharing policies whereby additional levies are added to entrance fees for local development funds. The use of such funds for local training, employment and capital assistance is likely to be viewed favourably by local communities, visitors and the tourism industry alike. Parks may also play a role with other local stakeholders in encouraging the development of other tourist attractions, reducing visitor pressure on the park, and creating income-generating opportunities for local communities. At Keoladeo the park is considering supporting the development of a recreational and picnic area in the buffer zone for these purposes.

6.5.4 Making visitor satisfaction a priority

Meeting the needs of visitors is the first step towards sustainable tourism. As long as visitors go away satisfied, benefits will continue to flow. There are three issues for managers to consider; quality, information and feedback.

Visitors are much more likely to accept increased prices, dual pricing and restrictions over access if they understand why such policies have been implemented, and particularly if they know how their fees are being used. For example, visitors to Komodo NP stated that their responses to increases in entrance fees would be more favourable if it were clear that the money raised would be reinvested in parks for conservation; reinvested in visitor facilities to raise the quality of the experience; retained to offset park costs; and used to benefit the people living in or near the park. This information could be provided by guides. In addition, up-to-date information on pricing and activities should be widely available prior to visitor arrival.

Ultimately, managers should listen to visitors to find out how they perceive the experience they are offered and to ensure that it remains attractive. Visitor attitude surveys provide vital feedback on the effectiveness of current management strategies, and can provide valuable insights into the potential effects of future changes in pricing, services or facilities.

6.6 Raising Our Awareness as Tourists: Guidelines for Tourists and the Media

6.6.1 Tourism for the 21st Century

Tourism is the world's largest industry, and more and more people are choosing to visit new and remote destinations in Africa, Asia and other less developed parts of the world; places where the people are often much poorer and their natural environments unique and fragile. With so many people travelling, the cumulative effect of individuals on the places they visit

Key Issues for Protected Area Managers

Site and Visitor Management

- Should visitors be permitted unregulated access or be restricted spatially and temporally?
- What type of development is appropriate both for visitors and the environment?
- How can staff training and expertise in tourism be improved?
- What impact indicators (environmental, economic and social) should be defined and monitored as part of an adaptive management strategy?

Pricing Policy

- Can tourism revenues be channelled into reinvestment in conservation?
- Does tourism cover its costs, and can its performance be improved?
- How will dual pricing effect benefits for conservation and rural communities?

Local Involvement

- What opportunities exist for local involvement in protected area tourism?
- How do existing types of tourism help or hinder local participation?
- What training and investment assistance can be developed to build partnerships with local communities in tourism development?

is significant. Destinations and host communities may not be able to absorb this amount of tourism without being damaged in some way. But, as visitors, we are going to have a much more enjoyable holiday experience if the people and places we visit are benefiting rather than suffering from our presence. Different rules must apply if tourism is to make a positive contribution to local people and to nature conservation in the twenty-first century. This section raises some of the issues that we as visitors should consider when we travel to national parks and other rural areas in less developed countries. It is also aimed at the travel media who have a responsibility to show how we can make a positive contribution to sustainable development though our holiday experiences

6.6.2 Putting people first

It is often reported that tourism does not benefit the local host communities. Most of the profit flow to national and international tour operators, and job opportunities are scarce for local people without relevant skills and the capital to invest. This generates misunderstanding and resentment between hosts and guests that can spoil the visitor experience. It is in our interest to maximise local investment and ensure that local people are enabled to benefit from tourism.

There are many ways by which we can achieve this. The simplest is by making a positive choice in the products and services we consume during our visit. For example, locally run hotels and restaurants serving local cuisine are much more likely to benefit host communities than those offering imported food and goods. Conversely, inclusive package tours can limit inputs into the local economy, in terms of both revenues and job opportunities. This is not to say that 'luxury' tourism is all bad. Responsible operators will ensure that benefits flow to the destination communities who are entitled to a share. As customers we can improve the situation by asking operators, before we purchase from them, about their integration into

local economies and the opportunities they provide for local people. This sort of transparency and consumer pressure will encourage the tourism industry to improve its performance.

6.6.3 Paying a fair price

We often rely on guidebooks for information about entrance charges, fares and the cost of a room or a meal. This information is necessarily dated – even if we are travelling with a current guidebook (and most of us don't). Bargaining with local people for souvenirs and over the cost of a taxi ride or room is one of the pleasures of travel, and is one of the ways in which we can feel part of the local scene. Our foreign currency, and their urgent need of it, gives us considerable bargaining power. In some areas travellers have pushed prices for rooms and meals below the point where providers can make a reasonable living. Our bargaining is often directed at the least powerful providers of products and services – the powerful will always pass the cuts on.

