

## Chapter 4

# Hunting and Fishing Tourism

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### Introduction

As road networks and industrial agriculture expand, and people become more affluent, wildlife resources are diminishing, forcing hunters and fishers to travel further for their quarry, whether it is to the next lake or forest, or to the other side of the globe. The increasing urbanisation of society, combined with the extensive range of quarry, has created a demand and supply situation in which various strategies have been pursued to provide clients with their desired experience, and to derive profit for the fishing and hunting industry.

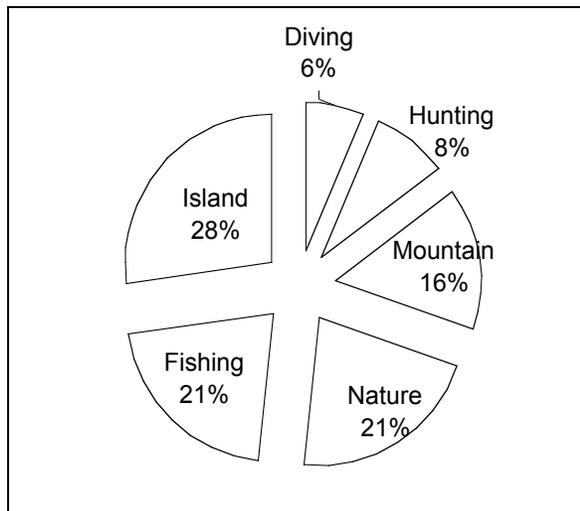
The main target species for hunting tourism include larger ungulates (mostly cervids and bovids), rodents (rabbits, marmosets), and waterfowl (ducks, geese), but also incorporate carnivorous species such as bears, wolves, foxes, felids (wild felines), mustelids (weasels), and crocodiles. Fishing focuses on a wide range of marine/estuarine fish, molluscs, crustaceans, and a variety of freshwater species in rivers and lakes. Not all hunting/fishing falls under tourism, but much of it incorporates the following defining elements of tourism:

- Travel to and from a particular destination
- The presence of a tourism service industry (outfitters, tour guides, hunting farms)
- The exchange of money for services
- Overnight, to several months, stays at destinations
- A service industry
- Aspects of leisure and recreation

There is a wide range of products available, varying between over US\$100,000 for a hunting trip to a few dollars for a fishing license in Australia. How important is the industry worldwide, how many people engage in it and what is the total economic value of the hunting market? We analysed a number of websites, accessed through Google ([www.google.com](http://www.google.com)) for parts of this chapter. This was conducted in order to gain at least a coarse measure of tourism-related hunting and fishing activities. If one assumes that particular tourism sectors, including wildlife tourism, are represented equally on the web, and in proportion to the size of the actual industry, then it is possible to gain an understanding of their relative size. Hunting and fishing account for 29 per cent of all the websites connected with tourism (a total of approximately six million hits). In almost one third of cases, the concept of being immersed in nature was associated with hunting or fishing (Figure 4.1).

**Figure 4.1**

Proportion of Google hits (total approx. 6 million hits) in relation to tourism and the displayed search terms



International hunting tourism, as an industry, has developed in the wake of the European expansion. The affluent British gentleman-adventurer, often also a naturalist, travelled to remote places, to explore first-hand the wonders of the tropics, the confronting dangers of a tiger or elephant hunt, the thrill of a safari, or the quiet pastime of the insect collector. It is not surprising that such a person would take home a trophy, such as skins, horns, teeth, dried penises, skulls or tails, in order to verify their adventures. Although, in later years, photographic evidence could have replaced this method of verification, tiger skins and elephant tusks had, by that time, become such an essential part of a residential display that its waste would have been unthinkable. Much of this would have occurred during the 19<sup>th</sup> Century in Africa and Asia, and thus international trophy hunting was born.

Trophy hunting was never restricted to the European gentry. In the 1960s, for example, the King of Bhutan, a Buddhist, succumbed to a heart attack while enjoying a hunting-safari in the heart of Africa. In 2003, there is a wide, and increasing, range of potential destinations for hunters and fishers depending on their interests in prey and costs. Hofer et al., (2002) distinguished between the demand and supply countries. There are fishers and hunters in all parts of the world, however there are distinct places where the supply outweighs the demand. It is to these destinations that most fishers and hunters travel.

Hunting and fishing, including in their tourism form, are important land uses and are a part of the essential cultural heritage for many societies (Bauer and Giles, 2002; Roe et al., 2002; Robinson and Bodmer, 1999; Pearce, 1995). In Europe hunting remains of great cultural significance (Ermala, 1982; Kalchreuter, 1984), as it does in many other parts of the world (eg. Africa and North America), particularly for indigenous people. The hunting language in Germany and Scandinavia forms an essential part of the Germanic cultural heritage; even music has its own hunting history.

Although not required for subsistence, hunting and fishing for recreation play an important role in the economy of western countries (Kalchreuter, 1984, 1987), and may even bring significant commercial benefits. Recreational hunting is a multi-billion dollar industry in the US and in Europe (US Fish and Wildlife Service, 2002; Wiese, 1991). Statistics suggest that in Australia every third person goes fishing, and in the state of New South Wales 27 per cent of estuarine waters are now “free of commercial fishing” (Newsletter from the NSW Recreational Fishing Trusts, January, 2003).

At present around 6 million wild ungulates are harvested in the northern hemisphere every year, instigated by a complex framework of tradition, commerce, and social values (Bauer and Giles, 2002). In Germany, one of the most industrialised countries in the world, hunting remains an important land use and tradition. The result is a harvest of nearly 1.2 million ungulates, equalling approximately 500,000 tons of venison every year.

Fishing, more so than hunting, has been an important aspect of the lives of a large part of society. Its origins and pursuit have been much less questioned, and there has been generally little controversy surrounding its practice. Many people holiday on the coast, on islands, or by the riverside so that they can take their fishing rod, hand line, or crab basket. Whilst this may not be an independent industry, it is an essential part of holidaymaking. The emergence of a more specific and targeted fishing-tourism sector was probably connected to a rise in mobility, an increase in the number of recreational fishers, and the emergence of service providers (such as guides, boat owners, land owners, and resort owners) who could take advantage of the increase in fishers by offering special experiences, locations, and species, and constructing a price for it. We suspect this industry was a response to declining fish resources. The more expensive end of the market, big game fishing, which targets species such as sharks, marlin, and tuna, started as an elite industry in the US but has spread from there to many other countries.

