

# Beyond rhino horn— wildlife conservation for North Yemen

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**North Yemen banned the import of rhinoceros horn in 1982. There is still a demand for the horn to make dagger handles, however, and to meet this some is still smuggled into the country. This illegal trade threatens the world's last populations of rhinoceros and in late 1987 the author went to North Yemen to study the problem and to develop a conservation strategy.**

International concern over the alarming decline in the world's rhinoceros populations has focused attention in recent years on the illegal trade in rhino horn to Asia and the Middle East. In eastern Asia, where the horn has long been used in traditional medicines, efforts have been directed at finding substitute materials for use in medicine (Martin and Martin, 1987). At the same time governments have been urged to enforce the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) agreement on illegal trade in rhino horn and related products. In the small Arabian country of North Yemen (Yemen Arab Republic) rhino horn is in great demand for the local carving of hilts for traditional daggers. Since 1970 probably half of the rhino horn on the market has ended up in North Yemen. Even though the Government banned the import of such horn in 1982, the smuggling has been impossible to stop, particularly because North Yemen is located just across the Red Sea from East Africa.

Conservation organizations did not learn about the market for rhino horn in North Yemen until the work of Esmond Bradley Martin in the late 1970s. There are no rhinoceros in Yemen; nor do many of the people even know what the animal looks like. However, the horn has been used there for over 1000 years. When the country emerged from centuries of isolation after a revolution in 1962, large amounts of rhino horn

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were brought in from Africa. The continued demand for rhino horn in North Yemen represents one of the greatest threats to the survival of this embattled species.

While a poacher pulls the trigger to bring down a rhinoceros, ultimately it is the demand for rhino products that will destroy the animal. The protection of rhinoceros populations, important as it is, is an expensive and time-consuming operation. Despite a high level of effort in the past two decades, protection alone has not been able to stem the tide in poaching (Hanks, 1987). Consequently, it is of major importance to reduce demand for rhino horn and effectively combat the illegal trade that feeds the demand. In the case of North Yemen there has been little substantive analysis of why rhino horn is valued so highly. Despite the popular misconception that the horn is valued as an aphrodisiac or medicant, such usage is not found in Arabia. Nor is the horn prized simply because it is a recognized luxury item. In order to understand the value of rhino horn in Yemeni society it is necessary to examine the cultural significance of the traditional dagger.

As an anthropologist with experience over the past decade in Yemeni society, I was asked by World Wildlife Fund-US to go to North Yemen in late 1987 and study the problem of rhino horn use. This project was funded by the United States Agency for International Development through

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its Biological Diversity Programme, reflecting concerns raised in congressional hearings on the plight of the rhinoceros. The aim of the project was to explain the cultural significance of rhino horn, identify local attitudes and awareness of rhinoceros conservation, and develop a strategy for working with the Government and people to reduce demand and promote the conservation issue. This article is a summary of the findings and proposed strategy for future initiatives in wildlife conservation in North Yemen.

### Rhino horn in North Yemen

As early as the eighth century AD Muslim traders were involved in the trade of rhino horn and ivory from the African coast to India and China. Historical sources indicate that demand for rhino horn was significant in the medieval period (Viré, 1978). One of the main ports of call along the trade route for African rhino horn was the Yemeni port of Aden. Such horn was probably available in Aden even before the Islamic period. While few historical texts refer specifically to the use of rhino horn for making dagger hilts, a rhino horn dagger belonging to one prominent Yemeni family is inscribed with the name of a ruler from the early thirteenth century. Undoubtedly much of the horn from the massive slaughter of African rhinoceros in the nineteenth century went to Yemen.

The only known use for rhino horn in Yemen has been for carving hilts of the traditional daggers worn by virtually every adult man in the country. The dagger figures prominently in Yemeni society, although more for symbolic than functional purposes. Wearing of a dagger signifies that a man is capable of defending himself, a paramount virtue in the tribal ideology that has characterized much of the history in the area. A man may use the dagger as a weapon, although fighting with it is rare in most of the country. The dagger is wielded in men's tribal dances, especially on important occasions and holidays (Adra, 1985). The dagger also serves as a symbol of honour and a man's word. In the local mediation of tribal disputes a man will surrender his dagger to the mediator as bond that he will abide by the decision or face dishonour.

In the past the style of dagger, the extent of its or-

namentation and even how it was worn said much about a man's place in society. Before the revolution in 1962, North Yemen was a religious imamate run in large part by a religious elite. The story is told that at this time an important judge saw a low-status butcher wearing a style of dagger worn by the elite. In his anger the judge took off his own splendid dagger and sent it to the ruling Imam. When the Imam asked for the meaning of the act, the judge replied that he had no further use for his dagger if even a common butcher could wear one like it. The message was delivered and the butcher reprimanded. While this attitude has disappeared since the revolution, the dagger in general remains a potent symbol of Yemeni identity. Wearing a dagger may no longer automatically indicate a man's status, but it is still an expression of identification with the culture and the new nationalism.