We need to be wary of pushing prices too low, and to bear in mind that the producers and merchants have costs to cover. When we consume goods and services abroad, we are directly contributing to the local economy and to the opportunities for local people to secure a reasonable standard of living for themselves and their families. We have the opportunity to make fair trade work and to make a difference. Try to buy directly from the producers of goods and services.

6.6.4 Safeguarding the environment

Visiting a national park or wilderness area can be the highlight of a visit to a developing country. Many visitors questioned in Zimbabwe and Indonesia indicated that undeveloped and pristine environments are particularly important in their choice of destination. These are the most fragile environments, and if we are to be able to enjoy them as such they need to be safeguarded from unnecessary damage by tourism. Managers of protected areas fulfil this role in the ways by which they regulate our activities, and these should be respected. Visitors should do their utmost to co-operate with park staff to ensure a quality experience for themselves and others. Wildlife programmes on television have given us false expectations and wildlife in its natural setting may be that much more difficult to see. However, the rewards of spotting a truly wild animal more than outweigh any extra effort expended.

6.6.5 A fair contribution to conservation

Those charged with managing and protecting wilderness areas commonly find themselves operating with meagre resources. At the same time, the fees which visitors pay may be very small. When fees go up, some visitors complain. But consider how much it costs to enter a zoo or safari park in Britain and then consider how much richer is the experience of seeing wildlife in its natural state. The costs borne by local people and governments to preserve such areas are real, and they are often very great. Since it is usually the tourists who derive the most benefit from such places, we have a responsibility to make a fair contribution.

Should foreign visitors pay more for entrance to parks than domestic visitors? The overwhelming response from foreign visitors questioned in India was 'yes'. Local residents have as much right as foreigners to visit national parks, but rarely have anywhere near as much money to do so. Helping local people to enjoy parks by providing discounted entrance

rates is one way for park managers to encourage local support for conservation. Without such support these areas will not survive for our continued enjoyment.

Box 6.3: Readers' letters

'A couple of years back, I watched two travellers bargain with a Malawian carver over a pair of statues. The price started at 15 kwacha (60p), quickly dropped to 8 kwacha, and then a stalemate ensued as the travellers ranted and performed to get the price down to 7 kwacha. After 15 minutes of ugly squabbling, the Malawian, evidently desperate for cash, collapsed.

... why is it that people who would doubtless buy a round at home become so tight-fisted when they travel in poor countries? It strikes me that many tourists behave as if the citizens of developing world are somehow meant to be poor. Everybody accepts that a business in Europe will sell goods at a higher price than the cost of production - we call that making a profit. Yet most travellers, if they are honest with themselves, will recognise that when a Kenyan or Indian does the same thing, it is perceived to be a rip-off.

If the above seems fanciful, then ask why the unwritten code of 'real travel' dictates that it's more acceptable to pay triple the normal price for a beer in an upmarket hotel or backpacker hostel than it is to pay a few kwacha over the odds to a Malawian carver....

What I ... suggest is that we learn to discriminate between the individual curio or fruit seller, and the large stalls, shops and hotels. Many of the people we deal with in developing countries are simply trying to scrape a living in difficult circumstances; when they don't want to drop their price below a certain point, the chances are that they are asking a reasonable one.'

Philip Briggs *Wanderlust* February/March 1998

'While travelling in Peru last year, my partner and I decided we would like to take home something to remind us of our travels. We were travelling on a budget (since he is a student) so decided to try a small market, where prices would be cheaper. ... There was a small open market and we wandered around admiring the wonderful colours of the woven rugs. I found one I liked, and after asking the price we started bargaining. The original price was high, but after much bargaining we managed to get the rung for half the original price. The lady seller seemed very unhappy when she handed over our rug, and we cam away feeling that we must have a good price... After travelling further, and speaking to other people, we realised that we had got a very good price for our rug, and felt guilty

What seemed almost a game at the time, and a challenge, was in fact that person's livelihood. Looking back now, I wish we hadn't haggled so well, as even if we had paid the asking price it would still have been a great buy.... '

Debbie Murray *Wanderlust* April/May 1998

6.6.6 Responsible travel writing

The media plays a major role in providing information to the public about holiday destinations. Guide books in particular aim to give us a complete picture of what to expect before we arrive at a destination. However, there are dangers in treating them as infallible instruction manuals and price lists. Given the pace of change they can only be indicative however regularly updated. Whilst many publishers stress this in their books, complaints about guidebook-wielding visitors in Indonesia suggests that the point needs to be more comprehensively and forcefully made.

