

Report on the Trade in Rhino Products in Eastern Asia and India

Esmond Bradley Martin



A selection of medicines containing rhino products mostly manufactured in China.

Esmond Bradley Martin

Under the auspices of WWF, I returned to Asia in November 1987, to carry out further research on the trade in rhino products, to encourage the use of substitutes, to discuss with government officials possibilities of banning internal trade and to liaise with non-governmental organizations on the problems of rhino conservation. My field-work lasted just over three-and-a-half months, in Hong Kong, Macao, China, Singapore, Malaysia, Thailand and India. In this report, I will describe the present status of the trade in rhino products in each of the countries I visited and only refer to past events insofar as they are relevant to the situation today. For simplicity, each country will be discussed individually.

Hong Kong

In the 1960s and 1970s Hong Kong was the world's largest importer of rhino horn.¹ Its government was, however, one of the very first in Asia to take direct action against the trade, and in 1979 banned imports of horn from all five rhino species. Stocks in Hong Kong at that time had to be registered, and only those which were could receive re-export permits from the Department of Agriculture and Fisheries.

Since then, some rhino horn has been smuggled into the country from Macao, Burma, Indonesia, Malaysia, India, Taiwan and South Africa, according to officers in the Department of Agriculture and Fisheries and various traders in other South-east Asian countries, but the amounts have been small and have come mainly from South Africa. In 1980 a South African Airways pilot was caught bringing in four horns. In 1985, most of the 46.8 kilos of rhino horn confiscated by the Hong Kong authorities was from South Africa.

Even South African government officials have approached the Hong Kong government to try to obtain permission to sell rhino products there. The most recent proposal was made in November 1987, and, like the others, was turned down. The Hong Kong authorities say they are shocked by such South African overtures; after all, South Africa has been a party to CITES since 1975.

At the most recent CITES meeting in Ottawa (July 1987), it was agreed by the party states that due to the rhino crisis, efforts should be made to close down internal trade in rhino products. Therefore, in the British Parliament Prime Minister Thatcher, answering a question posed by Mr Tony Banks on 26 January 1988, stated: "A total ban on the sale of rhino products within Hong Kong will take effect from July this year." On 25 February 1988 the same Member of Parliament queried the Prime Minister whether "the total ban of the sale of rhinoceros products within Hong Kong from July will include all medical substances with an ingredient from any rhinoceros product".² The Hong Kong government has until now refused to prohibit imports of packaged medicines purporting to contain rhino horn, arguing that in court it would be unable to prove scientifically that such medicines actually do include rhino products. Furthermore, Hong Kong officials have said that because pharmacists import tremendous amounts of tablets, tonics and other processed traditional drugs from mainland China, it would be an extremely time-consuming and costly exercise to examine the list of ingredients for each kind to determine if rare or endangered animals species' products are claimed to be in them. They have stated that they do not have sufficient personnel to do this, nor to ensure that such drugs

do not reach the pharmacies. However, Mrs Thatcher replied: "The Hong Kong Government intend that the ban should include all medicinal substances with an ingredient from any rhinoceros product."³

This will be an ambitious undertaking, and the first time that such a step is taken to halt internal trade in rhino products. Hopefully, the removal of packaged medicines claiming to contain rhino horn from the Hong Kong pharmacy shelves will reduce the demand for rhino products, but it could create more problems, such as encouraging smuggling and underground sales. This part of the ban may not have been implemented until the end of 1988. The retail price for rhino horn has already gone up quite a lot in Hong Kong during the past two years, from US\$ 14,282 to US\$ 20,751 a kilo. Traders are telling their clients that it is becoming increasingly difficult to obtain supplies, but the demand still exists and people are buying the horn at the inflated prices in Hong Kong. If dishonest traders decide to take the risk of continuing to supply rhino products, they will stand to earn even greater profits. One cannot foretell what will happen.

Macao

In 1984 and 1985 Macao was one of the two known largest entrepôts for African rhino horn in Asia.⁴ On 19 December 1985 the Portuguese government in Macao put a legal halt to this role and on 22 February 1986 agreed to conform with the principles of CITES. However, in March 1986, according to information supplied by the Macao Economic Services and the CITES Secretariat, one trader imported 89 kilos of rhino horn in ten parcels from South Africa, using false documentation. The parcels were seized by the Macao authorities and returned to South Africa. Further investigation revealed that the trader had earlier imported 500 kilos of rhino horn and hide. He was fined US\$ 15,000 for breaking the law on the second occasion; but in South Africa where the exporter was apprehended, the assessed fine was only US\$ 250. He is a well-known ethnic Chinese with family connections in Hong Kong. In the 1970s he was one of the major suppliers of South African rhino hide and horn to Hong Kong.

Probably the main importers of rhino horn during 1984 and 1985 in Macao were two local people working together in a partnership. One was a Macanese banker and the other a doctor of traditional Chinese medicine, who owns one of the larger pharmacies. In January 1986 I spent several hours with these two men, extracting as much information from them as I could before they became suspicious of my motives. They told me that they first became involved in importing rhino horn when a Muslim Portuguese citizen came to Macao in 1983. This man, who flew out from Lisbon to Hong Kong with about 60 kilos of rhino horn, which probably originated from Mozambique, was harassed by the Hong Kong authorities because of his possession of the horns, but they could not prosecute him in transit to Macao. Nevertheless, the Hong Kong authorities informed their counterparts in Macao of the man's impending arrival and he was put under house arrest in one of the hotels when he came because he did not have an import licence for his horn, which at that time was all that was legally needed in Macao. A couple of months later, after bribing certain people, the man got repossession of his horn, but everyone knew about his case and his dire need to pay the hotel bill for his enforced stay, so the above-mentioned partners bought the horn off him cheaply.

The next time the Muslim came to Macao he had a valid import licence for his rhino horns, which he claimed were also from Mozambique and over ten years old. Some of these were partly carved into sculptures of African heads, which he thought might confuse the Macao authorities. The banker and doctor paid US\$ 500 a kilo for them in 1985 and said that they sold them wholesale for between US\$ 600 and US\$700 to various traders who either kept them in Macao for domestic sales or sent them to Hong Kong and China. The doctor and banker denied ever re-exporting any rhino horn themselves.

The doctor told me that he had, in addition, bought rhino horn from Chinese sailors who had obtained it from Africa and elsewhere. As for supplies of rhino hide, he had obtained some in 1983 which

was poor quality, not having come from recently-killed animals, and he had paid only US\$24 a kilo for it. The doctor furthermore admitted to tricking some of his less astute customers by selling them processed water buffalo skin as rhino hide. There is a lot of fake processed rhino hide for sale in Hong Kong, Singapore, Malaysia and Macao, but usually the pharmacists are honest with their customers and sell it cheaply, under US\$50 a kilo, saying that it is a substitute for dried raw rhino hide. Most of it is manufactured in Hong Kong from thin slices of dried water buffalo skin, and as it is much easier to cut than rhino hide, some people actually prefer to use it.