Hunting and fishing are treated in this chapter as the harvesting of aquatic or terrestrial wild (i.e. not domesticated) animals. By combining hunting and fishing we also want to overcome the contrasts between the relative social indifference towards fishing, and the frequently negative public attitude towards hunting. Hunting and fishing both use wildlife, both can be humane and professional, or cruel and destructive, and both can only be justified, as Caughley and Sinclair (1994) express it, "...if they are sustainable...". By using a Triple Bottom Line concept (i.e. being socially, economically and environmentally accountable) hunting/fishing can contribute to a holistic and sustainable conservation approach, as recent examples such as CAMPFIRE demonstrate (Child, 1993).

From an ecological viewpoint, the sustainability of hunting and fishing relies on the principles of wildlife harvesting. Well-managed hunting can have a wide range of benefits for conservation (Bauer and Giles, 2002), which by its very nature is opposed to modern and intensive agriculture and forestry (Leopold, 1933). There is emerging support from those formerly subscribing to the protectionist-conservationist attitude, who now proclaim that rich trophy-hunting tourists might be the saviour of Africa's wildlife (eg. Roe et al., 2002; Baker, 1997a,b; Lewis and Alpert, 1997; Child, 1993; Meier, 1988). Hunting tourism seems to have become acceptable again, after many years of discredit by the conservation movement (of which many hunters consider themselves a professional part). For example countries such as Zambia, Tanzania,

Zimbabwe, South Africa, and Namibia, which are safe-havens for Africa's magnificent wildlife, derive significant income from commercialised Safari hunting. This tourism form has been instrumental in the development of highly successful community conservation models such as CAMPFIRE in Zimbabwe (Child, 1993). Recreational hunting and fishing, a vast industry in the "rich countries" (eg. Bauer and Giles, 2002), may provide increasingly important income to the poorer countries as consumptive wildlife tourism. This industry, however, still raises many questions for conservationists from western countries, while many non-western societies simply view it as an opportunity for income through consumptive wildlife use.

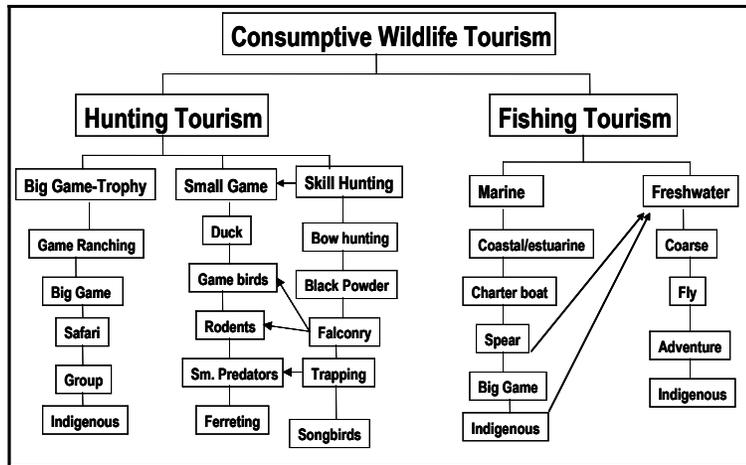
In this Chapter we mainly focus on the consumptive hunting and fishing aspects of the tourism industry, although the majority of the following is also applicable to the non-consumptive "catch and release" fishing. This review attempts to explain how this tourism industry works, estimates its volume and trends, identifies problems of sustainable hunting and fishing, and suggests improvements towards sustainability of the industry, including conservation and community development.

### **Classification of consumptive wildlife tourism**

This review combines hunting with fishing tourism, and describes them as having distinct features, marketing, income, and biological characteristics (eg. Weaver and Oppermann, 2000). One feature of the tourism industry is the indistinct boundaries between its subcategories; many tourists like to mix hunting and fishing. In our attempt to classify the wide range of activities we separate hunting tourism into three different market segments (Figure 4.2): (1) the 'big game' hunters with their various subdivisions, all targeting the experience, adventure, potential danger, and acquisition of a trophy; (2) the 'small game' hunters, more interested in the hunting experience and skill displayed (two Olympic disciplines have emerged from this sport, trap and skeet shooting) and (3) skill hunting, which we classify separately by its highly specific use of certain hunting tools (eg. bow, muzzle-loader, and various traps).

The overlap between fishing categories is even more fluid, as freshwater fishing for example includes spear fishing, and charter-boat fishing may take place in marine or freshwater environments (Figure 4.2).

**Figure 4.2**  
Consumptive wildlife tourism. Arrows indicate overlap in classification



### Understanding recreational hunters' and fishers' motivations & perspectives

What types of people go hunting and fishing for recreation, and why do some spend significant funds on the activity? These questions do not have simple answers. Sociological research shows that people from all social strata, religions, and cultures, hunt and fish (McCorquodale, 1997; Davies, 1996; Schraml and Suda, 1995; Cartmill, 1993; Lee, 1987). Most of us have, at some stage of our lives, been holding a fishing rod or a simple hand line, dreaming of or even catching a fish. For many these early starts have grown into a life-long obsession, and in Australia a staggering 4.5 million people (24 per cent) claim to be recreational fishers. The situation is similar in Europe and North America, where individually, or in organised fishing clubs, people spend time and money to pursue the hobby, which has a number of specialised branches. Some of this fishing, the pursuit of the great, the magnificent, and the deadly, such as with the giant black marlin, tuna species, or the great white shark, has obtained the same status as safari big game hunting, and is actually called 'big game fishing'. Whilst the raw, and elemental nature of this fishing has been immortalized in Ernest Hemingway's "The Old Man and the Sea", it persisted mainly as the pursuit of the very rich. More recently it has gained popularity as society has generally become more affluent.

Most fishing and hunting, however, is less grand and is simply immersion in an elemental behaviour, ingrained in our genes through millions of years of evolution (see Buege, 1996; Johnson, 1981). From an evolutionary perspective it was essential for our primal nutritional needs, and it is always sure to give us a thrill, a moment of excitement, pride in our skill, and the feeling of achievement. Hunting is not significantly different from fishing, as many people perceive it to be. In fact much of it is a sort of terrestrial fishing, carried out with traps, nets, snares, and lines.

