

ProFauna's Report:

THE ILLEGAL TRADE OF TIGER PARTS AND IVORY TUSKS IN SUMATERA, INDONESIA



Supported by
International Fund for Animal Welfare (IFAW)



I. INTRODUCTION

Sumatera Island which is located in Indonesia is the sixth biggest island in the world with 470,000 kilometre squares. The population of the island was 45 million in 2005 (Wikipedia Indonesia, 2008). Sumatera is a mega biodiversity island. There are 205 big and small mammals, and 380 bird species (Conservation International, 2008).

As a mega biodiversity island, Sumatera is important as Indonesia's heritage. Many endangered species inhabit the island: Sumateran elephant (*Elephas maximus sumatranus*), Sumateran tiger (*Panthera tigris sumatranus*), Sumatran orangutan (*Pongo pygmaeus abelli*), Sumatran rhinoceros (*Dicerorhinus sumatrensis*), and tapir (*Tapirus indicus*).

The populations of three famous species in Sumatra: the Sumatran elephant (*Elephas maximus*), Sumatran tiger (*Panthera tigris sumatrae*), and orangutan (*Pongo abelii*) are declining. Sumatran elephant population in 2007 was estimated around 2,400 to 2,800, falling to 35% from the record in 1992 which was around 2,800 to 5,000 (Forestry Information Center, 2007). While Sumatran tiger population was 400, orangutan's was 7,500. In the 1990's their populations were estimated 200,000 (*Kompas*, 2007).

The decreasing population of the three endangered species shows the general shrinkage of other species populations in Sumatera. The habitat loss and wildlife hunting are the two causes of the declining population. According to the Forestry Information Center (2007), the lowland forests in Sumatera had dramatically fallen into eight millions hectares from 1990-2000. The shrinkage triggers the human animal conflicts.

The illegal wildlife trade has become an important factor of the drastic decline in the populations of wildlife species in Sumatera besides the habitat loss. Wildlife trade is serious because 100% of the traded animals are caught from the wild.

The investigation in July to October 2008 was intended to reveal the illegal trade of body parts and wildlife products of the Sumatran tiger (*Panthera tigris sumatrae*) and Sumatran elephant (*Elephas maximus sumatranus*) in some locations in Sumatera and Java. Previously in November – December 2007, ProFauna with the funding provided IFAW conducted a short-term investigation on wildlife trade in Sumatera. The investigation focused on mammal and bird species. From the investigation in 2007, ProFauna gathered some beginning information on the trade of ivory tusks and tiger parts. The findings were then followed up by a further investigation from July to October 2008.

Regulations

According to the 1990 wildlife act concerning the Conservation of the Natural Resources and its Ecosystem, protected wildlife trade is illegal. The offenders are liable to a maximum of 10,000 USD and five-year prison term. Sumatran elephant (*Elephas maximus sumatranus*) and Sumatran tiger (*Panthera tigris sumatrae*) are protected by the act.

Based on IUCN red list, both species are categorized as critical. Their populations keep declining because of many factors; such as: habitat fragmentation, human animal conflicts, wildlife hunting for commercial trade of the animals body parts.

Investigation Locations

The investigation had been conducted for four months from July to October 2008 in 21 regions in the provinces of Lampung, Bengkulu, West Sumatera, South Sumatera, Jambi and the capital of Indonesia, Jakarta. In those regions, ProFauna visited 80 suspected -55 places in Sumatera and 25 in Jakarta.

The targeted locations were the same places where the previous investigation in 2007 took places to get the film evidences. The locations were in the provinces of Lampung, South Sumatera, Jambi, Bengkulu, and West Sumatera. During the survey, ProFauna didn't visit North Sumatera, Riau, and Aceh.

The locations included the centers of gemstone vendors, animal dealers, owners/traders of elephant and tiger body parts, art shops, and the villages which forests were suspected to be the habitats of the animals as well as the location for poaching the animals. The list of the locations is in table 1 below.