When the doctor and the banker realized I knew about rhino products, they asked me to bring some to Macao on my next visit. They offered me US\$600 per kilo for good quality rhino horn, US\$ 500 for second-rate and US\$50 for good quality rhino hide, which were approximately the Southeast Asian market prices in 1986. They also advised me on how to do the smuggling: "Use Air France when going to Hong Kong, but do not tell the airline personnel what you are carrying for they might telex the Hong Kong authorities who may refuse to let it come in even though it is legally in transit to Macao. Cover the horns with waterproof paper and carry them on your person."

Since their confiscation of the South African rhino products in March 1986, government officials in Macao know of none other brought into the territory, but they did say to me that their controls are not very effective on goods coming by boat from China and that it is possible some smuggling is going on. After having talked with some of the traders in December 1987, and having examined 34 of the main medicine shops in Macao, I think it is doubtful that there has been very much smuggled into Macao since April 1986. It seems, moreover, that there is a slight decline in local demand for it. The average retail price has dropped from early 1986 to December 1987, and there has been an even sharper decline in the retail price for rhino hide over this period of time. There still is a lot of horn and hide for sale in Macao, which is a territory of just under 400,000 people; two-thirds of the medicine shops have rhino horn available for customers and just over half offer rhino hide.

China

China is the main manufacturer of medicines containing rhino products and it exports them all over the world, particularly to South-east Asian nations. Although China is a party to CITES, and the CITES Secretariat declared in 1985 the international trade in these drugs illegal, China continues to export them for the purpose of earning foreign convertible exchange. Thus, one of the main purposes of visiting China again was to encourage the manufacturing firms too use substitutes for rhino horn.

In December 1985, I had met with the deputy general manager of the China National Medicines Health Products, Import and Export Corporation in Beijing. He then told me that the China Pharmaceutical Research Institute in Beijing was looking into substitutes for rhino horn and that he hoped there would be some which would soon replace the horn used in all the medicines his corporation handled. When I met with him again in December 1987, he said in early 1986 scientists at the China Pharmaceutical Research Institute proposed using water buffalo horn as a substitute, which had pleased him because all the old stocks of rhino horn in the factories his corporation deals with became exhausted in late 1986. All new medicines produced by them now are using water buffalo horn, he claimed. When asked why the labels for these continue to declare that rhino horn is one of their components, he said that the labels itemizing the ingredients must have any changes in them approved by the Ministry of Public Health, and that can take years.

Regrettably, not all the factories manufacturing rhino-based medicines in China have switched to water buffalo horn. Wang Binkao of the Beijing General Pharmaceutical Corporation, Foreign Trade Department admitted to me in December 1987, that his factories were still utilizing old stocks of rhino horn in "An Kung Niu Huang Wan (Bezoar Chest Functioning Pills)"; however, for the domestic market water buffalo horn is used, and the change has

been noted on the label. The amount of rhino horn being consumed by factories under the Beijing General Pharmaceutical Corporation is declining due to the scarcity of stocks, but some of the factories have gone to the extent of smashing antique rhino horn cups to use pieces in the production of their drugs. A few such cups, of artistic merit, have even been taken from the Imperial Palace ("Forbidden City") for this purpose, and so have whole old rhino horns.

Wang Binkao claims that his corporation's factories now use rhino horn only for the "Bezoar Chest Functioning Pills", and do not put it into any of their other manufactured drugs, but he would not tell me when they would stop using rhino horn entirely. For over ten years this corporation has been substituting water buffalo horn for that of rhino in many mass-produced medicines, but one of its factories, the Beijing Tongren Tang, adamantly refuses to use it in any of theirs which are exported. It appears that more support for the use of substitutes for rhino horn should come from the China Pharmaceutical Research Institute, the Beijing Municipal Chinese Medicine Research Institute and the Beijing Tongren Tang Pharmaceutical Research Centre.

Two of the most common medicines containing rhinoceros horn which are available in many parts of South-east Asia are still being manufactured in Tianjin. They are "Nia Huang Ching Hsin Wan (Cow Bezoar Pills)", used as tranquilizers, and the popular "Dendrobium Moniliforme Night Sight Pills" for (according to the label) "relieving dizziness and high fever, reinforcing tonic for building up vital energy and nourishing the blood". These medicines are produced at the Darentang Pharmaceutical Factory in Tianjin (formerly known as Tientsin). On this trip I visited Tianjin, an ugly large industrial city 130 kilometres south-east of Beijing. I discovered that the factory is now using water buffalo horn in these medicines when they are put on the local market (without changing the original label), but that rhino horn is still used for those made for the export market. The assistant factory director, Sun Yu Wei, told me that she had enough horn in stock to continue doing this through 1988 but would have to replenish her supplies in 1989. She was unwilling to stop utilizing rhino horn and said she was unaware of the CITES regulation prohibiting international trade in rhino-based drugs. She put the blame on overseas Chinese for demanding rhino horn medicines, and argued that it was because they wanted them that her factory produced them.

"Laryngitis Pills" are another widely available Chinese patent medicine, taken to cure inflammation and to act against poisons; it is manufactured in Chengdu and distributed by the China National Native Produce and Animal By-Products Import and Export Corporation, Szechuan Native Produce Branch. I went to the Szechuan Provincial Pharmacy Administration Bureau, which controls the manufacturing and export of Chinese medicines originating in Szechuan, and was told that although "Laryngitis Pills" are still being manufactured, rhino horn stopped being one of the ingredients in 1986; water buffalo horn is used instead. The label, however, has not been altered to indicate this. The real reason why the factories and corporations are reluctant to have rhino horn removed from the lists of ingredients in their drugs is that they fear their sales will go down. China earns a great deal of foreign exchange from exporting medicines, and certainly does not wish to lose the custom of overseas buyers. According to the *China Daily* newspaper, the government earned a record amount of money from the export of Chinese medicines and medicinal wines in 1987: US\$ 700,000,000, up US\$ 100,000,000 from the previous year.⁵

At the Guangzhou First Chinese Medicine Factory I learned from one of the managers and another person in charge of obtaining raw materials how rhino horn is obtained for two of its patent medicines. "Shi-He Ming Yan Wan" and "An Gong Nju Huang". Overseas Chinese, in Hong Kong, supply it on the understanding that these medicines will be sent back to them. The manager added that they are not sold locally at all because the government frowns on domestic consumption of imported commodities which are expensive. This factory has two other ways of getting rhino horn: buying it from a government-owned import and export corporation in Guangzhou and from foreign businessmen who bring it in. The

price paid in 1987 for rhino horn from these two sources was 20,000 yuan (US\$ 5,435) per kilo. As the Guangzhou First Chinese Medicine Factory is very large (it employs more than 1,000 workers), pressure should be put on it to encourage the use of a substitute for rhino horn; it has not yet accepted water buffalo horn in place of rhino for any of its medicines.

