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THE DEVELOPMENT OF TOURISM
IN PROTECTED AREAS AND THE EXPLOITATION
OF THE NATURAL ENVIRONMENT
BY LOCAL COMMUNITIES IN AFRICA AND ASIA

Abstract: From an economic point of view, protected areas do not bring in high profits, in comparison to other possible ways of land usage. National parks and nature reserves are costly in their creation, as well as in their subsequent upkeep and management. In developing countries, their operation can be the source of many political and economic problems. Usually, local communities neighboring protected areas perceive the existence of a protected zone negatively, although they are often able to avail themselves of park resources in various ways. Besides being given the opportunity to rationally make use of certain park resources, community members may be employed as park attendants, which is a practice that is widespread. A part of the profits obtained from the developing tourist industry may be allocated towards local development programs, e.g. the building of a new hospital or school. Some national parks, while lacking the adequate infrastructure necessary for tourism, grapple with a lack of funds. The lack of earning opportunities in connection with the development of tourism results in the local community's over-exploitation of park resources. This often manifests itself in an increased incidence of poaching in the protected area.

Key words: national park, tourism, natural environment exploitation, local communities, Comoé National Park, Salonga National Park, Amboseli National Park, Volcanoes National Park, Khao Yai National Park, Mgahinga National Park.

Environmentally protected areas, which are often located at a significant distance from large population centers, and consequently are the areas farthest removed from the influences of civilization, are often viewed as expanses of unspoiled nature, where the natural environment is the best-preserved. In the modern world however, no place can be considered to be completely free from the influences of the surrounding world.

Studies of the role that the protected areas play in society, and in the economy, have been undertaken at our Institute of Developing Countries. These studies are equally concerned with the environmental conditions present in these areas, as with the various ways in which park resources are being used by the local populations. The search for correspondences between these elements constitutes the main aim of these studies.

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and nature reserves are costly in their creation, as well as in their subsequent upkeep and management. In developing countries, their operation can be the source of many political and economic problems.

Resources present in protected areas can be utilized in various ways, whether focused on consumption (hunting, gathering) or non-consumption (various types of "ecotourism"). However, in order for these ways of utilizing the parks' natural resources to become possible, there is a need for the development of suitable infrastructure and communication networks, as well as appropriate legislation and a need for ensuring a sufficient level of public safety.

The protected areas are also places where international organizations, concerned with development and environmental protection, are active. Usually, the local communities neighboring the protected areas perceive the existence of a protected zone negatively. As early as at the Third World National Parks Congress, that took place in Bali in 1982, much emphasis was placed upon the importance of cooperation with the local communities in park management. These communities can benefit from the existence of the national parks in various ways. Besides being given the opportunity to rationally make use of certain park resources, its members may be employed as park attendants. This is a widespread practice, though it varies in scale from one park to the next. A part of the profits obtained from the developing tourist industry may be allocated towards local development programs, e.g. the building of a new hospital or school. And finally, the local communities are able to indirectly benefit from the improvements such as access roads leading to the protected area or an electric power network, brought about as the result of the park's popularity. One must realize that only a small number of national parks is able to attract enough tourists for this to be profitable.

It is commonly believed that the creation of protected areas in developing countries should help solve the problems of poor communities, not create new ones. This was the goal that was set at the initiation of the several so-called Community-Based Wildlife Management (CWM) Programs. One of such initiatives is for example the Communal Area Management Programme for Indigenous Resources (CAMPFIRE), which supports local community development programs in rural areas of Zimbabwe. Its main goal is to promote the rational use of natural resources, paired with activities that support environmental protection. CAMPFIRE provides legal, technical and financial support to local communities that adjoin national parks. The local population gathers and sells various products, including crocodile eggs and wood. The program also focuses on the development of tourism in areas inhabited by a given community (community-based tourism). One of the best-known initiatives is the elephant hunting program. The local community is allowed to sell a certain number of permits for the hunting of these animals. The profits are used to improve the living standard of the community. A part of the profits is put towards environmental protection. A similar program operates in Zambia under the name of the Administrative Management Design for Game

Management Areas (ADMADE). Its purpose is the management of hunting areas and the allocation of profits from fees collected for hunting licenses and hunting safaris. Of these funds, 35% is disbursed at the local level.

Usually, the influx of tourists into a certain area results in the rise of income for the local population, members of which are hired as guides, trackers, hotel staff and souvenir vendors. Of course, this usually accounts for a small percentage of the money that tourists spend, since the greater part makes its way to the big city travel agencies. On a local scale however, it does have the effect of increasing the living standards of the community. The increase in income and benefits provided by jobs in tourism results in the fall of the incidence of poaching on park grounds and in the reduction of the total surface area where trees are being cut down illegally – in other words a lessening of the demographic pressures placed upon the environment in the protected area. From an environmental point of view, this is a positive trend, since it guarantees that the destruction of the environment will be lesser than if the local population, deprived of other sources of income, were to avail itself of park resources in ways that are not being controlled. From a sociological point of view on the other hand, the sudden and massive influx of tourists may cause a change in the behavior of the local communities and a gradual assimilation of a new value system. It also appears that the behaviors that are traditional for the community (ex. hunting, tree-cutting) come to be viewed negatively as causing adverse changes in the environment.