Table 1. Investigation Locations

Province	Regions
Lampung	Bandar Lampung*
	Bandar Jaya
	Kotabumi
	Liwa
	Pringsewu
	Waykambas
South Sumatera	Palembang*
Jambi	Jambi*
	Rantoagung
Bengkulu	Bengkulu*
	Ipuh
	Manna
	Lebong
	Bintuhan
West Sumatera	Padang*
	Bukittinggi
	Sijunjung
	Gunung Medan
	Solok
Jakarta	Rawa Bening
	Kemang

FINDING AND DISCUSSION

Locations of the ivory tusks and tiger parts trade

Based on the findings, elephant and tiger parts trade has taken place in Sumatera until now. Among the 21 visited locations, six of them were the places for selling Sumatran tiger parts (28%), four of them were the sites for elephant parts trade (19%), and the other two were for both elephant and tiger parts trade (10%).

Among 55 hubs, 13 of which were selling tiger parts (24%), see table 2. The 55 sites consisted of 34 gemstone vendors (62%), six art shops (11%), and four individuals (7%).



While the traded tiger parts included all body part such as: skin, bones, claws, pieces of hair moustache, etc; the sought after elephant parts were whole ivory tusks or by-products, for example cigarette pipes.

Elephant ivory tusk products like the cigarette pipes were considered safer commodity by the traders than selling a whole tusk. What has become more popular than years ago is selling elephant teeth and bones which were not lucrative before. Compared to tiger parts, elephant

ivory tusk and other body parts trade is conducted more in secret manners.

Among the 21 visited locations, tiger parts trade were found in six regions (28%), elephant parts trade were found in five regions (24%), and both elephant and tiger parts trade were found in two regions (9%). The findings also showed that the illegal trade happened between regions and provinces.

The tiger body parts being traded

Among the 21 regions, tiger parts trade were found in six regions (28%). The body parts included pieces of skin (51%), 32 pieces of hair moustache (23%), 13 claws (9%), bones (0.7%), 23 fangs (13%), and a whole skin (0.7%).

Table 2. Tiger parts traded in six provinces

Provinces and Regions	Kinds of traders	Total	Numbers of tiger body parts
Lampung (Bandar Lampung, Bandar Jaya, Kotabumi, Liwa, Pringsewu, Waykambas)	Gemstones vendor	6	3
	Art shop	1	0
	Individual	1	0
Bengkulu (Bengkulu, Ipuh,) Manna, Lebong, Bintuhan	Gemstones vendor	2	0
	Individual	2	1
	Wildlife dealer	2	0
	Wildlife stuffer	1	0
West Sumatera (Padang, Bukittinggi, Solok, Sijunjung, Gunung Medan)	Art shop	5	2
	Gemstones vendor	3	0
	Individual	1	0

Jambi (Jambi, Rantoagung)	Gemstones vendor	2	2
South Sumatera (Palembang)	Antiques and traditional medicines vendor	4	1
Jakarta (Rawa bening and Kemang)	Antiques and gemstones vendors	21	4
	Art shop	4	0
Total		55	13

The highest level of tiger parts trade was in Lampung province. From eight locations, the trade was found in three places, all of the traders were gemstones vendors. From seven locations in Bengkulu province, the trade was found only in one individual who sold the tiger parts.

In Ipuh region, Bengkulu, there was an animal stuffer named Supri. ProFauna investigators didn't find any stuffed tiger, but they found a whole stuffed sun bear being sun dried, and a stuffed head of sun bear. Supri told the investigators that the bears were originated from Air Hitam region. The stuffed bears cost 2.6 millions IDR. At that time, he had just sold a juvenile crocodile to a military officer in North Bengkulu and brought 700,000 IDR.

Information was gathered from a snake harvester, named Manda, in Ipuh region that it was difficult for wildlife traders to sell ivory tusks and tiger parts because of high risk. However, Manda could provide cigarette pipes made from the ivory tusk or some tiger fangs which cost around 300,000 to 700,000 IDR and 1.6 millions respectively, as long as the potential buyers gave down payment.

Around Muara Aman, Lebong region, Bengkulu, there was an individual that owned a whole Sumatran tiger skin. ProFauna suggested that many individuals possessed whole tiger skins, unfortunately the investigators found difficulties to get the data because the stocks were kept in private houses, including government officials' houses.

In West Sumatera province, from the nine hubs, two art shops in Bukittinggi region were selling tiger parts. The shops also displayed four claws and two fangs of sun bears.

The shops names were "*Makmur Art Gallery*" and "*Indonesia Art Gallery*". Both were located in a china town in Bukittinggi. "*Indonesia Art Gallery*" owner's name was Iwan who admitted to ProFauna that he often sold fangs and ivory tusks. He told the organization that the illegal products were from Riau and Medan cities in North Sumatera. Sometimes, he got them from Palembang in South Sumatera.

