

# **ECONOMICS, ECOLOGY AND THE ENVIRONMENT**

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**Nature-based Tourism in Developing Countries:  
Issues and Case Studies**

**by**

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The *Economics, Environment and Ecology* set of working papers addresses issues involving environmental and ecological economics. It was preceded by a similar set of papers on *Biodiversity Conservation* and for a time, there was also a parallel series on *Animal Health Economics*, both of which were related to projects funded by ACIAR, the Australian Centre for International Agricultural Research. Working papers in *Economics, Environment and Ecology* are produced in the School of Economics at The University of Queensland and since 2011, have become associated with the Risk and Sustainable Management Group in this school.

Production of the *Economics Ecology and Environment* series and two additional sets were initiated by Professor Clem Tisdell. The other two sets are *Economic Theory, Applications and Issues* and *Social Economics, Policy and Development*. A full list of all papers in each set can be accessed at the following website: [http://www.uq.edu.au/economics/PDF/staff/Clem\\_Tisdell\\_WorkingPapers.pdf](http://www.uq.edu.au/economics/PDF/staff/Clem_Tisdell_WorkingPapers.pdf)

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# **Nature-based Tourism in Developing Countries: Issues and Case Studies**

## **ABSTRACT**

Begins by considering why there is a particular interest in nature-based tourism in developing countries and then raises some issues needing resolution when considering the development of nature tourism in LDCs. It is noted that the type of tourism a country can develop economically depends on its existing assets (natural, heritage and cultural) as well as its ability to develop new man-made tourism attractions. Most LDCs are at an economic disadvantage in developing the latter type of attractions. Problems involved in deciding on what constitutes nature-based tourism and in determining its magnitude are raised. The possible benefits to LDCs of nature tourism are discussed together with reasons why these benefits are not always achieved.

The case studies are for China (focusing particularly on Yunnan Province and especially Xishuangbanna Prefecture), Botswana and the Maldives. Although nature tourism is important in some parts of China, China is much less dependent on this type of tourism than are Botswana and the Maldives. Furthermore, the Chinese economy is less dependent on tourism than are those of Botswana and the Maldives. Comparisons are made between the development of tourism in these three LDCs. The comparisons include a consideration of locational factors, the type and extent of their dependence on nature tourism, environmental issues and the comparative costs of tourism development. It becomes clear that there is a considerable diversity in the nature of tourism development in LDCs. Therefore, it is necessary to be wary about generalizing about such development.

**Keywords:** Botswana, China, developing countries, environmental issues, location of tourism, Maldives, nature-based tourism, tourism.

**JEL Classifications:** O13, L83.

# **Nature-based Tourism in Developing Countries: Issues and Case Studies**

## **1. INTRODUCTION**

Nature-based tourism is an important source of foreign exchange, employment and economic activity for many developing countries. Nevertheless, it is also a major economic activity in several higher income countries, such as Australia and the United States. For example, according to the estimates of the Commonwealth Government's Australia Tourism Research body, nature tourism accounted for a total expenditure in Australia in 2009 of \$33.3 billion. While this is probably an over estimate for reasons given by Tisdell (2012), it nevertheless, indicates the economic importance to Australia of nature-based tourism.

This raises the question of why should tourism, especially nature-based tourism, in less developed countries (LDCs) be singled out for special consideration, particularly by those living in higher income countries. The following are some of the possible reasons.

1. The economies of LDCs or lower income countries are usually much less diversified than those of higher income countries. They depend on a narrower range of export industries and have fewer industries able to provide cash incomes than do most higher income countries. Often just one or two export industries account for the bulk of their foreign exchange earnings and cash income. In many cases, tourism (often nature-based) is one of those industries. For example, Fiji depends heavily for export income on tourism and on sugar and the Maldives relies largely on exports of tuna and inbound tourism. Botswana depends heavily on exports of diamonds and inbound tourism for its foreign exchange earnings. These exports are also their major sources of cash income.
2. Major business stakeholders (for instance, investors) in tourism developments and tourism activities in LDCs are often (but not always) headquartered in higher income countries. They, therefore, have a particular interest in these activities in LDCs.
3. In many LDCs, the main tourists are foreigners from higher income countries. They, therefore, have a definite interest in the resources and facilities available for the tourism in LDCs and in relevant cases, the conservation of these resources. In the case of wildlife tourism, this interest is often reinforced by the interests of nature

conservation bodies headquartered in higher income countries in ensuring the conservation of wildlife and their habitats in LDCs.

Given these background observations, let us specifically consider important issues/theories about nature-based tourism in developing countries and then consider aspects of nature-based tourism in China (focusing mainly on Yunnan Province), in Botswana and in the Maldives.

## **2. ISSUES/THEORIES ABOUT THE DEVELOPMENT OF NATURE-BASED TOURISM IN DEVELOPING COUNTRIES**

The type of tourism that a country can develop depends to a considerable extent on its existing assets (natural, heritage and cultural) as well as its ability to develop new man-made tourism assets. Because of their lack of capital, most lower-income countries are unable to develop significant new man-made tourism assets. Usually, it is high income countries that do this. Examples include theme parks such as Disneyland attractions. Closer to home Singapore has invested heavily in tourist attractions such as its bird park, its zoo, and its Santosa theme park. With its economic development, China is also adding to its man-made attractions (such as the new National Theatre) in Beijing despite the fact that it is not yet a high-income country. However, most low income countries (for instance, in Africa) do not have the means nor an economic advantage in developing such man-made attractions. The majority of LDCs, therefore, find that their best economic strategy is to concentrate on developing tourism based on their natural, heritage and cultural attractions.

