
Price for Rhino Horn Increases in Yemen

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ABSTRACT

Rhino horn traders in Yemen are putting renewed pressure on Africa's rhinos. From 1985 to 1997 the price of rhino horn remained stable at around \$1,200 a kg. By early 1999 it rose to \$1,400 a kg. This price increase is due to two factors. The supply of rhino horn in Yemen has fallen because of shrinking stockpiles in the country, and very few rhino horns have been smuggled into Yemen over the last few years. In 1998 only three rhino horns are known to have been imported into Yemen, the least number probably ever recorded. The Sanaa traders are getting desperate for more rhino horns, and this trade could increase once more unless action is taken. Both the Yemen government and the international community have done virtually nothing to try to stop Yemen's rhino horn trade since 1997 when Yemen joined CITES, despite agreements of assistance to Yemen.

RESUME

Les négociants de corne de rhinocéros du Yémen mettent à nouveau le rhino d'Afrique sous pression. Entre 1985 et 1997 le prix de la corne de rhino est resté stable autour de 1 200 \$ le kg. Mais début 1999 il était monté à 1 400 \$ le kg. Cette augmentation des prix est due à deux facteurs. Les réserves de corne de rhino au Yémen ont diminué du fait de la réduction des stocks à travers le pays, et très peu de cornes de rhino ont été passées au Yémen en contrebande ces dernières années. Pour 1998 seuls trois cas de cornes importées par contrebande sont connus, sans doute le chiffre le plus bas jamais enregistré. Les négociants Sanaa ont absolument besoin de cornes de rhino supplémentaires et ce commerce pourrait augmenter une fois de plus si aucune action n'est entreprise. Les efforts tant du gouvernement yéménite que de la communauté internationale pour essayer de stopper le commerce de corne de rhino du pays depuis que le Yémen a rejoint CITES en 1997 ont été quasiment nuls, malgré des accords d'assistance au Yémen.

INTRODUCTION

Until 1970 only the privileged elite could afford *jambiyas* with rhino horn handles. Then, beginning in the early 1970s, many Yemenis worked in Saudi Arabia during the oil boom years, earning much money which permitted them to buy new daggers with the revered rhino horn handles. Prices for rhino horn thus shot up in the 1970s and early 1980s. Most of eastern Africa's rhinos were poached to meet this increasing demand. Before the Gulf War of 1991, one million men of Yemen's labour force were working outside the

country (mostly in the Gulf states) sending back to Yemen over nine hundred million dollars a year. These remittances were widely distributed among the population, and demand for rhino horn daggers remained high through the 1980s in what was then the Yemen Arab Republic. After 1991 many Yemenis were sent home and remittances fell on a per capita basis, although they still account for 1.1 billion dollars a year (Central Bank of Yemen, 1998), Yemen's major source of foreign exchange. With a resultant declining economy in Yemen and a crackdown on rhino poaching in Africa, rhino horn imports into

Yemen have gradually fallen. Nevertheless, Yemen remains one of the most significant markets for rhino horn in the world.

METHODOLOGY

The authors have been visiting Sanaa’s old souk on a regular basis since 1986 to survey the rhino horn trade. Here, the major dealers in rhino horn are to be found and expensive *jambiyas* with rhino horn handles, both old and new, are sold. In mid-June 1999 a survey was conducted in the souk, the first for two years. Counts were made of the open workshops where craftsmen make *jambiyas* and repair handles, and of the number of craftsmen in the shops. The pieces of rhino horn seen and new rhino horn handles being made in the workshops were also counted. *Jambiya* handles crafted from various substances were priced. Information was collected on the prices of raw rhino horn and on current smuggling routes. Various academics, diplomats and other experts on Yemen’s economy and *jambiya* industry were interviewed. Follow-up meetings with government officials, including the Prime Minister, were conducted to discuss legislation concerning rhino horn. Other towns in Yemen were visited by either the authors or their informers to investigate the demand for *jambiyas*.

RESULTS

The *jambiya* shops in Sanaa

The *jambiya* workshops situated in Sanaa’s old souk numbered 59 in June 1999, very similar to

the average of 60 open shops seen on random afternoon surveys from 1986 to 1996 (Martin et al., 1997). Craftsmen numbered 100, again similar to the average of 92 at any one time from 1986 to 1996 (Martin et al., 1997). Craftsmen now spend more time making handles of buffalo horn and repairing old *jambiyas* with rhino horn handles than making handles with new rhino horn. During the authors’ three different visits to the souk in 1999, only one craftsman was seen working new rhino horn handles. No plastic handles were being made. (Photo 1).