Wildlife and their products transportation from Palembang used mini bus called "*Yuanda Prima*". Besides being sold in Bukittinggi, elephant ivory tusks and tiger parts were distributed to the black markets in Jakarta, and Ubud, Bali. Iwan told

ProFauna that especially for elephant ivory tusks; he was interested in selling Sumatran elephant tusks than the African ones. He was a wholesaler who would pay any number of elephant ivory tusks for his stockpiles. He would also buy the elephant bones and teeth. Considering that there was a wholesaler who could buy as many tusks as any one could provide means that demand of the tusks are still at high level.

Tiger part traders were found in two locations in Jambi province. The traders were gemstones vendors. In *Angso Duo* market, the city of Jambi there was a vendor who sold tiger parts. A gemstones vendor in *Wahidin* Street sold tiger parts too.

Tiger parts trade also took place in a small town named Rantoagung. Rantoagung was a bus terminal. Most traders displayed the body parts; pieces of skin, fangs, and pieces of hair moustache, in the evening. The majority of the buyers were bus passengers.

From the four locations visited in South Sumatera, one of them was a gemstones and traditional medicines vendor selling tiger parts. The hub of the tiger parts trade was in *16 Ilir* market in Palembang. ProFauna's investigation report in 2007 also showed that *16 Ilir* market was the hub for primate trade in South Sumatera. This market needs operation by the rangers, because it was the hub for the illegal wildlife trade in South Sumatera.

The investigation findings on tiger parts trade showed that the commodities were also delivered to Jakarta. Based on this, ProFauna investigators then visited the suspected locations in Jakarta.

They had visited 25 locations in Kemang and Rawa Bening areas. Four of them were gemstones and antiques vendors that sold tiger parts. Most traders in Rawa Bening come from Padang, West Sumatera.

Tiger parts trade in Jakarta happens blatantly. It is a shame to Indonesia because Jakarta is the country's capital. In early October 2008, the Institute of Animal Advocacy (LASA), one of ProFauna's member societies in Jakarta, sent an official letter to the Natural Resources Conservation Center (BKSDA) of the Forestry Department reporting the tiger parts trade in Jakarta. Unfortunately, the report was not taken seriously by the department because they thought that the tiger parts were fakes. Based on its experiences in identification, ProFauna believed that they were real ones.

Numbers of the killed tigers during the investigation which was based on the founded fangs and the information gathered from the owners of whole tiger skins was approximately six tigers. ProFauna believed that more tigers were killed because there were many unrevealed data.

Table 3. Summary of the tiger parts being traded in six cities

No	Regions	Skin	Claws	Moustache	Bones	Fangs
1	Bandar Lampung	X	X	-	-	-
2	Bukittinggi	-	-	-	-	X
3	Palembang	-	-	X	X	-
4	Jambi	X	-	-	-	-
5	Rantauagung	X	-	X	-	X
6	Jakarta	X	X	-	-	-

Table 4. Numbers of tiger parts found during investigation

Regions	Kinds of tiger parts traders	Body parts	Total
Lampung			
Bandar Lampung	Gemstones vendor	claw	6
		piece of skin	10 pieces measuring 5X10 cm each
Bengkulu			
Manna	Individual	skin	A whole
Sumatera Barat			
Bukittinggi	Art shop	fang	11
Jambi			
Jambi	Gemstones vendor	skin	5 pieces measuring 5X20cm each 1 piece measuring 20X30cm
		fang	3
Rantoagung	Individual	fang	11
		skin	20 pieces measuring 10X20cm each
		piece of hair moustache	30 pieces
South Sumatera			
Palembang	Gemstones and traditional	piece of hair moustache	2 pieces
	vendor	bone	1 piece
Jakarta	Gemstones and antiques vendor	fang	9
		skin	30 pieces measuring 10X20cm each
			3 pieces measuring 20X40cm each
			1 whole head skin
			1 whole tail skin
		1 whole leg skin	
claw	7		

Elephant parts being traded



From 21 locations, the elephant parts trade was found in five regions (24%). The elephant parts included whole ivory tusks five (25%) and cigarette pipes made from elephant tusks (75%). Based on the investigation findings, there were at least three elephants murdered.