Most hunts and fishing tourism trips follow a certain pattern. The first step is to get your equipment together. The equipment needs care, replacement from time to time, and some follow the latest fashions and techno-innovations. For most, equipment has

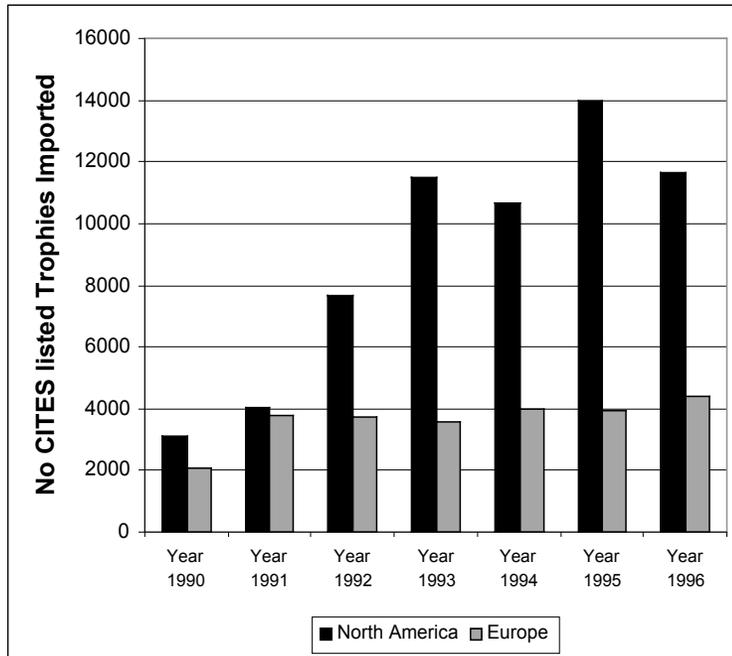
to be individual (hand-made is very important), age generally improves it and it becomes precious to us. The equipment might be a fishing rod, it might be a net, a trap, or it might be a bow or a spear, a boomerang or a firearm. While most of it is simply functional, much of it has acquired a status of its own, or is supposed to reflect the status of its owner.

In western society these tools of the trade are now a huge industry and market. In Australia, for example, most small towns in regional areas have a shop or a petrol station selling fishing rods, ammunition, rifles, rabbit traps, crayfish baskets, fishing line, or bait. The majority of business, for these stores, is from the tourists, who arrive from urban centres in search of the great outdoors, their dream of self-sufficiency (at least for a few days), their desire for adventure, for honing their childhood skills, or simply having a good time with their mates and their family. The ability to provide a meal from wildlife reflects on a person's status within a family, and having been the provider of meals from wildlife -We might assure the reader lacking this experience that it feels good. Social aspects of hunting are, although poorly researched, of great importance (see Schraml and Suda, 1995).

### **Economics and markets**

The number of hunters, in many parts of Europe, continued to increase during the seventies, but has remained stable or slightly declined from 1980 onwards (Bauer and Giles, 2002). This trend is reflected in the US where fishers and hunters combined declined by 2.2 million to 37.8 million from 1991 to 2001 (US Fish and Wildlife Service 2002). Interestingly, however, expenditure has increased significantly even though there is a smaller number of hunters and fishers. There has been a rather dramatic rise in outbound trophy hunting in North America, and a small rise in Europe (Fig. 4.3). Trophy hunting is a form of hunting tourism (and similar in fishing) that targets species depending on their size and body characteristics, such as antlers, tusks, or horns (see Bauer, 1993; Bauer and Giles, 2002). It features very prominently in connection with tourism from Canada, the US, and Australia, with Africa being an important supply country as the high exports of CITES listed species indicate (Table 4.1).

**Figure 4.3**  
Trophy imports of species listed in CITES (Hofer, 2002)



**Table 4.1**  
Listing of major trophy and hunting species worldwide

Region	Species	Market Size
Europe and North Asia	Red Deer, Wolf, Brown Bear, Chamois, Argali, Ibex, Roe Deer, Blue Sheep, Himalayan Thar, Marco-Polo Sheep, Siberian Ibex, Serau,	A medium market with approx. 3200 CITES listed trophies imported to Europe and North America (1990-96)
Africa	Lion, Buffalo, Elephant Hippopotamus, Eland, Impala, Sita tunga, Waterbuck, Hyena, Crocodile	Very large and an important income for Zambia, Tanzania, Zimbabwe, Botswana, Namibia and South Africa with approximately 31000 CITES listed trophies introduced to North America and Europe (1990-1996)
North America	Moose, White-tailed Deer, Wapiti, Brown Bear, Black Bear, Puma	A very large market in particular in Canada. Dramatic increase in trophy trade from Canada to the US in particular Black Bear
South America	Jaguar, Red Deer (i), Tapir	A relatively small market with only 880 CITES listed trophies introduced to North America and Europe between 1990-1996
Oceania	Red Deer (i), Sambar Deer (i), Chamois (i), Himalayan Thar (i), Rusa Deer (i), Feral Pig (i), Red Fox (i) Banteng (i), Water Buffalo (i), Dromedary (i)	Overall a small market segment. On its own however a significant domestic industry in particular in New Zealand but also Australia

(i) – Introduced (Market size based on Hofer 2002, Bauer and Giles, 2002)

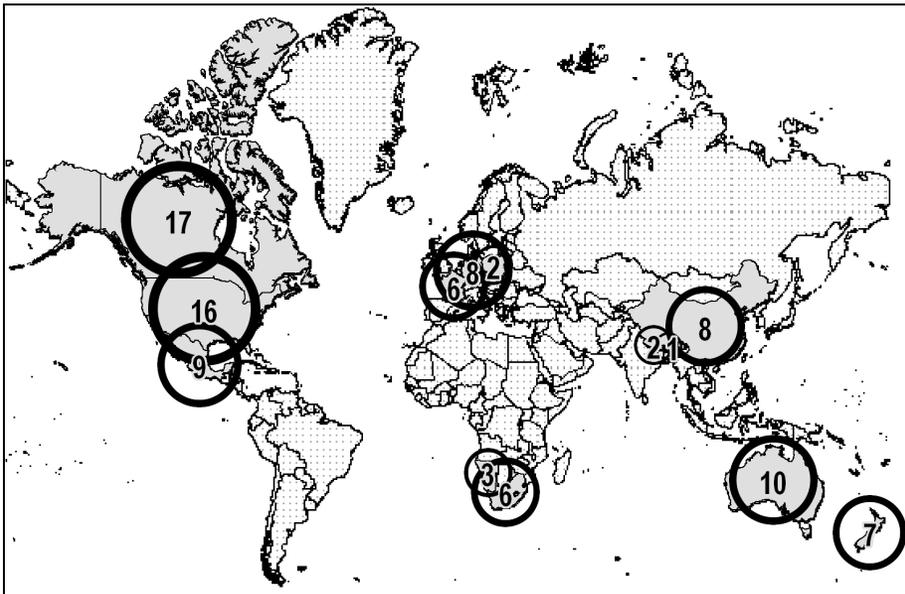
#### Demand and supply countries

In most western countries, with the exception of Canada, Australia, and New Zealand, the demand for hunting and fishing generally far outstrips the supply. In parts of Europe this trend has resulted in fishing clubs with virtually closed membership, and stringent criteria to join. In central, and increasingly parts of Eastern Europe with the Hunting District System (see later), many hunters without district access choose to go overseas. The importance of some regions, for hunting and fishing, stood out in the