The overall numbers of retail outlets for daggers with buffalo horn handles have increased since 1997 in Sanaa, with more street stalls outside the old town gates of Bab al Yemen. Prices of daggers vary greatly (Table 1), according to the materials used and quality of workmanship. Shops in the souk or the street stalls usually sell belts and sheaths separately. Nearly all are factory-produced, costing about 600r (\$4) and 400r (\$2.5) respectively.

Rhino horn smuggling from Africa to Yemen and prices for the horn in Sanaa

Four traders, including the main *jambiya* businessman in Yemen, were approached for information on the late 1990s trade routes. According to these traders, various individuals, usually Yemenis and Sudanese (living in Kenya, Uganda, Sudan and Ethiopia) bring rhino horns to Yemen. Some bring them by aeroplane to Sanaa airport where contacts help them smuggle

Table 1. Average retail prices of jambiyas in Sanaa in June 1999.

Handle type	Price in rials	Price in US dollars
Plastic	500	3
Wood	500	3
Water buffalo horn	2,000	12
Camel hoof	2,500	15
New rhino horn	65,000	394
Rhino horn over 10 years old	120,450	730

the horn through Customs. Others bring it overland *via* Saudi Arabia. Yemen's long coastline extends from Saudi Arabia in the west to Oman in the east, making it difficult to control smuggling. The most popular route is *via* Djibouti and across the Red Sea by boat, usually a *zarook* (Photo 2).

Photo credit: Lucy Vigne



Photo 1. Rhino horns such as the two seen here in Sanaa's old souk in 1990 would not be on view today. The trader in the front is holding four roughly carved rhino horn handles.

These dhows carry many smuggled items from Djibouti to Yemen, including whisky and electronic goods. The sailors often cross at Bab al Mandab, the narrowest point where the Red Sea meets the Indian Ocean, and they land near Mocha on the Yemen coast. The three horns known to have reached Sanaa in 1998 were smuggled into Yemen by this route. A Sudanese businessman brought the horns from Sudan to his office in Djibouti, hidden in sacks of foodstuff (such as sesame seeds and groundnuts). A member of the main *jambiya* family went to Djibouti and bought the horns for \$1,200 a kg. This person gave the horns to a boat owner and flew back to Yemen, probably meeting the boat owner at a pre-planned place near Mocha, according to confidential sources in Yemen.

In mid-1999, undercover work was organized by the authors in Djibouti. It was found that rhino horn can sell in Djibouti wholesale for around \$600-\$800 a kg. Yemeni men in the textile business had recently bought rhino horns, according to Djibouti sources. There is thus no doubt that rhino horn is nowadays being taken to Djibouti and sold there to be exported illicitly to Yemen.

Photo credit: Esmund Martin



Photo 2. Zarooks, as seen here in Djibouti harbour, sometimes carry smuggled goods.

When a person who has smuggled rhino horn into Yemen sells it in the Sanaa souk, he receives \$1,400 a kg if it is good quality. This is a rise of \$200 compared with 1997, or 17%. There has also been an equivalent price increase in the handles and the leftover horn chips and shavings. About three or four handles are made from a kg of horn and each unfinished handle is worth about \$300. In order for the workshop owners to recoup the increased price of rhino horn, they illegally sold the leftover chips and shavings for about \$650 a kg in June 1999 to Chinese and Koreans working in Yemen. They smuggled the chips and shavings to China and South Korea to be sold illegally for traditional medicines.

Efforts against the rhino horn trade

The Yemen government joined CITES in 1997, largely in order to control better the illegal trade in rhino horn. Since then, the Scientific Authority for CITES has been the Environment Protection Council (EPC) in Sanaa while the Management Authority has consisted of officials at the Ministry of Supply and Trade. Although officials in the EPC are trying to fill out the CITES forms for wildlife products, EPC employees are untrained and want assistance, as promised to them when they joined the Convention.

No rhino horn has been confiscated in the last few years, but the EPC has tried to reduce rhino horn demand. In 1997 the EPC distributed

framed photographs of *jambiyas* with handles of alternative materials to rhino horn in ministries and schools. The EPC also co-ordinates lectures with teachers and school clubs on rhino horn and the environment.

