

KERINCI SEBLAT TIGER PROTECTION PROJECT

Pelestarian Harimau Sumatera Kerinci Seblat



Report on activities and progress 2000-2001

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Contents		Page
	Acronyms	2
1	Project summary	3
2	Project Location	4
3	Background	5
4	Project Objectives	6
5	Overview of 2000-2001	7
6	Activities and Progress	8
7	Forest Patrols and In Forest Operations	10
7.1	Poaching of wildlife in and around Kerinci Seblat National Park	12
8	Intelligence	14
8.1	The black market for Sumatran Tiger products	16
8.2	Market operations	18
9	Reducing tiger-human conflict	19
10	Logistics and Base	20
10.1	Equipment	20
11	Acknowledgments	21
12	References	22
Appendices		
1	Legal case issues arising from patrols and activities	23
2	Examples of evidence held pending or following legal action	24
3	Examples of wildlife crime intelligence received by PHS team	27
4	Examples of conflict cases reported	37

ACRONYMS

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
FFI	Fauna & Flora International
IUCN	The World Conservation Union
KSNP	Kerinci Seblat National Park (TNKS)
PHKA	Pelestarian Hutan dan Konservasi Alam
PHS	Pelestarian Harimau Sumatera
TNKS	Taman Nasional Kerinci Seblat (KSNP)
TPCU	Tiger Protection and Conservation Units
TPP	Tiger Protection Project
TRAFFIC	Trade Records Analysis of Flora and Fauna in Commerce

1 Project Summary

The goal of this project is to develop a sustainable and effective protection programme for the Sumatran tiger, which may act as a model for other in-situ protection programmes elsewhere in Indonesia

The primary aim is to assist the National Park management and provincial-level departments of the Department of Nature Conservation (Konservasi Sumber Daya Alam or KSDA) to; detect, prevent, and deter tiger poaching activities, in and around Kerinci Seblat National Park (KSNP), and to assist the National Park in protecting tiger habitat and tiger prey species.

The project was approved in early 2000, by the Director General of Forest and Nature Protection (Pelestarian Hutan dan Konservasi Alam -PHKA). A Memorandum of Understanding (Perjanjian Kerja Sama) was signed between FFI Indonesia Program and the Director of the KSNP, then Bp Ir Wandojo Siswanto, in late April 2000 and the first Tiger Protection and Conservation Unit was deployed in late May 2000. The operating MoU was re-ratified between the new director of the KSNP, Ir Anwar MSc. and FFI in February 2001

The project operates as a semi-autonomous unit within the Kerinci Seblat National Park operational structure and is under the day-to-day control of a Unit Manager (Alip Tantun Hartana) on secondment from National Park headquarters. Two tiger patrol teams have been formed, and a third will be formed in 2002.



2 Project Location

Kerinci Seblat National Park and surrounding forest, central Sumatra, Indonesia

Kerinci Seblat National Park is the largest National Park on the island of Sumatra and is a Level One Tiger Conservation Unit (Wikramanayake *et al* 1998) with the highest overall score of any TCU identified. As such it is one of the five most important habitats for tigers in the world.

Covering a total of just over 1.3 million hectares (13,000 sq. km) along the north-south axis of the Barisan mountain range of central western Sumatra, the Kerinci Seblat National Park (KSNP) is one of 36 National Parks in Indonesia and unique in its preservation of complete, contiguous ecosystems lost in other areas of Sumatra.

More than 1.4 million people live in close proximity to the National Park or in enclaves within the National Park itself and there is a history of interaction with National Park forests. This has increased since 1997 and with the advent of the Asian Economic Crisis there are increasing problems of illegal logging, agricultural encroachment and poaching of tiger and other species in the park.

Map 1 Location of Kerinci Seblat National Park within Indonesia and Southeast Asia.



3 Background to the project

A minimum estimate for population was made at a Sumatran Tiger Population, Habitat and Viability Analysis workshop held in Padang in 1994 when it was suggested that 76 or more animals range within KSNP and surrounding forests. Camera trapping and extensive field surveys by FFI since 1995 and survey and patrol work since April 2000, by FFI and the Tiger Protection and Conservation Units (YPCU's) indicates the 1994 population proposal was a considerable under-count. A more realistic figure based on GIS analysis of satellite imagery of the National Park suggests the park's carrying capacity would be in the region of 170 animals.

This project was conceived in 1997/8 when members of the FFI Kerinci team began to record a serious rise in reports of poaching of tigers in and around the National Park. At this time team members were offered tiger pelts, claws and teeth. Such incidents were immediately reported to either National Park staff or to nature protection officials from KSDA. However, it became apparent that neither the park nor KSDA had the capacity to react to such reports. FFI decided to seek funding for TPCU's. These would operate on similar lines to the Sumatran Rhino Protection Units at Air Hitam, Bengkulu, but more closely linked to the protected area management.

The difficulties facing National Parks management in Indonesia are well known, and have been exacerbated due to the 1997 Asian Economic Crisis, the subsequent collapse of the Indonesian economy, and the lawlessness of the post-Suharto era. In the case of Kerinci, the tiger protection project was launched in a vast National Park, which has historically suffered from a lack of management capacity and strategic and staffing failures. Some of these issues, most notably lack of in-forest patrols, have now been addressed under an Integrated Conservation and Development Program (ICDP) scheduled to be completed in 2002. At the time of the project launch, the park had no specific anti-poaching or protection strategy, no intelligence strategy regarding poaching of protected species, no routine in-forest conservation patrol schedule, and had never prosecuted a poacher.

4 Project Objectives

- To combat the poaching of Sumatran tiger and trade/trafficking in Sumatran tiger, in and around the Kerinci Seblat National Park, through in-field patrols and intelligence collection.
- To proceed against and prosecute wherever possible, individuals poaching Sumatran tiger or trafficking in this and other strictly protected species.
- To combat poaching of deer and other tiger prey species and to identify and prosecute where necessary, professional bush-meat traders.
- To educate, in the course of duties, local communities on the protected nature of all species present in the National Park forests, and in particular, the status of Sumatran tiger and its role in forest ecology.
- To assist the National Park in the protection of critical habitats of Sumatran tiger from degradation or destruction by illegal logging and other active threats.
- Through protection of prey base and habitat, to reduce human-tiger conflict for the protection and well-being of forest edge communities and Sumatran tiger
- To develop a core of skilled and motivated National Park rangers, who can motivate and train fellow National Park rangers in habitat and protection issues, in particular in-situ conservation of wild tigers in Kerinci Seblat National Park.

Field and investigative work has revealed an unprecedented level of threat to Sumatran tiger from opportunist and/or professional poaching. Team members documented or investigated the illegal killings 48 Sumatran tigers in and around Kerinci Seblat National Park between September 1999 and September 2001.

The majority of these cases originate from the three districts or kabupaten of the National Park in which the PHS team is currently most active. There are a total of 10 kabupaten around the park, therefore, it is likely that the actual total of Sumatran tigers killed in the last two years in and around KSNP is significantly higher. The extent of threat to tiger in KSNP is further highlighted by the removal of 30 snares set for Sumatran tigers found in the course of forest patrols between January and August 2001.

TPCU members have made a total of 69 arrests since the project began, and further significant arrests are pending. Individuals arrested included poachers of tiger, clouded leopard and deer, and illegal loggers. Not all cases are processed through the local court system since in some instances, apprehension and issue of warning letters is sufficient to deter individuals from re-offending in the short term at least.

Results of patrols over the project period strongly indicate that where an active forest patrol schedule is established, run in conjunction with intelligence collection and where suitable and relevant legal enforcement action is taken, that the level of local threat reduces considerably. Furthermore, the benefits of active enforcement and protection may extend beyond the area of regular patrol and intelligence collection and poachers and illegal loggers operating outside the area currently patrolled by the PHS team have referred to the team as a reason for caution. Team members advise that forest-edge communities show an increased level of cooperation with and respect for the National Park rangers where rangers regularly patrol the forest and fairly enforce the laws of the Republic of Indonesia.