Besides the old and new stocks of rhino horn held by various import and export corporations and medicine factories in China, there are also some available from private traders and retail traditional medicine shops. On my previous visit to China in 1985, I found horn for sale in Xian (quite old stock, in half the shops I examined) and in Guangzhou (recently acquired stock in 17 per cent of the medicine shops), but none in the medicine shops of Guilin, Kunming, Beijing, Nanjing, Wuxi, Suzhou, Shanghai or Hangzhou. On this last visit, I found no horn in Tianjin, but I did in Guangzhou and Chengdu medicine shops.

In one traditional pharmacy I went back to in Guangzhou I saw a two-and-a-half kilo horn from a white rhino which had not been there before, although there had been others then which have since been sold. Obviously, this medicine shop has considerable demand for rhino horn, which is not surprising since Guangzhou is one of China's largest cities, is geographically close to Hong Kong and the Cantonese, who live here, are traditionally major consumers of rhino products. However, I was taken aback when I discovered rhino horn for sale in Chengdu, the capital of the western province of Szechuan.

The trade in wildlife products in Chengdu has recently expanded tremendously, due to a change in official policy which now allows private ownership of small business enterprises. In 1980 the Free Market Trading Centre, near the North Railway Station, started with fruit and vegetable stalls and a variety of household items for sale. Then in 1985, private dealers in medicinal products took over many of the food stands, and by December 1987, there were 187 selling mostly animal products. In addition, there were many specializing in herbs for medicinal purposes. Among the wildlife products, almost exclusively for medicinal purposes, were bear skeletons (US\$ 27 each), deer heads (US\$ 10), monkey heads (US\$ 4), bear paws (US\$ 20), monkey skeletons (US\$ 3), pangolin skeletons (US\$ 11), a large selection of cat skins at widely varying prices, eagles (US\$ 4), elephant hide (US\$ 8 per kilo), elephant bone (US\$ 27 per kilo), black bear skins (US\$ 130), large leopard skins (US\$ 130), leopard bone (US\$ 163 per kilo) and even a full tiger skin, poorly tanned, priced at US\$217. It was the most bizarre market I have ever visited. As far as the eye could see, monkey skeletons dangled on wires overhead, decomposing bear paws were spread all around, large containers on the ground held a multitudinous assortment of animal bones, leopard and other cat skins were hanging on walls, and skulls from different animals were propped up on tables. Everything was openly displayed, including a selection of 16 pieces of African rhino horn on a metal tray in one of the traditional medicine shops. The manager had purchased this horn for 8,000 yuan a kilo (US\$ 2,174) from the Guangzhou Foreign Trade Department and was offering it retail for the equivalent of US\$ 2,581 a kilo.

When the merchants in the Free Market realized I was primarily looking for rhino horn, they sent a broker to me. He said that he had some for sale which he was keeping at a friend's house a few kilometres away. With my interpreter and driver I followed him on his bicycle and was shown three small pieces of African rhino horn, which the broker wanted to sell to me for \$2,989 a kilo, claiming that would allow him a ten per cent commission on the deal. He also said that these pieces had been purchased by his "partner" from a hospital in Guangzhou. The broker apparently survives on the commissions he makes from the sales he carries out for his partner, who brings back from Guangzhou rhino horn several times a year. The broker bragged that he had taken up this job in 1986 and had sold several hundred grams of rhino horn in 1987, all to privately owned medicine shops, and that he dealt in rhino hide as well, but I did not see any rhino hide for sale in Chengdu.

Most of the rhino horn in Chengdu has come from Hong Kong via Guangzhou. Guangzhou appears to be the main place in China



Animal products for sale in December 1987 at the He Hua Chi Market near the North Train Station in Chengdu, Sechuan.

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where private traders are able to purchase supplies. An old man working in a government owned pharmacy in Chengdu said that Guangzhou was still getting rhino horn from Hong Kong despite the bans, and that in 1982 some horn came into China from Thailand, supporting reports given by traders in Bangkok. China is also still buying rhino horn shavings from North Yemen; a Yemeni dealer confirmed one such sale as late as 1987.⁶

China's new economic policy of allowing private entrepreneurs to run some businesses has had the unfortunate effect of increasing trade in wild animal products, and hunters have recently stepped up their activities in Tibet and Szechuan to supply Chinese markets with desired commodities, many of which come from rare species. The Qingping Food Market in Guangzhou has already attracted adverse comment from conservationists for its sales of live wild animals, but the little known Free Market Trading Centre in Chengdu seems incomparably worse and poses a very great danger to wildlife conservation. Action needs to be taken to stop the emergence of any other similar markets, and controls should be enforced to prevent the sales of any endangered animal products in China.

Singapore

Not until a considerable amount of political and economic pressure was put on Singapore did the government ban imports and exports of rhino products (24 October 1986). Shortly afterwards, it also signed CITES and began to implement the Convention on 9 February 1987. Until late 1986, Singapore was regarded as the single greatest problem in trying to halt international trade in rhino products because of its role as an entrepot, easily attracting sellers of Indian and Sumatran rhino horn in particular because of its favourable currency and absence of restriction on such imports.⁷ Since early 1987, however, very little Indian rhino horn appears to be coming in; I saw no new Indian horn in the medicine shops I surveyed, and a major wholesaler of wildlife products told me that new Indian rhino horn is now being smuggled into Hong Kong where traders will pay up to US\$ 15,000 per kilo wholesale. The Hong Kong traders have always been partial to Indian rhino horn, believing that it is the most effective medicinally.⁸ At present, they are doing

better economically than their counterparts in Singapore and are in a position to offer very high prices for the small amounts available.

On the other hand, there does not seem to be a reduction of imports of Sumatran rhino horn into Singapore. These are still being illegally taken out of Sumatra and Sabah, and several managers of Singapore's medicine shops stated in January 1988 that during the past year they had continued obtaining their supplies from Indonesian sailors.⁹

This is particularly distressing news because one of the main reasons why conservationists actively campaigned to get Singapore to ban imports of rhino products was to stop abetting the poaching in Sumatra where the largest populations of the hairy rhino remain. Protection of these animals, which may number 600 on the whole island,¹⁰ is of major importance for the survival of the species. Raleigh Blouch, who carried out extensive field-work on Sumatra's larger mammals and was responsible for locating individual rhinos for John Aspinall's capture project in central Sumatra, estimated that a minimum of ten to 20 were annually being killed for the trade. It is probable that the number is actually much bigger because direct evidence of poaching is very difficult to obtain in the dense jungle. Moreover, Francesco Nardelli, the field manager of the Aspinall project, found snares on three of the six rhinos he captured in Torgamba. He believes that in this small area alone in central Sumatra at least a dozen rhinos are killed in snares every year, and that the population here has been reduced from about 100 in 1974 to only 15 now.