Publishers are in a unique position to enlighten visitors about responsible travel and tourism, and could play a much greater role in publicising examples of good practice amongst operators and developers. The promotion of ethical tourism based upon fair trade, is a responsibility which the media is urged to adopt in order to allow consumers to make

informed choices. This will help to improve the tourism experience for hosts and guests alike.

6.6.7 Fair trade: A partnership for the future

For nature-based tourism to achieve conservation and poverty alleviation, whilst providing a quality visitor experience, a fairer relationship is required between hosts, guests, the tourism industry, conservation managers and the media. Visitors, and the tourism industry which serves them, have a duty to contribute fairly for the goods and services consumed, including safeguarding the environment and ensuring local involvement. Hosts have a right to be involved in ways that *they* decide are appropriate. A dialogue between hosts, guests and the tourism industry is necessary in achieving better standards and providing long term benefits for all. By raising the issues with travel agents, hoteliers and tour operators, visitors can take an active role in this dialogue, and make their own contribution to the future of sustainable tourism.

Key Issues for Tourists

Tackling the Inequalities

- Where does the money we pay for our holidays go?
- Do we know how much our hotel companies and tour operators are doing to make a positive contribution to host communities and environmental protection?
- Can we put pressure on the tourism industry to "clean up its act" by demanding facts and choosing our holidays carefully?

Some Questions to Ask

- How do local people have a say in the development of tourism at this resort?
- What happens to waste and pollution caused by the tourist industry?
- How many local people are employed in this resort?
- What environmental standards have been set for this development?

Making Our Own Contribution

- How is our behaviour affecting the people and places we visit?
- When we bargain are we mindful of the impression we create of ourselves and the power of our position?
- How can we enrich our holiday by choosing local options?
- How can we show our support for initiatives and developments which make a real difference both to our experiences as visitors and to the people and places we visit?

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Appendix: Data Requirements for Future Monitoring

1. Introduction

One of the original research objectives of the project was "to provide a methodology which will enable local researchers to continue to monitor the survey sites, and to provide research reports, which will enable similar and comparable work on the compatibility of tourism development and conservation to be undertaken in other developing countries".

This section considers some of the issues that this objective raises. The main emphasis is on what data it is practicable to collect, together with a discussion on the sources of information and what methods might be used to collect such data.

Firstly, it must be emphasised that data collection and monitoring must be carried out for clearly defined reasons. The collection of data for its own sake will not only use scarce resources, but will also demoralise those responsible for the survey. In such circumstances, sustained effort is very difficult to maintain. Each chapter of this report relates to particular analyses that we have performed and explains why it was necessary to obtain certain information. Since it would be difficult for such thorough analyses to be continued on a permanent basis, a more manageable data-collection task is described here, on a chapter by chapter basis. Once this has been done, it will be possible to summarise the recommendations in terms of who will be surveyed and how the survey might be performed.

2. Data Required, by Area of Analysis

Chapter 2: Meeting the Tourist Demand
Almost any aspect of park management will require a knowledge of how many tourists are visiting the site. As we have seen, this information is collected, but in varying detail (particularly in terms of country of origin). With dual pricing already in existence, or as a possible policy option, the very minimum information required is whether each visitor is a national of the country or from abroad. However, it will in future be relatively straightforward to continue analyses such as those in Chapter 2 since most of the necessary data are already collected. In summary, the following information is required.

- Total visitor numbers, by month and by nationality (at least to the level of domestic/foreign).

When looking at tourist demand to the national parks, it must be remembered that such tourism is part of a much larger international market; decisions and actions elsewhere in the world can have profound local consequences. There are two aspects to monitoring integration into the international market: the foreign tourists themselves and the tour operators. As far as the tourists are concerned, much relates to their reasons for visiting the country and the national park, and their satisfaction with the visit. Such information can be obtained from a visitor survey. In particular this would have to elicit the following data:

- nationality of visitor;
- where visiting in the country;
- length of stay in country;
- reasons for visiting country;
- reasons for visiting site;
- assessment of satisfaction of visit to site.

It is more difficult to monitor tour operators since these are located in many countries of the world. It may be possible to investigate what services their local agents are providing, but it is not easy to see how a comprehensive picture could be drawn and kept up to date. It would be preferable to approach the problem via the visitor survey. An essential question within the survey would be whether the visitor was a package tourist or not and, if he or she was travelling on a package deal, one could ask what exactly was included in the package. (Asking who the operator was would probably be of limited use as interpretation would require a knowledge of all the world's tour operators and their full range of products.)

