

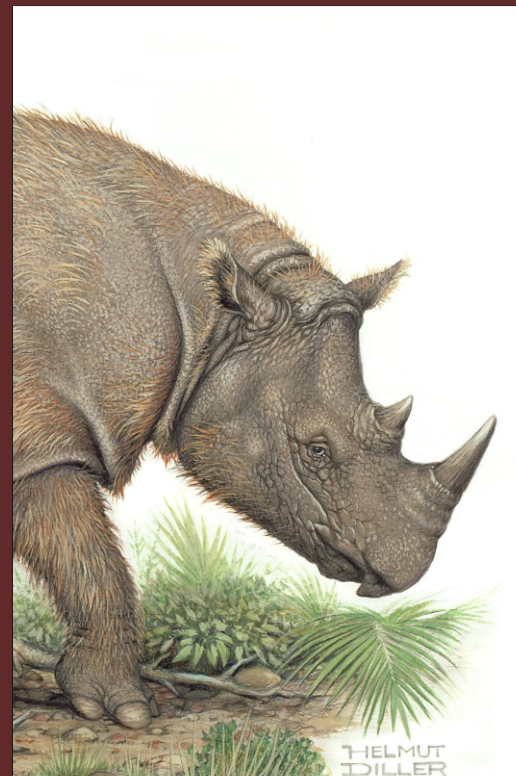


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HOW THE TRADE IN ILLEGALLY GROWN
COFFEE IS DRIVING THE DESTRUCTION OF

Rhino, Tiger and Elephant Habitat

Bukit Barisan Selatan National Park
Sumatra, Indonesia

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January **2007**



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Jakarta, 1 January 2007

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Contents

Executive Summary	9
Introduction	11
BBSNP: Biodiversity and Forest Conversion	12
2.1 History of the Park	12
2.2 Biodiversity	13
2.2.1 The Sumatran Rhino	14
2.2.2 The Sumatran Tiger	14
2.2.3 The Sumatran Elephant	15
2.3 Threats to the Park	15
2.3.1 Encroachment for Agriculture	15
2.3.2 Wildlife Crime	15
2.3.3 Illegal Logging	19
Conservation versus Coffee	17
3.1 Lampung Coffee	17
3.2 Area and Productivity	17
Methodology	18
4.1 Image Analysis	18
4.2 Survey	18
4.3 Investigation of Illegal Coffee Trading Route	19
Result	20
5.1 Encroachment and Land Use Inside the Park	20
5.2 Coffee Production Inside the Park	22
5.3 Trading Distribution in Lampung	23
5.4 Coffee Exports from Lampung	25
5.4.1 General Export	25
5.4.2 Exporting Companies	26
5.4.3 Receiving Companies	26
5.4.4 Destination Countries	27
5.4.5 Exports Tainted with Illegal Coffee Grown inside BBSNP	28
Conclusions	29
Solutions/Recommendations.	30
Epilogue	31
References	32
Appendix I	33
Appendix II	38
Appendix III a,b,c	44
Appendix IV	54



Executive Summary

Sumatra, Indonesia, is the world's sixth largest island and home to some of the most species-rich forests on Earth. Bukit Barisan Selatan National Park, on the coast of southern Sumatra, is one of these forests. Extremely rich in biodiversity, the 324,000-hectare national park is a World Heritage site containing some of Sumatra's last lowland forests.

Three of the world's most charismatic and endangered large species can be found there: the rhino, elephant and tiger. The park is one of the most important forest areas for tiger conservation in Southeast Asia and is home to perhaps a quarter of the entire wild populations of Sumatran rhinos and elephants, making it a globally important conservation area.

Many other species of flora and fauna are found there as well, some of which are endemic. The park is also an important area for unique and threatened plant species like the *Rafflesia spp.* and giant flower *Amorphophallus spp.*

Sumatra's forest area has declined rapidly in the past decade. Rapid development, global market forces and political change in Indonesia have also taken a toll on the park, destroying much of the forest and forcing its wildlife into smaller and smaller pockets of habitat. If no efforts are made to stop this degradation, loss of habitat could result in local extinction of tigers, rhinos and elephants in parts of Bukit Barisan Selatan National Park.

The health and viability of Bukit Barisan Selatan National Park face three main threats: land encroachment, poaching and illegal logging. Of the three, illegal encroachment and conversion of the forest for agricultural purposes is the most serious and often drives the other two threats. Today, almost one-third of the park's original forest cover has been destroyed as a result.

Coffee has become an important commodity for southern Sumatra, in particular the area of Lampung Province around Bukit Barisan Selatan National Park. Indonesia is now the world's fourth-largest coffee exporter, behind only Brazil, Colombia and Vietnam. As a result, robusta coffee - - a plant that's easy to grow in hot climates and often used to make instant coffee and energy drinks - - has become a common crop planted in the park. But the park is a protected area; therefore, the coffee is illegally planted, grown and sold. The illegal coffee is routinely commingled with legally grown coffee from other parts of Lampung Province, resulting in local, national and international supply chains having become "tainted" with illegal coffee.

To assess the impact illegally grown coffee is having on the park, WWF-Indonesia carried out field research between October 2003 and June 2004. First, satellite images were used to plot changes in vegetation cover, including natural forest, open land, coffee plantations, rice and cocoa fields. Then a survey was carried out to determine the abundance of coffee in both old and newly encroached areas of the park. This was followed by an investigation into the chain of custody of illegal coffee. Tracing trade links from the coffee plantations in the park to the international recipients was the most important and complex part of the research.

Data collected showed that an estimated 28 per cent (or 99,904 hectares) of the park had been degraded. Sixty per cent of the degraded area was being used for agricultural cultivation; the remaining area was covered by shrubs and imperata grass. Farmers on the encroached land were growing robusta coffee as their main agricultural crop, with smaller amounts of other cash crops like cinnamon, patchouli, pepper, cocoa and clove.

Coffee accounted for 73 per cent of commodities grown inside the park and was cultivated on 45,657 hectares by small-scale farmers. Each household cultivated 2 hectares of coffee on average. The quality of the coffee beans was moderate relative to beans produced elsewhere in Lampung. Total coffee production inside the park was estimated at 19,600 tons.

WWF-Indonesia's field investigation of the coffee trade routes from within Bukit Barisan Selatan National Park to the international market led to some of the largest coffee companies and most famous household brands in the world. Research identified the following chain: the farmers sold their harvest to the nearest trader (collector) at sub-village or village levels. These traders mixed the coffee from inside the park with coffee grown outside the park and sold on the mixture to sub-district or district-level coffee traders. These sold the coffee on to coffee exporters based in Bandar Lampung, the capital of Lampung Province.



As a result of the WWF research it has been possible to identify the exporters, buyers and destination countries involved in the illegal coffee trade. During the study, more than 40 coffee Bandar Lampung exporters were identified operating in 2003. They were distributing the coffee beans to at least 52 countries in Europe, Asia, America, Africa and Australasia. In 2003, exported unwashed coffee beans leaving Lampung tainted with coffee grown illegally in the park totaled 216,271 tons, including small amounts coming from Bengkulu and Sumatera Selatan provinces. Export volume steadily increased to 283,032 tons in 2004 and 334,864 tons in 2005.