Table 5. The elephant parts being traded in six provinces

Provinces	Locations	Total	Numbers of elephant ivory tusks traders
Lampung (Bandar Lampung, Bandar Jaya, Kotabumi, Liwa, Pringsewu, Waykambas)	Gemstones shop	6	0
	Art shop	1	0
	Individual	1	1
Bengkulu (Bengkulu, Ipuh, Manna, Lebong, Bintuhan)	Gemstones shop	2	0
	Individual	2	2
	Wildlife dealer	2	0
	Wildlife stuffer	1	0
West Sumatera (Padang, Bukittinggi, Solok, Sijunjung, Gunung Medan)	Art shop	5	2
	Gemstones shop	3	0
	Individual	1	1
Jambi (Jambi, Rantoagung)	Gemstones vendor	2	0
South Sumatera (Palembang)	Antiques and traditional medicines vendor	4	0
Jakarta (Rawa bening and Kemang)	Gemstones and antiques vendor	21	0
	Art shop	4	0
		55	6

Elephant ivory tusks trade took place most in West Sumatera (see table 5). In West Sumatera, there were 12 cigarette pipes made from the tusks in Bukittinggi, and two pairs of whole tusks in Sijunjung. In September 2008, the police arrested four men who were about to sell the two pairs of tusks in Sijunjung. The confiscated ivory tusks were originated from Lubuk Jambi in Riau province. The tusks would have been delivered to Dharmasraya region, West Sumatera. The perpetrators were Syahrudin, Aiden, Marjohan, and Syafriadi. Until now, they had been under the custody of the district police office of Sijunjung.

The trade of cigarette pipes made from elephant ivory tusks was still at high level in Bukittinggi, West Sumatera. Cigarette pipes were sold at art shops. The hubs were the same locations with tiger parts trade (see previous paragraphs about tiger parts trade).

The cigarette pipes trade was still at high level in Bintuhan, Bengkulu province. This was carried out secretly. The majority of the buyers were hotel guests, and government officers. The pipes were as gifts for the buyers' families and friends when they went back homes.

There were three men who sold cigarette pipes made from elephant ivory tusks regularly; Buyung/AK Jaelani, Arifin and Joko. A pipe cost from 400,000 IDR to 1.5 millions IDR depending on the size. Sukri Nurdin, a hotel employee in Bintuhan informed ProFauna that there had been a man selling 15 kilograms tusks cost 16 millions IDR per kilogram.

A top player of elephant ivory tusks trade in Bintuhan was Ujang. The experienced Ujang admitted to have African elephant ivory tusks weighing 40 kilograms with him and offered them for 14 millions IDR per kilogram. According to Sukri Nurdin, the African tusks

belonged to an official in Bintuhan government. This needs further investigation by the police because this must have involved an international connection.



Table 6. Numbers of elephant parts found during investigation

Regions	Kinds of elephant parts traders	Elephant parts	Total
Lampung			
Pringsewu	Gemstones vendor	Cigarette pipes	3
Bengkulu			
Bintuhan Manna	Individual	Cigarette pipes and whole ivory tusk	5 pipes & 1 whole tusk
	Individual	whole ivory tusk	1
West Sumatera			
Bukittinggi	Art shop	Cigarette pipes	12
Sijunjung	Individual	whole ivory tusk	2 pairs

Prices of tiger and elephant parts

During the investigation, ProFauna found different prices on tiger and elephant parts depending on the size, quality, location, and the potential buyer. For example, two cigarette pipes with the same sizes but one was from Bintuhan, Bengkulu and the other was from Pringsewu. The pipe from Pringsewu was more expensive because it was carefully carved and flawless.

Tiger or elephant parts' prices in Bukittinggi were the highest ones because the region was a tourism destination. Most buyers there were foreign tourists and rich domestic visitors.

Likewise, the prices for tiger skin were various depending on size. The larger the skin was the more expensive the price could fetch. Most traders preferred to sell tiger skin in smaller

pieces because it was less risky than selling a whole skin. The prices' differences can be seen in table 7 below:

Table 7. Prices comparison on tiger and elephant parts (Currency is in Indonesian Rupiah/ IDR)