Prior to formation of the project, it was expected that PHS patrol teams would have to intervene in human-tiger conflict situations at some point. What had not been expected was the scale of human-tiger conflict revealed. Conflict situations investigated by the PHS team centered on livestock depredation, but in particular, the killing of domestic dogs, which are widely kept to guard forest edge farmland from depredation by wild pigs. They also included an incident in October 2000 in which a forest-edge farmer's wife was killed by a tiger that had been poisoned, but not killed, by a poacher. The team has concluded that human-tiger conflict is a major cause of Sumatran tiger mortality as a result of revenge killings by local farmers. Importantly however, tiger- human conflict is also manipulated by poachers and hunters to excuse killings of tiger.

In conclusion, the team's first year of operations indicates that the scale of killing of and threat to in-situ conservation of Sumatran tiger is far greater than even early 'worst case' scenarios predicted. Tiger populations in Sumatra cannot withstand hunting on the scale revealed in even the short term and the protected areas managers urgently require additional dedicated specialist staff to tackle the unprecedented level of threat to the Sumatra tiger population and develop and island wide protection strategy.

6 **Progress Towards Implementing Project Objectives**
May 2000 to September 2001

- ***Establish Tiger Protection and Conservation Units***

Two Tiger Protection and Conservation Units were established between May and August 2000. Units are led by rangers of KSNP and staffed by members of local, forest-edge communities. TPCU staff spend an average 12 days per month on patrol activities under forest cover.

- ***Increase the capacity of park to successfully detect, pursue, and prosecute where possible, individuals or groups involved in poaching and habitat destruction.***

Selected National Park rangers now accompany TPCU's on one or more patrols each month. National Park staff are routinely involved in TPCU operations and strategic planning. Additional training of National Park ranger staff is planned for 2002 as funds allow.

- ***Collect intelligence on the identity of tiger hunters/buyers of tiger products and work towards their successful prosecution***

Pre-patrol and operational intelligence is critical to any targeted conservation and anti-poaching program especially for a program operating in tropical rain forest and teams spend an average 8 days per month or more on intelligence collection duties. In addition to identification of habitual tiger poachers operating around KSNP, the PHS team has identified a number of communities where tiger poaching appears prevalent and hunters from these communities are highly mobile. Intelligence collected between April and July 2001 led to the break-up of a West Sumatra based poaching syndicate operating in Bukit Barisan Selatan National Park, Lampung, south Sumatra.

The PHS team works closely, where applicable, with other conservation agencies seeking to combat poaching and trafficking in Sumatran tiger. It firmly believes that a co-ordinated, island-wide protection and enforcement strategy that includes legal action against offenders, is the only effective way forward to deal with rampant trafficking in protected species in Sumatra.

- ***Through protection of prey base and habitat, to reduce incidence of tiger-human conflict for the future welfare and protection of both local communities and tiger***

Tiger-human conflict, whether actual or perceived likely, has been identified as the single largest cause of human-induced Sumatran tiger mortality in and around KSNP and appears to be highest in areas where forest clearance is coupled with deer poaching. Resolution of conflict and prevention of it being manipulated by poachers, appears to be a critical factor in the in-situ conservation of the Sumatran tiger. Police urgently require training in Indonesian conservation law to prevent unsuitable reactions to tiger-human conflict situations. Illegal logging and escalating forest clearance by in-coming settlers is an increasingly serious problem in KSNP and appears to be impacting seriously on tiger populations in a number of areas around the National Park.

- ***Pursuit and prosecution, where possible, of the individuals or groups involved in the tiger trade.***

Collection of legally sound evidence is a difficult and often extremely dangerous process, and intention to commit a crime (such as possession of snares or conspiracy to trade in a protected species) is unlikely to be accepted as the basis for a successful prosecution.

The arrest, in July 2000, of Abu Yani, and other enforcement operations around the park, has made the task of the TPCUs more difficult since those poachers and dealers, although still operating, are now more covert about activities. However it is known that this arrest and other enforcement operations have had a significant deterrent effect with at least one major dealer in tiger in Jambi province suspending his activities.

A rigid policy of protecting the identify of informants is now encouraging law-abiding members of local communities to come forward and report incidents or identities of suspected poachers without fear of reprisals .

- ***To protect tiger prey base within the park and surrounding forest.***

Poaching of ungulates is a serious problem in a number of areas around the National Park from opportunist, semi-professional poachers and commercial-scale poaching syndicates. On occasion trap lines of 80 or more active snares for deer have been removed from National Park forests. Although TPCU members react where possible to ungulate poaching reports, priority is given to reports of sambar (*Cervus unicolor*) and serow (*Capricornis sumatrensis*) snares since, given the size of these animals, tiger can fall victim to traps set for these ungulates.

The hunting, for sport, of wild boar and indiscriminate setting of snares for pig which are a crop pest in some areas, also gives cause for concern. The team has collected records of both tiger and other protected prey species being trapped in snares set for wild pig. Pig hunting groups are also known to have killed sambar and other protected species, including Malay tapir. Widespread mistrust of authority is one probable reason why accidental snaring of protected species is seldom reported to the National Park, although where a species trapped accidentally has a commodity value, the trapper is likely to seek to profit from the event. Four Sumatran tiger are reported to have died as a result of being accidentally snared in pig or sambar traps between April 2000 and February 2001, and the actual numbers are likely to be greater.

Patrols fall into two categories namely Patrol and Survey; a Patrol is a reactive operation in an area already identified as a priority tiger population or where a known tiger population is suspected or known to be at risk. A Survey Patrol is one to an area that is data deficient and which requires risk and population assessment. Appendix 1. gives examples of legal cases arising from patrols and activities.

The widespread reports of poaching and habitat degradation throughout the National Park means the teams have generally been forced to concentrate on patrols in known threat areas although survey patrols are made as time allows. Patrols may range from three-11 days in length although in practice most patrols are likely to run from 4-6 days.

These patrols indicate that tiger and ungulate populations up to six hours walk (5- 12km dependent on topography) from settled human habitation (farmland edge or foot trail) are most vulnerable to illegal hunting pressures. Tigers close to farmland appear to be more at risk of being poisoned by poachers, who usually employing a poisoned bait animal (wild pig or other). While tiger snares are more usually placed in remote forest to avoid risk of detection. The highest threat to tiger populations is within six hours walk of farmland or foot path. This is because the poacher must check his snares regularly to ensure pelts, (the most sought after item) do not deteriorate after death.

Patrols have been based more on intelligence and use of trusted local informants and not, as had been hoped, through repeat patrol and monitoring work. This is due to the heavy workload due to the wide range of threats identified by the teams. Between May 2000 and April 2001, TPCU teams recorded Sumatran tiger presence on a total of 35 occasions through footmarks, scrapes, faecal samples and calls in 18 of the 26 patrol/survey sites.

The TPCU's reported upon, and tackled a wide range of threats to Sumatran tiger and tiger habitat and, therefore to the integrity of the National Park. These included:

- **Illegal logging**

This is a widespread, open, and increasingly aggressive activity that occurs deep within the National Park. It is made possible where roads or rivers allow timber to be carried or floated out. It is supported in some areas by rogue members of the security forces and by illegal sawmills operating with high level local or provincial level support. It has been estimated by the ICDP project that there are some 116 illegal sawmills now operating around the National Park. This is likely to be a considerable under estimate

- **Incursions into the National Park and protected forests by farmers** (shifting/slash and burn agriculture)

This is often carried out by organized syndicates, with financial backing from influential local businessmen. Poaching of ungulates and ground and other birds is heavily associated with opening of forest by some communities since farmers in cleared forest 'live off' the land.

- **Large-scale and organized manau collection**

This is an unsound and unsustainable collection methods of a species of rattan that causing serious habitat degradation. The usual method of collection is through the felling of trees through which the palm climbs. The TPCUs assist the National Park regarding manau collection as time allows.

- **Poaching of ungulates**

Sambar (*Cervus unicolor*), muntjac or barking deer (*Muntiacus muntjak*) and the endangered serow (*Capricornis sumatrensis*) (IUCN Red Listed) are poached as bush meat by commercial syndicates. Then the meat is sold smoked around villages by traveling salesmen. Hunting of wild pig, a

crucial tiger prey resource, is a popular local sport and is often backed and promoted by local governments and pig may be hunted outside the park but also, illegally, on occasion within National Park borders.

- **Poaching of Asian elephant**

This is active in both Jambi and Bengkulu Provinces. In Bangko kabupaten such poaching is unrelated to human-elephant conflict.

