Wild animals and poor people: conflicts between conservation and human needs in Chitawan (Nepal)

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1. Introduction

Most of the earth's animal and plant species live in the tropics and subtropics and are thus situated in the "Third World". This wealth of species can be explained in terms of the earth's history and climate. Another factor, however, is that many "Third World" regions, not being industrialized and infrastructurally developed, still contain natural habitats that are undisturbed to a great extent. Without any doubt, there is now a global interest in protecting and preserving this biological diversity. Many organizations are making great efforts to aid global biodiversity conservation, and the means to do this include designating certain areas as protected. The number of these designated areas has increased rapidly during the last two decades and most of them are located in "Third World" countries (World Conservation Monitoring Center [WCMC] 1992: 448ff.).

According to the World Bank almost 20% of the areas protected worldwide are located in countries with a low per capita income and more than 30% are in countries with a middle range income (fig. 1). In the 18 countries where more than 6% of the total area is strictly protected, only two high-income countries are included: Norway and New Zealand; seven however belong to the countries with middle income and nine to the group with low income (table 1). These also include poor countries like Rwanda, Sri Lanka, or Nepal with high population density, where declaring certain areas as strictly protected is bound to cause a great number of problems.
Table 1: Countries with a Proportion of Totally Protected Areas Covering More than 6% (WCMC 1992: 460ff., WORLD BANK 1993)

<table>
<thead>
<tr>
<th>Country</th>
<th>Income group</th>
<th>Population per km²</th>
<th>% protected totally</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>lower-middle</td>
<td>2</td>
<td>15.28</td>
</tr>
<tr>
<td>Venezuela</td>
<td>upper-middle</td>
<td>22</td>
<td>15.17</td>
</tr>
<tr>
<td>Rwanda</td>
<td>low</td>
<td>273</td>
<td>12.42</td>
</tr>
<tr>
<td>Norway</td>
<td>high</td>
<td>13</td>
<td>12.00</td>
</tr>
<tr>
<td>Chile</td>
<td>lower-middle</td>
<td>17</td>
<td>11.14</td>
</tr>
<tr>
<td>Namibia</td>
<td>lower-middle</td>
<td>2</td>
<td>10.89</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>lower-middle</td>
<td>145</td>
<td>10.08</td>
</tr>
<tr>
<td>New Zealand</td>
<td>high</td>
<td>13</td>
<td>9.76</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>lower-middle</td>
<td>55</td>
<td>9.50</td>
</tr>
<tr>
<td>Zambia</td>
<td>low</td>
<td>11</td>
<td>8.45</td>
</tr>
<tr>
<td>Colombia</td>
<td>lower-middle</td>
<td>28</td>
<td>7.89</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>low</td>
<td>258</td>
<td>7.50</td>
</tr>
<tr>
<td>Benin</td>
<td>low</td>
<td>42</td>
<td>7.49</td>
</tr>
<tr>
<td>Malawi</td>
<td>low</td>
<td>72</td>
<td>7.40</td>
</tr>
<tr>
<td>Indonesia</td>
<td>low</td>
<td>93</td>
<td>7.19</td>
</tr>
<tr>
<td>Nepal</td>
<td>low</td>
<td>134</td>
<td>7.17</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>low</td>
<td>25</td>
<td>6.93</td>
</tr>
<tr>
<td>Togo</td>
<td>low</td>
<td>63</td>
<td>6.29</td>
</tr>
</tbody>
</table>

Categories of IUCN:

I  Strict Nature Reserve/Scientific Reserve
II National Park
III Natural Monument

Although these figures say nothing of the quality of the protected areas or of their regional distribution, it can nevertheless be mentioned that the governments in many "Third World" countries today make conservation a comparatively high priority. By stepping up conservation they hope for economic advantages, in the form of development aid, reduction of foreign debt ("debt for nature swaps"), and hard currency, gained through ecotourism. When declaring certain areas as strictly protected, however, conflicts are bound to arise on a local level. These problems are exemplified through the Royal Chitawan National Park, the oldest national park in Nepal.