website analysis. Figure 4.4 presents a website analysis of the use of the word hunting for advertisements. North America is important in this industry as it serves supply and demand, while the circle size for Canada, Mexico, and South Africa, represents mostly supply countries. Despite its small size, New Zealand stands out for its relatively high representation due to a high number of introduced ungulates, which have become the basis of a very successful recreational and tourist hunting industry (eg. Davys et al., 1999). The absence of advertisements from former Russian countries reflects the lack of Internet use in advertising in these countries, not the absence of a market. Box 4.1 describes international hunting tourism from Europe, as an example.

**Figure 4.4**

Proportional representation of websites with the words tourism and hunting (countries in grey only). Numbers and diameter size reflect proportion of web sites



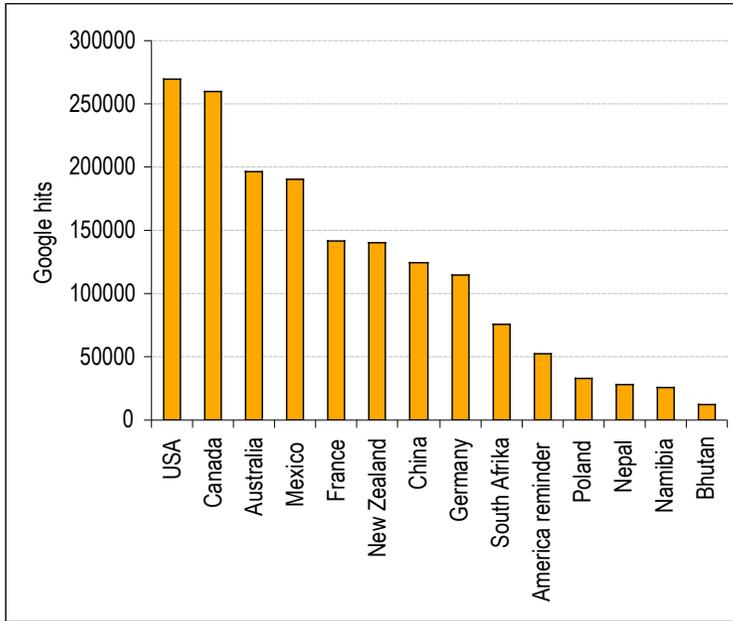
**Box 4.1****International Hunting Tourism in Europe**

Europe is the world's most diverse, and complex, legislative and regulatory hunting and fishing environment. It contains many traditional and indigenous elements, and has transformed them in a great diversity of customs and systems, which combine the old with the new, and the practical with the almost absurd. Nothing expresses this better than the situation of the songbirds in Europe, which are looked after with tender care and observed by millions of Northern Europeans, while in the southern regions an estimated 200 million songbirds are harvested as part of old and very dear traditions. In its entirety, Europe, with its 18 countries, constitutes the World's second largest hunting bloc (after the US) with almost 6.5 million active and registered hunters, or almost 2 per cent of its population (FACE, cited in DJV, 1999). During the past 20 years, however, many of the demands of these hunters were not being met within Europe, particularly in Germany and Austria with its district system there were thousands of hunters without access. These people then have to travel for the hunting experience, which might be cheaper, more diverse, and more exciting in exotic countries rather than in Germany itself. Pinet (1995) estimates that about 30 per cent of Europeans now travel abroad for hunting. German hunters preferred Eastern Europe, Italian hunters remained within Europe or chose South America and Cuba, Spanish hunters preferred North America, and Benelux hunters travelled to Africa. An increasing number of hunters seek the exceptional experience. This experience may include hunts for large game in remote and wild regions of the world. The extent of this industry is indicated by the frequency of species, destinations, and country characteristics in advertisements of hunting trips by the outfitter industry in Germany. Advertisements in Germany are representative of a powerful, highly organised, and economically viable group of hunters who make annual hunting trips, for which they pay up to 100,000 DM per year, to supplement their experiences within their domestic and highly-regulated hunting territories (Data from 1999). Advertisements in a German Hunting Journal "Die Pirsch" in 1999 offered 40 per cent of hunting trips to the former Eastern Bloc. Major destinations were Russia, Canada, Hungary, and Poland (Bauer and Giles, 2002). In Russia and Canada it is the attraction of large bears and Cervids, which gain the hunters' interest, whilst the remaining countries attract interest for a whole range of species. The experience of an exotic country is at least as important. It is notable that Australia occupies the last place of the 25 major destinations, although it offers a wide range of game species.

Not surprisingly, fishing tourism features even more prominently on the Internet than hunting. Figure 4.5 shows the number of websites that contain the words 'tourism' and 'fishing'. The frequencies express the importance of this industry for each country. The biggest demand and supply can be found in the largest consumer nation, the US. The large hits for Canada, Australia, and NZ, despite relatively low population numbers, suggests that these nations play a special role in offering fishing products, which are mostly charter-boat trips. This analysis included 14 advertisers with 1–2 different charter offers. Australian charters offer the highest number of species in the catch, Alaska the lowest. Coastal and marine fishing have the highest proportion of hits. Spear and charter-boat fishing are in much lower proportions (Figure 4.6), which may also reflect legal restrictions for spear fishing and the high capital costs for the charter-boat business.