- **Bird trapping (ground birds)**

This occurs mainly for meat (pheasant species) and almost invariably accompanied by poaching of ungulates.

- **Song bird trapping**

This occurs for the cage bird trade. Trappers from areas far beyond traditional local catchment areas now active in and around the park. These individuals are tackled as encountered.

- **Insecticide and electric fishing**

These activities are illegal within and outside National Park borders. The PHS team acts against these damaging and unsustainable fishing methods as encountered. Poison and electric fishing is extremely unpopular with traditional communities and enforcement actions against perpetrators are very popular and win sympathy for the park and therefore conservation.

- **Links between criminals and tiger poachers/dealers**

Links between marijuana trafficking/cultivation and poaching of tiger have been confirmed in two instances in 2000-2001. A third known tiger dealer/poacher was arrested in late 2000 on loan sharking charges while under investigation by the PHS team. The linkage revealed between tiger poaching/dealing and non-wildlife crimes has resulted in useful and effective contacts being established with police intelligence organizations in Kerinci district.

7.1 Poaching of wildlife in and around Kerinci Seblat National Park

- ***Snares***

This is the most common method of trapping both large ungulates and tigers in and around Kerinci Seblat National Park. Where snaring of tiger is employed, it appears to be in conjunction with despatch of the trapped animal by shooting. This was the case in both the case of the Muara Jernih tiger (July 2000) and a tiger seized by KSDA Padang, also in July following information supplied by PHS TNKS where pelts showed that animals had been trapped by heavy duty (wire) foot snares and the animals subsequently shot.

Three examples of specially constructed wooden box traps which contain a dog (favoured as bait for tiger) have been found over the last year in the Gunung Kerinci area (Gunung Labu and Lade Panjang: Lake Singkarak) and immediately west of the Kerinci enclave. In the Jangkat area of Kabupaten Bangko, south of Kerinci, a variation of this theme employs weighted stones and a wooden bar to trap the animal by the neck.

Snares specifically for tiger are likely to employ heavy duty metal cable, in some cases with rubber or plastic protective coating to prevent damage to the pelt although brake cable has also been encountered. Heavier duty cables are preferred by professional poachers since they minimize lacerations to the skin which reduce the pelt price. The three-way cable snares favoured by some poachers require a considerable investment by local poachers and so dealers may be asked to provide the capital or to supply the cable required. Snares must be checked regularly, since if an animal dies in the snare, the pelt will quickly spoil in the high humidity environment.

In KSNP, snares are generally concentrated on hill top ridge trails favoured by ungulates and by tiger however the PHS team has clear evidence of poachers targeting salt licks, which attract high densities of both ungulates and predators.

Farm crops at the forest edge are vulnerable to depredation by wild pig and by sambar deer. This concentration of prey species attracts predator species vulnerable to snares, set for the browsing animals.

- ***Accidental death***

A fourth apparently significant cause of Sumatran tiger mortality is the accidental snaring of tiger in traps intended for other species, in particular for wild pig and sambar deer. Five tiger are reported to have been killed in such snares over the course of 2000.

- ***Poison***

Using a baited carcass appears to be a favoured method of killing Sumatran tiger in areas close to farmland or in areas of tiger conflict. Organophosphate based poisons are regularly cited by informants. These are marked as TheMix 500mg which is marketed as a pig poison.

- ***Shooting***

Although the great majority of the tiger poachers known to the team appear to have access to either factory-made guns or use small home-made and illegal factory-made guns, hunting of tiger using guns alone appears to be very unusual. The PHS team has found that a wide

variety of weapons are now circulating relatively freely around the National Park and hunting of sambar with guns, both in the forest (particularly at salt licks) and in farmland edges and logging concessions has apparently escalated over the past two years.

Access to weapons is becoming all too easy in Sumatra although access to factory-made ammunition is more difficult. Approaches made to undercover members of the team by poachers requesting ammunition.

The PHS team intermittently obtain reports of tiger being hunted and/or killed by members of a hunting club that is licensed for sport hunting of wild pig only. Other species protection teams report receiving information concerning illegal hunting by members however the PHS team has no evidence as to the veracity or otherwise of these reports

8. Intelligence

Accurate intelligence appears to be the key to developing an effective anti-poaching and conservation strategy for high value species in tropical rainforest. While on the ground patrols are critically important, they should be directed by intelligence. Much valuable information has been found to come from the extended families and clans of community members of the TPCUs and by former colleagues who continue to collect forest products. Intelligence collectors receive payment for their expenses but all other payments are results-related unless the informant is specifically instructed to carry out a task by the Unit Manager or leaders of TPCUs in which case intelligence collectors are paid on a daily basis.

A number of difficulties have been encountered in the Intelligence area. For example in Sumatra, there is a strong tendency to refer to all larger wild felids as *harimau* (tiger) and not to distinguish between Sumatran tiger, clouded leopard and golden cat. The team has learned that, in trade-related reports, the price quoted for a pelt and the vendor's or informants' estimate of age - as in 'a young tiger' - may be a helpful advance indicator of the species traded: thus a pelt offered at Rp350,000 (approximately USD35) and described as a small tiger is likely to be that of a clouded leopard or golden cat, although there appears to be little or no intentional poaching of either species for trade purposes. A 'baby tiger' may prove to be a leopard or marbled cat.

Where a report is trade-related, size cannot be used as a measure of validity except where the report involves a first-hand observation of the trade item since measurements become exaggerated. Furthermore even experienced forest workers are not always reliable informants when reporting on or identifying bones and even, on some occasions, pelts.

For example in October 2000, a community informant succeeded in seeing part of the pelt of a 'young tiger' which had been trapped in a pig snare by a Kerinci farmer, killed and the pelt stored in methylated spirits. The informant confirmed to the PHS team that this was a tiger on the basis of the stripes on the animal's face. Investigation of this case indicated that prosecution would be counter productive and so a legal confiscation was made - at which point the species was confirmed as an adult Asian golden cat.

Thus, although a large number of tiger poaching incidents are reported in and around Kerinci Seblat National Park, it is apparent that at least a percentage of these are in fact misidentification of smaller, but also protected, cat species and in particular, clouded leopards.

A second and more serious problem is that information from intelligence agents and informants, whether on trade issues or active poaching, is often slow to reach the team due to poor communications and very long distances involved. Regular informants have been trained in report writing, initial assessment of intelligence and simple identification of species both by pelt and bones. Two informants have been taken on as full time TPCU members and a third works essentially full-time for the Tiger project although his age and ability in the forest makes him unsuitable for full-time TPCU duties. Community informants can only provide the initial information on a trade or poaching report and, where possible, view traps or a trade item and the final investigation must be made by members of TPCU or National Park staff since community informants cannot be produced in court as Witnesses since the project could not subsequently guarantee their safety and that of their families.

Part-time informants for the PHS team fall into two specific different categories. The first are supporters of the tiger project and work, part time or as they receive information and have proved a valuable recruitment pool for this project. The community information network has been constructed with extreme care and numbers of credible informants retained on a regular basis is smaller than had been envisaged when the project launched. One attempt, to date, has

been made to infiltrate the project by a man working in conjunction with an elephant and tiger poaching syndicate.

The second category composes unwitting informants, members of the semi-criminal underworld, would-be traders and middle-men in wildlife products who deal with selected members of the team believing them to be agents of dealers from large cities elsewhere in Sumatra and in Java and who pass on information on reported poaching or trafficking incidents in the hope that they will be able to facilitate a transaction and take a commission.

Although all reports of poaching and or trade incidents are logged by either the TPCU leader or Unit Manager, not all reports can be investigated and before any decision is taken on investigation, informants must produce corroborative data to allow for cross-checking with other informants. Furthermore, the sheer volume of information available to any rigorous collection of intelligence and the difficulties of gauging, in the early stages, the credibility of an informant, slow down data collection.

8.1 The Black Market for Sumatran Tiger products

Although the team had that the price for Sumatran tiger pelts and bone would be higher in large cities such as Jambi, Palembang, Pekanbaru and the eastern seaboard port of Dumai where private individuals buy tiger pelts. However this may not be the case since a number of local poachers have complained of being 'cheated' by dealers in these cities.