Poaching in Torgamba is carried out by local Sumatrans, who have traditionally set snares for sambar, muntjac and pigs as well as for rhinos. When it became apparent to them that several rhinos were probably still around because of the presence of the capture team, they upgraded their wire snares to steel cable so that they would have a better chance of catching them for their own profit.

In northern Sumatra, especially in Aceh Province and in Gunung Leuser Park, poaching is mainly done by setting pit traps. The local people dig them on rhino paths, about one-and-three-quarters metres deep placing a couple of nipa palm spears upright on the

bottom to impale a rhino. When they catch one, they remove its horns, nails, skin, fat and many of its bones. The horns are mostly exported to Singapore, although occasionally little pieces are taken from them to make a ring or to use in a poultice to hasten healing of human broken bones or sprains. The nails and skin are also exported. It is usually only the rhino bones and fat that are kept by the poachers to sell locally. The fat is considered a good liniment, a litre of which in 1983 cost US\$ 10. The bones are soaked in vegetable oil and then sold as a cheaper substitute for curing sprains and mending broken bones.¹²

I spoke with officers of the Singapore Primary Production Department (responsible for the implementation of wildlife laws), concerning the continued and now illegal imports of Sumatran rhino horn. They said they had not caught anyone importing or exporting rhino products since the ban on 24 October 1986. However, even if a government official suspected that a dealer was handling illegal rhino horn in Singapore, he would have no way of ascertaining whether it came into the country prior to the ban since, unlike in Hong Kong when restrictions were made in 1979, no stock-taking has been required of the wholesalers or retailers, and none of the horn has had to be registered. Nor has the Singapore government encouraged inspection of any of the medicine shops, although members of the Agriculture and Fisheries Department in Hong Kong regularly do so. The Singapore Primary Production Department officers said that they were concentrating their efforts instead on policing the port area to prevent illegal entry of wildlife products. Yet they also admitted that their personnel are not trained in identifying endangered wildlife products and that their shortage of manpower precludes the possibility of checking the medicine shops for law infringement except when a complaint is made. Under the circumstances, it seems the Singapore government would be reluctant to ban internal sales of rhino products in the near future.

Malaysia

There is less rhino horn to be found in Malaysia's capital city, Kuala Lumpur, than in any other major city in South-east Asia. What does exist in this capital is being used up: in 1981 58 per cent of the medicine halls I examined had it for sale, but by early 1988 only four per cent did. Wholesalers were also short of rhino horn; one complained that he had completely run out of it after selling an 80-gram piece from Africa to a Taiwanese for the equivalent of US\$ 23,000 a kilo, an exorbitantly high price. The reason why there is so little horn and other rhino products (only one of the medicine halls had hide and only one had nails for sale) is that the authorities strictly enforce the law on imports and exports, manage the Malaysian rhino populations on the peninsula very well (poaching is not a problem) and carry out spot-checks of Chinese-owned businesses. A certain amount of discrimination against the Chinese is encouraged by the government, and as the Chinese minority is generally anxious about what repercussions there may be for law-infringement, most behave very circumspectly.

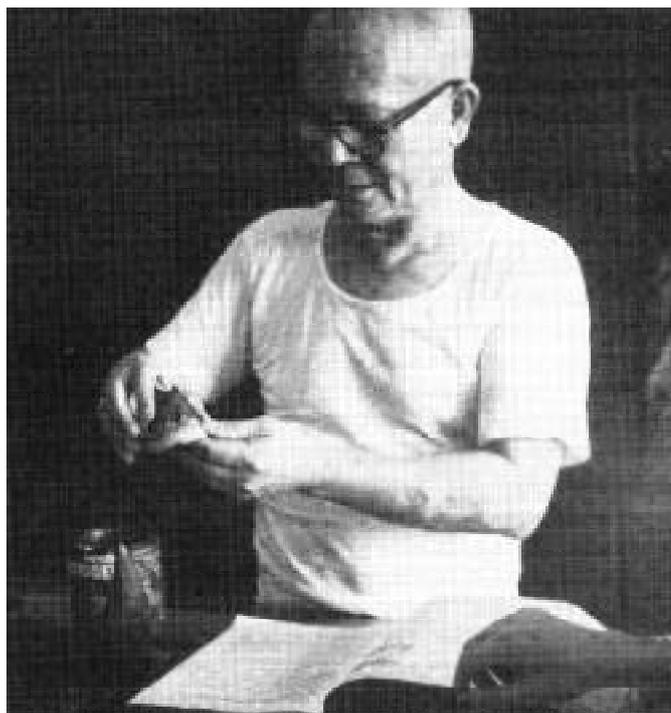
Nevertheless, a certain fascination about rhino horn remains, which may explain the prevalence of large caches of fake ones in the medicine halls. Many of these resemble bumpy goat horn, but they are usually carved from wood and come from Banda Aceh, Sumatra. One pharmaceutical wholesaler told me that Indonesians often come to his office brandishing their passports to prove that they have actually come from Indonesia and blatantly claim that the 20 or 40 such "horns" they have brought with them are genuine from Sumatra. Some traditional doctors may occasionally prescribe cuttings from them to be used as substitutes for rhino horn, but it is rare to see any of these "horns" from which material has been removed. The so-called rhino hide in Kuala Lumpur's medicine halls, except for that in one of them, is the processed variety made from water buffalo hide in Hong Kong. Georgetown (Penang), Malaysia's second city, has no real rhino hide at all in its medicine halls simply because no one wants to pay the price for it, but there is more rhino horn available here than in Kuala Lumpur, probably due to the fact that the country's main traditional pharmaceutical importers are based in Georgetown, and government officers do not carry out as much checking on the products handled by



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Mohd Khan bin M Khan Director General of Malaysia's Department of Wildlife and National Parks scrutinizes various rhino parts outside his office in Kuala Lumpur.

wholesale outlets and medicine halls. The Director of Wildlife for Penang told me he had not confiscated any rhino products since being posted here two years ago. Nevertheless, employees in the medicine halls were a little nervous when I asked about rhino horn which was usually kept in drawers or pottery jars, out of sight. No proprietor of any medicine hall would admit that the rhino horn he had was new; all adamantly claimed their stock was many years old. A prominent dealer in medicinal herbs and animal products said that Taiwanese sometimes bring in South African rhino horn for sale, and it is also persons of Taiwanese nationality who are the



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A Chinese traditional doctor in Penang, Malaysia examines a medical dictionary and rhino horn.

main buyers of it in Georgetown. Other suppliers are Pakistani and Bangladeshi visitors who have collected rhino horn in Dubai and Abu Dhabi. This is African horn, and it sold wholesale in Georgetown for between US\$ 600 and US\$750 a kilo in 1987, but it fetched higher prices when offered to dealers in Hong Kong.