One enterprising individual, Ahmed al Wazir, has for several years been making *jambiya* handles with locally obtained semi-precious stones, mostly agate and jasper, as alternatives to rhino horn (Martin and Vigne, 1995, Photo 3). In 1998 he made 13 *jambiyas* with stone handles, which were bought by the President of Yemen to give as presents to dignitaries on a state visit to Oman. The President had on previous occasions given some to various world leaders, including President Mitterrand, Chancellor Kohl, Queen Juliana of the Netherlands, King Hussein of Jordan, and the Sultan of Oman (as rhino horn is unacceptable abroad). The President himself

wears a *jambiya* with an agate handle, but only when he is not in Yemen. The daggers with stone handles retail for about \$1,300 each (down from \$1,700 in 1995 due to the devaluation of the rial) and thus, due to the high price, the semi-precious stone makes a suitable alternative to rhino horn for a high quality dagger. Gold decoration is added to these handles. The blades are very good quality from al Bayda, usually

Photo credit: Esmond Martin

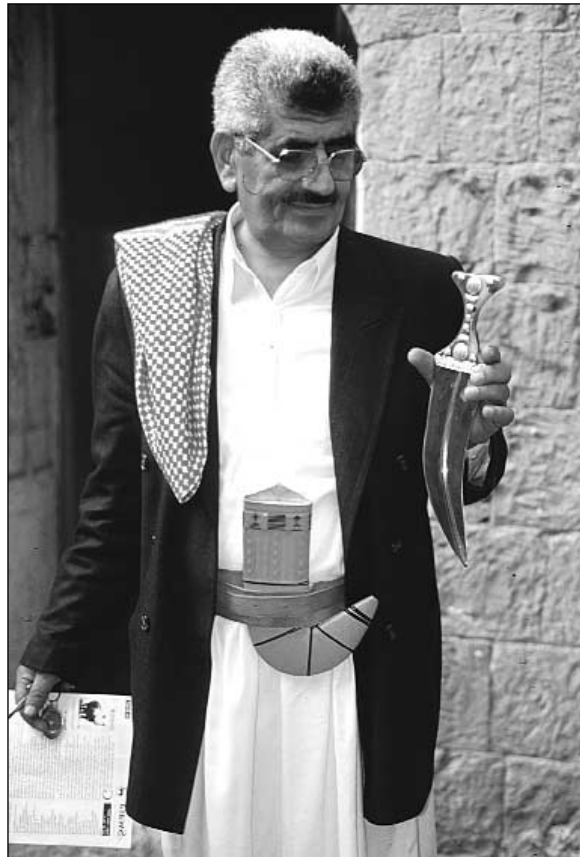


Photo 3. Ahmed al Wazir, the maker of *jambiyas* with semi-precious stone handles, holds his own *jambiya* of agate and gold.

costing Ahmed al Wazir around 7,000r (\$42) each, and the leather sheaths and belts cost him 4,000r (\$24). His most expensive dagger (with a red agate handle and gold decoration) was sold to a rich Yemeni for about \$2,500. Demand for stone handles is low, however, and Ahmed al Wazir now only makes one or two daggers a month, mainly for Yemenis in Saudi Arabia.

Meeting with the Prime Minister

When the authors met with Dr Abdul Karim al Iryani, who was Prime Minister of Yemen at the time of their 1999 visit, he telephoned the Minister of Supply and Trade and requested him to organize an inspection of the souk. No recent official inspection had taken place to determine whether rhino horn was being used for new dagger handles. He also instructed the Ministry to issue a decree setting penalties against those dealing in or working new rhino horn. Dr al Iryani requested that Mohammed al Haymi, Deputy Minister of Industry, follow up these two matters. He hoped assistance concerning CITES enforcement would be provided soon, as agreed in 1997.

Jambiyas for sale in Sadah, Hodeidah and Aden

Sadah

Although Sanaa is the main centre of the *jambiya* industry (followed by Taiz and Dhamar), Sadah in the far north of the country near the Saudi Arabia border has had *jambiya* shops for many years. No quantitative survey had previously been carried out. The 30 or so small shops in Sadah's souk offering belts, sheaths and daggers are shabby and poorly stocked. Today the traders get ready-made daggers mostly from Sanaa. Some shops sell only sheaths and belts that are made in Sadah from materials bought in Sanaa. Prices vary according to quality and decoration. The intricate hand-sewn belts are made by women in their houses and by prisoners; machine-sewn belts are also available. There are six main shops specializing in daggers. Most of these have water buffalo horn handles. Four out