- ***Tiger Pelts***

The PHS team reports no significant or driving market for tiger bone in and around this area of Sumatra and it is demand for tiger pelts that drives the illegal trade in Sumatran tigers.

Prices in remote areas of the National Park such as Jangkat district may be lower than those in areas with good communications and transport. Prices for tiger pelts and bone appear to be higher to the east of the Barisan mountains and National Park than in Bengkulu, to the west.

Prices for a Sumatran tiger pelt depend on the size and level of damage of the pelt. This is one reason why tiger poaching is partly dependent upon access since pelts deteriorate rapidly in tropical heat and must be quickly placed in a preservative solution. Prices for male tigers may be higher than females even where the pelt is a similar length.

The smallest pelt for which a price was quoted was reported at 1m.30cm in and the largest was estimated, by informants, as measuring an improbable 2m in length. Only a small number of the pelts referred to have been seen and measured by team members and therefore estimates of pelt length are approximate only and in the larger cases may have been over-estimated.

The lowest price for a tiger pelt transaction that is reliably reported over 2000-2001 was Indonesian Rp 2 million – and the highest was Rp8 million. The team concludes that, in general, the pelt of an adult Sumatran tiger sold by poacher to middle-man/local dealer or to commissioning local buyer is between Rp4.5 million and Rp5 million locally. Prices rise on each exchange as buyers seek to make a commission profit.

Of the cases of poaching investigated in detail, two men are implicated in not fewer than 15 transactions. Since both men have also reportedly traded in tiger to the east of the Trans Sumatra highway in the Bukit Tiga Puluh and Bukit Duabelas National Parks areas and since PHS intelligence in Muara Bungo is still inadequate, their involvement in the illegal trade in tigers is likely to be more substantial. One of these individuals claimed to have withdrawn from the illegal trade as a result of the activities of the PHS team. This remains to be confirmed.

Only one faked tiger pelt was seen this year – a 20cm by 20cm strip of pelt, possibly dog, being peddled by a dukun in Jambi Bird Market and described as part of the pelt of “a man-eating tiger shot near Pontianak in West Kalimantan.” (*sic*)

Although the team is firstly concerned with the conservation and protection of Sumatran tiger, the number of incidents concerning clouded leopard - is a cause for serious concern, particularly given that this species is little known and its status is unclear.

- ***Tiger Bone***

There does not appear to be a large, organized market in tiger bone in this area of Sumatra although the bones of a tiger marketed in Muara Bungo in March were sold before the pelt. Prices quoted to the team range between Rp200-250,000 on average. However prices reported, but not yet analysed, from the north Bengkulu area appear to be substantially lower. We do not report on these prices here as do not yet have an information base substantial enough to make an informed estimate.

- ***Flesh***

Generally available dried or smoked and not apparently normally marketed in this area: One sale price only was found to be USD1 per 100 grams (October 2000). Tiger flesh appears likely to be divided up and handed to friends and family as a curiosity as opposed to being a valued commodity. One report was received of an army officer making a 'wine' using a tiger foetus.

- ***Incisors***

Unmounted and untreated incisors were found to be sold for approximately USD10 per tooth. Many faked items were observed. In Bukittinggi – a regional tourist center – we were recently offered a mounted and treated canine (taring) for Rp400,000 (USD40) with the information that the item would fetch Rp800,000 in Bali. Vendor advised that we should move quickly as he planned to send the tooth to Singapore.

- ***Whiskers***

No reliable prices are available but these are avidly sought after as owners believe they confer courage. The whiskers of a tiger that was alive at the time a whisker was extracted is more valuable.

- ***Claws***

We have no reliable price estimates.



Recent pelt seized by the Tiger Protection Team

8.2 Market Operations: Information gained to date

When the project launched, the only data available to the team on how highly illegal wildlife trade networks operate in Sumatra were the example of the highly sophisticated (at its height) Sumatran rhino poaching apparatus. This operates under a patronage system and where it has been possible to follow a rhino horn from poacher to exporter and, under certain circumstances, to overseas market.

The work of PHS over 2000-2001 indicates that the trade in Sumatran tigers in and around KSNP does not follow such a simple modus operandi. It is highly fragmented and opportunistic and the source of much of the tiger bone and pelt in central Sumatra is from opportunist amateurs, professional deer hunters who will poach tiger if the opportunity is offered, and villagers responding to a conflict situation. Only a small number of semi professional and professional poachers have been identified. There is however strong evidence of some tiger being poached to order by businessmen for use in contract negotiations and individuals seeking gifts for superiors to gain promotion.

Tigers killed by experienced poachers appear often to be disposed of to a major dealer within hours of the carcass being brought out of the forest although some pelts may be secreted for several days or even weeks until a buyer has been secured. In general, however, any anti-poaching project planning to launch operations elsewhere in Sumatra should be aware that speed of reaction is critical.

As expected, the team has found a strong connection between individuals involved at dealer and sub-dealer level in the illegal trade in tiger and the non-timber forest products trade, most notably traders in *Aquilaria* spp and also in the trade in reptiles – snakes and fresh water turtles.

The ultimate source of tiger pelt and bones exported out of the area surrounding the KSNP is unknown. However it is known that tigers killed in and around the National Park have been sold to the eastern seaboard ports of Jambi, Pekanbaru, and Dumaie. There is narrative evidence of tiger being marketed to Medan in North Sumatra and to Bandung in Java. We are intermittently advised that tiger pelts may be sold in Bali or exported out of Bali.

Unfortunately, tiger pelts, stuffed and mounted continue to be seen as high status items and as valuable gifts in Indonesia and a matter of particular concern is the old tradition in the Indonesian armed forces of presenting a new commanding officer with a high value gift such as a tiger pelt. This tradition extends to the Indonesian police force, that only recently separated from the Indonesian army.

Although the importance of mitigation of human-tiger conflict was recognized in the initial Project Mission, the critical importance of this was not previously appreciated due serious under-reporting of cases. It is concluded that:

- Tiger-human conflict is far more prevalent around KSNP than had been assumed on the basis of information previously available to the National Park or other nature conservation bodies.
- Tiger-human conflict appears to be most prevalent in areas where a combination of factors are present, in particular habitat destruction/degradation and heavy poaching of prey species.
- Initial investigations by the tiger team suggest that young dispersing tiger are more likely to be involved in tiger-human conflict incidences than old or sick animals.
- Reduction of human-tiger conflict is essential to the well-being of the communities living around the National Park but is also critical to the long-term in-situ conservation of Sumatran tiger.
- Where conflict between community and tiger occurs, there is a strong probability that there will be a fatal outcome to the tiger involved or to any tiger in the immediate vicinity when retribution is made.
- That human-tiger conflict is regularly manipulated by unscrupulous or other individuals, including members of the security forces, to provide a rationale for the hunting of tiger.
- That a park-wide strategy to manage conflict situations is urgently needed together with tools and funds to allow a suitable response. In the longer term, local government administrations need to develop realistic spatial planning to prevent conflict developing .
- That a detailed study of the causes of conflict between community and Sumatran tiger is required.
- That education of officials responsible for public safety, in particular the police, is urgently required, particularly in forest-edge areas where tiger remain present to prevent an inappropriate or over hasty response.
- In India and in the Russian Far East, compensation may be paid to farmers whose livestock is killed by tiger. Urgent investigation of the feasibility of such a scheme is needed in Sumatra if peasant farmers are not to resort to lethal action to protect stock.

10 Logistics and base

Although it was originally planned that a permanent basecamp site would be acquired and built, the project currently operates from a rented building in the district town of Bangko, 175 Km east of park headquarters at Sungai Penuh and also from a house in Sungai Penuh.