It would be interesting to know more about tourists' interests in conservation and how that has affected their choice of leisure activities. However, our research has shown that it is difficult to infer from a single visit to a national park how individuals become aware of conservation issues. Such a visit is just one on many lifetime experiences that contribute to people's knowledge and form their attitudes. It would, therefore, be unrealistic to expect any future monitoring exercise carried out at national parks to yield interesting and relevant results about people's education and awareness of conservation. It would be much better to concentrate resources on other investigations.

Chapter 3: Maximising Host Benefits

It is a very difficult task to produce a comprehensive assessment of the impact of the parks on local development. Some income, such as wages paid to locally resident park employees, could be calculated from the park accounts. However, to account for all monetary flows into the local economy and their subsequent redistribution would, in practice, almost certainly be impossible. Some estimate of the contribution to employment is possible, for example, by counting the numbers of people employed in tourism-related activities. However, there are many who do not work full-time on activities related to tourism or who may be affected by seasonally shifting patterns of activity. It would be very difficult to estimate the proportion of time dedicated exclusively to those activities which can unequivocally be classed as "tourist related". Notwithstanding this problem, it should be possible to estimate the numbers of people whose activities are involved with tourism and tourists, perhaps in broad classes such as "definitely related", "partially related" and "marginally related". Monetary flows into the local economy from tourism are clearly of very great importance. Through surveys of tourists and local businesses it has proved possible to estimate "first-round" flows of money into the local economy which gives a good indication of direct benefits gained. However, we believe it to be practicably infeasible to estimate the net effects of second-round and subsequent expenditures, that is to quantify any multiplier effects.

Another desirable form of survey would be to monitor in a qualitative way changes in the provision of services connected with tourism. Questions that could be asked include the following.

- Are village-made products now on sale that used not to be?
- Have any hotels opened, closed, expanded or changed the quality of accommodation offered?
- Are any new transport facilities available?
- Has the training and quality-control of guides changed in any way?

In addition, it would be sensible to monitor the opportunities for new services. This could be achieved through the visitor survey which would include questions such as:

- Are there any products they would like to buy that are unavailable?
- Would they take the opportunity to visit a "tourist village" if there were one in the vicinity?

This part of the survey could be modified on a regular basis to reflect changed conditions and new ideas.

Finally, it is clear that having a national park in the vicinity affects the lives of local people in many, complicated ways. There are undoubtedly both benefits and drawbacks and it is important that those responsible for policies affecting the park should be aware of the impacts such policies have on local people. It is, therefore, advisable that there is some form of continuing survey into local experiences and attitudes.

Chapter 4: Making a Contribution to Conservation

Much of the information necessary for the analysis of park finances has been defined with reference to Chapter 2. Knowing how many people are entering the park and how much they are paying does give an immediate figure for current revenues. However, planning is an essential part of management and future revenues are dependent on continued demand and on entrance fees that could be changed as part of park policy. It is necessary, therefore, to know the degree to which tourists are satisfied with the experience of visiting the parks, whether they feel they have obtained value for money, and whether they would be prepared to pay a higher entrance fee. The essential data to collect are:

- visitor numbers and fees paid, including any differential fees;
- attitudes of visitors to the entrance fee they were charged and the quality of visit experienced. Additional questions on whether visitors would have been prepared to pay more should be included.

Impact does need to be measured since it is essential to identify any activity that could be deleterious to conservation. It is debatable whether such information has to be quantitative; in some cases it is useful to have numerical measures, but in others descriptive indicators would serve well. This is an area where park employees who have intimate local knowledge would be the best informants. Data to be collected include the following.

- visitor numbers by time of year (monthly);
- identification of where tourists go within the park, and in what numbers at what time of year, and with what mode of transport;
- identification of any events salient for conservation, for example destruction of habitat and disturbance of animals;
- indicators of conservation, for example species counts.

3. Data Required by Source of Information

In the previous section, the information required has been described in terms of the purpose for which it is needed. When planning the acquisition of such data, it is essential to identify the source. It is apparent that there are four such sources: park records, observations within the park (ecological and of tourist behaviour), the tourists themselves, and the local community (economic activity and people's attitudes). The two-way classification by area of analysis and data source is summarised in Table A1.

4. Data Collection

There is much that can be said about the methods of data collection. The principles of designing and implementing surveys are well covered in the literature (see, for example, Moser and Kalton, 1971). What will be considered here is a brief appraisal of the needs and practicalities of the required surveys. Each source will be considered in turn.

Obtaining information from the park records is straightforward since the data are already recorded. There could be issues of confidentiality, for example relating to wage costs, but the purpose of any future monitoring is to aid in the management of the park. Unless the park is closely involved and fully cooperating, the whole exercise would be fruitless.