On average over the three years, the largest exporters were Aman Jaya Perdana (22,596 tons), Andira Indonesia (20,054 tons), Antara Saudara (19,962 tons) and Indera Brothers (17,032 tons). In 2005, the largest exporter was PT Alam Jaya with 28,346 tons, followed by PT Indo Cafco (Ecom) with 23,738 tons and PT Aman Jaya Perdana with 20,728 tons.

The United States, Germany, Japan and Italy were the largest importing countries of tainted Lampung coffee in 2004 and 2005, accounting for more than 50 percent of all coffee imports from the region. Other significant recipient countries include Algeria, India and the United Kingdom.

In 2003, 55 percent of all exported Lampung coffee was received by just six companies and their respective partners : US-based Kraft Foods (including Taloca), the UK's ED&F Man, the Netherland's Andira, Hong Kong's Noble Coffee, Germany's Neumann Kaffee Gruppe, and Japan's Marubeni Corporation. Germany's Hamburg Coffee Company, Switzerland's Nestle, Singapore's Olam and Italy's Lavazza completed the top 10 of receiving companies.

Of 2003's top 10 Lampung coffee recipients, Taloca, Kraft and Nestlé were the top recipients in the years 2003, 2004, and 2005, respectively. Japanese firms Marubeni and Itochu maintained similar import levels over the three years. ED & F Man's and Andira's imports dropped, while Nestlé's and Lavazza's imports increased. Some other recipients received very large volumes in 2004 and 2005, namely J. Mueller Weser in Germany, Robert G. Marshall in the U.S., Pacorini in Italy and the U.S., and World Transport in the UK, rerouting the stream of Lampung beans into the EU and United States. Other globally known roasters Folgers (P&G) and Tchibo received smaller shipments of coffee from Bandar Lampung's exporters in 2004.

Because of the way illegal coffee from the national park is commingled with legally grown coffee before being sold, international coffee companies sourcing from Lampung Province may have been unaware that the coffee they were procuring was grown illegally at the expense of protected elephant, rhino and tiger habitat. Yet the international coffee market played and continues to play a key role in creating market forces that drive deforestation in Sumatra, highlighting the need for companies to introduce, implement and monitor responsible coffee procurement policies. Legal and sustainable coffee production is possible, but it requires coordinated efforts on supply chains, production systems, habitat protection and restoration.

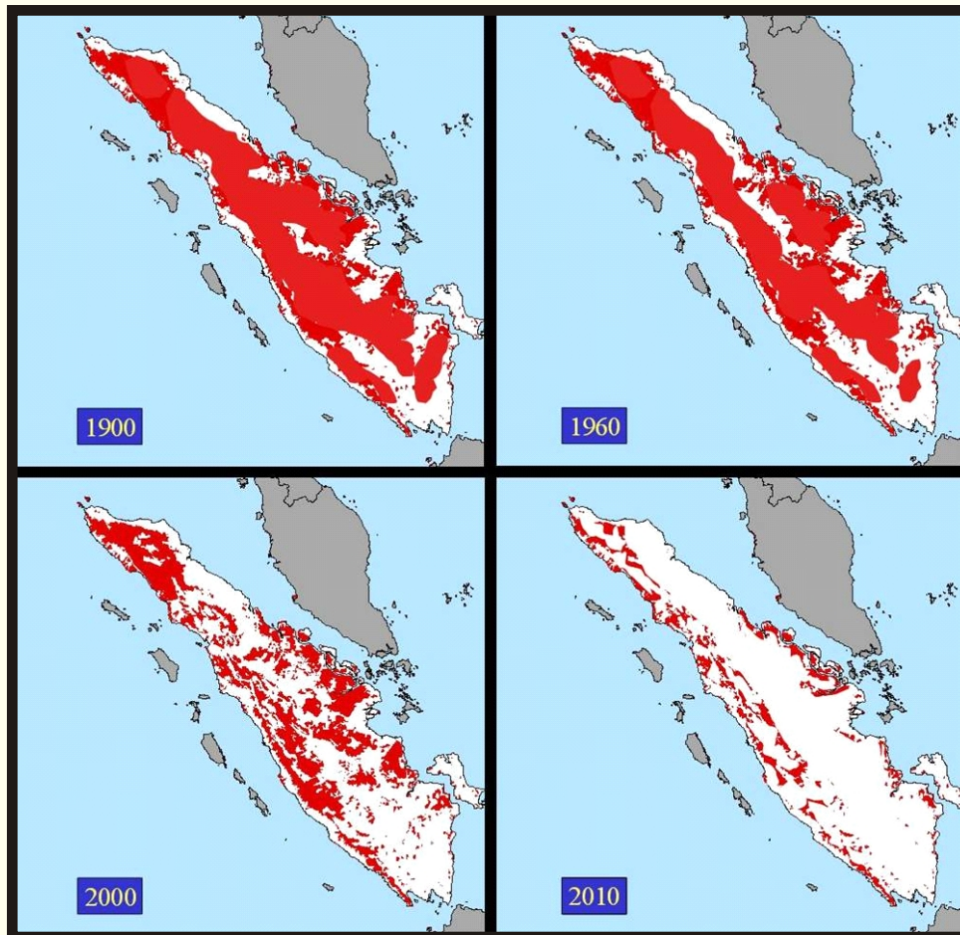
WWF asks the global coffee market to work with the organisation and its partners ForesTrade and Rainforest Alliance to take conservation action and protect Bukit Barisan Selatan's rhinos, tigers and elephants.

This report recognises the important contribution robusta coffee makes to Lampung's economy and does not at any point suggest or advocate that global coffee companies stop sourcing coffee from the province. WWF also recognises that the demand for Indonesian robusta, although a key driver of forest destruction, is just one issue that needs to be addressed. A range of local stakeholders, including park authorities, coffee farmers, traders, exporters, district, provincial and national governments have a key role to play in halting further degradation and restoring the forests of Bukit Barisan Selatan National Park.



Introduction

Indonesia's island of Sumatra has seen a dramatic acceleration of forest loss in the past few decades (Map 1). Predictions forecast an almost complete clearing of forests by 2010 with only the steepest slopes and deepest peat swamps surviving. As the world's fourth-largest coffee exporter, and the second-largest producer of robusta coffee after Vietnam, Indonesia has continuously increased its national coffee production. In many areas the establishment of new farms and plantations has been at the expense of natural forest.



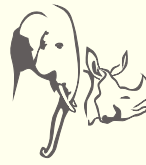
Map 1: Forest loss on Sumatra due to logging and conversion to agriculture. The red depicts forest cover.

In Lampung Province of Sumatra, forest degradation is of particular concern as areas of the Bukit Barisan Selatan National Park (BBSNP) are being converted (Map 5). The province currently accounts for between 50 and 70 per cent of Indonesia's total exports of robusta coffee. Almost 70 per cent of Lampung's coffee production occurs within or adjacent to the 324,000-hectare national park, which has some of Sumatra's last protected lowland forests.

Bukit Barisan Selatan is extremely rich in biodiversity and is home to significant populations of three of the world's most endangered species: the Sumatran elephant (possibly fewer than 3,000 survive today), the Sumatran rhino (total global population estimated at 300 and declining rapidly), and the Sumatran tiger (total population estimated at 400).

It is estimated that the degraded forest area in Bukit Barisan Selatan National Park now accounts for 28 per cent of the park's original cover. Local communities and migrants have illegally occupied the land and cleared the forest for the cultivation of economically valuable commodities such as coffee, rice, pepper, cocoa and patchouli. Former Park Director Tamen Sitorus estimated that more than 15,100 families had been clearing land for agricultural purposes over the last few years (*The Jakarta Post*, 1 July 2004). Driven by international demand, the dominant commodity grown inside the park is robusta coffee.