10.1 Project equipment

- Through co-funding, the PHS team has acquired two pre-owned (1980 and 1981) **Toyota Hartop jeeps** and two pre-owned **Yamaha RX King motorbikes**. Additional motorbikes are urgently needed as motorbikes have been found to be of greatest use to the teams in day-to-day activities, in particular for intelligence collection purposes.
- **GPS** – team members use Garmin 12XL GPS units on patrols and waypoints are entered to a simple GIS system now being developed by the team. GARMIN UK supplied the GPS units at a discounted rate.
- **Cameras** – Three compact weather-proof cameras are currently held by the team and this number will be increased as necessary as funds allow.
- **Tape recorders** – two small voice operated tape recorders have been provided but have proved of less value than had been hoped in intelligence operations to date due to noise levels. This may be resolved by training.
- **Communications** – a high output base station and radio tower has been placed at Bangko, which allows communications direct to Sungai Penuh, and to a number of areas around the park. The team use VHF/14.4Mhz hand held 2-way radios when in the field. However the hilly terrain and very remote nature of some patrol sites means difficult communications.
- A **PII 400 Mzh computer** and **Artec scanner** have been acquired and the latter has been particularly valuable on occasion – not least in securing assistance in identifying items confiscated. A second computer is urgently required. A laptop given the mobility of the Unit Manager would be ideal.

11. Acknowledgments

The Kerinci team is grateful to many individuals and organizations in and outside Indonesia for their assistance in establishing and supporting this project

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Doctors Dwi Sutantohadi, Alip Tantun Hartana, and Ir Muniful Hamid – now based at Bukit Barisan Selatan National Park - and Achmad Yanuar of FFI spent many evenings in Sungai Penuh drafting early strategies based on their experience in the field in this National Park.

We have received much generous help, support and constructive criticism from former Head of Kerinci Seblat National Park Ir Wandojo Siswanto and, following his move to Manggala Wana Bakti, Jakarta in May 2000, his successor Ir Anwar MSc

Drh. Hayani, head of conservation for the National Park has also provided valuable veterinary advice and expertise, both in forensic examination of samples and in advice on conservation protocols. The National Park's director of administration, Edi Susanto SA has also given much time to ensuring that the team's operations have had a sound legal basis.

Although this project is run, on a daily basis, from Sumatra, the staff of the Fauna and Flora International: Indonesia Program office in Bogor have supplied much assistance, both scientific, technical and administrative and also crucial liaison with national bodies.

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The team is also grateful to police and judiciary in Kabupaten Kerinci who have been positive and supportive of the work of PHS Kerinci Seblat

Many individuals living around the National Park have given positive support to the project, often at considerable risk to their safety and that of their families. For obvious reasons we cannot name these people.

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Matt Linkie, who first visited Kerinci Seblat National Park in 1998 and has now returned to Sumatra to conduct his doctoral thesis, was of immense help to the PHS team through sourcing invaluable reference material and other data for the team while he was in UK and the team looks forward to working with him on GIS issues.

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12. References

Wikramanayake *et al* 1998

Appendix 1. Legal Cases Issues Arising From Patrols and Activities

Outcome	Total	Clarification
Arrests	69	1 man sentenced to 9 months imprisonment for Tiger poaching 4 men sentenced to six months imprisonment for Illegal logging 3 men awaiting sentencing for possession of illegal fire arms (deer poaching) 2 men awaiting final sentence for illegal logging 59 men issued with formal legal warnings/cautions and education. (for various wildlife related crimes) 1 Arrest warrant issued for Tiger poaching
Chainsaw seized	10	4 from TNKS border markers 151-153 Gunung Kerinci 2 from TNKS buffer zone forests at Birun village, Rantau Beringin. 1 Unit Chainsaw from Seringat river, Desa Sungai Pinang. 1 unit Chainsaw from Rantau Beringin Desa Birun within TNKS forest 2 units from upriver Sungai Langeh within TNKS
Sawn logs of export quality Meranti (<i>Shorea</i>) (20x25x400cm)	188	20 destroyed at upriver Seringat river. 65 destroyed at Sungai (river) Selayu 23 destroyed at Sungai Kambu. 67 destroyed at Hulu Sungai Tabir 13 seized and placed at the TNKS sub section Jambi office as legal evidence in a case against a rogue military officer
Tembesu wood (5x25x200 cm)	2 meters cubed	1,5 meters cubed destroyed at Desa Birun. L300 Pickup released after formal warnings. 0,5 meters cubed destroyed at Penetai. Pick Up T 120 ss released after formal warnings issued.

Appendix 2. Examples of Evidence Held Pending or Following Legal Action

Item type	Case	Location seized	Clarification
1 pelt and complete skeleton of a female Sumatran tiger.	Tiger snared and then shot by Abu Yani	Muara Imat village, Kerinci but animal killed at Muara Jernih village, Tabir Hulu sub district, Kabupaten Bangko, Jambi	Suspect Abu Yani sentenced to 18 months imprisonment, reduced to nine months on appeal Animal killed in vicinity of 47 67085, 979000
10 Chainsaws	Illegal logging in National Park and /or tiger habitat	Sungai Lengeh / Rantau Beringin, Sungai Pinang Gunung Kerinci Rantau Beringin Desa Birun	4 unit chainsaw held as evidence but owners escaped arrest. 4 unit chainsaw held by PHS and owners now in prison. 2 unit chainsaw held as evidence but operators released to advise fellow villagers of law regarding forest protection .
89 Barking deer traps	Poaching a protected species in the National Park	Pendung Talang Genting, central Kerinci area	50 snares active at time of encounter 38 snares in camps awaiting placement. 1 man released on formal warning.
3 heavy duty cable tiger traps	Idem	Payau Sepah Ds. Renah Alai, Jangkat, Bangko district	Confiscated from hunting party on way into forest.
3 heavy duty cable snares for tiger	Idem	Bukit Setinjau Laut/ Lumut Lempur area S Kerinci	See details
143 snares for pheasant and deer	Idem	Danau Depati Empat, Jangkat, Bangko	139 pheasant snares awaiting placement in poachers' camp. Also two 2 sambar snares, a decomposed tapir in a deer snare and one active tiger trap
42 snares for sambar and tiger	Idem	Muara Sako, Pesisir Selatan	35 sambar snares and 7 heavy duty cable snares for tiger in poachers' camp by harvested (8-10 months ago) marijuana plantation. Believed connected to tiger poaching incidents in G Kerinci area.
32 barking deer and serow snares	Idem	Renah Kayu Embun, Kerinci	30 snares for muntjac, 2 snares for serow.
3 airguns (Cannon)	Law enforcement regarding nature protection in National Park	Muara Emat, Kerinci, Payau Sepah, Bangko and Pendung Talang Genting	Held as evidence in case of any future prosecution. Opportunist confiscations in course of general duties
30 assorted machetes and 3 axes	Habitat destruction	S. Kambu, Lengeh, Rantau Beringin dan Lempur	13 men released – daily-paid labourers for loggers & manau syndicates 4 men released – daily paid labourers helping to clear forest for investors
Documented but not held:- 400 wild birds, mainly barbets and laughing	Illegally hunting birds in the National Park	Tanjung Kasri & Sungai Inai, Jangkat	Birds released and patrol continued. Trappers cautioned

thrushes			
37 Pondok (forest shelters) documented	Illegal logging & other camps destroyed	Sungai Sijau, Sungai Kambuh, Ngaol, Ipuh (Bengkulu) and Bedeng VII.	30 pondok not occupied at time of encounter, 7 in use at time of operation.
Partial skeleton of an Asian elephant	Flagship protected species now threatened by ivory poaching	Sungai Kambu/Rantau Beringin, Bangko	Removed for forensic examination by Bp DrH Hayani (vet), conservation director of TNKS
1 adult Asian golden cat pelt, in preservative fluid (spiritus)	Possession of a protected species	Pulau Sangkar, Kerinci	Trapper not prosecuted (counter productive). Pelt held by PHS for education purposes
Partial skeleton & skull of a clouded leopard	Possession of a protected species	Ngaol, Bangko	Poacher formally warned. Prosecution would have been counter productive
Dried liver, partial oesophageal tract & rendered fat of Sumatran tiger	Confirmed as tiger by LIPI laboratories, Cibinong	Arga Makmuir, Bengkulu	Under investigation
Smoked flesh of Sumatran tiger. +/- 200g	Confirmed as tiger by LIPI Cibinong	Tapan, West Sumatra	Investigation continues. Arrest warrant issued for poacher's sponsor
100gs +/- flesh allegedly of a Sumatran tiger	Confirmed as flesh of Sumatran tiger following tests by LIPI Cibinon	Kerinci	Flesh obtained at 47M 0767143, 9759696 – killed locally in early 1999.
+/-100 gs of flesh allegedly of Sumatran tiger	Confirmed as flesh of Sumatran tiger following tests by LIPI Cibinon.	Kerinci	Animal poached in late 1999 early 2000 by a known semi-professional tiger hunter.
+/-100 gs of flesh allegedly of Sumatran tiger	Awaiting results of DNA tests	Kerinci	Obtained February 2001 and relating to a 1999 human-tiger conflict incident. Poacher since believed to have killed two other tiger and under active investigation.
Stuffed carcass of a clouded leopard	Poaching of a protected species	Kerinci	Poacher formally warned. Legal problems in advancing the case – poacher had not intended to trap this animal
Pelt of a Leopard cat	Possession & trading in an protected species	Benik/Jujun, Kerinci	Poacher not prosecuted. Pelt held for educational purposes but has also been used for intelligence purposes
1 Rhinoceros hornbill	Idem	Sungai Penuh	Bird died from a deep-seated beak infection in February while awaiting release site.