Rhino products are not in great enough demand to encourage much smuggling into Malaysia now, and when I spoke with the Head of the Customs Department at the Penang airport, he told me that his officers had never found any being passed through the airport during the 14 years he has been working there, although his officers are vigilant.

In short, there is no longer a serious problem with trade in rhino products in Peninsular Malaysia. Very little new horn is coming in and practically no nails nor hide. Consumption is down and even the retail price for rhino horn has declined by over 50 per cent from 1983 to 1988 in Georgetown.

Thailand

Thailand is a major consumer of rhino products and also serves as an entrepot for them. Trade in the Sumatran species has been banned by the government at least since 1972, but the law is openly flouted by proprietors of many Chinese medicine shops in Bangkok, where a greater variety of rhino products is available than in any other large city of South-east Asia. The well-known demand for rhino horn has attracted foreign smugglers, who supply Bangkok with Indian and African species as well. To determine whether the sale of rhino products was a problem in the south of the country, which in recent years has seen substantial tourism growth, I visited Songkhla, Nakhon Siri Thammarat, Phang-Nga, Phuket and Hat Yai, but found rhino horn for sale in only two of these places.

In the extreme southern part of Thailand, Hat Yai is the fastest growing city; its proximity to the border with Malaysia has become an advantage to local businessmen, who are actively encouraging Malaysian visitors by offering bargain-priced electronic goods and clothes, nightclub entertainment which includes sex shows which would not be tolerated in Malaysia, and cheap prostitutes. Hundreds of thousands of Malaysians, especially the Chinese, are now coming up to Hat Yai each year to indulge themselves. However, they do not seem to be the main clients of Hat Yai's four medicine shops, of which two offer Sumatran rhino horn, perhaps because it is so expensive, averaging US\$ 20,910 a kilo. The manager of one shop stated that he had purchased one of his horns from a middleman near the Malaysian border; in that same area in 1986 he had bought some Sumatran rhino hide and nails for only US\$80 from a local hunter. In his shop there were also some rhino bones retailing for US\$ 2,000 per kilo to be used for lowering fever.

Another main tourist destination in southern Thailand is the island of Phuket which is attracting large numbers of western European holiday-makers. In Phuket town there are only three traditional medicine shops run by Chinese (as is the case throughout Thailand), and they do not appear to be prospering. There is little demand for rhino hide or horn (only one shop had any).

Some dealers in Bangkok told me in 1986 that they were obtaining rhino products from Sumatran animals recently killed in the northern part of Thailand and contiguous areas of north-east Burma and western Laos. Therefore, I decided when planning my 1988 trip to visit the Chinese medicine shops in Chiangmai (population: 300,000), Chiang Rai (150,000) and Mae Sal (65,000) which is on the Burma frontier. In Chiangmai, which is Thailand's second city, there was no rhino horn nor hide for sale, although back in 1979 it was available in three of the five medicine shops. In Chiang Rai, even farther north, there were no rhino products for sale, either. However, facing the border with Burma, the town of Mae Sai had rhino hide in one of its two medicine shops. This was purchased wholesale from a trader in Burma in 1984. I think that it is because higher prices are offered in Bangkok that most of the rhino products obtained in the country are taken to the capital for sale now. With its population of 5,000,000, almost all the wealthiest



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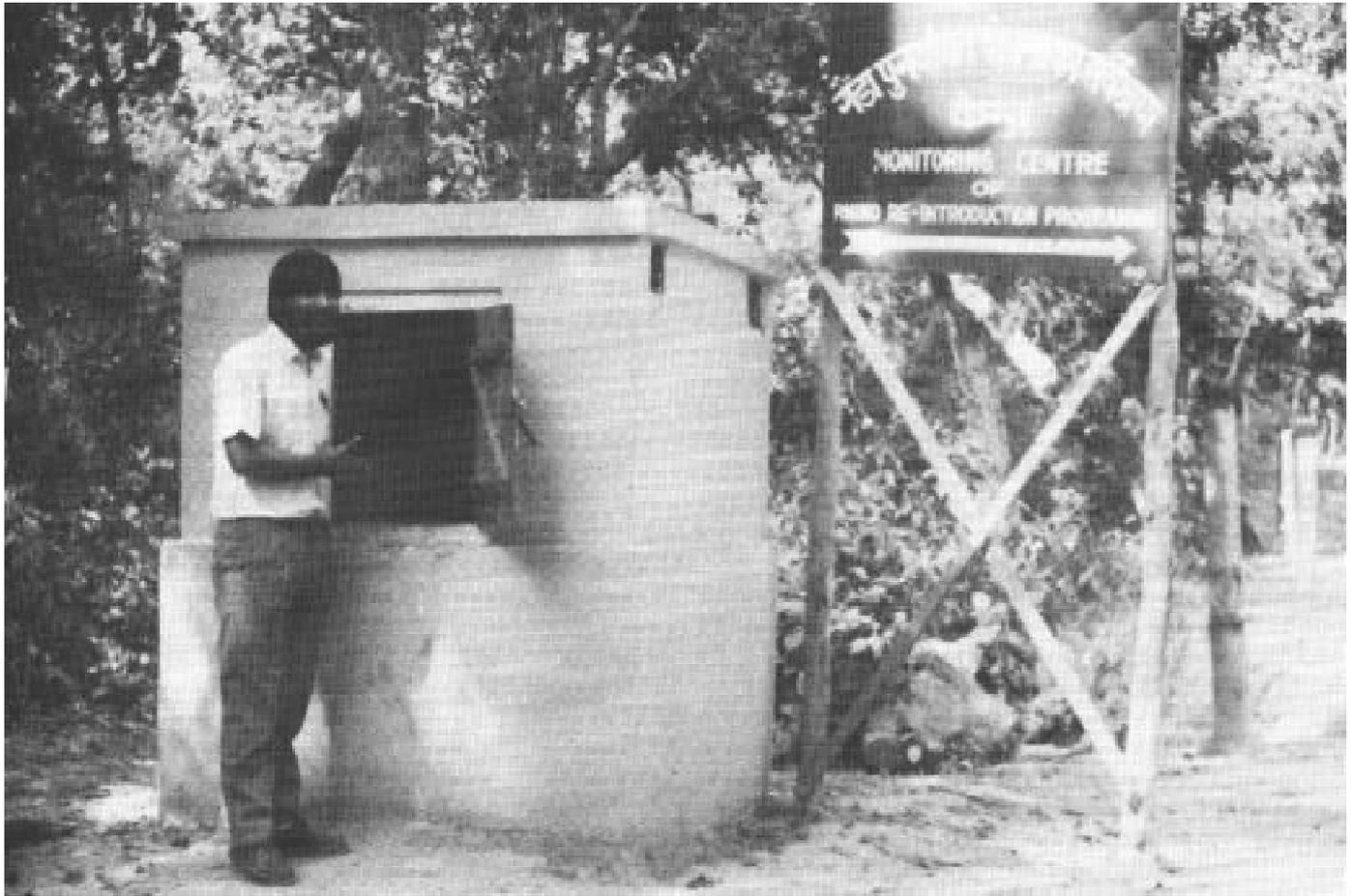
A dried Sumatran rhino penis for sale in Bangkok in 1986.