No.	Regions	Elephant Tusks	Cigarette Pipes	Pieces of skin	Claws	Pieces of hair moustache	Ribs	Fangs
1	Bandar Lampung	-	-	30,000	30,000	-	-	-
2	Bukittinggi	-	700,000	-	-	-	-	750,000 – 1,100,000
3	Palembang	-	-	-	-	125,000 – 300,000	250,000	-
4	Jambi	-	-	40,000	-	-	-	-
5	Rantoagung	-	-	50,000	-	35,000— 50,000	-	400,000
6	Rawabening-Jakarta	-	-	40,000-250,000	15,000	-	-	-
7	Pringsewu	-	150,000-2,500,000	-	-	-	-	-
8	Bintuhan	14,000,000/kg	400,000-2,500,000	-	-	-	-	-
9	Manna	40,000,000	-	10,000,000/piece	-	-	-	-
10	Bukittinggi	-	750,000	-	-	-	-	700,000-1,100,000

Traditional Norms and Medicines

Tiger parts trade was closely related to some traditional norms accepted by the locals that tiger parts were effective to cure some diseases and connected to some traditional norms. Apart from the traditional beliefs, anyone who owned a stuffed tiger or a whole skin was proud because it showed that he had higher social status. Table 8 below will summarize the uses of tiger parts:

Table 8. Tiger parts and the uses in traditional norms

Tiger parts	Uses
Penis	Aphrodisiac
Bones	Rheumatic cures
Fangs	As pendant for good luck charm
Pieces of hair moustache	As a charm to prevent evil
Pieces of skin	Hang on the door, as a charm to prevent evil, bring good luck,
A whole skin and stuffed tiger	Social status symbol

Origins of the tiger and elephant parts

Tiger and elephant parts in some hubs were not originated from the region of the hub, but they were from other regions. For example, tiger parts being sold in Rawa Bening

in Jakarta were from West Sumatera, as most traders in the location were from Padang, West Sumatera.

Some of the tiger or elephant parts sold in Bukittinggi were supplied by the traders in North Sumatera. However, ProFauna investigators didn't come to North Sumatera because of time and financial limitations. Meanwhile, the confiscated ivory tusks in Sijunjung area in West Sumatera were originally from Riau province.

ProFauna strongly suggested that the tigers were poached from some national parks in Sumatera; Kerinci Seblat, Way Kambas (Lampung), Bukit Tiga Puluh (Riau), Bukit Barisan Selatan (Lampung), and Tesso Nilo (Riau); and for elephants were poached from the national parks of Way Kambas and Bukit Barisan Selatan in Lampung. The cigarette pipes that were made from ivory tusks were supplied by some regions like Bintuhan in Bengkulu, Liwa and Kota Agung in Lampung

Information from different sources

In this investigation, ProFauna also gathered information on the tiger or elephant parts trade in Sumatera from different sources; local people, NGOs, government officers and media. However, some sources may have been exaggerated. The different sources of information are in the following:

In Lais region, ProFauna got information that there was a former animal stuffer named Ahmad Yani lived at the region in Bengkulu, who used to deliver tiger skin to Ponorogo, East Java. A tiger skin was used to decorate a traditional dance mascot where the mask was a tiger head.

When ProFauna investigators came to him, Ahmad Yani told ProFauna that he no longer delivered tiger skin to Ponorogo since two years ago because he worked as a driver in coal mining company in Napal putih at the moment. To check the truth, ProFauna went to the center of the traditional dance in Ponorogo, East Java in the middle of October 2008. From the visit the team got the information that the mascot craft-maker had not import real tiger skin from the last two years because they used fake tiger skins.

Information from David, a coordinator of Human Elephant Conflict Mitigation (MKMG) in Bengkulu, mentioned that between 2006 and 2008 some human elephant conflicts happened and caused three elephants killed, one male and two females. The elephants were killed in the palm oil plantation of the local people. David said that the cost bear by the locals because of the human elephant conflict was 600 millions IDR. The ivory tusks of the dead elephants were missing and suspected to be illegally traded in black market.

Information from Huda, a "*Soponyono*" hotel guest in Muara Aman of the Lebong region, Bengkulu, told ProFauna that in Pringsewu region in Lampung, there were many cigarette pipes made from ivory tusk being traded, both ready to use and raw pipes. The prices varied from 300,000 IDR to 700,000 IDR depending on the size.

Following Huda's information, ProFauna came to Pringsewu and found a cigarette pipes trader named Yadi who lived in the village of Pring Kumpul 3, Pringsewu district, Tanggamus region, Lampung. Yadi sold various sizes of cigarette pipes. A 10 cm pipe cost

150,000 IDR; and a 20 cm could fetch 1,250,000 IDR. Yadi couldn't explain the origin of the ivory tusk to produce the pipes.