NB – Two illegal guns, one homemade and designed for elephant and believed owned by a hunter from Manna, south Bengkulu and a second, semi-automatic weapon originally constructed by Fretilin armourers in East Timor have been confiscated by the PHS team but are not directly held by the team for security reasons.

Appendix 3. Examples of Wildlife Crime Intelligence Received by the PHS Team

May 2000- September 2001

Report	Month logged	Area	Price, weight, Pelt length	Additional details
1. Two tiger killed in Sijau river area, end of Ramadan 1999 (December)	May-00	Sijau river, south Kerinci	Unknown	Drum working with a second man from Tapan. Sold to Es, Bangko. Then Pekanbaru
2. Two tigers killed in Sijau/Keruh rivers area in April 2000	May-00	Sijau river, south Kerinci	Unknown	Drum working with a second man from Tapan. Sold to Es, Bangko. Then Pekanbaru
3. A Tabir man who 'often hunts for tiger'	May-00	Man moves around Kerinci and Bangko area		Illegal logger who hunts tiger opportunistically
4. Baby' tiger' pelt for sale	June-00	Lake Kerinci area	Rp150,000	Leopard cat caught in snare & killed with a spear
5. Tiger pelt for sale, Sungai Penuh	May-00	Killed, first week March,	First asking price Rp10 million	Killed in first week of March. Believed sold locally for Rp5m
6. 2 Tiger pelts en route to Pekanbaru	June-00	Kerinci		Possibly see below (7)
7. Kerinci local government officer trading in tigers	April-00	Trading around Kerinci		Man arrested by police on loan sharking charges. Pelts being traded for cash but also protection. One presented in 1999 to a senior police officer, now moved to another area in Jambi
8. Elephant ivory weighting 46kg	June-00	Merangin	Ivory price unknown Teeth Rp20,000 per kg	Suspect is Javanese settler

9. Section of tiger pelt 20cmx20cm bought from Kerinci, March 2000	Jun-00	Animal killed >10 years ago in Kerinci	Gift	Used in conjunction with magic rituals (to make individual proof against knife wounds) but tiger pelt also used for treatment of mental illness
10. Ivory, bones & skin of Asian elephant	Jun-00	From Jangkat area. Tried to sell in Bangko	Unclear	Identity of suspect known
11. Tiger pelt, 1m50 sold to Kerinci potato traders	Jun-00	Merangin	Rp3.5 million	To Kerincinese planning trade to Pekanbaru
12. Two tigers killed by headman of PR village, Bangko March 2000	Jun-00	Merangin	<u>Pelt 1</u> 1m.50 Rp6.8m <u>Pelt 2</u> 2m Rp7.2m	Direct to a Chinese dealer in Jambi
13. A man in Muara Siau sold a clouded leopard	Jun-00	Merangin	Rp300,000	Sold to Es in Bangko
14. 1 tiger bought by junior soldier wanting secure his promotion	Aug-00	Kerinci	Rp8 million. Pelt length unclear	Killed locally, early 2000
15. Tiger poisoned, late February 2000	Jun-00	Kerinci	Unknown	Reported killed on orders of senior village official (animal ate a dog). Reported sold to Bangko (Es) but subsequent report to a South Kerinci man (see 36) via No 53
16. Two tiger pelts for sale in Sungai Manau 1.65 & 1.85	Jun-00	Believed from ulu Tabir area	<u>Pelt 1</u> Rp3.5m <u>Pelt 2</u> 2. Unknown	Sold to AH in Muara Bungo
17. Tiger pelt for sale - believed killed Dec or Jan 2000	Jun-00	Antiques shop in Sungai Penuh	Rp6 m	Sub-dealer waiting for pelt to arrive but vendor unable to transport pelt to Sungai Penuh (see 31) Note – this man claims to have sold two pelts (origin unknown) in 1999

18. Tiger gall bladder for sale in desa Muara Jernih	Jun-00	Muara Jernih	Rp500,000	Tiger killed in January 2000 . Item seen. Pelt sold to AH in Muara Bungo. Poacher not as per 21 or 22
19. 5 Tiger traps active in Muara Jernih	Jun-00	Muara Jernih	One animal killed. Poacher arrested	Placed by Abu Yani, usually sells to AH, Muara Bungo
20. Village headman is involved in tiger poaching and trading	Jun-00	Muara Jernih		Sells to AH, Muara Bungo
21. Senior local politician holds tiger pelt and may occasionally deal	Jun-00	Kerinci		See Jan 01
22. Sumatran rhino poached (shot) – late May or early June.	Jul-00	Two locations cited. RPU advised	Rp45m	Sold to West Sumatra dealer and sawmill owner, onward to Pekanbaru then exported
23. Tiger pelt on display in café: animal killed 1998 in Painan, W Sumatra	Jul-00	Pesisir Selatan & Padang	Reported bought for Rp5m	Passed to KSDA for seizure. Subsequent intelligence by KSDA
24. Clouded leopard for sale	Jul-00	Merangin	Rp300,000	Believed still held by poacher
25. Two tigers killed at Rena Kemumu (July)	Aug-00	Merangin & Kerinci	<u>Pelt 1</u> 1.80cm Rp4m <u>Pelt 2</u> Unknown	Siulak hunters working with Es in Bangko.
26. Tiger poachers active in Rena Kemumu area	Aug-00	Merangin & Kerinci		3 Siulak men bird - trapping while waiting for cables (10) from Es, Bangko. Unclear if supplied as Es had claimed to undercover PHS agent that dealing now 'too dangerous' and has since been seen (by Warsi operative) refusing a tiger pelt offered from Pau (Sarolangun)

27. 5 tiger traps active in Sungai Betung	Aug-00	North Kerinci		Not found but poacher known and named
28. Drum in forest seeking to kill a 'problem' tiger	Aug-00	Pesisir Selatan/North Bengkulu districts		Poacher armed and dangerous. No action possible at time of report
29. Marijuana grower trapping tigers	Aug-00	Kerinci	cf Sungai Penuh shop offering tiger pelt for Rp6 million	Later shot in police drugs raid. This man previously dealt with Es, Bangko through until c.1998 when a badly damaged skin ended their business relationship
30. Tiger traps active	Aug-00	Merangin		Not found. Not confirmed
31. 1 tiger skin and bones from Sungai Manau area sold to a Brunei man	Aug-00	Merangin	Rp95 million	Gaharu dealer sold to a Brunei businessman (also gaharu dealer). Checked and cross checked and appears to be true in spite of the extraordinary price
32. 29 Kg of elephant ivory and 700 gs of rhino horn held in store in South Kerinci area	Aug-00	From Merangin	Rp800000 per kg	Being monitored. Items are believed old.
33. Muara Bungo man bought 3 tiger pelts	Aug-00	Merangin	<u>Pelt 1</u> 1m.45 -Rp3.8m <u>Pelt 2.</u> 1m.75 - Rp4.7m <u>Pelt 3</u> 1m85 - Rp4.7m	Via sub dealer (PMS) to dealer to AH in Muara Bungo. Sub dealer also seeking to set up a deal to sell rhino bones (animal killed in Jangkat area, five years ago).
34. Two tiger pelts for sale	Aug-00	Via south Kerinci village headman	<u>Pelt 1</u> Rp3m <u>Pelt 2</u> Rp5m	Unconfirmed. Vendor could not produce items (vendor likely to have been trying to secure pelts sold in July to Es, Bangko). Vendor may have bought pelt of Pungut (February) tiger