2. The Development of the Chitawan Region

Chitawan (fig. 2), a district situated in southern Nepal and bordering India, was only sparsely populated up to the middle of this century. The steep
southern flanks of the Mahabharat Range to the north and the densely forested Churiya Range to the south made access to this synclinal valley difficult. Riverine forests, grasslands, and swamps were, in addition, breeding grounds for malarial mosquitoes (Haffner 1979: 51ff.). For members of the Tharus, a tribal group living on both sides of the Indian-Nepalese border, Chitawan was once an area in which they could withdraw to (Müller-Böker 1995, in press). Their extensive economic system harmonized to a large extent with the strategic interests of the territorial rulers and later of the government of Nepal, which preferred to leave the region as an undeveloped forest and marshy belt, as it constituted one of the best territories for hunting big game. Thus, until 1950, Chitawan remained a private, exclusive hunting territory used by the maharajas for their gigantic hunt of big game. "Royal Game" were tiger, leopard, and rhinoceros (Smythies 1942).

After 1950, when Nepal's political orientation changed, the government began implementing land resettlement programmes in Chitawan. First attempts to eradicate malaria were made with American aid and beyond that a highly mechanized cultivation of forest and grass savannas took place in order to provide new agricultural production areas for settlers from the densely populated hill region (Mihaly 1965: 76f.). After the first results of the malaria eradication programme became apparent, a great influx of immigrants moved into the region, causing the mean annual growth rate registered in the district to reach a national record. The extremely high rate of 10.5% between 1961 and 1971 reflects the main immigration wave. While fewer than 19 inhabitants per square meter lived in Chitawan in 1952-54, by 1991 the number had soared to 160 persons (HMG Censi). In fact, Chitawan has developed in less than half a century from a sparsely-populated, malaria-infected remote area to an attractive area for immigration and colonization.

3. The Royal Chitawan National Park

After the area had been opened up for immigrants from the mountains, the population and thus the pressure on the natural resources increased massively. Uncontrolled clearings entailed a continued reduction in the wild animals' biotope. In addition to this, bands of poachers from India and from the mountains decimated the rhino population (Gee 1963).
In 1964 the Nepalese government, supported by international conservation organizations, undertook the first measures to protect the Rhinoceros unicornis, which at this time was already threatened by extinction and on the "red list" of the International Union for Conservation of Nature and Natural Resources (IUCN), by establishing a "rhino sanctuary." At the same time, three old Tharu villages with about 4,000 inhabitants and 22,000 squatters were resettled (Willan 1965). These protection measures finally led to the establishment of the national park in 1973. An area of 544 km² was declared a national park and put under strict protection. In 1977 the area was extended to a total of nearly 1,000 km². In 1984 the Royal Chitawan National Park was recognized as a "World Heritage National Site" by UNESCO on account of its rich flora and fauna. The Parsa Wildlife Reserve covering 500 km² and joining the eastern border of the park was declared protected in 1988.

The Rhinoceros unicornis population has increased today to about 440 animals (table 2). The annual net increase of five animals has meanwhile made it possible for rhinos to be moved to other protected areas. Apart from the rhino there is a wide spectrum of species in this habitat, including some species that have been classified as highly endangered (WCMC 1990), such as the Royal Bengal tiger (Panthera tigris), elephant (Elephas maximus), gaur (Bos gaurus), and the Gangetic dolphin (Platanista gangetica). The Gharial Project can also chalk up several successes. Some 100 crocodiles (Gavialis gangeticus) were raised under artificial conditions in the Hatching and Rearing Centre, and were eventually set free in various rivers.