Further degradation of the forest in the park will lead to an increased threat to large mammals (O'Brien and Kinnaird, 2003). Recent surveys show that tigers, elephants and rhinos all tend to avoid the edge of the forest by up to 3 kilometres, so as deforestation extends deeper into the park boundary, the critical interior forest habitat used by the mammals shrinks to an even greater degree.



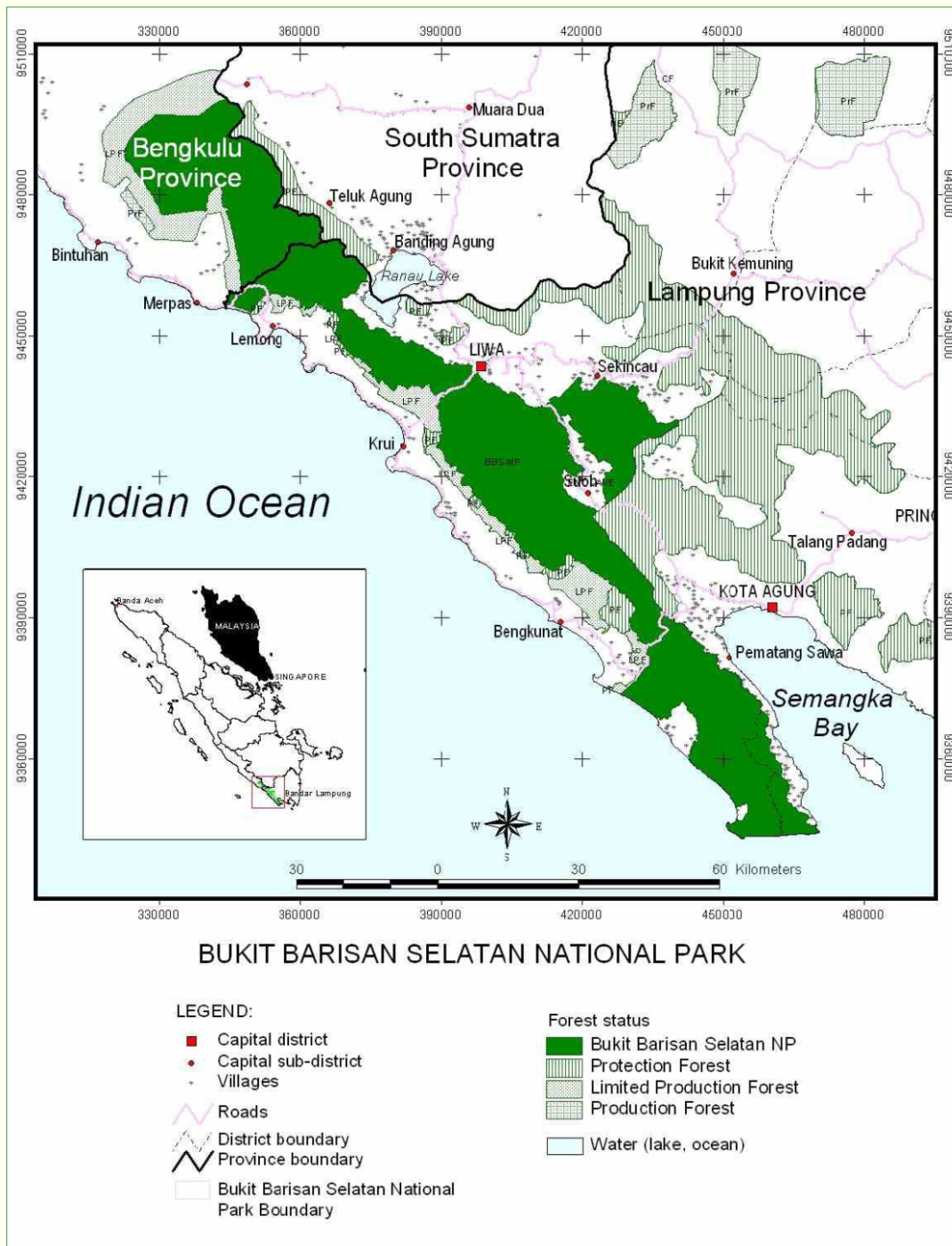
BBSNP: Biodiversity and Forest Conversion

2.1 History of the Park

Bukit Barisan Selatan was declared a wildlife sanctuary in 1935 and become a national park in 1982.

Today it covers 324,000 hectares.

Map 2.





Bukit Barisan Selatan National Park is located at the tip of southwest Sumatra and falls under the administration of two provinces: Lampung and Bengkulu (Tab. 1). The total area of the park in Lampung Province is 249,678 hectares (77%). Here, it spreads across two districts: Lampung Barat and Tanggamus. The remaining 74,818 hectares (23%) of the park is situated in Bengkulu Province. Another province that has an important influence over the park is Sumatera Selatan, where the park border follows the provincial border (Map 2).

Province	District/Kabupaten	Area (Ha)	%
Lampung	Lampung Barat	239,430	73.79%
	Tanggamus	10,248	3.16%
Bengkulu	Kaur	74,818	23.06%
TOTAL		324,496	100.00%

Since 1996, The Wildlife Conservation Society-Indonesia Programme (WCS) has operated a research station inside the park to record and monitor its biodiversity. The Forestry Ministry, in collaboration with the European Union Forest Monitoring and Inventory Project, has also completed research on vegetation in several areas of the park.

2.2 Biodiversity

Bukit Barisan Selatan National Park has a high level of biodiversity. Save The Tiger Fund, WCS and WWF have identified the park as a priority Tiger Conservation Landscape (Dinerstein et al., 2006), a designation that marks it as one of the most important forest areas for tiger conservation in Southeast Asia. The park has been included as a Global 200 Ecoregion, WWF's ranking of the Earth's most biologically outstanding terrestrial, freshwater and marine habitats. In addition, it has been designated as a priority area for Sumatran rhino conservation through WWF's Asian Rhino and Elephant Action Strategy (AREAS). And in 2004, UNESCO listed the area as a World Heritage Cluster Mountainous Area, together with Gunung Leuser and Kerinci Seblat National Parks.