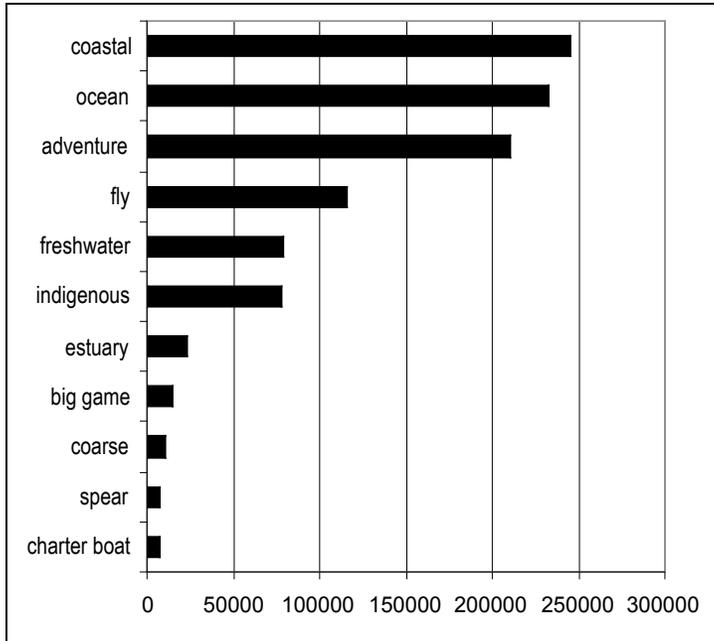
**Figure 4.5**

Number of websites containing the words tourism in association with fishing for selected countries for 2003



**Figure 4.6**

Google hits for a combination of fishing types, with search terms displayed



### The hunting and fishing industry

The hunting and fishing industry constitutes a complex arrangement of stakeholders and auxiliary industries. It consists of a multitude of interactions, and an organised flow from client to organiser via the intermediary. Potential clients access their market through many journals, internet sites, fairs (eg. the International Hunting Exhibition), agencies, and by word of mouth. In the US, clients spent US\$36 billion for fishing and US \$21 billion for hunting (US Fish and Wildlife Service, 2002). The Intermediary (Hunting/Fishing Agencies) mediates transactions between the client and the organisers. According to Hofer (2002) about 100 such agencies advertise in the lucrative German market in Europe, and about 40 in Italy. As is the case for many tourism businesses (eg. Weaver and Oppermann, 2000), it is mainly the large companies that prevail, and, in hunting and fishing, firms such as Lechner dominate much of the market. Increasingly the consumer appears to feel safer using these providers (Hofer 2002). The organisers and operators, of hunting/fishing tourism experiences, are at the centre of the industry and in order to be competitive have to satisfy clients, comply with the demands of regulators, liaise with host communities, deal with advertising or tour agencies (or not if advertising directly), and ideally, for their own sustainability, be involved in the management of the target species and collaborate closely with indigenous communities who might traditionally own these.

**Host community:** Hunting and fishing is carried out mostly in either rural or natural areas. Many of these areas are inhabited by indigenous or traditional societies. For fishing which, contrary to hunting in some Australian states for example, is allowed in protected areas, the nation's wildlife services are the hosts. Ideally the communities hosting hunters and fishers should have a say in how the tourists are to conduct themselves, and derive profits from accommodation, guidance, and support services.

**Auxiliary industry:** As in any other tourism sector, transport, accommodation, food, equipment, and insurance providers dominate a large portion of the industry. Almost equally important is the manufacturing industry, which supplies the necessary hunting, fishing, and outdoor equipment. In the US an estimated US\$14 billion were used on items for both fishing and hunting in 2001 (US Fish and Wildlife Service, 2002).

**Design of hunting and fishing tourism products:** Any tourism product is only successful if it manages to approximate, as close as possible, the aspirations, motivations, financial means, and preferences of its target groups (see also Weaver and Oppermann, 2000). In contrast to non-consumptive forms of wildlife tourism (Beeton, 2003; this volume; Moscardo, 2003, this volume), hunting and fishing tourism businesses are generally financially profitable. Compared to other forms of tourism, hunters prefer fewer facilities and seek remoteness in pursuing their recreation (eg. Baker, 1997b). Clients are generally satisfied with their experience, which may incorporate special hardships, inconveniences, and even danger, as advertisements clearly demonstrate. It is not uncommon for agencies to reimburse for lack of success, but also to charge the trophy fee if the trophy from a lost animal is not recovered.

## **Impacts of hunting and fishing on wildlife and habitats**

Hunting and fishing remove animals from populations. Ideally, both activities target sustainable yields (i.e. animals taken is equivalent to population surplus) or even maximum and optimum sustainable yields (see eg. Sparre and Venema 1998). This target is, however, difficult to achieve, even in highly regulated hunting systems such as the ones in Germany, Austria, or Poland. Many commercial fishing fleets depend on sustainable harvesting models, however, recent collapses of entire fish stocks, despite being “managed” with sophisticated population models, tells us how elusive the achievement of this aim is (see also Caughley and Sinclair, 1994; Caughley, 1977). These activities, if undertaken in an unregulated environment and without regard to sustainable yields and behaviour, will destroy populations of animals; and have done so many times in the past (eg. decline of passenger pigeons at the turn of last century, or bush-meat trade, see for example:

<http://www.iucn.org/themes/ssc/news/bushmeat.html>. The impact of hunting and fishing is a highly variable parameter, which is determined by factors such as:

- Type of hunting/fishing (chase, stalk, ambush, group, dog-aided);
- Species taken (low recruitment, high recruitment, alert, primitive);
- Intensity (occasional, regular, continuous);
- Season (rut, season of births);
- Time of day (resting periods, feeding periods);
- Tools (firearms, bow, trap, snare, line, net);
- Transport (on foot, horse, elephant, car, boat, helicopter).

In societies where hunting is well regulated, and important, such as Canada, the US, Russia, Germany, France, and the UK, a great body of research describes impacts and how to reduce these. For details see, for example, Olsen et al., (1996), Destefano et al., (1995), Madson and Fox (1995), Malan et al., (1994), and Bauer (1989). However, few studies on impacts have been carried out in tourism destinations in developing countries (eg. Caro et al., 1998).

### **Hunting impacts**

Hunting can cause a wide range of impacts on target species, and these impacts (while disputed as to their extent) are reported widely in the literature on wildlife management (see also Green 2003, this volume). Examples include the impact of lead shot, frequently used in waterfowl hunting areas, impacts on non-target species, and impacts on habitats (e.g. Kalchreuter, 1984, 1987). There is a variety of hunting methods, such as snares and traps, generally associated with illegal activities that kill many non-target species. Hunting can cause different levels of disturbance, which impair the fitness of a population or have a level of perceived, or real, cruelty (Pacelle, 1999; Cartmill, 1993; King, 1991; Causey, 1989; Johnson, 1981).

Impacts on the long-term genetic fitness of a species may occur if, for example, trophy hunting is highly selective towards mature, large-sized, and often male, individuals. Theoretical papers claim negative consequences (Caro et al., 1998; Caro, 1994; Geist, 1988), and practical studies suggest impacts such as a change in sex ratio or in age distribution (Adamic 1997; Ginsberg and Milner-Gulland, 1994; Bauer, 1989; Bauer & Pflieger, 1989).