The types of observation within the park that are required are covered in detail in Chapter 3 and so reiteration is not necessary here. Again, it is assumed that the park management would be fully involved and so the expertise and cooperation of their staff would be available. Since local conditions do vary greatly from one park to the next, it would not be wise to set down detailed procedures here.

The tourist survey is the source of information where some advance specification is possible. The sorts of questions to be asked have already been described, but discussion of how they should be asked would be valuable. There are two approaches that could be employed: interviewing and unsupervised questionnaires (Goodwin *et al*, 1996). It is not advisable to give an absolute recommendation since the group actually performing the survey would have to involved in the decision. Practicability is the most important concern. It is difficult to maintain motivation in a long, drawn-out exercise. Those involved need to see the fruits of their labour, and if they do not, it is likely that other more pressing tasks will supplant the survey activities. Although one would like to have a sample that is representative of visitors over the whole year, for motivational reasons it would seem better to concentrate the surveying effort. In our experience it is possible to perform a short survey very productively by means of face-to-face interviews. One possibility would be to dedicate a few days once every quarter to an intensive series of visitor interviews. The effort would be concentrated, there would be a clear end, and, if data-processing facilities are available, results could be soon produced (the time required would decrease with training and experience).

Source Area of analysis	Park records	Observations in Park	Survey of tourists	Local community
Chapter 2: Meeting the tourist demand	· visitor numbers		· country of origin · where visiting · length of stay · reasons for visiting country and site · satisfaction with visit	
Chapter 3: Maximising host benefits	· revenues/ exp-enditures which go to local community			· qualitative review of changes in provision of tourist services, and of opportunities for new services · recording of broad categories of tourist-related employment · survey of local people's attitudes
Chapter 4: Making a contribution to conservation	· visitor numbers · entrance fees		· satisfaction with visit · willingness to pay different entrance fees · willingness to pay for additional services	
Chapter 5: Managing tourism in protected areas	· visitor numbers	· location of visitors within park · disturbance/habitat destruction · species counts etc.		

Table A1: Data required classified by area of analysis and source.

The information that could be obtained from the local community has been discussed above. At this stage, it is not clear which agency would perform the survey and who would be their client. It would not be appropriate for park staff to be involved with this work as it is not related to their competencies. The work could be suitable for an NGO; for example, WWF have been involved with such surveys.

5. Conclusions

The data that it would be practicable to collect have been described both in terms of the area of analysis to which they are relevant, and of the sources of information. It is more difficult to make definitive recommendations about the best means of collecting the data since the precise nature of the local collaborators cannot be known. Nevertheless, some tentative suggestions and broad principles have been put forward. Finally, the overriding principle is that the data collection and must have a clear purpose as part of a monitoring and feedback scheme. Indicators need to be defined, and managerial action taken when these indicators diverge from their desired levels. Without such a scheme, the successful future development of the national park, and the well-being of those who depend on it, cannot be assured.

Tourism, conservation and sustainable development: Case studies from Asia and Africa

The Wildlife and Development Series is published by the International Institute for Environment and Development (IIED) to highlight key topics in the field of sustainable wildlife use. The series is aimed at policy-makers, researchers, planners and extension workers in government and non-governmental organisations world-wide. The series arises from two sources. Firstly by invitation of IIED to others working in this field, and secondly from IIED's own work.

International tourism is expected to increase well into the next century, with a growing focus on destinations in the developing world. As the industry expands into new areas, it presents new opportunities and risks for host communities and natural environments. In response to new market opportunities, tourism has emerged as part of national and regional strategies to maximise foreign exchange earnings, increase employment and provide financial resources to preserve natural and cultural heritage. However, relatively little attention has been paid to the process of tourism development at the local destination level.

This report draws together the main findings from a three-year research project, funded by DFID, comparing the phenomenon of nature-based tourism at sites in India, Indonesia and Zimbabwe. It explores the complex relationship, at a local level, between tourists, 'host' communities, the tourism industry and the nature reserves and national parks where wildlife tourism takes place. The research reveals that local stakeholders have little control over the form or magnitude of tourism development occurring around them, and remain vulnerable to external events and decision-making. Furthermore, local communities and protected areas are realising few benefits from international tourism, whilst deficiencies in monitoring and managing tourism development threaten to undermine the resource base upon which the industry relies. The challenges facing the various stakeholders are clearly defined, and only through partnerships between the tourism industry, national and local authorities, investors, NGOs and host communities will sustainable solutions be realised.

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