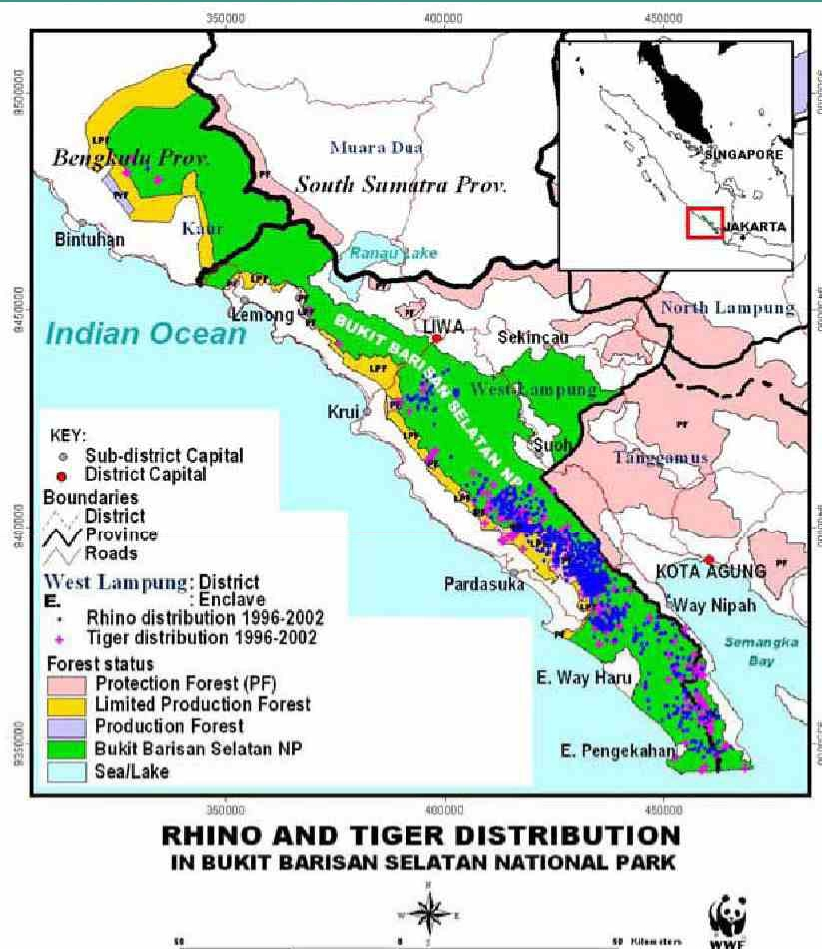
Based on elevation, there are five types of forest in this area: 1 per cent of the area is coastal forest, 45 per cent is lowland rainforest (0- 500 meters above sea level), 34 per cent is hill rainforest (0-1,500 meters above sea level), 34 percent is hill rain forest (500 - 1,000 m asl.), 17 per cent is lower sub-mountain rainforest (1,000-1,500 m asl.), and 3 per cent is upper sub-mountain rainforest (>1,500 m asl.).

More than 470 species of trees, 127 orchid species, 26 species of rattan, 24 of liana, 98 of understorey vegetation and 23 of bamboo (Respati, 2004) have been identified. The park area has also become an important area for unique and threatened plant species like *Rafflesia spp.* and giant flower *Amorphophallus spp.*, as well as traditionally used plants, such as some species of resin trees (*Shorea javanica* and *Shorea ovalis*).

Ninety species of mammals, 322 of birds, 52 herpetofauna and 51 fish species have been identified. "The IUCN Red List of Threatened Species (2006) classifies the park's Sumatran rhino (*Dicerorhinus sumatrensis*) and Sumatran Tiger (*Panthera tigris sumatrae*) as critically endangered, the Sumatran Elephant (*Elephas maximus sumatranus*) and Wild dog (*Cuon alpinus*) as endangered, and the Malayan tapir (*Tapirus indicus*) and Sun bear (*Helarctos malayanus*) as vulnerable."



Map 3. Distribution of Rhino, and Tiger in the BBSNP



2.2.1 The Sumatran Rhino

The Sumatran rhino, also known as the hairy rhino, is one of the most endangered species in the world, listed as critically endangered in the IUCN Red List of Threatened Species (2006). Numbers have fallen from an estimated 600 animals in 1994 to around 300 today. In less than a decade more than half the population has been lost (Kemf and van Strein, 2002). The remaining individuals are found in small populations scattered in Sumatra, Peninsular Malaysia and northeast Borneo. In Sumatra, the rhinos are spread out in four national parks: Gunung Leuser in the north, Kerinci Seblat in the middle, and Bukit Barisan Selatan and Way Kambas in the south. Based on an Indonesian Rhino Conservation Programme report, there are between 60-85 Sumatran rhinos in the BBSNP (Map 3), the largest population in Sumatra (Hutabarat et al., 2001) and as much as 28 per cent of the total remaining population.

In Bukit Barisan Selatan National Park, loss of habitat and poaching are major threats. Sumatran rhinos, along with their relatives, the Javan rhino and greater Asian one-horned rhino, are highly prized and widely slaughtered for their horns, which are ground and used in traditional Asian medicines. Shrinking of their habitat for agricultural cultivation has accelerated their decline in the park area.

2.2.2 The Sumatran Tiger

The Sumatran tiger is the smallest of all the tiger subspecies. As its name implies, it is found only in Sumatra and there are believed to be no more than 400 left in the wild. Today, the Sumatran tiger is listed as critically endangered by IUCN. Tigers are scattered in small populations in forested areas, including BBSNP. Sometimes, very small isolated tiger populations can be found in mosaic forests.



Bukit Barisan Selatan has become the most important forest area for the conservation of the Sumatran tiger. The park has been identified by Save The Tiger Fund, WCS and WWF as a priority Tiger Conservation Landscape in Sumatra. However, populations in this park have been severely affected by a rapid decline of forested area that has been converted to other uses. In addition, there have been frequent conflicts between tigers and communities living around the forest area, in many instances resulting in the tiger's capture or death. Researchers also found that more tigers had been poached in Bukit Barisan than in all other national parks put together. Tiger parts are openly sold in souvenir, pet, gold and jewellery shops (Shepherd and Magnus, 2004).

Since 1997, WCS has been conducting a population survey using camera trapping throughout the park. Preliminary results revealed a total population of 40–43 adult tigers in the park (Map 3), more than 10% of the estimated remaining population of Sumatran tigers. Tiger density in BBSNP is approximately 1.6 per 100 km² (O'Brien et al., 2003).

2.2.3 The Sumatran Elephant

The Sumatran elephant is possibly the oldest of the Asian elephant subspecies and is unique to Sumatra. The Sumatran elephant is distributed throughout the island, but because of habitat loss, poaching and frequent human-elephant conflict, the total number of elephants in the wild has declined rapidly.

In Bukit Barisan Selatan National Park, the elephant is found in almost all areas, including forests and their surroundings. However, because of the park's long and narrow shape, conflict between humans and elephants occurs frequently. Usually, this ends with the capture of suspected "problem" elephants and their translocation to a conservation centre in Way Kambas. Another factor influencing the rapid decline in elephant numbers is poaching for the species' tusks. Forty-five elephants were poached in the BBSNP between 2000 and 2004 (Tab. 2).

WCS estimated 500 elephants use BBSNP (Anonymous, 2004). The organisation has conducted elephant surveys in the park since 2000, using dung decay and camera trap methods to estimate population size.

The park also harbours other unique fauna, such as the western tarsier (*Tarsius bancanus*), Slow lori (*Nycticebus coucang*), Sumatran hare (*Nesologus netscherii*), nine species of hornbill, the rare Sumatran dwarf pheasant (*Polyplectron chalcureum*) and the Sunda ground cuckoo (*Carpococcyx viridis*), which had not been recorded since 1916 but was rediscovered in the area in 1999 (Zetra et al., 2002).

2.3 Threats to the Park

The main threats to the sustainability of the park are land encroachment, wildlife crime and illegal logging for agricultural cultivation. These are prevalent in protected areas throughout Indonesia. In BBSNP, they have resulted in the conversion of almost one-third of the forest.

