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**Sharing Nature's Wealth through Wildlife
Tourism: Its Economic, Sustainability and
Conservation Benefits**

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Clem Tisdell²

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Sharing Nature's Wealth through Wildlife Tourism: Its Economic, Sustainability and Conservation Benefits

ABSTRACT

This essay classifies different types of wildlife tourism on the basis of whether they rely on captive or non-captive wildlife and whether they involve consumptive or non-consumptive use of wildlife. It is argued that depending upon how they are managed, all these forms of wildlife tourism can be supportive of the conservation of wildlife. Different mechanisms for sharing the benefits of wildlife tourism are considered and it is argued that from several different perspectives, there can be too much or too little sharing of the economic benefits from wildlife tourism. Diverse stakeholders with an interest in wildlife tourism are identified and different ways (direct and indirect) in which they can benefit from wildlife tourism are specified. The distribution of these benefits plays an important role in facilitating access to wildlife resources for tourism purposes and in ensuring their conservation. However, it cannot be assumed that wildlife tourism operators have a large amount of profit or economic surplus to share. Factors that influence their level of profit are identified and discussed. Ways are considered in which the benefits from wildlife tourism might be increased in Australia. These include easier and more widespread access of tour operators to Australia's wildlife resources held in the public domain and by some NGOs.

Keywords: economic benefits from wildlife tourism, profit of wildlife tour operators, sustainable tourism, tourism economics, wildlife conservation, wildlife tourism.

JEL Classification: L83, Q26, Q57.

Sharing Nature's Wealth through Wildlife Tourism: Its Economic, Sustainability and Conservation Benefits

1. Introduction

Wildlife tourism generates considerable wealth worldwide both in developed and less developed countries and is very diverse in its forms. Its long-term economic viability depends on the conservation of its main asset, namely wildlife. This depends in turn on how much economic benefit this tourism can generate and crucially on how the economic benefits from this tourism are shared.

In this presentation, I'll focus mainly on non-consumptive tourism involving non-captive wildlife located in relatively natural conditions. However, some attention will also be given to other forms of wildlife tourism which can also be important in generating economic benefits from wildlife and in sharing these. First, I'll outline and classify some different forms of wildlife tourism and their possible implications for nature conservation and then consider stakeholders who should be considered in sharing the wealth associated with wildlife and the economic benefits obtained from wildlife tourism. I'll also consider factors that influence how much economic benefit can be extracted from wildlife tourism, strategies that can be considered to extract extra value from it and whether or not there can be too much sharing of wildlife used for tourism.

2. A Classification of Different Forms of Wildlife Tourism

It is not possible to classify different forms of wildlife tourism into non-overlapping categories because the types tend to merge with one another. Nevertheless, one possible type of classification is that shown in Figure 1. This classifies forms of wildlife tourism based on whether they utilize non-captive wildlife, semi-captive wildlife or captive wildlife. In turn, these categories are further subdivided on the basis of whether they involve consumptive use of wildlife or not.