### **2.1 What is nature-based tourism? How can its magnitude be measured?**

It is not easy to determine what constitutes nature-based tourism as is discussed in more detail in Tisdell and Wilson (2012, Chapter 1). One view is that it is tourism that depends heavily on natural attractions. This would include wildlife in their natural setting and natural landscapes. Thus, visits to Botswana's national parks would definitely constitute nature tourism because the prime purpose is to view wildlife in the wild and enjoy the natural setting. However, should those who come to view wildlife in artificial settings be classified as nature tourists, for example, overseas visitors to Lone Pine Koala Sanctuary?

Tourism Research Australia (2010) adopted a very liberal view of what constitutes a nature tourist. It decided that anyone who participates in any one of the following activities at least

once while travelling in Australia in 2009 should be classified as a nature visitor:

- Visit national parks or state parks
- Visit wildlife parks, zoos or aquariums
- Visit botanical or other public gardens
- Bushwalking or rainforest walks
- Whale or dolphin watching (in the ocean)
- Snorkelling
- Scuba diving

All the tour/travel expenditure of these persons while on a trip is attributed by Australian Tourism Research to such visitor being a nature visitor. Given that view, overseas visitors to zoos and aquariums would be classified as nature tourists.

In many cases, these tourists who engage in viewing wildlife in a country also enjoy other attractions. For example, visitors to Xishuangbanna State Nature Reserve in Yunnan also enjoy cultural and heritage features associated with local ethnic minorities. In Australia, visitors to Kakadu National Park not only come to enjoy its wildlife and its natural settings but may also be interested in Aboriginal rock art and aspects of Aboriginal culture. Therefore, it can be difficult to disentangle how much tourists are attracted to some localities and countries by their natural attractions compared to other tourist features of the locality or the country.

In most instances, precision may not be necessary. In the case of Botswana, it is clear that its wildlife and associated landscapes are the major attraction for its overseas recreational tourists. In China's case, while natural attractions have importance, cultural and heritage features seem to be a more important attraction for its recreational tourists than in the case of Botswana.

## **2.2 What can be possible benefits to developing countries (or generally) of nature tourism in LDCs?**

Professor Norbert Vanhove has argued that nature tourism in LDCs adds economic value to assets which would have little or no value in the absence of this type of tourism. Consequently, it adds to the economic opportunities available to LDCs. This also applies to their heritage assets such as the buildings at Angkor Wat in Cambodia. It may provide an economic incentive to LDCs to conserve such assets. It can also add to the economic well-being of residents in these countries.

IUCN (International Union for the Conservation of Nature) considers that nature-based tourism in developing countries can provide a significant economic incentive for conserving nature. While this is true, its effectiveness depends on several considerations.

1. How profitable is it to conserve habitat for wildlife for tourism purposes compared to alternative forms of land use? For example, it has been an uphill battle in Borneo and Sumatra to conserve land for orangutans given the profitability of using the land for other purposes such as the growing of oil palm.
2. If there is open-access to the wildlife resources used for tourism or *de facto* open access to resources on which the wildlife depend, wildlife resources may not be sustained. In some LDCs, there is encroachment on protected areas by farmers, and poaching of wildlife occurs.

Another possible advantage of nature tourism is that it can decentralize economic activity to rural areas. This may benefit the poor in these areas if they can obtain employment in the tourism industry and can sell produce to tourists or to those that cater for their accommodation.

Despite the ability of nature tourism to attract visitors to rural and remote localities, its economic benefits to such areas is likely to be much less than tourist visits to more central areas. For example, those staffing the tourist industry in remote areas may not be predominantly from the local area and much of the supplies needed to cater for tourists may be sourced from outside the local area.

Each case needs to be specifically investigated.



In extreme cases in developing countries, local people may only experience negative economic effects from the development of nature tourism in their neighbourhood. For example, they may be prevented from using the resources in protected areas which they may have previously relied on and gain no employment in the local tourist industry nor sales of products to it. This criticism has been raised about the development of Chitwan National Park in Nepal.

Another possible benefit to tourism development in a rural area can be that it provides an incentive to supply or improve public infrastructure such as roads, airports and telecommunications. Indirectly, this can benefit locals. For example, the upgrading of the airport at Jinghong, capital of Xishuangbanna Prefecture in Yunnan, was mainly to cater for international tourists but it also benefits some locals.

### **3. CASE STUDIES**

#### **3.1 China as a case study**

Although China has much tourism that can be identified as nature-based, the overall tourist attractions of China are much more diversified. For most recreational tourists, its heritage and cultural attractions are probably of greatest importance, and a number of its man-made features are also tourist attractions, for example, the Three Gorges Dam.

##### *Background*

During the period that Mao Zedong was Chairman of the People's Republic of China, tourism in China was not encouraged. Foreign visits were primarily motivated by political considerations. However, after China began its economic reforms in 1978, it began to encourage the development of tourism. First, inflows of foreign tourists were encouraged to provide foreign exchange. There were only 0.716 million inbound tourists to China in 1978 but by 2010 this had risen to 55.7 million. After 2000, there was also a significant pick-up in domestic tourism and also from then on outbound tourism from China was encouraged. Outbound tourism from China grew from 2.39 million outbound trips in 1992 to 57.4 million in 2010 and for the first time, exceeded the number of inbound visits to China. As pointed out by Yu and Gu (2013), this has led to considerable changes in the nature of China's hotel industry. These changes have also been significant for Australia because China is now a

major source of tourists to Australia and increasing Chinese investment in Australia's tourist industry is occurring and is likely to continue.