Chinese live there, and competition among the Bangkok medicine shops for rhino products is very brisk.

Traders in Sumatran rhino products often go from one major medicine shop in Bangkok to another, trying to make the most profit on their sales. Some of the more enterprising shop owners have, however, established their own contacts in remote areas with hunters who send word to them as soon as they kill a rhino. I know one businessman who in 1986 drove all the way from Bangkok to Chiang Rai and four hours beyond, inside Burma where he purchased with Thai baht the entire carcass of a Sumatran rhino which he immediately brought back to Bangkok. He had his employees remove every part from it of any economic value to put on sale in his medicine shop. In early 1988 he was offering a large selection of rhino products at retail prices: horn (US\$ 15,870 a kilo), hide (US\$ 3,170 a kilo for that taken from the shoulder and US\$ 210 a kilo for the rest), nails (US\$ 1,590 a kilo) penises (individually for sale, but priced according to weight at US\$ 3,960 per kilo), dried blood (US\$ 56 a kilo) and dung from the intestine (US\$32 a kilo).

A couple of traders in Bangkok have recently bought rhino horn from the Laotian border, and they claim that there are still some rhinos alive in that country. There are also some old stocks of rhino horn coming out of Laos; Buddhist carvings are on a few of these, which are believed to have belonged to members of the royal family.

Some traders purchase African rhino horn, which is transported to Bangkok mostly by Europeans, especially Germans, who obtain it in small quantities from South Africa or Tanzania. The main retail consumers of this and the Asian rhino horn in Bangkok are Thai Chinese, Taiwanese and South Koreans, but some horn was re-exported to China from Bangkok in 1987. Koreans and Japanese are the main purchasers of the Sumatran rhino penises found in Bangkok's medicine shops, and they use them as aphrodisiacs and occasionally as a cure for



Esmond Bradley Martin

Turiq Aziz, who is studying the rhinos in Dudhwa National park, India, checks the generator which powers the electric wire fence surrounding the seven recently introduced Indian rhinos.

asthma One dealer who had rhino penises in his shop advised cooking them in a soup or with medicinal herbs.

Since products from recently-killed Sumatran rhinos in Burma and Laos (places where the rhino was thought to be extinct) are appearing for sale in Bangkok, it is possible that some are also being marketed from Thailand's own rhino population. Thai Forest Department officials in the late 1970s thought that the rhino was probably extinct here, but they now say there could be some in the Bala Forest in the southern part of the country near the Malaysian border (from where it was reported that one was poached in 1983), in Phu Khieo Wildlife Sanctuary and Kaeng Krachan National Park (where another was reported to have been killed in 1984). In 1986 they heard of rhino tracks having been seen in Three Pagodas Pass on the Burmese border.¹³

It would be advisable to locate precisely the remaining rhinos in Thailand and to initiate a management plan to help them survive, which, under present circumstances, would probably necessitate a fully-protected captive breeding programme. In order to encourage Thai officials to try to stop the trade in rhino products, conservationists could point out that it is the country's own self interest to protect rhinos from the demands of trade. At present, the Forest Department does essentially nothing to check the trade in rhino products even though the responsibility for controlling wildlife trade in Thailand lies with it. No records of stocks of rhino products are required from dealers; managers of traditional medicine shops say that government officers almost never come around to inspect their goods; and, when asked about this, one high-ranking Forest Department official told me: "Our policy towards the traditional medicine shops is to leave them alone." When I persevered about the matter, the excuse was made that the Department personnel do not have the expertise needed to identify prohibited wildlife products and instead they concentrate on the illegal movement of live animals: rare birds which are exported to Singapore, Japan and Taiwan; and elephants, tapirs, clouded leopards and gibbons which go to Laos. However, I was told that

officers of the Forest Department do keep a look-out for illegal imports of python skins and tortoise shell from Kampuchea. It would not be difficult to train a few inspectors to recognize rhino products, and I believe this should be given immediate priority along with international pressure placed on the government of Thailand to stop all trade in rhino products.

India

Indian authorities are fully aware of the demands from trade which instigate poaching, and with over half of all the rhinos in Asia inside its boundaries (95 per cent of which are in the state of Assam), their conservation is taken to be a serious matter. Nevertheless, a sharp and sudden increase in illegal killings of the greater one-horned rhino broke out in Assam in the early 1980s¹⁴ Between 1980 and the end of 1987, 385 of these animals were known to have been poached. There could have been more, but the Forest Department claims that it is able to record almost 100 per cent of the incidents.

Fortunately, since 1985, the number of rhinos being killed has been declining: 50 in 1986 and 41 in 1987. According to Dr M.K. Ranjitsinh, Joint Secretary for Wildlife for the Government of India, and Vinay Tandon, Deputy Director of Wildlife for the Indian Government, poaching has been stemmed by a new central government scheme called "Assistance to Assam for Conservation of Rhinos" through which during the financial years 1985/6 and 1986/7, 10,400,000 rupees (about US\$ 800,000) were allocated for purchasing arms, ammunition and vehicles, and for the construction of new roads, bridges and anti-poaching camps to enable forest guards to perform their duties more capably. In addition, there have been some personnel changes which have improved wildlife conservation leadership and produced positive results, including the promotion of S. Deb Roy to Chief Conservator of Forests and the posting of R.N. Sonowal back to Kaziranga. Some of the Naga people who obtain fire-arms from neighbouring countries and who belong to poaching syndicates

have been caught and are being prosecuted.

None of Assam's poached rhino horn remains in India; poaching syndicates smuggle it out of the country for convertible exchange. My visits to Unani medicine clinics during early 1988 in Old Delhi, Agra, Jodhpur and Jaisalmer revealed no Indian rhino products for sale whatsoever. It is, in fact, rare to find products from any endangered animal species in India's traditional medicine shops as the laws against being in possession of them are strict and enforced. I was quite surprised when a trader in Agra showed me an illegal leopard skin of good quality which he wanted to sell to me for US\$ 1,930. He suggested that I smuggle it into Nepal and take it from there to the Gulf States or Singapore "where the demand for leopard skins is good".