Table 2: The Development of the Rhinoceros unicornis Population in Chitawan (1953-1986)

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>1,000</td>
<td>Gee 1959</td>
</tr>
<tr>
<td>1957</td>
<td>400</td>
<td>Stracey 1957</td>
</tr>
<tr>
<td>1958</td>
<td>300</td>
<td>Gee 1959</td>
</tr>
<tr>
<td>1960</td>
<td>200-225</td>
<td>Gee 1963</td>
</tr>
<tr>
<td>1966</td>
<td>100</td>
<td>Spillot 1967</td>
</tr>
<tr>
<td>1974</td>
<td>250-300</td>
<td>Laurie 1978</td>
</tr>
<tr>
<td>1994</td>
<td>440</td>
<td>Yonzon 1994</td>
</tr>
</tbody>
</table>

There is no doubt that the Royal Chitawan National Park is one of the most important nature reservations in Asia today (Gurung 1983; Jefferies & Mishra 1991) and therefore constitutes a great attraction for tourism. Thus it is one important source of income for Nepal. But the ecologically sensible decision to protect and conserve vast areas of Chitawan contradicts with the infrastructural development and opening of the region to people from outside. Especially the Tharus, living in Chitawan for generations, were the victims of a twofold dispossession: As a tribal group they were marginalized by the great number of immigrants; at the same time they were greatly affected by the loss of access to land extensively used in the past, as the land was now classified as a national park.

4. Conflicts between Human Needs and Conservation

Although massive and growing conflicts between local needs and conservation could have been foreseen when the national park was established, the national and international institutions involved exasperated the situation by imposing strict usage restrictions. The traditional economic system practiced by the Tharus suffered severe losses from one day to the next without any form of compensation. The forest areas and tall grasslands of Chitawan that are protected today were lost as potential reserves of arable land, and also as pasture for large herds of cattle. The number of cattle declined drastically, in some villages by as much as 80%, as the animals were starving. Hunting small game, fishing, and collecting edible and medicinal plants (Müller-Böker 1993) were forbidden. Procuring the necessary raw materials for making houses and household items and collecting firewood were made much more difficult and in many cases only possible through illegal means. For only a few days per year the local population — after paying a small admission fee — is allowed to enter the park and to cut grasses for house building and household items (Mishra 1982; Lehmkuhl et al. 1988).

At the same time the population density of large wild ungulates and predators increased — a disadvantage for the adjacent farmers. Especially in the vicinity of the national park wild animals reduce the crops heavily (fig. 3; Weber & Nepal 1993). Wild predators continue to prey on cows and water buffaloes. A study performed by Tamang (1979), for example, revealed that about a third of the large mammals killed by tigers were cattle and water buffalo. Frequently dangerous and often fatal accidents occur if people happen to come across animals inside and outside the park.
Those living in the vicinity of the park are often obliged to resort simply to taking the resources offered in the national park to cover their subsistence. In spite of prohibitions it is thus impossible to eradicate illegal anthropogenic interference in the ecosystems of the park, although armed infantry soldiers of the Royal Nepal Army have been ordered to guard the park. This is, incidentally, a service that consumes a high portion of the whole national park running costs. Reports of wrongdoings committed by guards – violence, rape, and corruption – are not infrequent. With this background it is easy to understand why the national park tends to be rejected by the population and especially so by the indigenous Tharus.

5. Evaluation of the National Park – A Question of Perspective

Though I have often supported the idea of the national park, the reality of its presence makes it difficult to convince the local population. The Tharus in particular measure their actual economic situation with the yardstick of the past, without considering, however, that only a fraction of the number of people used to live in Chitawan as compared to today. They regard it as a great injustice that they are cut off from the vital natural resources of their environment. In legal terms it cannot be denied that the legislation governing the national parks and enforced by the army has erased the Tharus' traditional rights.

However, it is not only for economic reasons that the Tharus are not so favorably disposed to the arguments put forward to protect the biotope of endangered species. In discussions with the Tharus, different forms of environmental evaluation became evident. In contrast to the conservationists, they do not think in terms of global, scientific, and ethical interrelations but in local ones that revolve around their own needs. Their immediate living space, used for generations, is the “centre of their universe” – a concept that is characteristic of traditional societies (Eliade 1985).