35. Tiger pelt sold in Sungai Penuh	Sep-00	North Bengkulu	Rp6	Exchanged for a debt. Purchase price equivalent unclear. Sold to unknown Bangko man. Vendor reported to hold one other badly damaged tiger pelt and a clouded leopard.
36. Poacher looking for ammunition	Sep-00	Kerinci		Tiger poacher usually sells to Chinese dealer in Jambi who collects and pays on receipt of telephone call. Flesh sample subsequently obtained from this man and confirmed as tiger
37. Tiger pelt sold	Oct-00	Kerinci	Rp6 million	Pelt from Rena Kayu Embun, killed in September by Kemun and Siulak poacher(s). Sold by sub-dealer 37. Purchase price unknown.
38. Tiger killed in 1999	Oct-00	Kerinci		Flesh sample obtained confirms report. Killed after conflict. Army officer reported as shooting this animal (information received by FFI at time).
39. Elephant hunters enter park	Oct-00	Merangin		Poachers escaped. Old elephant carcass present and two other, newer carcasses reported in location. Gang identities known and these men hunt both tiger and elephant in a number of area. Gang leader is armed and dangerous.
40. Sungai Penuh dealer (see 37) awaiting delivery of a tiger after poison set	Oct-00	Kerinci		Information to PHS four days prior to fatal attack by a sick tiger on Usmarni (25.10.00)
41. Pelt of small tiger for sale	Oct-00	Kerinci	Rp750,000	Female Asian golden cat
42. Tiger pelt, 1m60 long, for sale Sungai Penuh	Oct-00	Kerinci	Rp12jt	Untrue, vendor hoped to secure a buyer, then find a tiger pelt and was observed visiting sub-dealer (see 37) seeking a pelt.

43. 20 Kg of tiger bone for sale	Nov-00	Merangin	Rp	Pelt(s) already sold, including to South Sumatra (Palembang). Vendor not met. Cross-check advises information correct and that this man has killed at least four tiger in recent years
44. Dukun (village shaman) holds bones of a small tiger	Nov-00	Merangin		Clouded leopard
45. Suspected dealer	Nov-00	Merangin		Confirmed. Mainly sells birds to Pekanbaru. Works with Es and a sub-dealer in Sungai Manau on occasion
46. Tiger pelt sold	Nov-00	Bukitinggi, West Sumatra	Rp5m	Bangko dealer (Es) advises PHS team member that a dealer colleague (Bukitinggi/Padang Panjang) just sold pelt of zoo tiger to army officer returning to Java
47. Provincial level dealer	Nov-00	Jambi city		Confirmed as would-be buyer
48. Tiger entered pig snare, killed. Pelt available	Nov-00	Sarolanggun	Skin taken by plantation assistant manager	Suspect sacked, pelt location unknown
49. Habitual poacher of tiger	Nov-00	Merangin		Ongoing
50. Tiger bone (2.5Kg) for sale near Sungai Penuh	Nov-00	from Pungut	Rp200,000 per kg	Confirmed by independent examination (vet). Cf February 2000, Pungut

51. 2 tiger snared 1998	Dec-00	Ulu Selayau area, Rimba Karya Indah logging concession		Connection with Sungai Manau & other cases
52. Tiger(s) poisoned in January 2001	Jan-01	Kerinci	Rp2jt for carcass decomposed	Sold to Jambi through Kerinci politician facilitating deal. Still unclear whether one tiger or two. Possible conflict connection (a dog was killed by tiger in this area) although the overt reason for this incident was setting of poison for wild pig
53. Tiger & clouded leopard for sale	Feb-01	From Kerinci but for sale near Jambi city		Photographs seen of a clouded leopard and Sumatran tiger, both mounted (stuffed)
54. Tiger traps active	Feb-01	Kerinci		Many ungulate snares active. Past evidence of tiger poaching in this area subsequently found
55. 3 tiger pelts and 23Kg of tiger bone	Mar-01	Solok		1 clouded leopard, already mounted
56. In excess of 20 Kg of tiger bone for sale	Mar-01	Pesisir Selatan	Price unclear advised +/- Rp200,000 per kg	Information from poachers (above). Logged but not investigated in field
57. Tiger killed and pelt sold. February 2001	Feb-01	Kerinci	Rp6 million	Sold to Padang dealer. Report initially dismissed due to lack of corroborative detail. Subsequent information (April) indicates report was correct. Possible new dealer active.
58. 2 tiger pelts for sale, one badly damaged	Feb-01	Merangin (PR village)	<u>Pelt 1</u> Rp2 million <u>Pelt 2</u> Rp4million	Sold to Muara Bungo with assistance by Es (commission). Lost only hours before team operation was to be launched

59. Tiger pelt and teeth (lower jaw) for sale.	Feb-01	Muara Bungo	<u>Pelt</u> Unknown <u>Bone</u> Unknown Rp 100000 for canine (1) and most of lower jaw	Trapped & shot by Kubu hunters (location unknown), sold to sub dealer in Muara Bungo, then sold to Pekanbaru. Vendor formerly worked with AH.
60. Tiger killed in 2000.	Mar-01	North Bengkulu		Pelt used to scare pigs
61. Tiger trap active	Mar-01	Kerinci		Not found
62. Tiger pelt for sale	Mar-01	Kerinci	Rp8 million	Sub-dealer had hoped buy pelt below (62)
63. Tiger pelt sold	Mar-01	Merangin	Rp5m	Animal killed due to human-tiger conflict. Pelt sold to a businessman (private buyer).
64. Former rhino dealer now trading in tiger. Bengkulu	Mar-01	North Bengkulu		Known to Park Tiger Officer and previously gaoled for wildlife trafficking
65. Tiger pelt & bones for sale	Apr-01	Merangin	Rp300,000	Clouded leopard.
66. Tapan poachers operating in Barisan Selatan National Park	April -01	Lampung province		Passed to RPU's after team member invited to join syndicate
67. Tiger snares active	May-01	Merangin		3 active snares found. Two snares already triggered over 4 week period and two tiger dead and removed by poachers

68. Tiger pelt bought by district director of a state-owned business	May-01	Kerinci	Rp5m	Bought from Merangin, mounted in Bukittinggi. Currently in man's house. Action impossible at present
69. PHS team 'helper' offered 7 tiger pelts	May-01	Jambi	Rp15m per pelt	'Buyer' posing as foreign businessman requested 5 tiger pelts at USD1500 per pelt (above market price) to 'secure a business deal' and was offered 7 pelts with exchange, for cash, in 48 hours. Cannot be proceeded with until this man's protectors are known and neutralized.
70. Tiger pelts sold (2), bones remain	June -01	North Bengkulu		Unconfirmed (no evidence) but probable on basis of subsequent information
71. Tiger pelt for sale	June-01	Kerinci		Seen & measured by undercover member of PHS.; Poacher fell out with friends and pelt removed from village hours before PHS operation launched.
72. Tapan poachers hunting tiger	June -01	Merangin-Kerinci		Working with a local man seeking to become a TNKS auxiliary. Black-listed by park as a result.
73. Tiger pelt bought by a senior police officer	June-01	Jambi province		Bought by deputy head of police of a district in which PHS operates. Cannot be confirmed as not seen however Head of Police of this district reported to have bought a tiger pelt in 2000
74. Tiger snares active	July -01	Merangin		Site found and snares made safe. Believed placed to order of Bangko businessman
75. Identities of members of tiger and rhino poaching syndicate operating in Barisan Selatan NP	July-01	Lampung		Passed to RPU's and to BBS management. Syndicate withdrew to West Sumatra province
76. Tiger pelt for sale	July-01	Rejang Lebong, Bengkulu		Pelt seen and measured by under cover agent of PHS. Poacher became suspicious and fled.
77. Poachers from Sumatra Selatan province hunting tiger professionally	July-01	Barisan Selatan NP and southern edges of KSNP		Three men from Pagar Alam, South Sumatra province. PHS co-ordinating investigation with another NGO
78. Tiger bone for sale	Aug-01	North Bengkulu		Bone for sale by forest products dealer. Bone secured by gaharu (Aquilaria) hunters who found tiger dead & rotting in rhino snare
79. Baby tiger for sale, alive	Aug-01	Pesisir Selatan, West Sumatra		Animal dead by time PHS investigator reached site. Animal identified as clouded leopard. No action taken as 'owner' then advised he had access to tiger pelts, bone and flesh.
80. Tiger flesh for sale (10Kg) in Arga Makmuir area, North Bengkulu	Aug -01	Bengkulu		Poacher not identified but tiger liver, rendered oil and dried oesophageal tract obtained and dealer identified