2.3.1 Encroachment for Agriculture

Encroachment into Bukit Barisan Selatan National Park for agricultural purposes, mainly to establish coffee plantations, is the most severe threat in terms of the park's sustainability. Where the forested area has been opened up for production of agricultural commodities, most wildlife species have abandoned the area. The distribution and range of large mammal species is particularly affected by this habitat fragmentation or destruction. If the current rate of forest loss continues unabated, it is estimated that by 2010, the core forest area for tigers and rhinos will be reduced to as little as 20% of the total forested area and will become increasingly fragmented. Core forest area for elephants will be reduced to 0.5% of the remaining area and will be found primarily in the southern section of the park. As a result, by 2010 the BBSNP will provide a safe habitat in the core forest for not more than one tiger, one rhino and no elephant family (Kinnaird et al., 2003).

Conflict between humans and wildlife is likely to increase in encroached areas and may result in an escalation of death of wildlife and humans as repeated incidents in 2006 have shown. Encroachment also creates improved access for illegal activities such as wildlife hunting and logging.

2.3.2 Wildlife Crime

Wildlife crime (hunting and poaching) is the second threat to the park, mainly because it is directed at endangered large mammals such as elephants, rhinos and tigers. Other poaching and hunting is directed at sambar deer, barking deer, birds and turtles. Patrol teams, jointly managed by the International Rhino Foundation, Yayasan Mitra Rhino and the Ministry of Forestry are currently operating in the park to control poaching. These teams are focused on protecting the mega-fauna, but also guard other wildlife and act as a deterrent against illegal activities in the park. Table 2 shows incidences of rhino, elephant and tiger poaching from 2000 to 2005 based on field checks in BBSNP and surrounding areas.



TABLE 2. Data on Poaching of Rhino, Elephant and Tiger in the BBSNP, 2000-2005

Species		Year					
Common Name	2000	2001	2002	2003	2004	2005	Total
Rhino	0	2	3	0	0	0	5
Elephant	1	12	10	13	9	4	49
Tiger	0	2	1	0	0	2	5
TOTAL	1	16	14	13	9	6	59

2.3.3 Illegal Logging

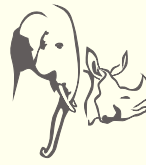
The manager of BBSNP reported that logging in the park began as far back as 1952, but greatly intensified after 1998. Lack of funds has curtailed the activities of the park administration, which has a staff of 67 to protect the forest from poachers and illegal loggers. According to the park manager, there should ideally be one ranger for every 500 hectares; therefore, there should be 720 rangers (*The Jakarta Post*, 7 July 2004). As a result, illegal logging in the park occurs, mostly for local or personal consumption. Fortunately, there are no large sawmills or pulp and paper mills in Lampung Province, so the park does not suffer the same levels of illegal logging reported elsewhere in Sumatra (McCarthy, 2000 and Barr, 2001 in Kinnaird et al., 2003).

As well as illegal logging, a great deal of damage has been inflicted on the park by a number of timber companies that were granted concessions in 1974. The companies, with headquarters in Jakarta, were given forest concessions in Bengkuntat, West Lampung and in Way Nipah, Tanggamus, regencies.

Some other timber concessions received permits a long time ago to the south of the park, but no longer operate. Currently, the only active timber concession near the park is PT Sirlando in Bengkulu Province, run by the local government to the north of the park.

Logging is exacerbated by local government development policies that are often poorly coordinated with park authorities. Important operations like the construction of roads cutting through the park area have been carried out with little consultation with the park authority

Currently, there are no active timber concessions around BBSNP in Lampung Province. However, damage caused by former logging operations is still obvious.



Conservation versus Coffee

3.1 Lampung Coffee

There are two significant types of coffee bean: arabica and robusta. Arabica accounts for more than 70 percent of the world's coffee production and produces superior quality coffee with the greatest flavour. Originally from Ethiopia, it is grown in Latin America in vast quantities. Arabica grows slower than robusta, grows best at altitudes over 900 meters and needs careful cultivation. Arabica is more expensive and is the type of coffee used by specialty roasters.

The coffee grown in southern Sumatra and BBSNP is robusta. Robusta grows at lower elevations, is easier to grow, produces higher yields and is more resistant to disease than arabica. Robusta has more caffeine than arabica and is cheaper, usually used in instant coffees, lower-cost popular commercial brands and as filler in some specialty coffees. It is also used by the energy drink industry. Robusta is well-suited to the hot, wet climate conditions in Southeast Asia. Robusta does well when it has full exposure to the sun, a growing condition that allows it to be planted in deforested areas.

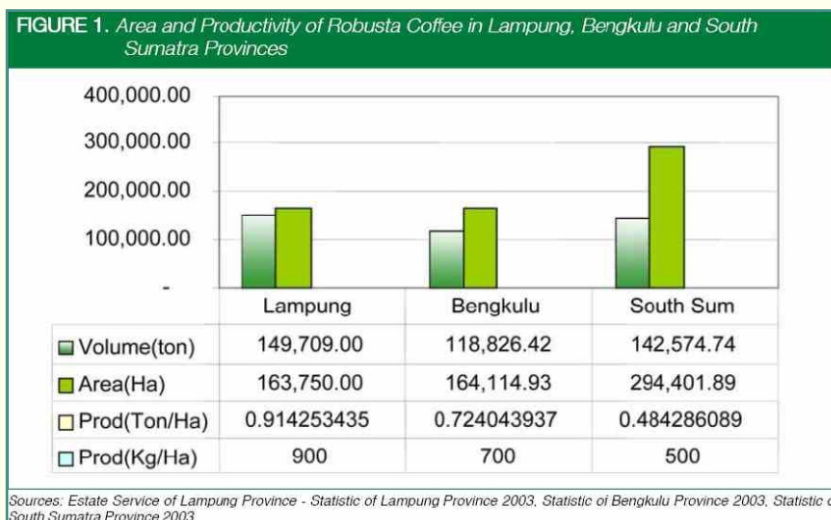
Indonesia is the world's fourth-largest coffee producer after Brazil, Colombia and Vietnam (International Coffee Organization, 2006), and the second-largest producer of robusta coffee after Vietnam. Lampung currently accounts for between 50 and 70 per cent of Indonesia's total exports of robusta coffee. Arabica coffee is also exported in limited volumes from Aceh, North Sumatra, South Sulawesi, East Nusa Tenggara and Bali. Other main robusta producers in Sumatra are Bengkulu and South Sumatra provinces; the seaport in Lampung serves as the export point for coffee products from these areas as well.

Brazil and Vietnam are the main competitors to Lampung's robusta coffee industry, not least because they provide both higher quality and quantities of beans. Productivity of coffee from Brazil and Vietnam can reach 3 tons per hectare, compared with Lampung's average of less than 1 ton per hectare. Poor farming practice and farm maintenance in Lampung has resulted in reduced productivity and the quality of coffee from the province is somewhat lagging behind its rivals, as farmers usually harvest their coffee prematurely when the beans are still green. Furthermore, Lampung farmers dry their beans through low-tech methods, such as by spreading them out on public roads. This activity peels off the bean husk, thereby reducing the need to use expensive peeling machines, but it also reduces the quality of the final product.

3.2 Area and Productivity

Three provinces, with a total area of 622,267 hectares, play a key role in the production and export of coffee from Lampung. Productivity in Lampung, Bengkulu and South Sumatra provinces is markedly different. The coffee-producing area in South Sumatra is the largest of the three, while Lampung's is the smallest (Fig. 1). Lampung is the top coffee producer with an average of 900 kg per hectare (Anon, 2003b). In Bengkulu, average production is 700 kg per hectare (Anon, 2003a), in South Sumatra it is 500 kg per hectare (Anon, 2003c) (Fig. 1). About 20,000 tons of coffee are produced inside BBSNP with an average productivity of 588 kg per hectare.