Not all Yemeni daggers are made with rhino horn; nor is there any intrinsic reason why they should be. The irony is that the horn is valued not because of the animal it comes from, but for its functional qualities as a hilt. Rhino horn is the preferred material because it is said to improve with age and handling. There is also an aesthetic interest. After a few decades a rhino horn hilt becomes translucent, a transformation that does not take place with the other materials available to the dagger makers. As it ages the hilt may also take on a yellowish hue resembling the highly prized amber used in Yemeni jewellery. In a mature hilt, after 60–100 years, individual hair lines may be discerned more distinctly.

A major difference between rhino horn daggers and those made from other materials is that the former increase in value with age. In late 1987 a new rhino dagger cost at least \$1500; by contrast a dagger with a hilt of water buffalo horn cost between \$15 and \$30. Older rhino horn daggers with mature features were worth at least \$15,000 in North Yemen, while some of the finer specimens were valued in the hundreds of thousands of dollars. Some daggers are so valuable that they are rarely worn and carefully guarded. Obviously, the major problem from a conservation perspective is that the investment potential of rhino horn daggers provides for continued demand even if less and less horn is available. This is a relatively recent phenomenon brought on by

the increased buying power of the consumers and the general decline in supply.

The demand for rhino horn is difficult to quantify. Because there is so little documentation of the trade in horn to Yemen, only rough estimates can be made. Martin (1987) concluded that from the early 1970s until 1984 about half the supply of rhino horn on the world market went to North Yemen. Virtually all of this came from African species. The official estimates of rhino horn imports, as provided by the Central Bank of Yemen (Parker and Martin, 1979), show a peak of over 8300 kg entering the country in the fiscal year 1975–6. A major Yemeni importer noted to Martin that in the 1970s he was able to bring in about 3000 kg annually. Government estimates of imports were not made for the 1980s, but conversations with dagger makers in Sanaa, the capital of North Yemen, indicate that far less rhino horn has been coming into the country since it was banned in 1982. In late 1987 there was only a trickle of horn coming in, although most traders thought it was being hoarded outside the country as prices continued to skyrocket.

If the amount of rhino horn entering Yemen has been decreasing, why should there be cause for concern among conservationists? Clearly the heyday of rhino horn imports, reaching several thousand kgs per year, has ended. But the demand is still there. Martin assumed that demand has decreased because most people already have daggers and because the younger generation is not interested in the traditional daggers (Martin, 1987). However, a reduction in overall demand does not resolve the problem. In fact, the potential demand has increased as the population profile of the country shows an increase in the young. The overwhelming majority of Yemeni fathers will purchase or bequeath a dagger to their sons, even though younger men are adopting Western dress and do not wear the dagger every day. It is clear from conversations around the country that rhino horn is the preferred material for a hilt, although not everyone can afford the spiralling prices. The essential factor, however, is no longer the extent of general demand for a dagger but rather the investment value of such daggers. In an economy with high inflation and relatively few safe investments, the demonstrated value of rhino horn daggers is an

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attractive alternative today. The point is that the market will readily absorb the supply for some time to come.

## **A conservation strategy**

My investigation of rhino horn use in North Yemen highlights the problem and urgency for conservation measures. Realistically, there is little that can be done effectively outside the country. The North Yemen Government has acted in good faith by banning the import of rhino horn and discouraging the use of such horn in the country. Clearly, the problem is not a simple attitude of indifference; most people in Yemen are not even aware that the rhinoceros is in danger of extinction. There are, however, government officials and concerned citizens who do understand the problem and are sympathetic. The need at present is for a conservation strategy that will allow international conservation organizations to work with the Yemeni community.

The main conclusion of my study for World Wildlife Fund is that the overall goal of reducing rhino horn use should be to find effective and positive ways of working with Yemeni institutions on the broader issue of wildlife conservation. There is little to be gained from confronting government officials; nor can a developing government administration be held accountable for something it does not have the resources or capabilities to resolve fully. North Yemen faces a variety of pressing development concerns for its economic and social development. Smuggling of rhino horn is only a small part of a much larger smuggling problem that the government must deal with. If any solution to the use of rhino horn in North Yemen is to be found, it must be one that is developed in co-operation with the Yemenis.