*The spatial distribution of tourism in China*

A study conducted by Wen and Tisdell (2001) found that tourist activity in China was heavily concentrated on its major cities and coastal regions in the 1990s. For example, Shanghai, Beijing and Guangzhou accounted for two-thirds of tourist receipts in China in 1995 (Wen and Tisdell, 2001, p.85) and about 40% of the rooms available for tourists (see Figure 1). Nevertheless, during the 1990s, this concentration tended to fall, even though the spatial distribution of tourism activity in China remained very lopsided with its coastal regions and major cities being most favoured for visits by tourists.



**Figure 1: China's provinces and major cities**

*Focus on Yunnan and nature tourism in Xishuangbanna Prefecture*

Although the interior provinces of China share less in China's tourism than the coastal provinces, both Yunnan and Shaanxi are amongst its top provinces as far as tourist visits and receipts are concerned with Yunnan being ahead of Shaanxi. The latter is visited mainly because of its archaeological and historical relics, for example the Army of the Terracotta Warriors. Yunnan is visited primarily because of its natural and ethnic cultural attractions. The main tourist centres in Yunnan are Kunming (the capital), Dali, Lijiang and Xishuangbanna, of which Jinghong is the capital (see Figure 2). The latter three centres have important ethnic minority attractions as well as natural attractions. The Stone Forest is also in easy reach as a day trip from Kunming and one minority group is quite active in this reserve. The main natural attraction of Xishuangbanna Prefecture is its State Nature Reserve. Xishuangbanna has been described as the green gem of China and in the southern portion of this reserve elephants are still present.



**Figure 2: Map of Yunnan Province**

Within Yunnan, the concentration of the spatial distribution of tourism is also evident. Kunming accounts for the bulk of tourist visits. Interestingly, the concentration is much more marked for overseas tourists than domestic tourists. In the mid-1990s, 72.53% of overseas visits to Yunnan were to Kunming, 6.62% to Dali, 3.23% to Lijiang and 2.93% to Xishuangbanna. In the case of domestic tourists, it was 33.13%, 17.08%, 1.37% and 8.57%

respectively. A larger proportion of domestic visitors to Yunnan visited Xishuangbanna than overseas visitors. Furthermore, the total number of domestic tourists to Yunnan was almost 30 times the number of overseas tourists visiting Yunnan in the period. In fact, the number of domestic trips in China far exceeds the number of its inbound tourist arrivals unlike in Botswana, as will be seen later.

Even within Xishuangbanna Prefecture itself, there is a concentration of tourist stays centrally. Most tourists stay in Jinghong, the capital of Xishuangbanna Prefecture, and go on day trips to visit its attractions including its nature reserve.

Although the conservation of Xishuangbanna State Nature Reserve is essential to maintaining the green image of Xishuangbanna Prefecture, the administration of the reserve is under financial pressure. Personnel are poorly paid and have been allowed to develop some agriculture and horticulture in the reserve to supplement their incomes.

According to Wen and Tisdell (2001, p. 227),

“A major problem for the Reserve arises from its tight financial situation which restricts further ecotourism development and increases its emphasis on income generation to the neglect of conservation. Political factors undoubtedly affect the Reserve in that the operation of the Reserve is under the influence of the Prefecture, the Ministry of Forestry, and to a certain extent, the counties related to the subreserves. This multiple administration model is prone to fan conflicts of interest and results in low efficiency. Plantation and household agricultural development strategies place pressures on the natural reserves. Administration bodies are large and distant from reserves, often leading to poor communication between levels of institutions and within reserves. There is hardly any systematic information or training on resource conservation issues.”

While the position may have changed now, at least in the 1990s, no nature education occurred in the Reserve. This seems to be common in China and in other developing countries. Thus, on the whole ecotourism guidelines were not being followed.

Casual observation in the 1990s also suggested that few members of minority groups were employed in the administration of the Reserve. They were however, employed in Jinghong to provide entertainment (ethnic dances, music, songs) at clubs, restaurants and similar venues.

The difficulty of disentangling the relative importance of different types of attractions in China is underlined by the following finding (Wen and Tisdell, 2001, p. 229).

“One of the authors (J. Wen) surveyed over 100 tourists at Jinghong airport in 1995 to determine their ranking of the attractions of Xishuangbanna. She found that ethnic culture was most highly ranked, followed closely by climate, with flora and fauna being slightly down the list followed by natural scenery. This ethnic culture seemed to be more important as an attraction than nature, a situation which may be common for such tourism throughout Yunnan and inland China. Inland China has a high population of minority peoples. Nevertheless, it is hard to disentangle the relative importance of these tourist attractions because each of the components is a part of the whole package of attractions. Together they are complementary.”

A recent interesting study of the development of tourism based on natural resources (primarily mountain scenery) in Hunan Province in China has been completed by Zhang and Wen (2013). South Korean tourists have been the backbone of this development of tourism in the Wulingyuan World Heritage Site in this part of Western Hunan.

### **3.2 Botswana as a Case Study**

As a whole, tourism in Botswana (located in Southern Africa, see Figure 3) is much more dependent on nature than Chinese tourism. Wildlife is the main drawcard for tourists to Botswana. Heritage and cultural factors are of comparatively minor importance even though the Government of Botswana would like to increase their importance as attractions. Recent man-made features are of no importance.

#### *Some background features*

The number of tourist arrivals in Botswana in 2010 was 2.53 million. This number has quadrupled since 1994 and has grown strongly with some fluctuations. The number of inbound tourist arrivals to Botswana is much greater in relation to its population than the relative number for China. In 2010, the approximate population of Botswana was 2 million. Therefore, there were almost 1.5 inbound tourist arrivals per resident of Botswana. China's population was 1,341 million (1.341 billion) in 2010 and China had 55.7 million inbound

tourist arrivals. Consequently, this was about one tourist arrival per 24 of its residents.