Billy Arjan Singh (one of India's most ardent conservationists) and Dr Ranjitsinh told me about a most regrettable episode which occurred following the translocation of some rhinos from Chitwan Park to Bardia Park in western Nepal. One of the animals escaped and made its way across the border into India. Villagers from Gorakhpur saw the "demon" grazing in their fields and sent for the police to deal with it. The sub-inspector and his subordinates arrived, but none of them knew what the animal was. The sub-inspector fired 32 bullets into it, and when it was dead he had his photograph taken, posing next to the carcass. He is now being prosecuted for having killed the rhino, a serious offence because of the rhino's status as an animal belonging to an endangered species.

Hopefully, the seven rhinos recently moved into Dudhwa National Park in northern India from Assam and Chitwan will not meet the same fate,¹⁵ since people living near Dudhwa have not seen rhinos for over a hundred years. At the moment, these rhinos are well looked after by the park authorities and are kept in a 19-square-kilometre enclosure, surrounded by a low, electrically-wired fence. However, various types of poaching take place in Dudhwa Park, and it may be only a matter of time before the value of rhino horn is ascertained by the local people who have shot, trapped and poisoned 16 tigers in and around the park between January 1987 and February 1988. They also fish in the park illicitly and steal wood, which they move out by bullock cart and the train which passes by.

According to a research fellow, Tariq Aziz, who is monitoring the rhinos in Dudhwa, some villagers have already asked for rhino urine, so they are aware of their presence, even though no poacher has so far come close to one. Smugglers bringing in electronic goods, narcotics and gold from Nepal pass through Dudhwa Park to avoid detection, and I would not be surprised if the smuggling syndicates soon began to urge the local people to kill the rhinos there to supply horn for export.

In India, as in South-east Asian countries, the movement of rhino products requires closer watching in order to learn when, where and how to take action against the illegal trade. India has an excellent record for rhino conservation in the twentieth century, having built up its population from a few dozen to over 1,300 today. The authorities know from experience, that any laxity on their part, usually due to political and tribal disturbances, encourages outbreaks of poaching, but with the increased funding they have recently received and their expectation of further support, morale is presently high, and they are proud of having one of the best-managed rhino populations in the world today. Perhaps their greatest problem is their inability to break the wildlife trading syndicates, but they also need to step up their efforts to make villagers living near rhino sanctuaries aware of the importance of rhino conservation.

Conclusion

New horn, hide, nails and other commodities from rhinos in Asia and Africa are continually being put on to major markets. Hardly any known population of Sumatran rhinos is safe from poachers, and the recent upsurge in the killing of Javan rhinos (less than 60 of this species are thought to exist in the world) illustrates how important it is to close down internal as well as international trade in rhino products in all Asian countries, and to

encourage the use of substitutes for them. All large populations of black and white rhinos in tropical Africa are also very vulnerable to illicit hunting, and almost all the horn taken from them ends up in Asia for consumption. Fortunately, the average wholesale prices of rhino products have not significantly increased during the past few years, but any increase in demand will cause a rise again, and the prices are still so high that new gangs of poachers are invading the existing rhino sanctuaries. It is imperative to improve the protection of rhinos *in situ* by increasing the number of dedicated, honest and motivated guards who are well-paid and given back-up support for their efforts. This will only be achieved when the decision-makers in Asia and Africa put a higher priority on saving the rhinoceros.

Footnotes

1. I.S.C. Parker and Esmond Bradley Martin, "Trade in African Rhino Horn", *Oryx*, Vol. XV, No. 2 (November 1979), p. 157.
2. *Hansard* for 26 January and 25 February 1988.
3. *Hansard* for 25 February 1988.
4. Esmond Martin and Lucy Vigne, "Recent Developments in the Rhino Horn Trade", *Traffic Bulletin*, Vol.9, Nos. 2/3 (13 November 1987). p.51.
5. *China Daily*, "Exports of Medicine Hit Record", 15 December 1987.
6. Esmond Bradley Martin, "The Yemeni Rhino Horn Trade", *Pachyderm*, Number 8 (April 1987), p. 14; and Daniel Martin Varisco, "Horns and Hilts: Wildlife Conservation for North Yemen (YAR)", A Report Prepared for Asia/Near East Bureau Agency for International Development, Washington, D.C. under a co-operative Agreement with World Wildlife Fund-US Project 6298 (December 1987), p. 8.
7. Esmond and Chryssee Bradley Martin, "Combating the Illegal Trade In Rhinoceros Products", *Oryx*, Vol. 21, No. 3 (July 1987), pp. 145 and 147.
8. Esmond Bradley Martin, *The International Trade in Rhinoceros Products*, Gland, IUCN/WWF, 1980, pp. 20-21.
9. For information on smuggling Sumatran rhino horns into Singapore, see "Combating the Illegal Trade", p. 145.
10. This figure comes from Nico van Strien's estimates which were made available to the IUCN/SSC Asian Rhino Specialist Group (see Charles Santiapillai, Compiler, "Proceedings of the IUCN/SSC Asian Rhino Specialist Group Meeting, Kuala Lumpur, 19-21 October 1987", Table 1.
11. Personal communication with Francesco Nardelli in Singapore, 1 January 1988.
12. Personal communication with Raleigh Blouch in Ottawa, 13 July 1987.
13. Information supplied by Jira Jintanugool, Acting Director, Wildlife Conservation Section, Royal Forestry Department, Bangkok, 1 February 1988.
14. See Esmond Bradley Martin, Chryssee Bradley Martin and Lucy Vigne, "Conservation Crisis — The Rhinoceros in India", *Oryx*, Vol. 21, No. 4 (October 1987), pp. 212-218 for an explanation of this poaching.
15. For details of the translocation, see John B. Sale and Samar Singh, "Re-introduction of Greater Indian Rhinoceros In Dudhwa National Park", *Oryx*, Vol.21, No.2 (April 1987), pp. 81-84.

TABLE I
The Hong Kong Government's confiscations of rhino Imports

| Year | Pieces | Prosecutions |
|-----------------|------------------------|--------------|
| 1980 | 4 | 1 |
| 1981 | 3 | 2 |
| 1982 | 2 | 1 |
| 1983 | 3 | 2 |
| 1984 | 74(71 chips) | 3 |
| 1985 | 9(18kg + 28.8kg scrap) | 5 |
| 1986 | 0 | 0 |
| 1987(to Dec. 7) | 4(1.7kg) | 1 |

Source: Unpublished data from the Department of Agriculture and Fisheries, Hong Kong.

TABLE II
The Hong Kong Government's confiscations of rhino hide Imports

| Year | Piece | Prosecutions |
|---------------------|-------|--------------|
| 1979 | 13 | 1 |
| 1980 | 21 | 2 |
| 1981-1984 | 0 | 0 |
| 1985 | 4 | 2 |
| 1986-87 (to Dec. 7) | 0 | 0 |

Source: Unpublished data from the Department of Agriculture and Fisheries, Hong Kong.