There is no single, quick-fix project that will end the demand for rhino horn, just as there is no easy way to cut off the illegal trade. There are a number of initiatives that could help reduce demand over the short and long term. The first step is the need for co-ordination of efforts. At present there is no viable institution within North Yemen for addressing wildlife conservation, including the problem of rhino horn use. A critical step, both for symbolic and practical reasons, would be the establishment of a formal link between an

institution in North Yemen and the International Union for Conservation of Nature and Natural Resources (IUCN). This would provide an important liaison for future technical assistance and co-ordination of that assistance. At the symbolic level, this would involve a conservation effort directed not only at the rhino horn problem but also at conservation issues of more immediate concern to the country.

In order to be effective in reducing demand for rhino horn in North Yemen, it is important to go beyond the issue to the broader needs for wildlife conservation in the country. There is a critical need for a cadre of trained professionals in the government and university, yet no foreign scholarships have been provided for study specifically related to conservation. Biology graduates from Sanaa University would be interested in such study, but existing scholarship programmes are in other areas. Even short-term training courses, which are relatively inexpensive, have virtually been ignored. In the nascent Department of Wildlife and Zoos in the Ministry of Agriculture only one official has any training in conservation, a short course at the International Centre for Conservation Education in England (Rands, 1987).

The needs for wildlife conservation in North Yemen are many. While only a limited amount of field research has been conducted, several endangered or rare species have been identified. The Ministry of Agriculture records the need to preserve a variety of species, including the Arabian gazelle *Gazella gazella arabica*, South Arabian leopard *Panthera pardus nimr*, baboon *Papio hamadryas*, dugong *Dugong dugon* and several species of birds. Recent studies by Porter and others have identified 13 endemic or near-endemic bird species in the country (Parr, 1987). Among the species threatened by recent changes in the environment of this rapidly developing country are the Arabian bustard *Choriotis arabs*, Arabian woodpecker *Picoides dorae*, Yemen thrush *Turdus menachensis* and golden-winged grosbeak *Rhynchostruthus socotranus*. Research by Rupert Ormand indicates that the green turtle *Chelonia mydas* and hawksbill turtle *Eretmochelys imbricata* may be threatened by future development of Yemen's Red Sea coast (Ormand *et al.*, 1987). The ibex

*Capra ibex*, once an important species in the area, has probably disappeared completely from North Yemen. At present there is no national legislation to protect these species; nor have plans been made for nature reserves.

Promotion of wildlife conservation in North Yemen is an important need. In the long term, the work done on Yemen's own species will create a more conducive climate for ultimately reducing the demand and use of rhino horn. There will be trained officials aware of and sympathetic to the problem and the local institutional base for addressing it. By building on the natural pride the Yemenis have in their own heritage, environmental as well as historical, the idea of conservation can better be communicated. There are a number of specific projects that could help foster conservation awareness in the country (Varisco, 1987).

The major problem, however, is that the rhinoceros may not be around for much longer. What can be done now to curtail and eventually cut off the use of rhino horn in North Yemen? One way to reduce demand is to provide an acceptable alternative for making dagger hilts. Based on my own research among Yemeni consumers and makers of daggers, I believe alternative materials can satisfy some of the demand. Historically, the significance of rhino horn has been the characteristics of the material rather than any fascination with the animal *per se*. Given the current value of rhino horn, it is not enough to promote cheap substitutes such as water buffalo or cow horn. The dagger makers, who are almost exclusively to be found in the Sanaa Market, are interested in high-quality materials that would make good hilts. One possibility, which has not yet been tried, is synthetic rhino horn, a material which would have the characteristics desired without the restrictions or inflated price of the real horn. For most people a synthetic material would be acceptable. Interest in such a material was expressed by several of the dagger makers interviewed and by the head of the Preservation Project for the Old City of Sanaa. Thus, the institutional means exist for introducing synthetic horn, if it can indeed be produced.

Providing an acceptable alternative for dagger hilts can reduce demand, especially in light of re-

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cent government restrictions on the use of rhino horn and the decline in supply of the real horn. Realistically, however, the demand cannot be eradicated in the foreseeable future as long as the investment potential of rhino horn daggers is so appealing. The hundreds of thousands of rhino horn daggers are family heirlooms of symbolic as well as financial value. These daggers will be passed on from one generation to the next or collected by connoisseurs even if no more rhino horn daggers are made in North Yemen. No matter what conservation efforts are made, the fascination with rhino horn will not go away.

If the focus of conservation efforts is solely on the rhino horn issue, it will lead to failure. While it is important and possible to reduce demand, the ultimate goal must be to create awareness and concern for the conservation of natural species. The situation in North Yemen is more complicated than in other rhinoceros-horn consuming countries where the horn is used as medicine, because the horn in dagger hilts survives. Thus, it is not enough to provide a substitute for the making of new hilts, important as that may be. Attitudes must be changed so that the issue is not the object, which in North Yemen is wrapped in cultural values, but rather the survival of a species. This requires communication and education that must be measured in years. We must promote wildlife conservation in North Yemen today in order to save the rhinoceros of tomorrow.

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