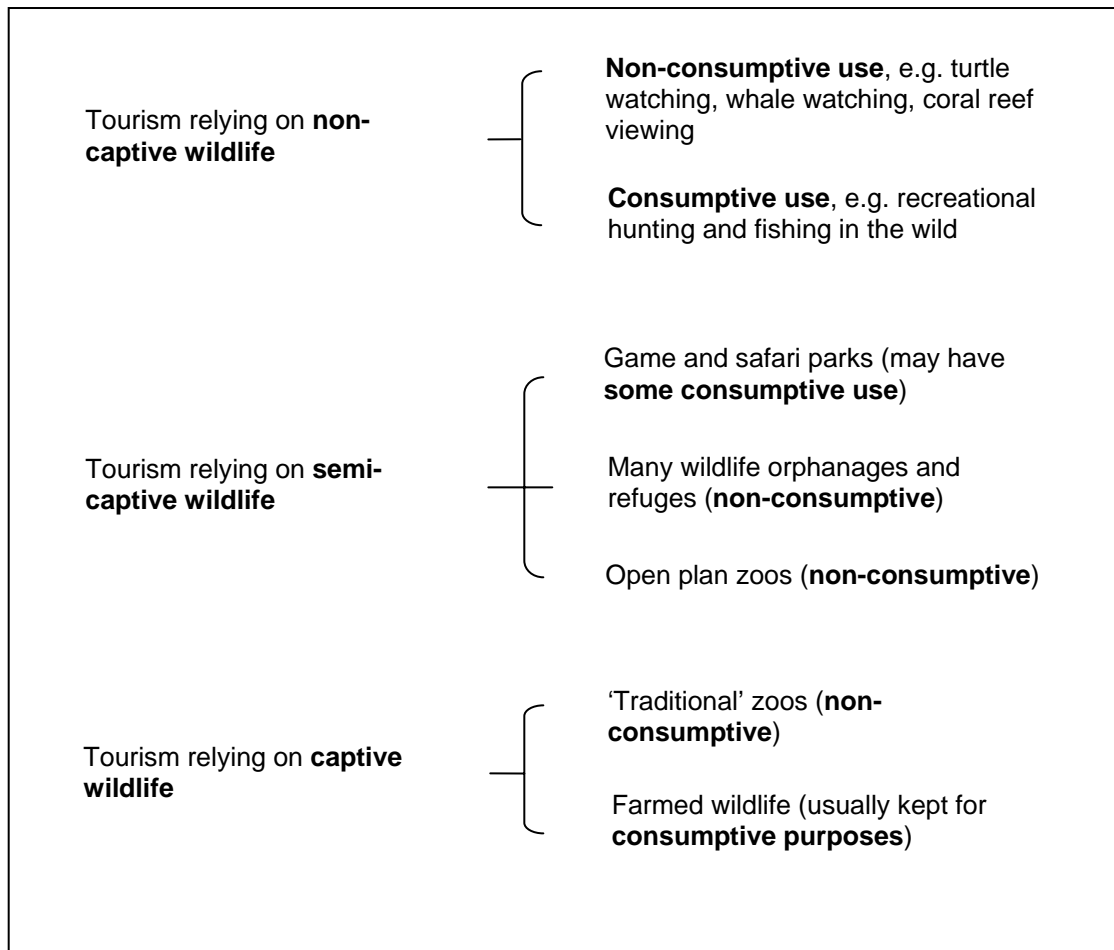


Figure 1: A chart classifying types of wildlife tourism according to the extent to which they depend on captive and non-captive wildlife and involve the consumptive use of wildlife.

Non-captive wildlife tourism utilizes species occurring in the wild. It may be non-consumptive as in the case of viewing wildlife, such as marine turtles, or it may be consumptive as in the case of recreational hunting and fishing. Whether or not these forms of tourism are compatible with conserving the species being utilized depends on how this tourism is managed and how intensive it is.

Semi-captive wildlife tourism involves the keeping of wildlife in relatively open large areas as in game and safari parks in South Africa (where the species involved may be partially utilized for consumptive purposes) and in relatively open zoos such as the Great Western Zoo at Dubbo.

Frequently, refuges and orphanages for wildlife are also relatively open (the Pinnawala Elephant Orphanage in Sri Lanka) and they are also important tourist

attractions. The stated purpose of such refuges is to return their stock to the wild. For various reasons, it does not seem to occur often. For example, it is extremely difficult to successfully return individual elephants to the wild because females may not be accepted by any wild family group, and released elephants may be unable to compete with wild ones. In the case of orangutans orphaned at an early age, they are unlikely to survive when released into the wild because young orangutans depend heavily on their mothers to learn survival strategies. They miss out on this learning experience if they are orphaned at a young age.

Captive wildlife species are also utilized for tourism. Some farmed species, such as saltwater crocodiles, are used for this purpose. Visitors are often sold products made from the farmed animals which are kept for consumptive purposes. Traditional zoos also rely on captive wildlife. However, not all animals on wildlife farms, safari and game parks, and zoos are taken from the wild. Many are bred in captivity.

Depending upon how they are managed, all these forms of wildlife tourism can provide incentives for conserving non-captive wildlife. Nevertheless, they vary in the degree to which they rely on the sustainability of populations of non-captive wildlife species for their economic survival. Tourism utilizing non-captive wildlife is of course, entirely dependent on the maintenance of these stocks for its long-term economic future. Tourism reliant on captive wildlife varies in the extent to which it must rely on animals taken from the wild to maintain this stock. In some cases, breeding cycles may become almost closed, or completely closed, as in the case of domesticated animals.