One of the most controversial activities taking place in protected areas, or in their vicinity, is hunting. Notions of environmental protection, brought to Africa by western ecologists, do not fit in with the African way of perceiving the wild environment. For most of the continent's inhabitants, animals have constituted the main source of meat, and a ban on hunting was incomprehensible at the very least. The proponents of this type of tourism assert that it is the more profitable and, despite the looks of it, also the less destructive branch of tourism. Hunters require much less sophisticated living conditions than regular tourists and they often operate in regions that are inaccessible to others. The selective killing off of some animals from among a numerous population has a positive effect upon the entire ecosystem, all the more since the animals chosen are often the oldest and weakest individuals. This type of tourism aids the development of local communities, since their members are often the ones to sell permits for hunting safaris. Profits from hunting are very high. The entire cost of a hunt is at around 50,000 USD but may go up to 120,000 USD, depending upon the number of days it lasts and the number of animals shot. Included in the price are fees for the safari itself, the cost of food and lodging, the fee for the animals shot, the airfare, the fees for firearm and ammunition permits, duty fees for any possible exporting of game, and a special conservation fee (Baker J.E. 1997). To maintain control over hunting activity, it is considered safer to sell hunting permits valid within a certain state-owned area, than to conduct hunting activities in privately owned areas, where it is easier to lose control over the amount, type and

effects of hunting going on. Currently, private hunting regions are located in the Republic of South Africa and in Namibia.

In each of the countries in which hunting is allowed, the system for managing it is different. It is the most developed in Tanzania. During each season, about 500 hunting safaris are carried out. This benefits the local communities, from which trackers are recruited. The animals shot are often donated to the local villages, hospitals and schools.

The role that protected areas play in the lives of the local communities is dependent upon many factors. Some African national parks, while lacking the adequate infrastructure necessary for tourism, grapple with the lack of funds. The lack of earning opportunities in connection with the development of tourism results in the local community's over-exploitation of the park resources. This often manifests itself in the increased incidence of poaching in the protected area. Here are a few examples:

The high level of biodiversity makes the Comoé National Park one of the most environmentally valuable nature reserves in Western Africa. It is on the World Heritage List, and since 1983 it is also a Biosphere Reserve. In the case of several species of mammals, this region is their last remaining habitat on the Ivory Coast. While in the late 1980's, the number of animals in the park representing ungulate species was 136,400, in 1998 that number was only 21,200 (Fisher F., Linsenmair K.E., 2001). This means that the number of large mammals fell by 84.4% in 20 years. The elephant and hippopotamus population figures were not studied, but the trend appears to be the same as in the case of the species that were studied. In the park, one can observe widespread poaching activity. The population inhabiting the surrounding area relies mostly on hunting and agriculture. Its density is not great, but the northern sections of the park are becoming threatened by the population increase there. The park is open to tourists only during the dry season, lasting from November till April. Only then are the access roads leading to the park passable. Besides, hotel accommodations are quite expensive. As the result, few tourists visit the park, and those that do usually stay only a short time.

The situation is similar in the Salonga National Park in the Democratic Republic of the Congo, with the exception that due to the unstable political situation and civil war, there is virtually no tourists there. The Salonga National Park was created in 1970, in order to protect the bonobo chimpanzee, *Pan paniscus*, which is endemic to the country's forests. The park is inhabited by about 1,500 residents originating from several tribes. They inhabit the central part of the protected area. This is an agricultural community in which manioc, rice, maize and bananas are grown. Honey is gathered on park grounds. No infrastructure exists here for tourism. Due to its poor accessibility, including the lack of access roads, the park has never been visited by tourists. The local population is not aware of the value of the area and is not in any way engaged in its functioning. The main threat to the bonobo is posed by the poachers, who poach the animals for meat. Other threats such

as war, lack of any government involvement, lack of infrastructure, technical equipment, and funds needed to pay for guards, may cause the species, which is such an integral part of the fauna, to further decrease in number or even go extinct.

From the examples presented, one can draw the conclusion that when it is not possible for tourism to develop, the result is weak local development, which in turn results in the over-exploitation of park resources.