Inbound tourism plays a larger role in contributing to Botswana's economy and to its foreign exchange than does such tourism for China. Export of diamonds is Botswana's main source of foreign exchange followed by tourism. However, Botswana's tourism revenue is subject to significant import leakages, much more than in China's case.

Another difference between China and Botswana is that in relation to their population, more Chinese go on domestic trips than do residents of Botswana. In 2010, Chinese undertook 2.1 billion domestic trips, that is, on average more than one trip per Chinese resident. In comparison, residents of Botswana undertook 1.666 million trips; less than one per resident. Furthermore, few resident Botswana travelled abroad.

In addition, few trips were made by residents of Botswana to enjoy nature. They mostly travelled to visit friends and relatives. Leisure accounted for only 15.9% of their trips. It seems that the natural attractions of Botswana were mostly enjoyed by inbound tourists.

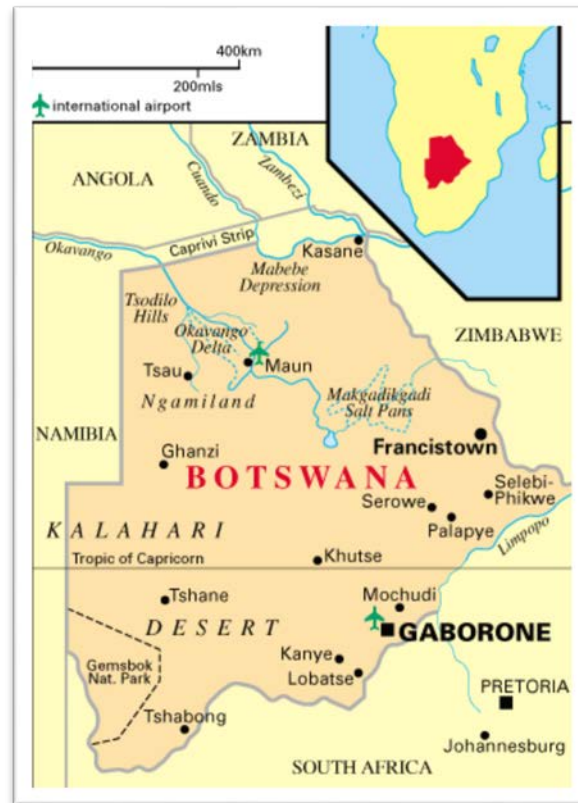
#### *The spatial distribution of tourism*

It is a little difficult to interpret the statistics presented in graphical form by the Department of Tourism Botswana (2011) of the spatial distribution of tourism in Botswana. However, indications are that Botswana's inbound tourism is not concentrated on its major population centres of Gaborone (the capital) and Francistown. This is especially the case for leisure tourists. The following appear to be approximately the percentages of all leisure tourists who included the following places (see Figure 3) in their visit in 2010,

Kasane/Chobe	73%
Maun	33%
Okavango	28%
Francistown	14%
Gaborone	8%

For all visitors, the relevant percentages were

Kasane/Chobe	43%
Maun	25%
Okavango	22%
Francistown	20%



**Figure 3: Botswana showing major cities and towns**

There is much less concentration of foreign tourist visits in the largest cities/towns of Botswana than in China. This seems to be a result of wildlife tourism being relatively much more important in Botswana than in China.

Gaborone (the capital of Botswana) and Francistown are the largest settlements in Botswana. It is clear from the above statistics that tourism is less concentrated in these central places than it is in major cities in China. The main purpose of tourists visiting Kasane/Chobe, Maun and Okavango is to join wildlife tours. These areas are located in the north of Botswana. Tourist visits to Botswana are spatially distributed in an eastern arc from Gaborone through Francistown and into its north. Despite considerable efforts, tourism development in the drier west of the country (eg Kalahari plains or desert) lags behind the rest of the country.

Many, probably most of the nature tourists to Botswana, have little contact with town folk. Many enter from Zambia (Livingstone) or Zimbabwe (namely Victoria Falls) into the

Kasane/Chobe area. This is possible by road. However, many wildlife tours in Botswana are based on the use of fly-in lodges. Tourists are flown in by light plane and are often moved between lodges by planes as part of their itinerary. This effectively separates them from the general population. International travel companies dominate this market. This separation limits opportunities for locals to independently benefit economically from the presence of international tourists. Therefore, to some extent, international tourism is an enclave industry in Botswana. However, it is not completely an enclave industry because it employs a lot of Botswana nationals.

#### *Economic aspects of tourism in Botswana*

It has been estimated that there were almost 10,000 (9,839 to be exact) employees in Botswana's accommodation sector in 2010. Just over 95% of those employed were Botswana nationals, and more than half of those (57%) were females. However, the numbers employed in Botswana's tourism sector both directly and indirectly are much greater than this. The total probably exceeds the level of employment in its mining sector.

The Department of Tourism, Botswana (2011) estimated that in 2009 tourism added 4.6 - 6.5% to Botswana's GDP. This was so despite a large leakage on imports to service Botswana's tourism industry. It is estimated that about half the tourism expenditure in Botswana is spent on imports or payment to foreign companies servicing its tourist industry. This is partly a consequence of Botswana having a relatively small economy which is not very diversified. Many small developing economies rely heavily on imports to service their tourism industry.

#### *Some further observations*

African residents (mainly from southern Africa) account for the bulk of international visitors to Botswana. Botswana's neighbouring countries are the top sources. After Africa, Europe is the next largest source of its international tourists, then North America followed by East Asia/Pacific region. The number of visitors from East Asia is low. Scope exists to increase their number e.g. from India and China. Most of Botswana's international tourists arrive from neighbouring countries since none of its cities or towns have a major international airport hub. There are also many other countries in Africa able to offer African wildlife tours. Therefore, it faces a competitive situation. For the country as a whole, the room occupancy rate only averaged 48% in 2010 and the average length of stay was only 2.2. nights.