All these forms of tourism contribute to the sharing of nature's wealth and can promote the conservation of biodiversity in varied ways. To a large extent, biodiversity is the life blood of wildlife tourism. It is not possible to give a detailed account of the ways in which wildlife tourism by sharing nature's wealth can contribute to the conservation of wildlife. However, these may include:

1. Providing economic benefits to those who take steps to conserve wildlife. In the absence of adequate economic benefits from wildlife, landholders **usually** do not have incentive to conserve wildlife on their land. This is especially

likely to be so for private and commercial landholders. However, this is by no means always the case because some landholders adopt pro-conservation ethics and some NGOs (non-profit organizations) acquire land for the specific purpose of promoting nature conservation. However, while some landholders encourage wildlife tourism, others do not.

2. Knowledge provided to tourists about the conservation status of focal wildlife species or sensual experiences of tourists with wildlife may increase their empathy with the wildlife and change their conservation attitudes and behaviours. For example, tourists may adopt behaviours that are more beneficial to the conservation of wildlife than otherwise and provide financial and political support for wildlife and conservation projects if their experiences from wildlife tourism informs them about the state of wildlife and creates empathy for wildlife.
3. Even when tourism fails to cover the costs of wildlife conservation to landholders (as is mainly so for national parks), it can still have positive net economic benefits for local and regional communities via the local and regional expenditures it generates e.g. for accommodation, travel food and so on. These expenditures in turn have an income and employment multiplier effect. Furthermore, tourism expenditure (such as entry fees to national parks and protected areas) ought not be expected to cover their full cost because there are normally off-site economic benefits from these conservation sites.

3. Can there be Too Much or Too Little Sharing of Wildlife?

While too little sharing of wildlife for tourism purposes can result in there being less support for wildlife conservation than otherwise, too much sharing can also have detrimental impacts on wildlife conservation. Theoretically, the situation might be like that shown in Figure 2. There curve ABC represents the impact on conservation of a wildlife resource as a function of the extent to which that wildlife resource is shared, for example, as measured by the number of tourists utilizing this resource, the number of tour guides accessing the resource. In this case, once sharing exceeds x_1 , the beneficial effects of sharing tend to decline. This may be because the tourists have

negative ecological impacts on the wildlife resource and its habitat and competition between tour guides might reduce their profit and reduce the quality of tours experienced by tourists. Note that the nature and function of the conservation impact curve is influenced by the way in which wildlife tours are managed. Better managed tours will have a more positive impact on the conservation of the wildlife resource and should enable greater sharing to occur before the positive conservation impact of wildlife tourism declines. For example, curve ABC may relate to less well managed wildlife tourism than curve DEF. The latter has a more positive conservation impact and it permits greater sharing to occur, namely x_2 , before the positive conservation impact of wildlife tourism declines.