TABLE III
Known numbers of rhinos poached in Assam

| Area | 1986 | 1987 |
|--------------------------|-----------|-----------|
| Kaziranga National Park | 41 | 24 |
| Around Kaziranga | 4 | 0 |
| Orang Wildlife Sanctuary | 3 | 1 |
| Manas Wildlife Sanctuary | 2 | 7 |
| Pobitora | 0 | 2 |
| Other areas | 0 | 7 |
| Total | <u>50</u> | <u>41</u> |

Source:P.C. Das, Retired Chief Conservator of Forests, Assam.

TABLE IV
Average retail prices of rhinoceros horn in some major cities of Eastern Asia

| Place and Year | Total Number of Clinics and Pharmacies visited | Number & Percentage Selling Horn | Type of horn | Average Price per kg in US\$ |
|-----------------------------|--|----------------------------------|------------------|------------------------------|
| Xian, China | | | | |
| 1985 | 8 | 4 50% | mostly African | 2,413 |
| Guangzhou, China | | | | |
| 1985 | 12 | 2 17% | mostly African | 18,772 |
| 1987 | 13 | 2 15% | African | 16,304 |
| Chengdu, China | | | | |
| 1987 | 14 | 1 7% | African | 2,582 |
| Hong Kong | | | | |
| 1979 | 15 | 11 73% | mostly African | 11,103 |
| 1982 | 50 | 23 46% | mostly African | 15,700 |
| 1985 | 80 | 33 41% | mostly African | 14,282 |
| 1987 | 60 | 19 32% | mostly African | 20,751 |
| Macao | | | | |
| 1979 | 9 | 7 78% | mostly African | 4,127 |
| 1982 | 14 | 9 64% | mostly African | 7,797 |
| 1986 | 20 | 16 80% | mostly African | 8,644 |
| 1987 | 34 | 22 65% | African/Asian | 8,407 |
| Singapore | | | | |
| 1979 | 15 | 8 53% | mostly African | 11,615 |
| 1983 | 46 | 16 35% | mostly African | 11,804 |
| 1986 | 33 | 13 39% | African/Asian | 14,464 |
| 1988 | 43 | 10 23% | African/Asian | 17,327 |
| Kuala Lumpur | | | | |
| 1981 | 26 | 15 58% | mostly African | 19,801 |
| 1983 | 29 | 6 21% | Asian/ African | 17,280 |
| 1986 | 41 | 4 10% | Asian/ African | 11,636 |
| 1988 | 45 | 2 4% | Asian/ African | 23,810 |
| Georgetown, Malaysia | | | | |
| 1983 | 14 | 7 50% | mostly African | 14,582 |
| 1988 | 30 | 6 20% | African/Sumatran | 6,702 |
| Hat Yai Thailand | | | | |
| 1988 | 4* | 2 50% | Sumatran | 20,910 |
| Phuket Town Thailand | | | | |
| 1988 | 3* | 1 33% | ? | ? |
| Chianmai, Thailand | | | | |
| 1979 | 5* | 3 60% | Sumatran | 11,764 |
| 1988 | 2* | 0 - | - | - |
| Bangkok | | | | |
| 1979 | 23 | 12 52% | mostly African | 3,654 |
| 1986 | 44 | 15 34% | mostly Asian | 11,629 |
| 1988 | 52 | 17 33% | mostly Sumatran | 13,111 |

*Complete Survey (all medicine shops examined).

Source: Survey taken by the author.

TABLE V

Average retail prices of rhinoceros hide in some major cities of Eastern Asia

| Place and Year | Total Number of Clinics and Pharmacies | Number and Percentage Selling Hide | Types of Hide | Average Price per kg in US\$ |
|---|--|------------------------------------|--|------------------------------|
| Gullin China 1985 | 3 | 1 33% | African | 85 |
| Guangzhou China 1985 1987 | 12 13 | 6 50% 1 8% | South Africa South Africa | 146 543 |
| Hong Kong 1985 1987 | 80 60 | 31 39% 26 43% | South African South African | 403 545 |
| Macao 1982 1986 1988 | 14 20 43 | 4 29% 6 30% 18 56% | South African South African mostly African | 360 304 212 |
| Singapore 1983 1986 1988 | 46 33 43 | 13 28% 5 15% 4 9% | African/Sumatran mostly Sumatran mostly Sumatran | 635 496 560 |
| Kuala Lumpur 1986 1988 | 41 45 | 3 7% 1 2% | African ? | 303 440 |
| Georgetown, Malaysia 1983 1988 | 14 30 | 1 7% 0 - | Sumatra - | 360 - |
| Hat Yai, Thailand 1988 | 4* | 1 25% | Sumatran | 2,000 |
| Mae Sai, Thailand 1988 | 2* | 1 50% | Sumatran | 210 |
| Phuket Town, Thailand 1988 | 3* | 1 33% | Sumatran | 610 |
| Bangkok 1986 1988 | 44 52 | 8 18% 7 13% | Sumatran Sumatran | 395 1,254 |

*Complete Survey (all medicine shops examined).
Source: Survey taken by the author

TABLE V

Average retail prices of rhinoceros nails in some major cities of Eastern Asia

| Place and Year | Total Number of Clinics and Pharmacies | Number and Percentage Selling Nails | Type of Nail | Average Price per kg in US\$ |
|---|--|-------------------------------------|--|------------------------------|
| Hong Kong 1985 1987 | 80 60 | 2 2.5% 0 - | ? - | 2,211 - |
| Macao 1986 1987 | 20 34 | 0 - 4 12% | - ? | - 7,903 |
| Singapore 1983 1986 1988 | 46 30 43 | 10 22% 8 24% 4 9% | mostly Sumatran mostly Sumatran Sumatran | 2,329 554 1,390 |
| Kuala Lumpur 1983 1986 1988 | 29 41 45 | 1 3% 1 2% 1 2% | African ? Sumatran | 177 ? 2,116 |
| Georgetown, Malaysia 1983 1988 | 14 30 | 4 29% 2 7% | Sumatran/African Sumatran | 1,968 6,875 |
| Hat Yai, Thailand 1988 | 4* | 2 50% | Sumatran | 11,345 |
| Phuket Town, Thailand 1988 | 3* | 1 33% | Sumatran | 16,000 |
| Bangkok 1986 1988 | 44 52 | 5 11% 7 13% | Sumatran Sumatran | 1,487 2,295 |

*Complete Survey (all medicine shops examined).
Source: Survey taken by the author

TABLE V

Average wholesale prices paid by imports of rhino products in cities of Eastern Asia, 1987

| Product | Average Price per kg in US\$ |
|--|------------------------------|
| Sumatran horn | 10,000 |
| Indian horn | 10,000 to 15,000 |
| African horn (in Malaysia Macao and Singapore) | 600 to 750 |
| Hide | 50 to 120 |
| Nails | 180 |

Source: Survey taken by the author.