The protected areas where tourism is able to develop are in a different situation. This is well-illustrated in the case of the Amboseli National Park. The benefits that the local population takes advantage of are almost exclusively the result of the development of tourism in the park. After its creation, the indigenous people, the Masai, were expelled from the area. The loss of access to freshwater springs, used to supply water to the community and to the animal herds, was especially difficult for the Masai to accept. In the initial stages of the park's creation, they still inhabited the protected area, but later had to move out of its boundaries, and for this they received financial compensation. They were also guaranteed a constant supply of water. Opportunities to profit from tourism in the region were established as well. This is the reason why, while in the 1980's poachers were decimating African elephant populations in order to obtain ivory, there was less poaching activity in the Masai Mara Reserve and in the Amboseli National Park – regions inhabited by the Masai – than in other areas (Nelson F., 2000). The Masai, while reaping the benefits of tourism, were protecting their own interests by objecting to this type of activity (World Bank, *People and Parks* 1992).

In yet another category are parks in which, for the improvement of the local population's attitude towards the existence of the protected area, other elements have been introduced besides tourism. In the case of the Volcanoes National Park in Rwanda, this element was an educational campaign aimed at increasing environmental protection awareness among the local people. In this park, famous for its mountain gorilla (*Gorilla gorilla beringei*) population, was realized one of the most well-known programs, which has contributed to the decrease of the park's exploitation by poachers. The population inhabiting the region consists of mainly low-wage farmers and thus the park is constantly under the threat of poaching activity. As part of the "Mountain Gorilla Project," activities aimed at aiding the development of tourism and at educating the local population were undertaken. The profits from tourism were very high. Up until 1994, several thousand tourists visited yearly, spending around 500,000 USD. This made stricter protection of the gorilla population possible as well as the creation of new jobs in the tourism sector. Also, more of the local people came to realize that their earning potential is tied to the number of gorillas living in the park.

Communities which were living in regions adjacent to the protected areas, and were taken into account during local development planning, found themselves in a better situation. Local development planning has as its aim not only the development of tourism, but the overall improvement of the

community's welfare. Such an example is the Khao Yai National Park in Thailand, visited yearly by around 250,000 to 400,000 tourists, who spend around 5 million USD on park entrance fees, accommodation, food and other services. In recent years, the land surrounding the park has become almost completely deforested. The resources of the park itself are systematically being depleted by illegal hunting and tree-cutting. Most of the population in the surrounding area (53,000 inhabitants in the 53 villages surrounding the park) was illegally obtaining wood and poaching on park grounds. Thanks to the project which was launched in this region, a fund was created to allow local communities to obtain low-interest credit in exchange for promising not to disturb park resources and to end poaching. The loans have allowed them to stop having to rely on local usurers and many farmers have been able to keep their land. The villages have been connected to the country's electrical power network, and to Bangkok, by the creation of a new and better road, what has improved the overall economic situation of the region (e.g. caused the land value to rise). Despite the fact that the project has encountered many difficulties along the way, it must be said that it has succeeded in lowering the rate of poaching on the grounds of the Khao Yai National Park (World Bank, *People..., op. cit.*). This was not however the direct result of the development of tourism, but – by the establishment of an assistance project – of the creation of other possibilities for the betterment of the local community's financial situation.

Solutions combining many various options seem to be the most beneficial. The development of tourism, the possibility of making use of park resources, and new earning opportunities, create conditions for harmonious cooperation between park administration and the local population. An example here may be the Mgahinga National Park in Uganda, created in 1991. The local population, numbering at around 4,000, could still continue gathering various materials (wood, bamboo, various plant fibers, medicinal herbs, fruits, seeds, grasses, and honey) on park grounds, as well as having access to drinking water and even hunting certain animals. The only illegal activities were agriculture and grazing. Following the opening of the park, the local population received financial compensation for being forced to move their residences from the inside to the outside of the park (Adams W.M., Infield M., 2003). A half-kilometer-wide "multiple-use zone" was created along the edge of the park (20% of its area), where beekeeping was allowed. The local population could find employment in agriculture and agroforestry. Not all of the local communities are satisfied with the program's way of dividing the profits from tourism and some believe that not enough money is being put toward local needs. Nevertheless, poaching activity in the park is non-existent or insignificant, and despite the loss of arable land within the park, the local population takes advantage of various forms of assistance (Butynski T.M., Kalina J., 1998).

Scenarios do exist however in which the development of tourism, instead of counteracting detrimental practices such as poaching, works to increase them. Here one should bring up the example of the undertaking that took

place in China to protect the giant panda. The development of tourism in China bore fruit in the form of many new wild animal parks – local safe havens for endangered species – in which wild pandas captured by poachers are being kept in captivity. This activity is of course fueled by the tourists' high interest in this "flagship" of Chinese fauna, and the resulting desire to see this species "in its natural environment."

The conclusion that can be drawn from the examples presented here is that the development of tourism in a protected area does not always bring about positive changes in the activities of the local people. Poaching is not always held in check and natural resources are not always protected. The outcome depends upon many factors, including the manner in which the assistance programs are introduced, the size of the local community, and its economic situation. Also, one must often wait many years before the actual benefits of establishing the protected area become visible.

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