Some long-term environmental changes which could eventually threaten the natural attractions of Botswana include the following:

1. Increased use of water from the Okavango River in Angola threatens to reduce the extent of the Okavango Delta.
2. Climate change could reduce water supplies in northern Botswana. This can adversely affect the Okavango Delta, the Chobe River and Chobe National Park
3. The increasing elephant population in Chobe National park is outstripping its carrying capacity. This could result in the destruction of much of its natural vegetation.
4. Poor people in the Okavango Delta are over exploiting its resources.

### **3.3 The Maldives**

I shall only briefly discuss tourism in the Maldives (see Figure 4).

Tourism only began to develop in the Maldives in 1972 but has expanded rapidly. It is now the largest industry of the Maldives accounting for 28% of its GDP and 60% of its foreign exchange receipts. It is the main source of government revenue. Over 90% of government revenue is obtained from import duties and tourism-related taxes.

Because a large fraction of the imports of the Maldives are required to meet the demand of tourists, this results in the major portion of import duties being indirectly paid for by tourists. Despite high import leakages from its tourism industry, the Maldives has obtained significant economic benefit from the growth of its tourism industry.

In 2010, there were 791,917 tourist arrivals in the Maldives. This is more than 2 for each Maldivian (the population of the Maldives is around 300,000). Virtually all visitors come on package tours. In 2010, 63.8% of these visitors were from Europe and 31.6% from Asia and the Pacific, mainly Northeast Asia. China (15%), the UK (14.4%) and Italy (11.3%) in that order were the main source countries, according to the statistics of the Ministry of Tourism, Arts and Culture (2011). Arrivals from China have increased rapidly and the Maldives has also attracted many tourists from Central and Eastern European countries which were previously part of the USSR. The Maldives seems to have been more successful in tapping into new sources of global demand for international tourism than Botswana.

*The nature of tourism in the Maldives*

Atolls in a marine setting are the main natural attractions of the Maldives. Tourists are separated from the main population. Tourist resorts have been developed on small uninhabited atolls primarily by foreign investors.



**Figure 4: The Maldives**

The following is a description of this type of tourism.

“A tourist resort in the Maldives consists of an exclusive hotel on its own island, with its population entirely based on tourists and work force, with no local people or houses.

These islands developed for tourism are approximately 800 by 200 metres in size and are composed of sand and coral to a maximum height of about 2 metres above the sea. In addition to its beach encircling the island, each island has its own “house reef” which serves as a coral garden and natural aquarium for scuba divers and snorkelers. The shallow water enclosed by the house reef also serves as a large natural swimming pool and protects swimmers from the ocean waves and strong tidal currents outside the house reef.

The buildings on a typical resort include rooms and suites reserved for use by its guests, restaurants, coffee shops, shops, lounges bars, discos and diving schools. A portion of the island also contains staff lodgings and support services such as catering, power generators, laundry and a sewage plant. On-island shops offer a wide range of products, such as souvenirs and artifacts. Most resorts offer a wide variety of activities such as aerobics, volleyball and table tennis” (Anon, 2013).

Practically all international tourists visiting the Maldives arrive by plane. Most arrive at Hulule airport located on an island about 1km away from Malé, the capital of the Maldives, and are taken by boat directly to their resort. Some tourist planes also arrive from Italy in the Addu Atoll in the far south of the Maldives. The airport here was developed later than that at Hulule.

#### *Comments on the Maldives’ situation*

Because tourism resorts have been located on small uninhabited islands in the Maldives, the opportunity cost of their development has been low for the Maldives. In general, tourism development has been a low cost activity for the Maldives itself given that it has relied heavily on foreign investment for its resort development.

A problem facing the Maldives is the likelihood of sea level rise due to global warming. None of the country is more than two metres above sea level.

#### **4. CONCLUSIONS**

The case studies indicate that the relative economic importance and the types of nature-based tourism vary greatly between LDCs. Economically, nature tourism is clearly less important for China than it is for Botswana and for the Maldives. Nevertheless, in some parts of China

nature tourism (often combined with ethnic and cultural attractions) is an important economic activity.

The type of natural resources used to attract tourists can also differ a lot between LDCs. The atoll attraction of the Maldives is quite different to the wildlife and landscape attractions of Botswana. Again the mountains of Nepal and China are also different types of attractions. Despite this, the natural attractions of many LDCs are not unique. For example, African wildlife can be viewed in many African nations and many atoll and small island nations are able to attract tourists. The situation therefore, is internationally relatively competitive as far as nature tourism is concerned. By contrast, heritage and some cultural attractions tend to be relatively unique so greater scope exists for extracting monopoly rents from visitors who come to view them.

LDCs with small economies (such as the Maldives and Botswana) have a high level of import leakages from their tourist industry. A large economy, such as that of China, will have less import leakage. Despite these leakages, the development of an inbound (nature-based) tourist industry can bring economic benefits to an LDC which it otherwise would not have. This is particularly evident in the case of the Maldives because its tourist resorts are developed on atolls which have little alternative economic use or value. It is less evident in the case of Botswana because some of its protected areas in its less arid parts potentially have economic uses for other than the support of tourism and nature conservation. Even in China's case, some of its protected areas (such as its Xishuangbanna State Nature Reserve) have alternative use possibilities. Often their protection cannot be justified alone on their economic value for tourism. Additional values must be considered (to obtain their total economic value) in order to justify their continuing existence.

It can be seen that the evaluation of the development of nature tourism in LDCs is complex. One needs to be wary about generalizing about its benefits and drawbacks. They often vary with the particular cases being investigated.