It is the worldwide experience that impacts of hunting can never be wholly eliminated, particularly in remote regions (often preferred by hunters), and countries

that lack legislation or infrastructure to enforce regulations. Sophisticated game-management requires a consistent, long-term, objective research component, and the legislative and practical means for implementation through a responsible and well-trained group of hunters (eg. Bauer and Giles, 2002).

#### Impacts of recreational fishing

Impacts of recreational fishing tourism, on fish populations, are evident in freshwater habitats such as lakes, streams, rivers, and ponds. However, these impacts occur in the wider context of recreational fishing, so tourism aspects are not distinguishable. As the depletion of fish resources by recreational (including tourist) fishing is common (Regier et al., 1997), the restocking practices of dams, lakes, and rivers are widespread. This practice makes much freshwater fishing essentially "fish farming", an accepted practice, while its terrestrial equivalent, "game ranching" is highly controversial, in North America for example (Bunnell, 1993; Geist, 1993). Recent events, such as the impending closure of a significant part of the Great Barrier Reef, in Australia, to recreational fishing, hints towards the impact of fishing on marine stocks, which is exemplified by the higher fish numbers in protected areas compared to unprotected areas in the West Australian coral reef (Westera et al., 2003).

#### **Management of hunting and fishing tourism**

Management of hunting and fishing tourism relies on a wide range of activities including regulation, policy, and guidelines. The key elements, listed in Higginbottom (2003, this volume), for framework development are also applicable here. Moreover, regulation has traditionally played an overriding part in the management of fishing and hunting, as this activity impacts on the natural resources of local communities and may involve potentially dangerous tools (eg. firearms, bows, spears). Consequently, this section concentrates on the legal dimensions of management. Frameworks, for tourist hunting and fishing, are generally defined by national or state hunting and fishing legislation, and by the respective economic authority, to realise commercial structures and practices within this system (Hofer, 2002). For the hunting and fishing tourists, adherence to these regulatory frameworks is a requirement, which if ignored may lead to their exclusion, individually or for all hunting and fishing tourists, or in extreme cases it may also result in prosecution, if laws are broken.

#### Hunting regulatory frameworks

The licence system (eg. Canada) is based on the right of any citizen to hunt in their country. The benefits from hunting may belong to the public, or to the state, and hunters who want to exercise that right must pay a fee (often per animal hunted) to a public office, or an appointed community, which has been endowed with that right by the state. The district system (eg. Germany) entails that hunting rights are tied to the land, and the benefits accruing from wildlife go to the landowner who might be a farmer, a community, a corporate body, or the state itself. The landowner, in order to exercise that right, must fulfil certain requirements (eg. have passed an elaborate hunting examination in central, northern, and eastern European countries, and possess a firearm licence). In some countries a Combined Licence and District System is in place (eg. Australia for kangaroo culls), which combines the two above systems, in that landowners must also obtain a licence. A Community-based System occurs in most parts of the world, where hunting is not regulated or enforced by authorities.

Here local communities regulate resource exploration through, often intricate, social interactions and regulations to determine hunting rights/areas for community members. It is these members who will provide the hunting experience for the tourist.

### Fishing regulatory frameworks

Contrary to hunting, fishing remains a commercial activity in industrialised countries, in both freshwater and marine environments. In many less developed regions it is virtually unregulated, in particular in places where (due to colonisation) community-based taboos and regulation were destroyed, and legislation, if existing, generally cannot be enforced. Most western countries, however, have adopted a district or licensing system, or a mix of these, in an attempt to make fishing more sustainable in an ecological sense. New South Wales (Australia) has only recently adopted a new approach to the management of its fishing, which resulted in the recovery of some fish stocks after only a few years (Box 4.2).

#### **Box 4.2:**

Case study: The new fishing legislation of NSW-Australia

The Development of a National Fishing Policy in Australia was the start of a profound reform of fishing, both commercially and for recreation. The development of the policy coincided with a general recognition of declining fish stocks in marine areas, and declining native fish in freshwater systems of temperate Australia due to the degradation of freshwater environments (pollution, damming, erosion, land use, introduction of exotic fish species). It was also connected to the recognition of the importance of recreational fishing, when a national survey showed that five million Australians went fishing. This set actions in motion. From 23 March 2001, each individual who wished to fish, regardless of the location (marine fishing used to be free and unmonitored), was required to purchase a fishing licence. All licence fees were put into trusts to improve recreational fishing by:

- Buying out commercial fishing licences;
- Creating recreational fishing areas;
- Protecting and restoring fish habitat;
- Promoting responsible fishing;
- Stocking from fish hatcheries;
- Investing in more research.

There are now two recreational Fisheries Trusts - one for saltwater and one for freshwater - each is supervised by an angler committee. Persons also require licences for spear fishing. The money collected from licences is mostly spent on the implementation of active improvement programs. Commercial licences, to many estuarine areas depleted by commercial fishing, were bought out with fishermen being paid compensation. This resulted in the creation of "Fishing Havens", now covering 27 per cent of all NSW estuarine areas. The system is governed by Fishery Trusts, which support and finance a range of activities including catch monitoring, habitat improvements, native fish hatcheries, and fishing education.

### International Treaties

National frameworks are complemented by international treaties, which clearly define and regulate trade in animal trophies (thereby influencing the demand for trophies itself). International treaties include the Ramsar Convention for the conservation of

wetlands and waterbirds, and the development of the world's protected area system. These directly, and indirectly, determine the accessibility of regions for hunting. International agreements, such as CITES, play an important role in the management of protected trophy species. The tourist market targets mostly non-CITES species (Hofer 2002), demonstrating how CITES effectively regulates the trophy hunting market, one of its intended outcomes. Of the few CITES listed species offered for tourist hunting, most are bear, argali (wild sheep), elephant, and several species of wild cats such as lion and leopard. Over a time span of seven years hunters imported 88,013 CITES listed trophies (Hofer 2002), with the largest imports into North America (71 per cent).

Trade in CITES listed animals is only of a very small volume, and confiscations of trophies are uncommon (Hofer, 2002). Observations by Chestin (1998) suggest that regulations are powerful enough to lead to a complete breakdown of hunting tourism, as occurred in Russia when a protected species of wild sheep (Tien Shan Argali) had mistakenly been shot (mistaken for the, non listed, Marco Polo Sheep) (Hofer, 2002).