of six of these shops have seven craftsmen doing repair work. Three of the men can also make the daggers, but they no longer use rhino horn. The raw horn has not been available in Sadah since the early 1990s, according to the shop owners, despite the town being on a main transit route from Saudi Arabia to Sanaa. Traders would willingly buy the horn if it were offered to them cheaply, and they stated they could get it through Sanaa airport, as well as *via* Saudi Arabia. The small supply of rhino horn reaching Yemen nowadays all goes to Sanaa where traders are richer and can consequently offer the best prices. In the 1980s Saudis of Yemeni origin used to visit Sadah traders to buy new and old carved rhino horn handles, which they brought back mostly to Khamis Mushayt (in Saudi Arabia) to put onto blades (Martin, 1990). In June 1999, three old *jambiyas* with rhino horn handles were being polished in Sadah, but there were no new ones with rhino horn for sale.

Hodeidah

Hodeidah, west of Sanaa on the Red Sea coast, also has several traditional dagger and belt shops, but all the traders buy ready-made *jambiyas*, sheaths and belts from Sanaa (Photo 4). They do not manufacture, nor do they buy rhino horn any more. They advise anyone dealing in rhino horn to sell it to the main *jambiya* trading family in Sanaa. Up to 1992, some Hodeidah traders bought rhino horn from seamen at the port, which they then sent to Sanaa, but they no longer have ready cash to act as middlemen. Business is slack with fewer people wearing daggers in Hodeidah compared to the past, and one dagger shop owner is considering closing down in order to open a grocery store instead. The small town of Al-Zaydiya, an hour's drive north of Hodeidah on the coast, was once famous for its *dhumas* (the less curved *jambiyas* of the religious elite), but today there are no dagger shops in the souk, and only the older people still wear *jambiyas*.

Aden

There is no recent tradition in Aden for daggers, because the British and later the Marxist govern-

ment (1967-1990) banned the wearing of them. Since unification of North and South Yemen in 1990, men in Aden have not chosen to emulate the northern tribes in dress, even though more Aden women are again veiled because of the northern influence. Qat (*Catha edulis*, previously banned, except at weekends) is now chewed by many people in Aden on a daily basis. Only two visitors to Aden were seen wearing *jambiyas* on a full day's survey in June 1999: a man from Taiz and a man from Al Baydha province.

In 1994, two shops selling and repairing *jambiyas* were opened in Aden by a Sanaa *jambiya* trading family. One shop was in the souk area of Aden crater, but it was closed in 1997 due to a court case. The other shop is in the northern suburb called Shaikh Uthman. The young shop vendor goes to Sanaa to buy many of his *jambiyas*, which he displays, as well as belts, some jewellery and various ornaments. There was no dagger with a rhino horn handle in the shop except his own, worth 200,000r (\$1,212). Several daggers for sale were the smaller handled southern style of *jambiya*. Most had second-hand water buffalo horn handles, and some were made of plastic or wood. There used to be a tradition of crafting elephant ivory handles in the southern governorates and these *jambiyas* were worn by affluent people including the sheikhs and sultans. Carving ivory handles stopped by 1967 when the making and wearing of *jambiyas* were

Photo credit: Lucy Vigne



Photo 4. *Jambiyas* with rhino horn handles are displayed in Hodeidah.

prohibited throughout South Yemen (Renaud Detalle, pers. comm., 2000).

The shopkeeper buys a few southern-style daggers from the rural people in the southern governorates such as Lahej, Shabwa and al Bayda. His buyers are usually rural people from the governorates and provinces north of Aden. Since unification, more and more countryside men in the south are wearing their old

daggers once again. This is particularly so in the large Shabwa province. Aden people do not buy *jambiyas* except to decorate their walls. The shop owner claims to sell 10 to 15 a day, which is probably an exaggeration, and he says business is getting better (Photo 5).

Photo credit: Esmond Martin



Photo 5. The young owner of the one *jambiya* shop in Aden displays a variety of *jambiyas* for sale.

The old town of Aden itself shows little sign of economic growth with many buildings crumbling, and many poverty-stricken people dressed in tattered clothes. Sanaa, with its shops well stocked with imported goods, looks prosperous by comparison. There are still many more southerners working in Sanaa than people from the north resident in Aden.