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## **APPENDIX**

**PowerPoint slides for “Nature-based Tourism in Developing Countries –  
Issues and Case Studies”**

# Nature-based Tourism in Developing Countries – Issues and Case Studies

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Photo 1: Tourists watching hippopotamus  
in the Okavango Delta, Botswana



1. Introduction
2. Issues/Theories About the Development of Nature-based Tourism in Developing Countries
  - What is nature-based tourism? How can its magnitude be measured?
  - What can be possible benefits to developing countries (or generally) of nature tourism in LDCs?
3. Case Studies
  - China as a case study
  - Botswana as a case study
  - The Maldives
4. Conclusions



# 1. INTRODUCTION

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- Nature-based tourism is an important source of foreign exchange, employment, cash income, and economic activity in many LDCs.
- Although its relative economic importance tends to be less in high income countries, it is not an unimportant economic activity in several higher income countries.
- Australian Tourism Research estimated that it resulted in an expenditure of \$33.3 billion in Australia in 2009 with inbound tourists accounting for the major part of this expenditure.

# 1. INTRODUCTION (Cont.)

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Why a concern, particularly in more developed countries, for tourism (especially for nature-based tourism) in LDCs?

- Many LDCs have a high degree of economic dependence on inbound tourism, with several being highly dependent on nature tourism.
  - Major business stakeholders in tourism in LDCs are often headquartered in higher income countries and have an economic stake in tourism developments in LDCs.
  - Foreigners from high income countries are often the main (or a significant proportion) of tourists in LDCs. They have a definite interest in the available tourist assets in these countries and in relevant cases, their conservation. This interest is often reinforced by nature conservation bodies headquartered in higher income countries.
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## 2. ISSUES/THEORIES ABOUT THE DEVELOPMENT OF NATURE-BASED TOURISM IN DEVELOPING COUNTRIES

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- The scope to develop tourism in a country depends (among other things) on its
  - Existing natural, heritage and cultural assets, as well as,
  - its ability to develop new man-made tourism assets.
- Most LDCs have insufficient capital to develop new man-made tourism assets that will be major tourist attractions.
- The majority of LDCs (for example, African countries) find that it is best to concentrate on developing tourism based on their natural, heritage and cultural attractions.

## 2.1 What is nature-based tourism? How can its magnitude be measured

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- It is not easy to determine what constitutes nature-based tourism and to measure its magnitude.
- Should it only include the enjoyment or use of nature in a natural setting? If so, tours to see wildlife in a protected area would be counted as nature tourism but not visits to zoos to see wildlife.
- Tourism Research Australia (2010) adopted a very liberal view of what constitutes nature tourism in order to measure how much expenditure it generates in Australia in 2009. Visits to zoos and so on were included as part of nature tourism.

## 2.1 What is nature-based tourism? How can its magnitude be measured (Cont.)

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- There is a further problem. Tourism experiences in an area often depend on a mixture of nature, cultural and heritage factors. The relevant importance of each can be difficult to disentangle. They are usually complementary.
- Precise measurement of the magnitude of nature tourism is unnecessary in many cases. The fact that it is very important can be quite clear.

## 2.2 Benefit to developing countries (and generally) of nature tourism in LDCs

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- Tourism (including international tourism) can add economic value to assets which would have little or no economic value in its absence.
- The economic benefits obtained can provide an economic incentive to LDCs to conserve such assets and also can add to the economic well-being of their residents.
- Nature-tourism can decentralize economic activity to rural areas. These are the areas where the incidence of poverty is usually highest.
- Rural areas may also benefit from infrastructure developed to cater for tourists.

## *Tourism development in rural areas does not always achieve these benefits*

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- The profitability of conserving natural habitats/attractions for tourism may be less than using them for alternative commercial purposes.
- It may be difficult to conserve the natural attractions in LDCs because *de facto* open-access to them occurs.
- Economic opportunities may not be made available to locals when tourism is developed in rural ones. Furthermore, locals may be denied use of resources they previously relied on for their livelihood such as the utilization of natural resources within protected areas.
- Each case needs to be specifically investigated.

# 3. CASE STUDIES

## 3.1 China as a case study

- While nature tourism is important in some parts of China, the tourist attractions of China are quite diverse. Its heritage and cultural attractions are probably of greatest importance.
- Tourism was very restricted while Mao Zedong was Chairman of the CCP.
- After China's economic reforms began in 1978, inbound tourism began to be encouraged and grew rapidly. After 1992, both domestic travel and outbound tourism was encouraged. In 2010, China had 55.7 million inbound tourist visits and 57.4 million outbound trips. This was the first time outbound visits exceeded inbound visits in number.
- Consequently, China has become a major player in international tourism.