#### Hunting customs and local traditions

Hunting and fishing are not just subject to legal supervision. They are based, in many countries, on ancient codes of conduct and ethical constraints (McCorquodale, 1997), which in tribal societies can have “taboo” status. Not surprisingly, within functioning hunting and fishing communities these restraints are often more effective forms of regulation than legal enforcement. The community, in most cases, would more suitably punish an individual who violates these constraints, than any legal system. The development of this system is probably indistinguishable from the development of an individual ethical framework, which is also very strong.

The German hunting ethics *Jagdliches Brauchtum*, for example, uses the concept of *Waidgerechtigkeit*, which is a combination of tradition, rules, and guidelines aimed at protecting the game as a resource. It includes ancient rituals of worship and thanksgiving towards the game *Letzter Bissen*, but is also legally binding; adherence to this unwritten law is stipulated in the state hunting legislations. These local traditions and taboos are highly relevant to the hunting and fishing tourist, whose adherence to these will often result in acceptance into the community, beyond the tourist status. Disrespect of such customs, however, may result in the loss of access for the offending individual, or even for all hunting and fishing tourists.

#### On-ground regulatory strategies

The regulation of fishing and hunting (commercial and recreational) rests on a range of strategies, which generally complement each other. These strategies aim to protect populations (eg. limits and restrictions) and enforce humane hunting (eg. types of firearms and calibre sizes) and include:

- Establishment of fish/game reserve systems
- Open and closed seasons
- Establishment of bag limits
- Size restrictions
- Sex restrictions
- Type of bait
- Equipment
- Firearms and calibres that can be used (see Box 4.3).

### Box 4.3

#### Prescription of specific weapons or calibres

In the case of firearm hunting, animal welfare is associated with humane, and efficient killing, to prevent suffering of the animal. Several states have legislation in place that prescribes specific weapons or calibres. In essence these prescriptions define a minimum energy that is to impact upon the game. For example, the German hunting law identifies that hunting of ungulates (largest species is the red deer, *Cervus elaphus*) employs a minimum calibre of 6.5mm, except for the smaller roe deer (*Capreolus capreolus*) where  $\geq 1000\text{kJ}$  muzzle energy is legal. The Australian state, Victoria prescribes a minimum calibre of 0.270 inches for the legal hunting of Sambar deer (*Cervus unicolor*), an introduced species.

### Some key issues

#### Acclimatisation and stocking

Hunting and fishing tourism relies on a readily available game species. Many states, and also private land managers, increase the attractiveness of regions by increasing the numbers, and species, for fishing and hunting. This concept of restocking game and fish populations goes back many centuries, and has been considered in detail in Aldo Leopold's classic 'Game Management' (1933). It rests on the assumption that hunting or fishing is unsustainable or needs improvement, in some cases. One of the unfortunate side effects of this philosophy has been the introduction of hundreds of exotic species, into, for example, Australia, New Zealand, Papua New Guinea, New Caledonia, Argentina, and the US, notably by European settlers of either English or Scottish origin.

#### Illegal practices, hunting code violations and poaching

Illegal hunting and fishing, or poaching, has been, and continues to be, a widespread practice. It is even common in countries such as Germany, where hunters are subject to much public scrutiny, where the population density and road network is very high, where enforcement is very efficient and effective, and where conviction is certain and fines are high. In many parts of the world this framework simply does not exist, and hunting and fishing is only driven by one's need or ethical standpoint. There is a number of illegal activities, which may be associated with tourism including:

- Hunting and fishing without a hunting permit or a licence
- Hunting and fishing in areas that are not part of the hunting district
- Hunting and fishing in areas where the taking of game is prohibited
- Hunting and fishing using illegal methods
- Taking of protected species
- Non-quota or target animals being shot (age, sex)
- Exceeding quotas

There is little information on the extent of these illegal practices, however Hofer (2002), relating to unpublicised and confidential information, considers such practices "not to be occurring on a larger scale". Apart from national and legal violations there are (traditional) hunting and fishing codes, which generally alienate the perpetrator from the remaining hunting and fishing community.

### Hunting and fishing and conservation

Hunting and fishing, in particular trophy, duck hunting, and to a lesser extent big game fishing, remain controversial issues (see Pacelle, 1999; Cartmill, 1993; Causey, 1989; King, 1991; Johnson, 1981). During the past 20 years, hunters, in particular, have increasingly pointed to potential conservation benefits, while conservationists have been just as eager to point out deficiencies in this matter. No matter where one stands in this debate, the inclusion of tourist hunting, and trophy hunting, in species rehabilitation plans of world conservation bodies (eg. the Caprinae Action Plan published Shackleton, 1997) has become a common feature of conservation efforts in the developing world. There is also a range of conservation projects in place where trophy hunting is pursued as a conservation measure itself. Notably the WWF is actively involved in a safari hunting scheme for the Himalayan Ibex, as one component of a community-based wildlife conservation initiative in Pakistan, which involves wildlife utilisation (Palmer, 2002). The IUCN and the WWF identify fishing and hunting tourism as alternative resource uses that encourage conservation (Commission for Sustainable Development 1998).

During the past 15 years, a number of significant, some of them very recent, modifications in attitudes, new alliances, and legislative changes have emerged. In the early nineties, for example, the International Council for Game and Wildlife Conservation (CIC), a then 65-year-old international hunting organisation, became a member of the World Conservation Union (IUCN). A German State Hunting Organisation (LJV Baden-Württemberg) has also been accepted as a Conservation Organisation during this time. In 2003, New South Wales, Australia, became the first state to establish the NSW Game Council, which is charged with administering and promoting the rights and responsibilities of hunters. The majority of game-rich countries in Africa have re-developed systems of wildlife use, including safari hunting, which have changed community attitudes (from hostile to supportive of conservation), and provide much needed community income. Box 4.4 provides a case study of interactions between hunting and conservation.

#### **Box 4.4**

#### **Safari hunting in Africa –conservation conundrum or the way ahead?**

Whilst in the urban centres of Europe, North America, and Australia the debate on the acceptability of hunting as a conservation tool continues, an increasing number of African nations have introduced game-management systems within, and on, communal land. This, for the first time, has started to give hope for successful wildlife conservation (Baker, 1997a,b; Lewis and Alpert, 1997; Campbell et al., 1996; Chatwick, 1995; Child, 1993; Lewis, 1993; Lewis et al., 1990). Additionally an increasing number of farmers in Namibia, South Africa, and Zimbabwe have incorporated wildlife into their farm management, where they generally outperform cattle properties (Child, 1993; Meier, 1989). The majority of countries in Africa, which have incorporated hunting into their management strategies, make healthy profits. Still, problems remain, as benefits for rural communities are sometimes negligible (eg. in Tanzania and Zambia there is still a tendency for central control (Caro et al., 1998; Lewis and Alpert, 1997)), but such schemes have changed community attitudes from hatred of wildlife towards its potential as a major resource (eg. Child, 1993). In Zimbabwe, the National Parks department granted two districts authority over their wildlife, under the Communal Areas Management Program for Indigenous Resources (CAMPFIRE, Child 1993). In 1995, nearly half of Zimbabwe's 55 districts (most of which still contained good numbers of wildlife) had signed on to the program, 12 of which were earning US\$1.5 million in trophy fees, and an additional US\$97,732 from tourism, culling, and the removal of problem animals (Butler, 1995).