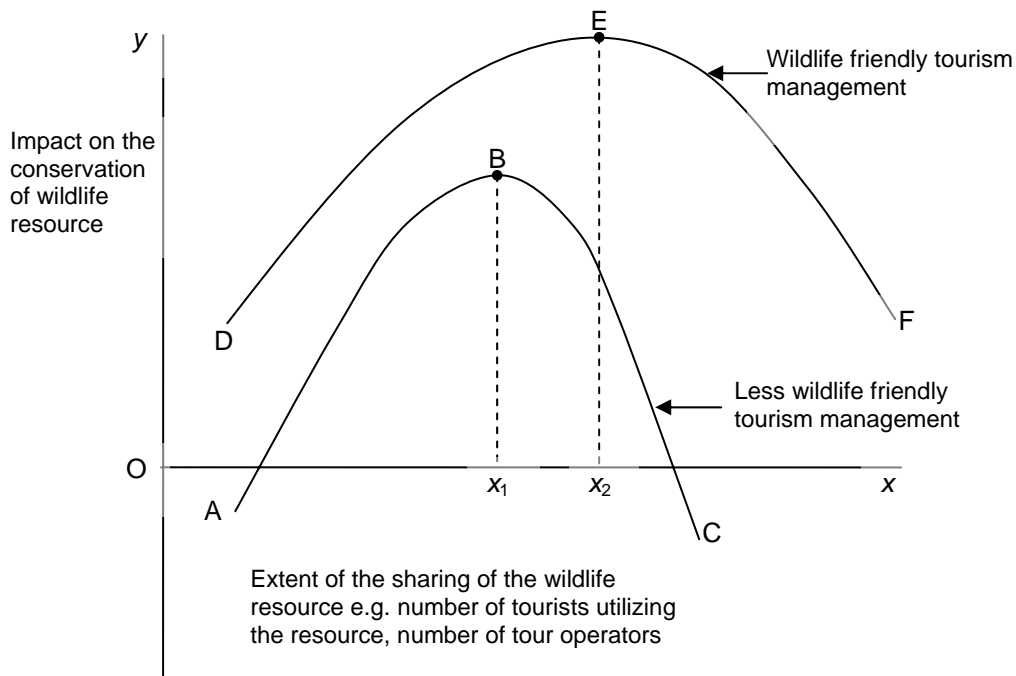


Figure 2: Sharing of wildlife resources as a result of tourism can have positive consequences for the conservation of wildlife but excessive sharing can have negative impacts. These impacts depend on how wildlife tourism is managed.

4. Stakeholders and Their Economic Rewards and Benefits from Wildlife Tourism.

The ways in which the economic benefits from wildlife tourism can be shared are quite varied, especially for non-captive wildlife tourism. However, to examine the consequences of the sharing of benefits from wildlife tourism and wildlife resources, it is necessary first of all to identify the stakeholders with an interest in wildlife tourism.

Many groups or parties have an interest or stake in the development of wildlife tourism. They include:

1. Tourists themselves. These are a diverse group. Their interest may vary by age, education and prior goals etc.
2. Landholders or holders of the wildlife resource. This can include private landholders, wildlife resources held by state or government authorities, communal holders (as in cases where indigenous land or sea rights exist), and wildlife resources held by non-profit organisations (NGOs), such as Bush Heritage and the Australian Conservancy.
3. Direct and indirect providers of services that facilitate or make possible such tourism. These include guides, tour companies and providers of transport and providers of complementary services such as accommodation.
4. Local and regional communities as a result of the economic spin-off that wildlife tourism can generate.
5. Nationally, there may also be an interest in the economic impacts of wildlife tourism and its consequences for biodiversity conservation, for example by governments and conservation organizations. National or state governments, for instance, may see such tourism as beneficial if it creates employment opportunities and adds to incomes in remote regions where unemployment is high and incomes are low.

Stakeholders must be convinced that they receive adequate benefits from wildlife tourism in order for them to be willing to support it. This support may be of a political nature (this is especially important in the case of access to wildlife resources directly controlled by governments) or may come through private actions or choices (as in the case of private land that contains wildlife of use for tourism) or be a result of communal actions where land containing wildlife is jointly owned by a local community. The size and sustainability of economic spillover effects accruing to a local community or region from wildlife to tourism can be expected to be a major consideration in determining the political support of local and regional communities for wildlife-based tourism in their area. In most instances, private and communal landholders can be expected to weigh up the economic benefits to them of allowing or engaging in wildlife tourism on their property. Even if they obtain economic benefit from such tourism and allow tourists to access the wildlife on their property, they may fail to adopt practices that conserve their wildlife unless their extra benefits from these conservation practices exceeds their extra costs. The conservation behaviour of many landholders will undoubtedly be influenced by their economic gains.

Private landholders in deciding their use of land will usually consider the economic returns they can obtain from its alternative uses, some of which may be incompatible with the conservation of the habitats of wildlife of value for tourism. In Borneo, for example, there are strong economic incentives to convert forested land to oil palm cultivation because the economic returns from oil palm are much higher than those from forest-based tourism, involving, for instance, the viewing of orangutans and proboscis monkeys. On the other hand, some private land holders on the Otago Peninsula in New Zealand find it to be profitable to utilize their visiting and nesting yellow-eyed penguins for tourism purposes and want to conserve these attractions.