And the forest belongs to the Tharus' universe. Not only is the forest very rich in resources, it is also the origin of their shamans and the space of their gods and spirits, a territory of religious spirit from which they derive their own cultural-religious identity. In traditional societies – as Eliade (1985) proved by many examples – the concept of sacredness also finds its manifestation in nature. The experience of a radically desacralized nature is a new discovery and it is only accessible to a minority of the modern societies – first of all to scientists. To paraphrase Weber (1991: 250), “the un-magic world” perceived by Western ecologists and conservationists encounters the “magic world” of a traditional society. In other words, a conflict produced with the introduction of national parks is created between a modern, scientifically orientated environmental consciousness and the natural-cultural relation of a traditional pre-industrialized society. It seems important that this conflict should be given more attention, as it keeps causing problems of understanding in the work of conservationists in the “Third World.”

6. Approaches in Solving National Park Conflicts

It would go far beyond the framework of this paper to work out a detailed concept for solving national park conflicts, so only a few approaches will be mentioned.

A detailed management plan for the national park is long overdue. It should take into account the overlapping of different goals as far as protection and use are concerned, and how to do justice to conflicting demands, for example, by zoning. The most important and certainly the most difficult
task is to work out a buffer zone management plan to secure the protected area without depriving traditional user-groups the chance to provide for their basic subsistence.

Moreover it is necessary to establish a species and biotope management plan to regulate animal populations and also some ecosystems. Relocation of rhinos for example prevents an over-population of animals, or the annual burning back of the grassland works against the natural succession – the spreading of forests. The "grass-cutting-regulation" in force since 1976 has made a significant contribution to maintaining an ecosystem that is important for wild animals with claims on more than one biotope – like the rhino. It also provides the local population with an opportunity of obtaining grasses for house building. This one point contributing to an integrated protection of the natural environment should be better organized and not, as planned, restricted.

Furthermore, ways should be sought in which the local people's economic loss ensuing from the national park could be balanced out. What I have in mind are projects for rural development rather than direct compensations. One part of the park's income, like admission fees, paid by about 64,000 tourists per year (1994/95), should be allocated for this purpose.

In addition, a concept for the development and regulation of tourism is vital. It must be based on the premises of compatibility with the environment and local participation, as the local people have enjoyed precious little benefit so far from national park tourism. It is the affluent business people from Kathmandu and the international tourist industry that have taken the lion's share of tourism profits so far. Low budget tourism on the other hand is characterized by complete chaos.

The basic determinant for whether conservation work is likely to be successful in the future is without any shadow of a doubt the acceptance of the local people (West & Brechnin 1991). The idea that "conservation is only possible with the people concerned and at best with their support" (Ellenberg 1993: 295) is gaining currency among organizations involved in this kind of work. In Chitawan, however, the considerable levels of success achieved in the conservation fields were gained by applying coercion and force against the interests of the locals. Even the staff of the national park authority is prepared to admit this fact (Mishra 1992). This was possible as there were no democratic structures existing in Nepal and the population involved had no lobby to represent them. The political situation in Nepal has, however, now changed. In Chitawan the people could now persuade their elected political representatives to slacken the prohibitions enforced by the national park measures.

Even so, this development would only offer the local population short-term advantages, since it is incontestable that they will gain from the national park in the long run. A dense forest covering, for example, reduces the risk of erosion. The national park puts a stop to commercial exploitation of the natural resources and continued colonization. But it must be emphasized that the long-term benefits offered by conservation are a poor compensation for the people who tend to live in acute poverty and who have to cope with the structurally difficult circumstances prevailing in a developing country.

7. Conclusion

In many "Third World" countries – as proven by numerous publications – protection of the natural environment entails severe disadvantages for local populations and is carried out by absolutely undemocratic means. Assertions keep being made, for example in the World Bank's 1992 Report, that the countries with a high income should play the main part in financing the protection of natural environments which benefit the entire world. However, one should consider that not only the natural living space of plants and animals is worthy of protection but also the economic and cultural interests of the people who are affected by these protective measures.

References


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1 In 1989/90 an income of US$ 448,330 was derived from entrance fees, elephant rides, hotel concessions, and various other sources. The expenditure for the park was only US$ 81,578 (IUCN 1993: 369).