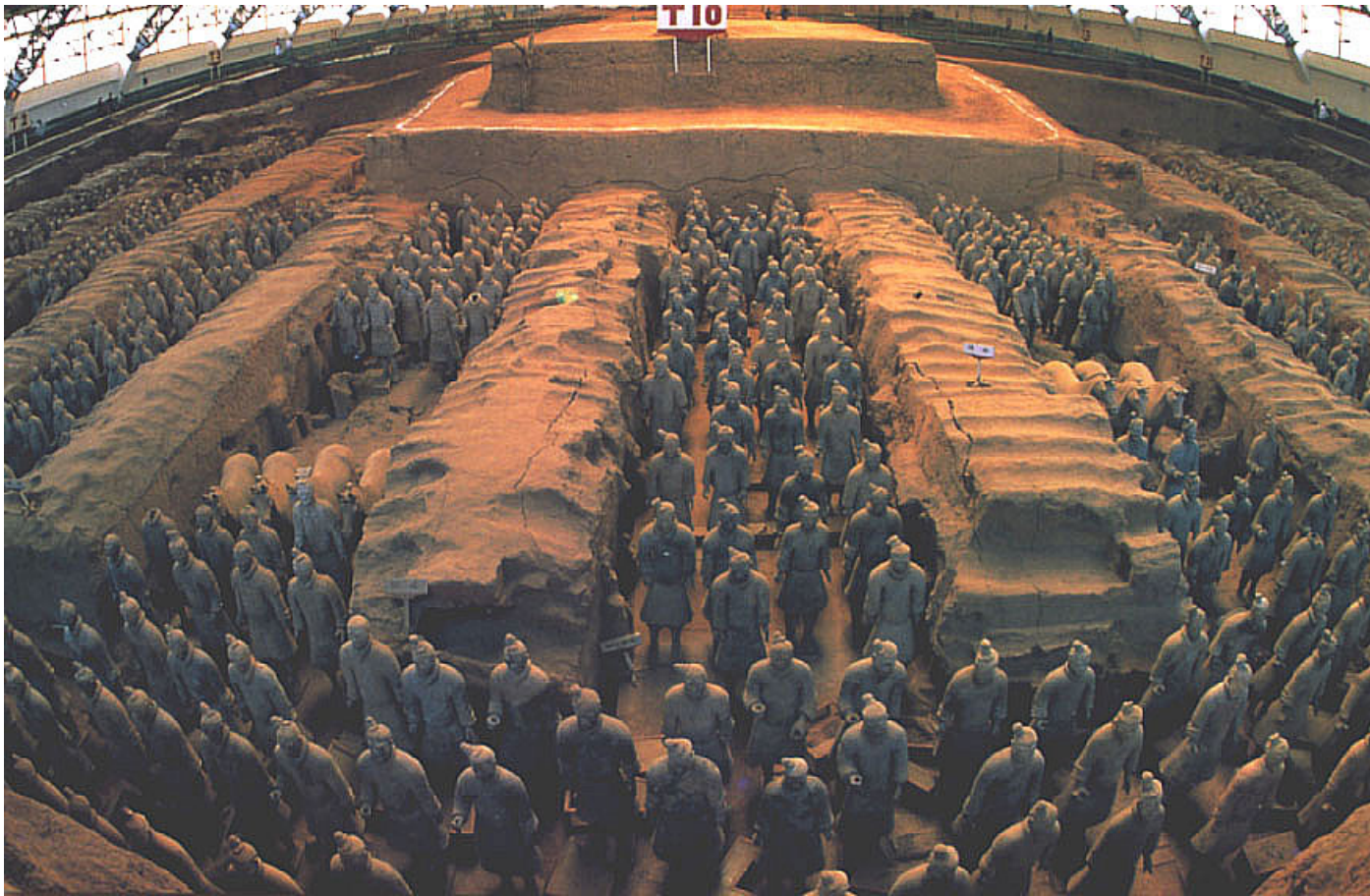


- Indications are that tourism in China is heavily concentrated on its major cities (Beijing, Shanghai, Guangzhou) and its coastal provinces.
- Of the inland provinces, Yunnan and Shaanxi attract the most tourism with Yunnan being ahead of Shaanxi. Xian is the capital of Shaanxi province. Visits to Shaanxi are mainly to see archaeological and historical artefacts.
- Within Yunnan, tourism tends to be concentrated on Kunming, the capital of Yunnan. However, this concentration is less for domestic than for international tourism.

# Figure 1: Map of China



# Photo 2: Terracotta Warriors near Xian in Shaanxi, China are a major tourist attraction



# Figure 2: Map of Yunnan



- Major tourist attractions of Yunnan are its ethnic minority cultures and its natural scenery.
- Xishuangbanna Prefecture (which is in the south of Yunnan and has Jinghong as its capital) is described by the Chinese as the ‘green gem’ of China.
- Its main natural attraction is Xishuangbanna State Nature Reserve
  - This consists of several non-contiguous forested sub-reserves scattered throughout the Prefecture. In the past, much of the forested area was reduced in this prefecture to grow rubber trees.

- The conservation of Xishuangbanna State Nature Reserve is essential to maintaining the green image of Xishuangbanna.
- However, its administration experiences financial pressure due to lack of finance. As a result, personnel are poorly paid. Conservation objectives have been compromised to some extent. Personnel have been allowed to develop some agriculture and horticulture in the reserve to supplement their incomes.
- A part of the reserve has now been flooded because of the building of a dam on the Lancang River, which becomes the Mekong River when it enters Thailand and Laos.
- The administration of the reserve is complicated by a number of different political units influencing its administration. These units include the Forestry Administration (central government body), the Prefecture and county officials.

## *Some other observations on tourism in Xishuangbanna Prefecture*

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- There is a concentration of tourist stays in Jinghong, the capital of Xishuangbanna Prefecture. Most tourists go on day trips to visit the nature reserve.
- Despite the green image of Xishuangbanna, its natural attractions do not appear to be its main drawcard for tourists. J. Wen interviewed a sample of tourist at Jinghong Airport and found that their ranking of its attractions in declining order were
  - Ethnic culture
  - Its climate
  - Flora and fauna
  - Natural scenery
- It is, however, difficult to disentangle the relative importance of these components because they are complementary as tourist attractions.

# Photo 3: Asian elephants in Xishuangbanna State Nature Reserve, the 'Green Gem' of China





# Photo 4: Ethnic minority member on a tea plantation in Xishuangbanna



## 3.2 Botswana as a Case Study

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- Tourism in Botswana is much more dependent on nature than in China. Wildlife viewing is the main drawcard and heritage and cultural features are of minor importance.
- In relation to its level of population, Botswana receives many more inbound tourists than China.
- Inbound tourism is of much greater economic importance for Botswana than for China.
- Comparatively, residents of Botswana engage much less in tourism than do the Chinese. They make relatively fewer domestic trips and few travel abroad.
- The wildlife/natural attractions of Botswana appear to be mostly used by foreign tourists.