The facts that large areas of BBSNP had been converted for coffee production and coffee production in southern Sumatra was increasing prompted this WWF-Indonesia study. WWF investigators researched the chain of custody of coffee beans from their production in the park to their purchase by the international market to understand the forces driving continuing loss of rhino, tiger and elephant habitat in BBSNP.





Methodology

Information for this report was collected in five steps. Forest cover and areas of encroachment were identified on satellite images and checked on the ground. Socioeconomic information was collected directly from coffee growers inside the park and in adjacent areas. Trade routes of coffee beans from the growers inside the park via collectors to the exporters and on to the international recipients were identified by “following the beans” on the ground and interviewing all the links in the chain. Trade information was collected from coffee exporters, the Association of Indonesian Coffee Exporters (AICE), Seaport Expedition and the provincial Trade and Industry Department. Some of the top international receiving companies were contacted. Data were collected between October 2003 and June 2004. Data were analyzed in 2004 and 2005. Companies were contacted in 2005 and 2006.

4.1 Image Analysis

Image analysis to generate the land-use map was done first through interpreting on-screen Landsat images taken in 1999, 2000, 2002 and 2003. This land-cover map was the basis used to determine sample points for field surveys. Several thematic maps, such as slope and elevation, which are derived from topographic map analysis, were also used. Climate and administrative maps were also used.

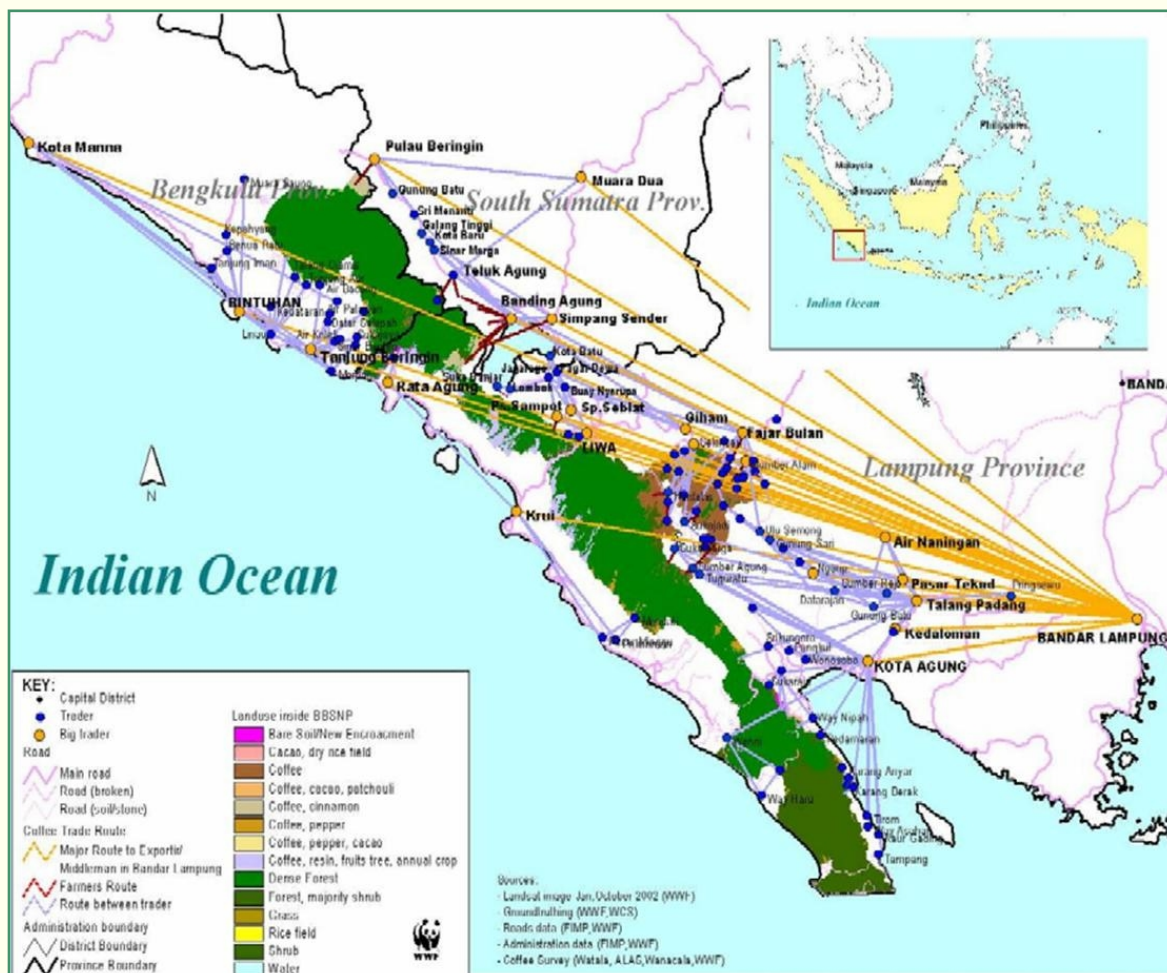
After sample points for field surveys were determined, ground truthing began to determine the relationship between land-cover condition, thematic and land-use maps. Supporting data such as land-cover condition, actual land use, physical condition and agricultural commodities in the field were collected. Additional information, such as the age of crops, harvest yields and household numbers, was gathered.

Field survey results were compared with thematic and land-cover maps and integrated in the land-use map (Map 5). Figure 2 shows the flowchart of the process to determine the land use of the national park.

4.2 Survey

Field surveys were conducted in collaboration with three local non-governmental organizations: Alas, Watala and Wanacala. Questionnaires were used in interviews with coffee growers and traders. The survey covered 21 sub-districts in the provinces of Lampung, Bengkulu and Sumatera Selatan (Map 4). Specific survey sites were identified based on the land-use analysis.

Map 4.





Information collected from farmers included the number of dependent family members, the encroached area for coffee growing, coffee production per year, etc. The information collected from traders concerned the amount of collected coffee per year and/or harvest season, transport matters, from whom they bought coffee and where they sold it. The local trade routes are described more fully in Appendix I.

A total of 180 coffee farmers from 21 sub-districts were interviewed; 129 were inside the national park, five were in other protected forest areas, 12 were in the limited production forest and 34 were in traditional lands. The total number of traders surveyed was 165.