DISCUSSION

The source of Sanaa's rhino horns in the late 1990's

The few rhino horns reaching Sanaa in the late 1990s have probably originated from rhinos that were poached in Kenya, Tanzania, Cameroon and the Democratic Republic of Congo's (DRC) Garamba National Park (Martin and Hillman Smith, 1999). In June 1999, Sanaa traders mentioned for the first time Uganda as a source for rhino horn, which probably links with the horn from nearby Garamba. In 1996 and 1997 a minimum of four white rhinos were poached in Garamba National Park. At least one of these horns is recorded to have been taken from the small town of Aru in the DRC, just across the border, to Arua town in Uganda for sale in 1997 (Martin and Hillman Smith, 1999).

Traders in Sanaa also state they have received horns from Kenya. According to sources in East Africa, at least three black rhino horns were offered for sale in Kenya from March 1998 to March 1999. One horn reportedly originated from Tanzania and was transported to Mtito Andei in Kenya and then to Nairobi for sale. A second horn reportedly came from an area south of Garissa towards the northern part of Tsavo East National Park and was taken to Nairobi by a woman involved in the curio business. The third horn came from the Taita/Taveta area in Kenya, but it probably originated in Tanzania. The owners of these horns offered them for sale in Nairobi for 35,000 Kenya shillings (\$538) to Ksh 50,000 (\$833) with an average price of Ksh 40,000 (\$667) per horn, not per kg (TRAFFIC East/Southern Africa, pers. comm., 1999). If the average weight of a black rhino horn in Kenya is

1.44 kg (Martin, 1979), then these middlemen were earning about Ksh 27,778 (\$463) per kg. The exporter buys the horn for around Ksh 45,000 (\$750) per kg. Reports from Kenyan traders state that some horns are exported from Nairobi in diplomatic bags.

Sanaa traders also report that rhino horn is reaching them from Sudan and Ethiopia. Some of this horn probably originates from animals killed in Cameroon. From 1990 to 1998, on average three black rhinos have disappeared each year, presumably poached, from northern Cameroon (Planton, 1999). In 1998 there were at least four pairs of black rhino horns for sale in Garoua town in northern Cameroon. Each pair was priced on average at CFA 1,000,000 (\$1,667) (Planton, pers. comm., 1998). If the average pair weighs 2.88 kg (the average weight for a pair of Kenyan black rhino horns), then the horn was priced at the equivalent of \$579 a kg. According to Hubert Planton, who has been in Cameroon since 1987, one rhino was killed in Bénoué National Park in 1996; the pair of horns weighing 5.5 kg was removed and brought to Garoua for sale. The owner wanted CFA 2,200,000 for the pair, which is the equivalent of \$667 a kg. Almost all the horn in Cameroon is exported because there is little demand for it within the country. Planton was told that occasionally it is used by traditional doctors when they pray. Trucks from Sudan come all the way across Africa to collect coffee in southern Cameroon. When the drivers come to Garoua on the return journey, some ask for rhino horns and put them in their trucks and drive back to Omdurman or Khartoum (information from shipping agents in Cameroon to H. Planton and then by pers. comm. to the authors in 1998). From Sudan the horn is exported, eventually finding its way to Yemen.

Due to the ongoing wars in the Horn of Africa and the migration of refugees from Somalia, Ethiopia and Eritrea to Yemen, it is likely that some rhino horn has also entered Sanaa with these refugees (Mohammed al Haymi, Deputy Minister of Industry, Yemen, pers. comm., 1999).

The effect of Yemen's economy on demand for *jambiyas* in Sanaa

Remittances (from Yemeni workers abroad), oil and to a lesser extent tourism are Yemen's major sources of foreign exchange. After the Gulf War about half the Yemeni workers in the Gulf States were made redundant, reducing remittances significantly. Government earnings from oil roughly halved in 1999 from about a billion dollars each year in 1996 and 1997. Tourism crashed following the kidnapping of 16 tourists in December 1998 and the deaths of four of them. Confidence in Yemen by foreign companies is thus low and few foreign businessmen are investing in the country. In October 1997 the Yemeni rial was 132 to the dollar, but in mid-June 1999 it was fluctuating from 160 to 170. The middle class is declining in Yemen. Those that can emigrate are increasingly doing so. Government economic reforms have been discussed for the last 10 years, and some major changes have been made, but still the country does not export much besides oil. The Aden Free Zone container terminal, which was opened in March 1999, offers some hope for the economy, if it is successful. This has been one of the largest foreign investments into Yemen in recent years.