Whereas the use of private land is heavily influenced by the economic returns that landholders can obtain from it, the use of land held by governments is primarily influenced by political considerations. Different lobbies and political pressure groups influence its uses. Local communities are likely to be supportive of the use of public land for tourism if it adds to local incomes and employment, especially if this addition is larger than for alternative politically acceptable uses of this land. However, local interests are not the only ones that influence the use of public lands and local interests

may be divided. Therefore, the political factors that determine the use of public lands can be complex because the land-use that benefits one group may be a loss to another group.

The sharing of the economic benefits from wildlife tourism may be looked at from other angle. We can consider the sharing of the economic-benefits by those parties who are **directly** involved in wildlife tourism. The product or service chains involved are much more diverse than in many other industries and frequently, mixed chains exist. Figure 2 illustrates two possible chains. Chain A involves a number of intermediaries between the tourist and tour operator whereas no intermediaries are involved between the tourist and the tour operator in Chain B. In the latter case, tourists contact the tour operator directly, thereby eliminating middlemen. The development of information technology (e.g. the internet) is increasingly reducing the role of tourist intermediaries in the conduct of tourism.

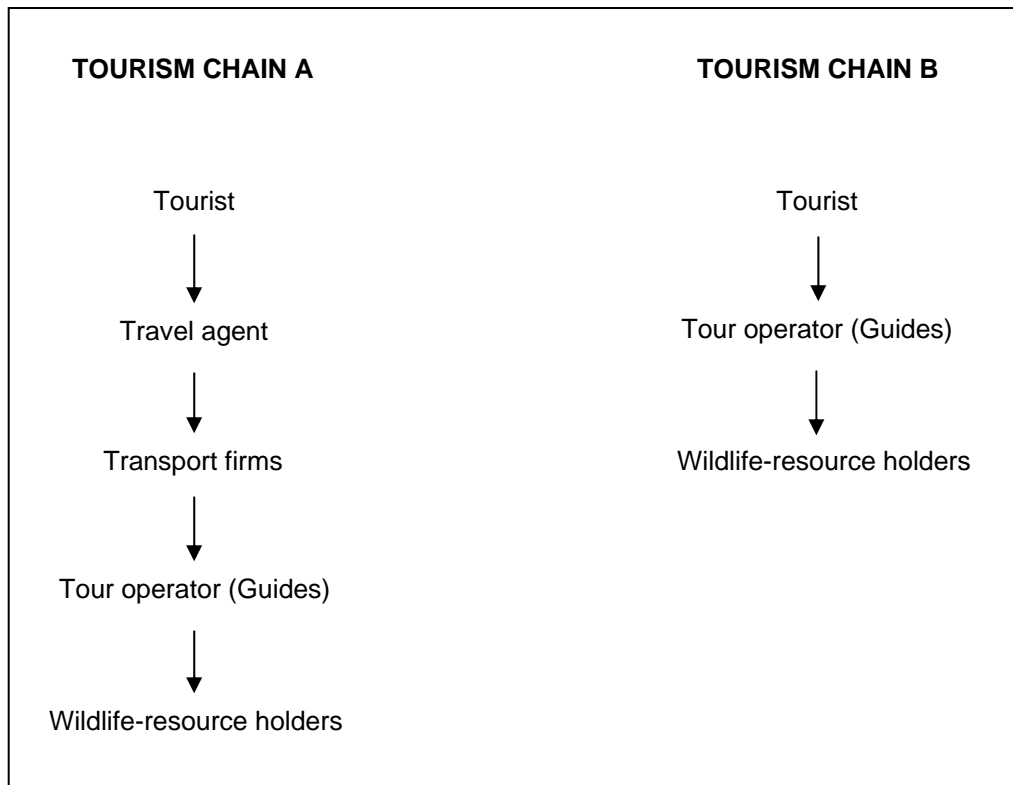


Figure 3: Parties involved in two possible chains for the supply of wildlife tourism. Chain A involves more intermediaries than Chain B. Several other patterns are possible. The way in which the benefits are shared in a tourism chain affects its sustainability. Note that it is possible to have a situation where no tourist intermediaries are involved in wildlife tourism. In this case, tourists make no use of tour guides.