4.3 Investigation of Illegal Coffee Trading Route

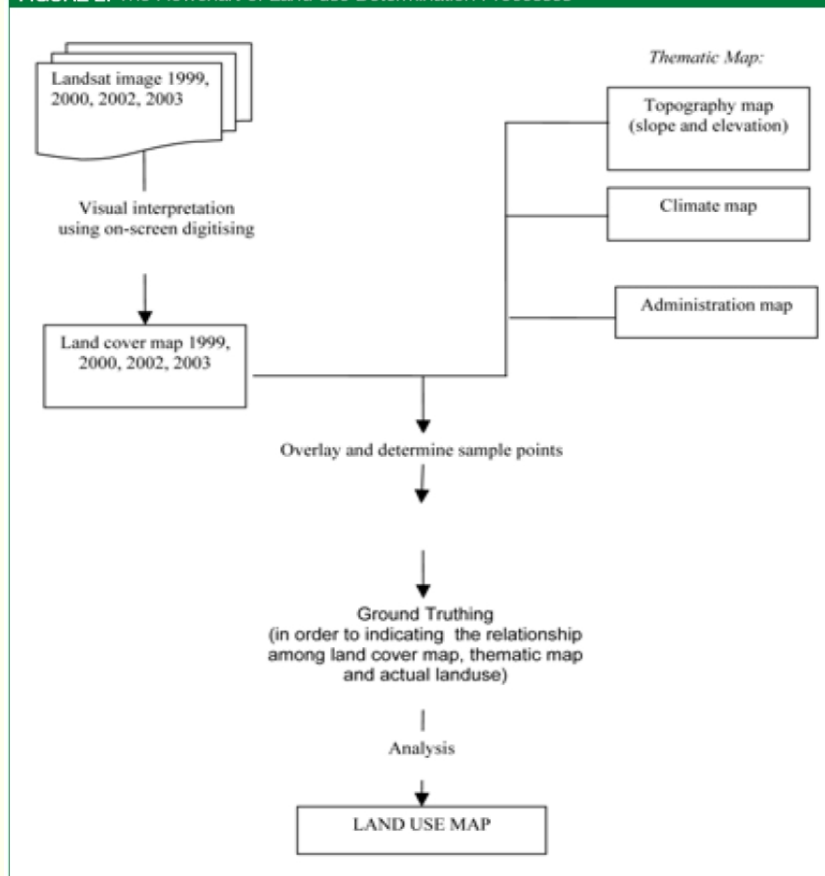
Information on coffee trading routes of illegally grown coffee from the growers inside the park to the exporters at the ports was collected and the route of the coffee beans was followed in detail (Map 4). Most important was the collection of trade evidence and gathering information on coffee transportation from the farmers to the first level of traders and on to the exporters. Information gathered included the volume of illegal coffee traded from the farmers to the first-level traders and identification of the vehicle used to transport the coffee. As much information as possible was collected on the link between first-level traders and exporters. Appendix II provides a detailed description of this information.

A still camera and a video camera were used to collect detailed information on:

- Transport of coffee from the growers to the first-level traders and up to the exporters (loading and unloading events);
- type of vehicle;
- police/plate number of vehicle;
- other identification on vehicle such as displayed text and colour;
- activities inside the coffee warehouse;
- transport from exporter to seaport;
- ship's name and other signs and identification, such as flags and colour; and
- departure of the ship that loaded the tainted coffee from the seaport.

Company profiles of the exporters, volume of imported coffee by destination country and buyer at a particular time, the name of the ship used and the schedule of the ship (departure from the seaport and arrival at destination or transit countries) were collected from exporters, the Association of Indonesian Coffee Exporters, Seaport Expedition and the provincial Trade and Industry Department.

FIGURE 2. The Flowchart of Land use Determination Processes



Data collection from the exporters, Association of Indonesian Coffee Exporters, Seaport Expedition and provincial Trade and Industry Department started in October 2003. The investigation of the trade route from the illegal coffee growers to the exporters, and on to the departure of the ship carrying the tainted coffee, was carried out in May and June 2004.



Results

5.1 Encroachment and Land Use Inside the Park

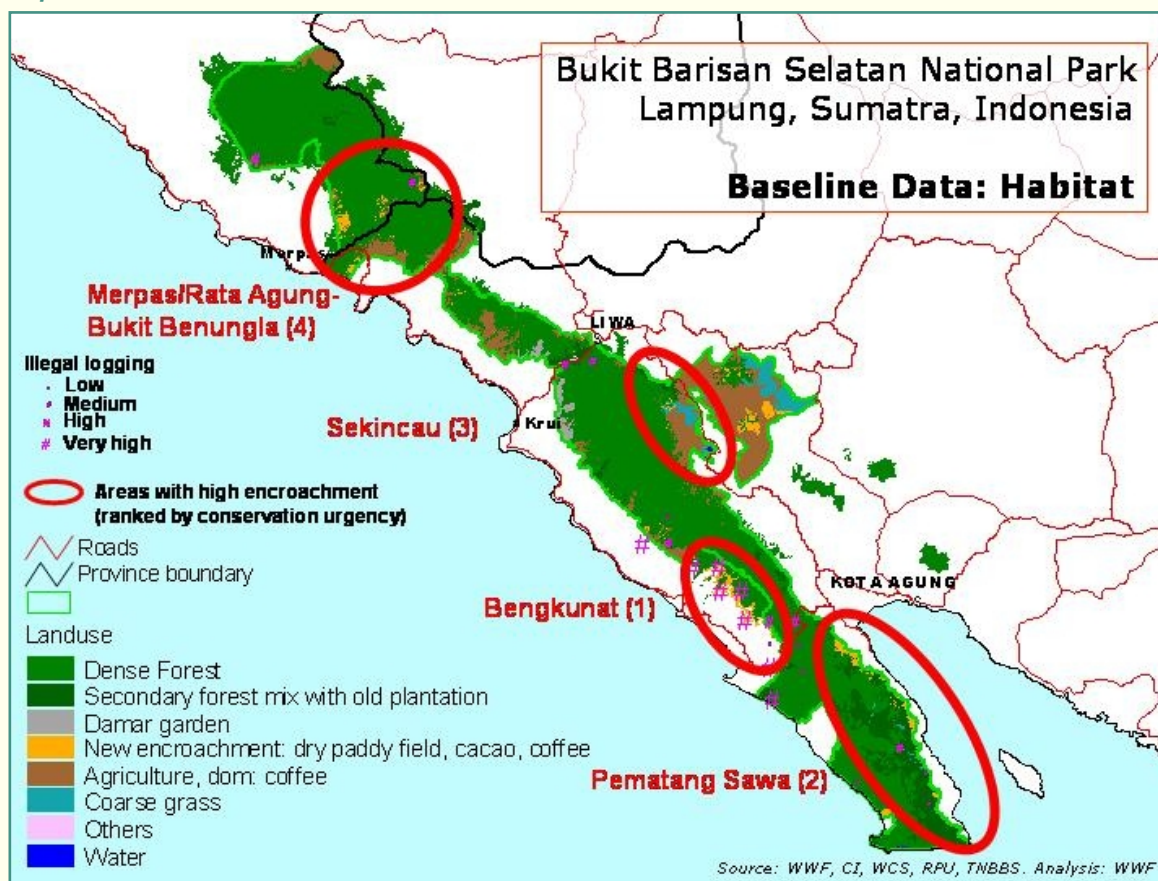
The average rate of deforestation across Indonesia in recent years was estimated at 2.8 million hectares per year. Loss was especially significant in the easily accessible lowland forests of Sumatra. Most deforestation was due to exploitation for timber and conversion of forests to other land uses, such as perennial and annual agriculture.

Table 3 shows the rate of forest loss inside Bukit Barisan Selatan based on interpretation of satellite images taken between 1999 and 2003. By 1999-2000, more than 25 per cent of the park area had been degraded. In 2002, satellite images showed an additional 2 per cent of newly encroached areas in the park. 2003 images (focusing on the southern area of the park) showed further encroachment activity.