Information gathered from Nazarudin, head of elephant trainer in an elephant training center in Way Kambas, there were connections between some alleged forestry officers in Riau province. For example, there was "elephant clearance" operation at some habitats in Riau. Wild elephants were hunted in purpose by Minas elephant training center alleged officers with a make-up excuse that the elephants caused human-elephant conflict. The wild caught elephants were then sent to some zoos in Indonesia. An elephant could fetch some ten millions IDR.

Nazarudin informed that elephant ivory tusks and tiger fangs traded in Bukittinggi were originally from Medan, North Sumatera. The ivory tusk stocks from Medan were derived from wild caught elephants in Aceh areas.

A veterinarian named Yanthi worked for an elephant training center in Seblat. Wild elephants caught by the training centers were lucrative. The make-up excuse was to solve human-elephant conflicts which happened so often in Riau province, including in the national parks of Tesso Nilo. In the end of 2005, there were 30 elephants caught from the wild in Kampar region. The hunting was funded by the region government's expense, around 800 millions IDR.

In July 2008, there was 'legal' wild elephant hunting in Kampar region, Riau province. Many of the wild caught elephants suffered from illness, died because of infection, were over dosed, starving and stressed. Yanthi couldn't tell exactly how many elephants died during the process of hunting and bad handling. The fact was that some dead elephants were missing their ivory tusks.

Bad handling in the training center needs serious action by the stakeholders: government and NGOs working on elephants. Not only the training center was lucrative business by the alleged corrupt government, but animal welfare standards were also very low. Until now, there is no law to regulate the 'elephant businesses' in the training centers.

CONCLUSION



From 21 regions visited during the investigation, tiger and elephant parts trade was found in 10 regions (48%). Tiger parts trade was found in six regions (28%), elephant parts trade was found in five regions (24%), and tiger and elephant parts trade was found in two regions (9%).

Estimation on numbers of tigers being killed which was based on the fangs and whole skins during the investigation were six tigers. Estimation on elephant numbers being

killed which were based on the pair of tusks were three elephants. ProFauna believed that there were more tigers and elephants killed but the team couldn't reveal the data because of time limitation.

The investigation findings showed clearly that the trade for tiger and elephant both the blatant and secret ones was still at high level. All tiger body parts; skin, bones, pieces of hair moustache, fangs; were lucrative. The traditional belief of local people that tiger parts were 'bringing good luck and curing' was one of many reasons to trigger the illegal wildlife trade.

Elephant parts that were sought after were the ivory tusks, both from male and female elephants' (*caling*). The by products of the ivory tusks were cigarette pipes. Recently, elephant bones and teeth have been sought too by antiques traders.

Tiger parts trade was openly conducted by gemstones vendors. Elephant parts trade, especially for the cigarette pipes, happened blatantly in art shops. Whole tusks trade was carried on in more secret manners and traded by individuals. To tackle wildlife trade in black market was more difficult. On the contrary, it was quite easy to reveal the tiger part trade which was more open in some gemstones vendors and the cigarette pipes that were found in art shops. The trade hubs and evidences were very clear and the authorized government must take some serious actions to tackle this illegal wildlife trade.

References

Conservation International, 2008, Kekayaan Alam Terakhir di Taman Nasional GunungLeuser, www.conservation.or.id

Kompas; Akibat hutan jadi Kebun, Perusahaan Besar dan HTI Harus Ikut Tanggung Jawab, 06/12/2007

Kompas, Harimau Sumatera Makin Langka, 15/01/2007

Kompas, Harimau Sumatera Makin Langka, 15/01/2007

Kompas, Orangutan Sumatera Keberadaannya Hanya Tinggal 7500 Ekor, 29/03/2007

ProFauna, 2007, Perdagangan Satwa liar di Bengkulu, ProFauna Bengkulu Representative

Pusat Informasi Kehutanan Siaran Pers, 2007, Galang Komitmen Kerjasama Pelestarian Harimau Serta Gajah

Sekjen Dephut, 1999, Undang Undang Nomor 41 Tahun 1999 tentang Kehutanan, Departemen Kehutanan, Jakarta

Wikipedia Indonesia, 2008, Pulau Sumatera, www.id.wikipedia.org

For further information, please contact ProFauna Indonesia: international@profauna.org,
website: www.profauna.org