In relation to these tourism supply chains, we can consider the share of economic benefits that each of the parties obtains. The relative shares of the parties will influence the sustainability of a chain. The economic collapse of one link in the chain will result in the failure of the whole chain. As a result, wildlife tourism dependent on this chain will collapse unless it is replaced by a different chain. However, the vital part of the chain consists of tour operators and wildlife-resource holders. If they do not obtain sufficient economic benefits, all wildlife tourism collapses, that is in cases where wildlife tourism depends on the existence of a formal commercial structure.

5. How much Economic Benefit is there to Share? How can this Benefit be Increased?

When sharing of the economic benefits of wildlife is considered, it should be kept in mind that tourism operators do not always have a large economic benefit or surplus to share. The amount of economic benefit they have to share depends upon their costs for catering for tourists, the level of demand for the type of wildlife tourism in which they are engaged and the amount of business competition they face.

Their costs are likely to be high per tourist if their tours are labour-intensive (low numbers of tourists per tourist trip) or capital-intensive (their cost of equipment is high in relation to the number of tourists catered). Tree kangaroo watching is labour-intensive because the number of tourists relative to the guide must be kept low. Reef driving trips are likely to be relatively expensive because of the cost of the boat and equipment, not to mention insurance costs. Other things unchanged, higher operating costs or higher overhead costs reduce the profit margins of tour operators. The level of demand also influences the profit margin of tour operators. Other things remaining constant, it is likely to be higher the lower the costs of intermediate tourism services, such as the cost of transport. The time required to reach the wildlife tourism destination is also important. Demand is also influenced by long-term factors. For example, the demand for wildlife tourism tends to rise with income levels and the level of education of tourists. Demand from international visitors is sensitive to foreign exchange rates. Table 2 provides a summary of a number of factors that affect the profit margins of wildlife tour operators.

Table 2: Factors influencing the profit (economic surplus) of operators of wildlife tours

Main Factors	Influences on main factors
Level of Demand	<ul style="list-style-type: none"> • Cost of intermediate services to tourists such as travel costs. • Levels of income and education. • Cycles of economic activity, e.g. economic recessions. • Foreign exchange rates.
Costs of supplying tours	<ul style="list-style-type: none"> • Level of operating costs, e.g. labour costs. • Overhead costs, e.g. capital costs and insurance. • Size of each tour group.
Business competition	<ul style="list-style-type: none"> • Ease of entry and exit of businesses from the industry. Ease of entry and difficulties in exiting intensify competition. • General economic conditions. Competition tends to increase when the economy is depressed.

Note also that the demand for tourism, including wildlife tourism, tends to be sensitive to fluctuations in the general level of economic activity since expenditure on wildlife tourism is to a large extent discretionary. In an economic recession or depression, such expenditure often falls by a significant amount and competition amongst tourist operators for the available business is likely to intensify. The result can be a large reduction in the economic benefit obtained by tourist operators.

We may also ask ourselves whether the potential economic benefits from wildlife tourism in Australia are being fully tapped. The answer is no. For example, there is scope to develop limited recreational harvesting of saltwater crocodiles in the Northern Territory and in Western Australia. This could provide a source of supplementary income for some Aboriginal communities, for example. Easier and more widespread access of tour guides to national parks and protected areas can benefit both tourist and the wildlife tour industry. There appears to be an unfulfilled demand for guided tours in a number of national parks for which visitors are willing to pay. For example, there is evidence of this at Jourama Falls in the Paluma Range National Park for spotting the mahogany glider. Also, more conservation NGOs, such

as the Australian Conservancy, could consider making their protected area available for wildlife tours.

6. Conclusion

The way in which the economic benefits from wildlife tourism are shared influences the sustainability of this type of tourism and the conservation of wildlife sources on which this tourism depends. Several different ways in which these benefits can be shared were identified – the benefits may be direct ones or indirect through employment and income spillovers from wildlife tourism. In some cases, the economic benefits from wildlife tourism are the sole or the critical factor providing support for the conservation of endangered wildlife. However, not all wildlife tourism is highly profitable for tour operators, and tourism alone cannot be relied on as the sole driver for conserving biodiversity and sharing nature's wealth. Factors that influence the profit of wildlife tour operators were identified. It was suggested that Australia still has some way to go to maximize the level of sustainable economic benefits available to it from wildlife tourism.

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