# *The spatial distribution of tourists*

- Indications are that (unlike China) tourism in Botswana is not concentrated in its major population centres of Gaborone (the capital) and Francistown.
- This is because its wildlife/natural attractions are its main drawcard for international tourists and are primarily in its north.
- It is, however, unclear how much economic benefit is obtained by communities in the vicinity of places where wildlife tourism in Botswana mainly occurs.
- This is because supplies for tourism in these areas are likely to be sourced to a large extent outside these areas and it is possible that not many local people are employed.
- Wildlife lodges often involve fly-in operations and are usually separated from local communities. This limits the scope for locals to benefit independently from tourism

# Figure 3: Map of Botswana



## *Some economic aspects of tourism generally in Botswana*

- Although international companies dominate the tourism market of Botswana, its tourism industry mostly employs Botswana nationals. In fact, 95% of those employed in Botswana's accommodation sector are Botswana nationals and more than half are females.
- After mining, tourism results in the greatest cash injection to Botswana's economy and is its second most important source of foreign exchange.
- About half of the expenditure by international tourists in Botswana is used to pay for imports to service its tourism industry. Many small developing countries rely heavily on imports to service their tourism industry.

## *Some further observations*

- The main source of international visitors to Botswana is from neighbouring countries (e.g. South Africa) followed by Europe. East Asia is under represented.
- Botswana faces considerable competition in catering for its international tourism market because many African countries are able to offer comparable wildlife tours.
- Some long-term environmental changes which could adversely affect its visited attractions are:
  - Increased use of water from the Okavango River in Angola threatens to reduce the extent of the Okavango Delta.
  - Climate change could reduce water supplies in northern Botswana.
  - The elephant population in Chobe National Park is outstripping its carrying capacity. This could result in the destruction of much of its natural vegetation.
  - Poor people in the Okavango Delta are over exploiting its natural resources.

# Photo 5: Tourists viewing a pride of lions in Botswana



# Photo 6: Tourists on horseback viewing a giraffe in Botswana





### 3.3 The Maldives

- The Maldives is located in the Indian Ocean southwest of the lower tip of India.
- It is a country consisting of a series of coral atolls and its residents depend heavily on foreign tourists for their economic well-being.
- It relies on its climate, its small islands and the surrounding clear sea (all natural resources) to attract foreign tourists.
- Most tourists arrive by air at Hulule Airport not far from the capital Malé, and immediately go by boat to their island resort. Some from Italy arrive by air in the southern Addo Atoll.

# Figure 4: Map of the Maldives



## *Economic features of tourism in the Maldives*

- Tourism is the main source of foreign revenue for the Maldives and accounts for around 90% of government revenue. This revenue is obtained from tourism-related taxes e.g. bed taxes and import duties.
- A lot of the supplies needed to support tourism in the Maldives are imported. Despite this leakage, the Maldives obtains significant economic benefit from its tourism industry.
- In 2010, the Maldives had 791,917 incoming tourist visits, more than two for each Maldivian.
- Europe was the main source of visitors but the Asia/Pacific Region was also an important source. Arrivals from China have increased rapidly and it is now the country accounting for most tourist arrivals. The sources for tourists to the Maldives are relatively diversified and it has been more able to tap new source countries than Botswana.

- Tourist resorts have been developed on small uninhabited islands primarily by foreign investors to cater for tourists from particular countries.
- “A tourist resort in the Maldives consists of an exclusive hotel on its own island, with its population entirely based on tourists and work force, with no local people or houses.”
- In a sense, this tourism is a type of bubble-tourism. Each resort caters for the tastes of the country from which it draws its customers.

# Photo 7: A Maldives tourist resort



- Because tourism resorts in the Maldives have been located on small uninhabited islands, the opportunity cost of their development has been low for the Maldives.
- Also the Maldives has relied heavily on foreign investment for resort development. This has meant little cost for the Maldives.
- The Maldives is threatened by sea level rise due to global warming. None of the country is more than two metres above sea level.

# Photo 8: Hotel bedroom under the sea in the Maldives



## 4. CONCLUSIONS

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- These case studies indicate that the relative economic importance and types of nature-based tourism differ greatly between developing countries.
- Nature tourism is much less important overall for China than it is for Botswana and the Maldives. This is so even though nature tourism is important in some parts of China.
- The types of natural resources used to attract tourists can differ a lot between countries . The atoll attractions of the Maldives are very different to the wildlife attractions of Botswana. The mountains of China and Nepal are again different types of attractions.



## 4. CONCLUSIONS (Cont.)

- Small, less developed economies that rely heavily on inbound tourism usually have high levels of imports to service their tourist industry. Despite this, they may, as a result of the development of their tourist industry, obtain economic benefits which would otherwise not be available to them.
- In assessing the net economic benefits of nature tourism to a host country, one should consider the opportunity costs of the country, of its allocation of land (and other resources) to support nature tourism. In the case of the Maldives, this cost was low. The opportunity cost of setting aside protected areas for tourism in the less arid areas of Botswana are likely to be higher. Often such protection cannot be justified solely on the basis of its economic value for tourism. Additional values may have to be taken into account.
- It can be seen that it is unwise to generalize about the degree to which LDCs depend economically on nature tourism and about its benefits and drawbacks. Each case needs to be investigated individually.

# Photo 9: Tourists on safari in Botswana, probably in the Kalahari Desert



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