81. Buyer of tiger bone & pelts	Aug-01	Lampung		25Kg or more of tiger bone (six or more tigers) available.
82. Tourist offered tiger pelts	Sept-01	Bengkulu	Rp10m for 2 pelts, Rp15m for mounted (stuffed) tiger	Vendor identified. Two tiger pelts subsequently offered to PHS team member but not seen. Operation to obtain evidence of criminal activity in planning. Poacher believed as per (72)
83. Tiger flesh for sale (5Kg)	Sept-01	Pesisir Selatan West Sumatra		Seen and confirmed as tiger through DNA processing. Subsequent operation (October) to seize tiger pelt and head of tiger poaching syndicate
84. Tiger traps active	Sept-01	Pesisir Selatan		Syndicate as above.
85. Deer poachers (armed) active & planning to enter farmland of village supportive of PHS mission	Sept-01	Kerinci		Shooters withdrew to hunt a tiger which had recently killed a water buffalo. Three men arrested in mid-October after further information by villagers.

Appendix 4 Examples of conflict cases reported

LOCATION	WHEN	AREA	VICTIM	DETAILS
1 Farmland at Renah Kayu Embun, Kerinci	25 October 2000	Sungai Penuh Kerinci	Ibu Usmarni, 40,	<p>Victim died from bite injuries to head, face and neck while planting chilli in her ladang +/-750m from forest edge at approximately 1600h.</p> <p>The attack appears to have been opportunist – the animal had been following a wild pig (footmarks seen) when it encountered Ibu Usmarni. The incident happened at a time when PHS had just been advised that poachers had set poison for a tiger in the Rena Kayu Embun area and that the animal had possibly taken the bait.</p> <p>The tiger in question is known to have been sick at the time of the incident, was badly dehydrated and samples of fresh vomit were seen and collected</p> <p>Laboratory tests identified tiger as suffering severe gastro-intestinal event probably caused by administration of an unidentified (due to laboratory facility shortcomings) poison.</p> <p>This tiger is believed to have died some days after this event.</p>
2 Pungut Mudik area,	February 2000	Pungut/Rena Pematik enclave	Dog and ?goat?	<p>Dispersing (?) tiger had been moving around forest edge and into ladang between Pungut Mudik-Pasir Jaya, Rena Pematik since early-mid January. Reportedly killed one goat and subsequently a dog close to Pungut Mudik village. Animal poisoned on instructions of senior member of administration of this ICDP village</p>
3 Dusun Masjid and dusun Batu Kijang (Ds. Sunagi Pinang)	9 – 16 November 2000	Sungai Manau, Kab. Merangin	4 goats, 5 chickens, 1 duck	<p>3 goats, 5 chicken and one duck eaten by tiger. One goat saved and treated..</p> <p>On site work indicates this was a young tiger, probably newly released from its mother and learning to hunt alone</p> <p>All incidents took place at night and not during daylight hours and close to or within the villages with animals and birds taken from animal enclosures, some underneath occupied houses.</p> <p>Following 16.11.00, this tiger was not seen again until it was shot in January approximately 6km from this site.</p>
4 Dusun Renah Kepayang dan Dusun Serik Belarik (Desa Air Liki)	August & November 2000	Tabir Hulu, Merangin	3 water buffalo	<p>2 waterbuffalo killed and partly eaten in Rena Kepayang, one in Serik Belarik, both remote forest enclave villages di dusun Serik Belarik.</p> <p>In October 2000, a tiger entered Serik Belarik hamlet and began to sleep under houses. This caused much alarm, however in December this tiger moved away and caused no further problems.</p> <p>No reports of this animal being killed were received although given poaching downriver from this area, a fatal outcome is possible.</p>

5	Desa Tiangko Panjang	5-8 January 2001	Sungai Manau, Merangin	1 cow, aged 15 months	<p>Young cow attacked in its barn and dragged 50m before being partly eaten. Unlike Sungai Pinang PHS team was under much pressure from the community to shoot this tiger and a team of 3 hunters from Pulau Rengas village arrived offering to shoot this tiger but retreated</p> <p>This animal was shot by the village headman using a loaned gun from Sungai Manau and bones and body parts appear to have been divided up among certain villagers.</p> <p>The skin of this animal was subsequently sold to a Sungai Manau man who proposed to sell it to Jambi. The PHS team constantly monitored this case, including movements of bones and pelt but without the backing of local police, no action could be taken against.</p>
6	Koto Rawang	25 March 2001	Jangkat, Merangin	1 water buffalo	<p>There was strong pressure from the community for this tiger to be shot and in spite of work of PHS team in area, it was subsequently trapped and shot. The skin and other parts divided up among certain individuals and the pelt subsequently sold to a contractor for use in contract negotiations</p>
7	Muara Madras	18 March 2001	Jangkat, Merangin	1 water buffalo calf	<p>PHS team prevented hunters going after this tiger and it was hoped the animal would return to forest and that its livestock raiding activity was a temporary aberration. Unfortunately, although footmark size differs, there is a strong probability this animal was killed a week later at Koto Rawang (see above)</p>
8	Siulak Kecil-Talang Lindung Kerinci	June-October 2001	Kerinci	30+ dogs	<p>Adult (young?) tiger moving in forest-edge and fallow swidden farmland over +40 sq km and up to 2km from forest edge killing guard and hunting dogs. Wild pig plentiful at forest edge but deer species in forest apparently extirpated due to heavy illegal hunting over many years.</p>
9	Masego	September 2001	Kerinci (South)	1 waterbuffalo	<p>Animal killed at dusk/early evening by large adult tiger. Incident apparently concealed on orders of a local community leader and animal subsequently shot.</p>
10	Tanjung Genting/Siulak Deras	December 2000	Gunung Kerinci/Kerinci	1 dog	<p>Dog killed at farmland edge. Subsequently a Palembang man is reported to have visited the village offering to kill this tiger although the offer was not taken up. Given the poaching activities of certain individuals in this area, the fact that this tiger is not reported to have taken other livestock may indicate that local action was taken against it although no such reports were received.</p>
9	Tarutung	15 December 2000	Gunung Kerinci/Kerinci	1 dog	<p>Dog carcass subsequently baited with poison but tiger did not return to kill. Local informants advise that this tiger had previously escaped from a trap and had a rope around its forequarters and belly</p> <p>Neighbour of dog owner tried, but failed to shoot this tiger.</p> <p>Possible connection to killing of one and reportedly two tigers in January 2001</p>
10	Rena Kayu Embun	August 2000	Sungai Kerinci Penuh	1 dog	<p>Tigress with cub killed dog guarding farmland at forest edge. Daylight.</p>
11	Rena Kayu Embun	September	Sungai Penuh,	2 dogs	<p>Killed by tiger, at dusk, in farmland +1.5km from forest edge. Much farmland in</p>

		2001	Kerinci		this area abandoned due to crash in agricultural commodity prices (cinammon)
12	Muko Muko area, North Bengkulu	June 2000	Air Dikit river, TNKS	Man	Man dragged out of his forest pondok by legs and badly bitten before friends (illegal loggers) could drive animal off
13	Sungai Kiang	August 2000	Lubuk Pinang, /Pesisir Selatan	Perceived threat	Illegal loggers complained of tiger presence. Tiger shot by Tapan man (Drum)
14	Ulu Jernih, Pelompek	September 2000	Kec Gunung Kerinci	1 dog	Dog killed in farmland (tied up overnight and left unattended)
15	Karang Mendapo, Pau	November 2000	Sarolanggun	Man	Man bitten on leg by tiger in farmland. Tiger hunted by community but escaped.
16	Talang Kemulun	19 December 2000	Danau Kerinci /Kerinci	1 dog	Dog killed and eaten while hunting