Meanwhile, the human population expands at 3.6% a year, faster than the economy. Despite the depressed economy and gloomy prospects, there is still a major market for *jambiyas*, although less so for rhino horn ones. In Yemeni rials the prices of most new *jambiyas* have gone up since 1997. In dollar terms the prices have fallen due to the 30% devaluation of the rial from 1997 to mid-1999. The few daggers with new rhino horn handles in the Sanaa old souk have risen in dollars, however, due to the increased cost of rhino horn. There is still a demand for them as a new rhino horn handle is less expensive than an older one due to its less attractive patina. As for old rhino horn *jambiyas*, some very rich Yemenis invest in these so the market for them continues.

The future of rhino horn alternatives

In the Sanaa old souk, craftsmen have stopped making the more brittle plastic handles that were introduced by the main *jambiya* trading family in 1982 as an alternative to rhino horn because of their growing unpopularity. They can crack if dropped and will melt if touched by a match or cigarette. The production of cheap water buffalo horns handles has steadily increased due to their durability and demand from the growing human population. Water buffalo horn handles are much faster to make than those of rhino horn, which is why the numbers of workshops and craftsmen have remained the same for many years.

Most Yemenis who wear a dagger daily still would prefer rhino horn if they could afford it as it is traditionally revered and is tough and cannot break if dropped, unlike the only expensive alternative: semi-precious stone. If prices for stone handles were reduced, they could become popular among the educated middle class who do not wear *jambiyas* daily and the few who have accepted conservationists' arguments against the use of rhino horn. Only if 100 daggers with stone handles were made and sold a month would it be possible to reduce prices significantly, according to their maker Ahmed al Wazir. The rich traditional elite, such as the sheikhs and their sons, generally wear rhino horn daggers. A *fatwa* issued by the Grand Mufti of Yemen on 20 May 1992 stated: "Islam prohibits the killing of animals except for those slaughtered for their meat (i.e. goats, cows and camels) or predatory animals for protection of mankind". The sheikhs say that rhinos can also die from natural causes and they have therefore been unwilling to give up rhino horn for stone so far. Publicity has been lacking on this issue and there have not yet been enough education campaigns to counter the sheikhs' argument (Photo 6).

CONCLUSION AND RECOMMENDATIONS

Despite the falling economy in Yemen, the price of rhino horn in dollars has increased in Sanaa

from 1997 to 1999, due to Yemeni demand for a much smaller supply of African horn on the world market. With available stockpiles almost exhausted in Yemen and with rhino poaching reduced in Africa, less rhino horn is available. Although most Yemenis can now only afford cheap daggers, in Sanaa some people can still afford *jambiyas* with new rhino horn handles. Yemeni traditions die hard, and expensive alternatives to rhino horn like agate and jasper handles are not selling well. With a fast growing human population, the number of cheap water buffalo horn *jambiyas* being produced is steadily rising, keeping most craftsmen in the business, especially in Sanaa. This is being augmented by the expanding market in the south of the country where some people in the rural areas

have reverted from western-style clothing to traditional dress. Business is increasing in Aden's dagger shop, the first for perhaps nearly a century, to cater to some southern Yemenis in the rural areas. A number of issues needs to be addressed in Yemen to reduce the poaching pressure on rhinos in eastern and central Africa. These include the following:

1. A decree instituting penalties against Yemenis dealing in new rhino horn must be finalized.
2. The Yemeni Ministry of Supply and Trade, which can close down any shop breaking the law, should ensure regular checks for new rhino horn handles being produced or sold.
3. More publicity is needed in Yemen to disseminate information on rhino conservation

Photo credit: Esmond Martin



Photo 6. The Grand Mufti of Yemen produced this religious edict in 1992, following a meeting with the authors, to try to stop Yemenis from using rhino horn for dagger handles. The edict states that killing rhinos for their horns is not allowed by Islam.

and to encourage more sales of stone handles for *jambiyas*.

4. An information centre should be set up at the new Sanaa zoo, which was opened at the end of May 1999 and attracts many Yemenis (Vigne and Martin, 1999), to discourage people from buying daggers with new rhino horn handles.
5. An NGO office should be established in Sanaa to help Yemeni officials ensure that all the various regulations are implemented, and to provide educational materials such as film footage for television, posters, etc.
6. Serious consideration should be given to more dialogue with the main *jambiya* trading family to come up with viable solutions.
7. Assistance from TRAFFIC and IUCN i.e. training Customs officials about illegal wildlife products, giving help to implement CITES, and organizing intelligence gathering) should be provided.
8. The CITES Secretariat needs to assist Yemen with support and training regarding enforcement of the Convention.
9. An internationally funded project is needed to monitor the illegal trade in rhino horn both within and outside Yemen.

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