This situation has been replicated in Zambia, which in 1994 had 18 national parks and 34 Game Management Areas (GMA), mostly as buffer zones around parks. These GMAs cover more than 140000 km<sup>2</sup>, almost twice as much as the National Parks, and over 20 per cent of the country. Total trophy hunting revenues collected, exceeded US\$1.29 million in 1994, and have led to very significant shifts in community attitudes towards wildlife.

In Zimbabwe's 12 districts, the profits from wildlife use (including tourism hunting) contributed 15-20 per cent of the average household income, in 1993. The main significance of trophy hunting for these communities is that it provides a continual income, even during times of devastating drought (Butler, 1995). Similarly, wildlife utilisation (tourism, meat, trophies) is more profitable than cattle ranching for farmers owning large tracts of land. Although trophy hunting is by no means the solution to Africa's conservation problems, it contributes significantly and is presently the least problematic way for communities to utilise some their oldest, and culturally important, wildlife resources. This use resembles their pre-colonial way of life, while providing access to benefits not available from agriculture. In summary, hunting tourism provides

- Significant community income
- Disincentives for large cattle numbers
- Incentives for wildlife protection
- Incentives for responsible land use
- Alternatives to cattle in the Tsetse fly belt
- Improvement of attitudes to wildlife
- Increased income for government agencies involved in protection
- Incentives for farmers to restore wildlife (reintroductions)
- Opportunities for secondary industries (services sector)

#### **Hunting and animal rights**

In an analysis of the Australian tourism industry (Bauer and Giles, 2002), hunting was only reluctantly accepted as a type of tourism, in many ways reflecting attitudes towards hunting. The same did not apply for the fishing industry. However, hunting should be viewed in the same way as fishing, because both are consumptive and involve the taking the lives of animals, for what many people would term trivial entertainment and sport. This debate has been raging for many years (Cartmill, 1993),

and a resolution is difficult as it deals with social and moral value systems (e.g. Vitali, 1990) outside of the scientific wildlife management debate (eg. also Caughley and Sinclair, 1995).

#### **Commercialisation of wildlife management**

The debate on the commercialisation of wildlife management - and hunting and fishing tourism is one aspect of it - is a very 'western phenomenon' that has been occurring in North America since the early seventies (eg. Hawley, 1993). Commercialisation involves the assignment of a monetary value to wildlife. There has been a growing trend to assign monetary values to the environment, and wildlife, and the 'relationships between ecological and economic systems' have become common research contents. Today, whether you like it or not, 'money is an integral part of wildlife management' (Hawley, 1993). Governments charge fees for licences, and society starts to identify the effects of revenues derived from wildlife related activities such as tourism. Conservation agencies collect large sums of money for habitat improvement, the establishment of wildlife reserves, and for the maintenance of wide global networks, offices, and jobs, to help conserve wildlife. Money is one of society's great inventions for furthering self-interest, and wildlife is just as susceptible to the forces of self-interest as any other resource (Hawley, 1993).

#### **Hunting-tourism and indigenous communities**

In the Yukon area of Canada, after successful land claims by indigenous people, only the outfitters with good indigenous relations managed to survive (Hoefs, 1999). In northern Australia, the biggest impediment in the development of the safari and fishing tourism industry have been unsatisfactory arrangements with often disgruntled communities, which see little return for what they feel are infringements on their own hunting rights (Palmer, 2002). The situation in southern and eastern Africa is similar (Baker, 1997a,b; Lewis *et al.*, 1990).

Significantly, in large parts of Australia, Canada, the US, and New Zealand, indigenous societies now have a greater say, and in fact, have recovered ownership of much of land they lost in the past, so they are now a significant stakeholder in the hunting and fishing tourism industry. In Africa, led by Tanzania, there is now an increasing number of very positive examples of host-community involvement in hunting, and its derived benefits (Baker, 1997 a,b; Lewis and Alpert, 1997; Baskin, 1994; Child, 1993).

#### **The way forward**

The diverse and vast tourism market that has developed around hunting and fishing justifies an investigation of their emergence as social phenomena. Issues include: hunting and fishing tourism volume globally, and for particular countries; and the challenges that certain features of hunting (consumptive use, trophy hunting) present to modern societies, the conservation movement, and its own regulation. Significantly, recreational fishing has started to replace commercial fishing activities in places such as Australia, indicating the importance that even industrialised society places on such activities. All these changes are paving the way for the development of a significant tourism industry, concerned with the consumptive use of wildlife. This is not only a challenge, but also an opportunity for the tourism industry to engage in the

development of guidelines and to contribute to its own destiny through dialogue with regulators, stakeholders, and the local communities.

As a burgeoning industry, hunting and wildlife tourism has the opportunity to define its boundaries and future developments by reviewing, and if necessary expanding, existing guidelines and regulations of recreational hunting and fishing. This can form the blueprint for self-regulation, accreditation, and a suitable policy environment, for the hunting and fishing tourism industry. This regulation should incorporate an approach aimed at achieving the Triple Bottom Line outcome (i.e. being economically, environmentally and socially accountable). It could include, but is not limited to, the following:

- Establishing guidelines for ecological sustainability of the industry, including development of an accreditation system and identification of local community benefits
- Development and improvement of current destinations, through accreditation of operators and engaging in conservation initiatives aiming at sustainable wildlife use, habitat conservation, and community participation
- Engaging in R & D for wildlife management, and benefits from fishing/hunting tourism through coordination with hunting and fishing organisations and researchers
- Education and information of hunting and fishing tourists, stakeholders, and communities, regarding regulations, thus fostering dialogue with, and involvement of, all partners
- Developing new and potential destinations, with specific focus on habitat conservation, local community involvement, and sustainability
- Developing hunting and fishing as important elements of integrated natural-resource management, which links productivity with the environment and society

By including the Triple Bottom Line approach, hunting and fishing tourism can offer significant benefits for communities, particularly in developing nations, and so can positively contribute to conservation and holistic ecosystem management.

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