TABLE 3. Degraded Areas of the BBSNP				
No.	Year	Area (Ha)	% Total	% Change
1	1999-2000	82,014	25.28%	
2	2002	87,893	27.09%	1.81
3	2003	89,329	27.53%	0.44
	TOTAL	89,329	27.53%	

By 2004 the degraded area in the park had reached at least 28 per cent or 99,904 hectares (Table 4, Map 5). At the current rate of destruction Kinnaid et al. (2003) estimated an additional 20 per cent of BBSNP's forest area could be lost by 2010, meaning BBSNP would have lost half of its forest area. Because of the shape of the park - long and narrow - further deforestation will greatly affect tiger, elephant and rhino populations. Cultivated areas will even further overlap with their home ranges, creating even more human-wildlife conflict as animals come into contact with encroachers with greater frequency. Biodiversity will be lost, starting with the large fauna and followed by other species.

Map 5. Scale of Encroachment and Forest Land Use in BBSNP



Source: WWF, CI, WCS, RPU, TNBBS. Analysis: WWF



TABLE 4. *Condition and Land Use of the BBSNP up to 2003. Based on Satellite Imagery Interpretation*

No.	Vegetation	Area (Ha)	%
1	Dense forest	234,602	72.32%
Shrub and unproductive land			
2	Shrub	22,628	6.98%
3	Shrub, coffee	521	0.16%
4	Shrub, coffee, pepper	1,750	0.54%
5	Shrub, perennial crops, coffee	1,392	0.43%
6	Coarse grass	602	0.19%
7	Coarse grass (dom), coffee	6,929	2.14%
	<i>Sub Total</i>	33,822	10.43%
Agriculture, majority coffee plant			
8	Coffee, pepper, shrub	26,986	8.32%
9	Coffee, patchouli	389	0.12%
10	Coffee, cinnamon, perennial crops, fruits	11,443	3.53%
11	Coffee, clove, pepper, perennial crops, patchouli	1,487	0.46%
12	Coffee, perennial crops, fruits	22	0.01%
13	Coffee, cacao	456	0.14%
14	Coffee, pepper, clove, perennial crops, fruits	1,300	0.40%
15	Coffee, pepper, patchouli, cacao, fruits	3,274	1.01%
16	Coffee, vegetables	299	0.09%
	<i>Sub Total</i>	45,657	14.08%
Agriculture, majority dammar resin			
17	Dammar Resin (dom), agriculture crops	2,049	0.63%
18	Dammar Resin (dom), agriculture crops, coffee	868	0.27%
	<i>Sub Total</i>	2,917	0.90%
New encroachment			
19	Young plant	6,828	2.10%
Others			
20	Water	441	0.14%
21	Eco-tourism concession	9	0.00%
22	Sawah/wet paddy fields	97	0.03%
	<i>Sub Total</i>	548	0.17%
	TOTAL	324,373	100.00%

Encroachment into Bukit Barisan Selatan National Park for settlement began as early as the 1960s, increasing in the 1970s when many people from Java were translocated to Lampung Province as part of a large-scale, government-sponsored transmigration program.

When the government's new transmigration scheme was introduced in the 1990s, encroachment increased. Inaccurate interpretation of a community forestry regulation introduced by the Forestry Department in 1998 led to mass encroachment of the park, which reached its peak in about 2000. Local communities and migrants believed the new law gave them a legal basis to conduct activities inside the park. Even when the government abolished this regulation, encroachment continued.

Today encroachers enter the park for different reasons and by different means. Some have obtained a permit from the heads of adjacent villages who often don't recognise or respect the park's boundaries. Others have simply moved into the park or have "bought" an area of the park from an existing illegal farmer.

Although new encroachment is decreasing, large numbers of farmers continue to operate inside the park.



5.2 Coffee Production Inside the Park

Farmers occupying land in the park cultivate an average area of 2 hectares per household. Average coffee productivity in the park is 588 kg per hectare. Based on satellite imagery analysis and field research (information provided by 95 respondents), coffee accounts for 73 per cent of commodities cultivated. The total combined area of active smallholder plantations in the park is 45,657 hectares. It is estimated that the total volume of unsorted coffee produced is some 19,600 tons per year (45,657 hectares x 73% x 588 kg).

Usually, the farmers sell their coffee directly to the nearest traders (collectors) for the highest possible price. Farmers in 2003 received around Rp 3,550 (US\$0.39) per kg for their coffee. The average gross income for each farmer in 2003 was estimated at Rp 4,174,800 (at the time, about US\$432).

Encroachment Processes:

- Marking out the forest area with signs and harvesting the commercially marketable timber before clearing all the remaining vegetation;
- Extracting the valuable timber either for the family's own consumption or for sale, leaving the remaining vegetation debris to sun-dry for up to three months before burning it;
- Re-burning the remaining vegetation debris before clearing and preparing the land for cultivation;
- In the first year, dry-land rice paddies or other seasonal crops that can be harvested in a year or less are usually cultivated, while the farmers prepare perennial crops, predominantly coffee;
- In the second year, cultivation of dry-land paddies continues, but multi-cropping with seedlings of coffee is introduced so the farmers still benefit from harvesting seasonal crops;
- Once the coffee plants have branched out and are creating shade, the dry-land rice is no longer productive and the coffee can be left without intensive maintenance.





5.3 Trading Distribution in Lampung

There are two principal types of coffee trading in Lampung. The first is for local consumption and local industries. The second is international trading through exporters in the provincial capital Bandar Lampung. According to the Association of Indonesian Coffee Exporters (AICE), there are some 200 traders in Bandar Lampung, but according to Lampung's Trade and Industry Department, there were fewer than 50 active exporters in recent years.

The flow of Lampung coffee from the farmers to the exporters and/or local industries is complicated and follows no particular trend (Fig. 3). Generally, farmers sell their beans to nearby village traders, although in some cases they sell directly to sub-district or even district traders (Map 4). Based on field research, the levels of local traders are (Fig. 3):

- Level 1 = Sub-village and village traders/collectors;
- Level 2 = Sub-district traders;
- Level 3 = District traders;
- Level 4 = Middle dealers/brokers; and
- Level 5 = Local coffee industries and exporters

Production Costs

Production costs are those that which must be covered by the coffee farmer in order to obtain the expected harvest yield. They include the cost of fertiliser, herbicides, harvesting, management and transport. Fertilising one hectare costs approximately Rp300,000 (US\$31). For the best harvest, the farmer must fertilise twice a year. Additional costs are borne for maintenance such as grass clearance. Herbicide costs approximately Rp200,000 (US\$21) per hectare. During the harvest season, the farmer must spend approximately Rp50,000 (US\$5) for every 50 kg of coffee yield, including payment to local workers for harvesting the beans, transporting the yield to the local level trader and peeling the husks. Assuming intensive maintenance, a farmer with one hectare of coffee would obtain yield ranges between 1.5 and 2 tons. Production costs would be as shown in the table below. But gross income received would be between Rp5,325,000 and Rp7,100,000 (US\$550 and US\$735).

Production costs

Fertilising 2 x per year @ Rp300,000	Rp600,000
Herbs cleaner	Rp200,000
Husk peeling and transport Rp50,000/50 kg	Rp1,500,000-2,000,000
TOTAL	Rp2,300,000-2,800,000

Finally, net income would be in the range of Rp3,025,000 to Rp4,300,000 (US\$313 to US\$445). This means that each month the farmer would have between Rp252,000 and Rp358,000 (US\$26 and US\$37) for his daily needs, which is very limited. And if harvest yields drop, so too would their monthly budget.

Source: Kompas, 10 July and 12 July 2004. Dollar conversion rates at April 2005

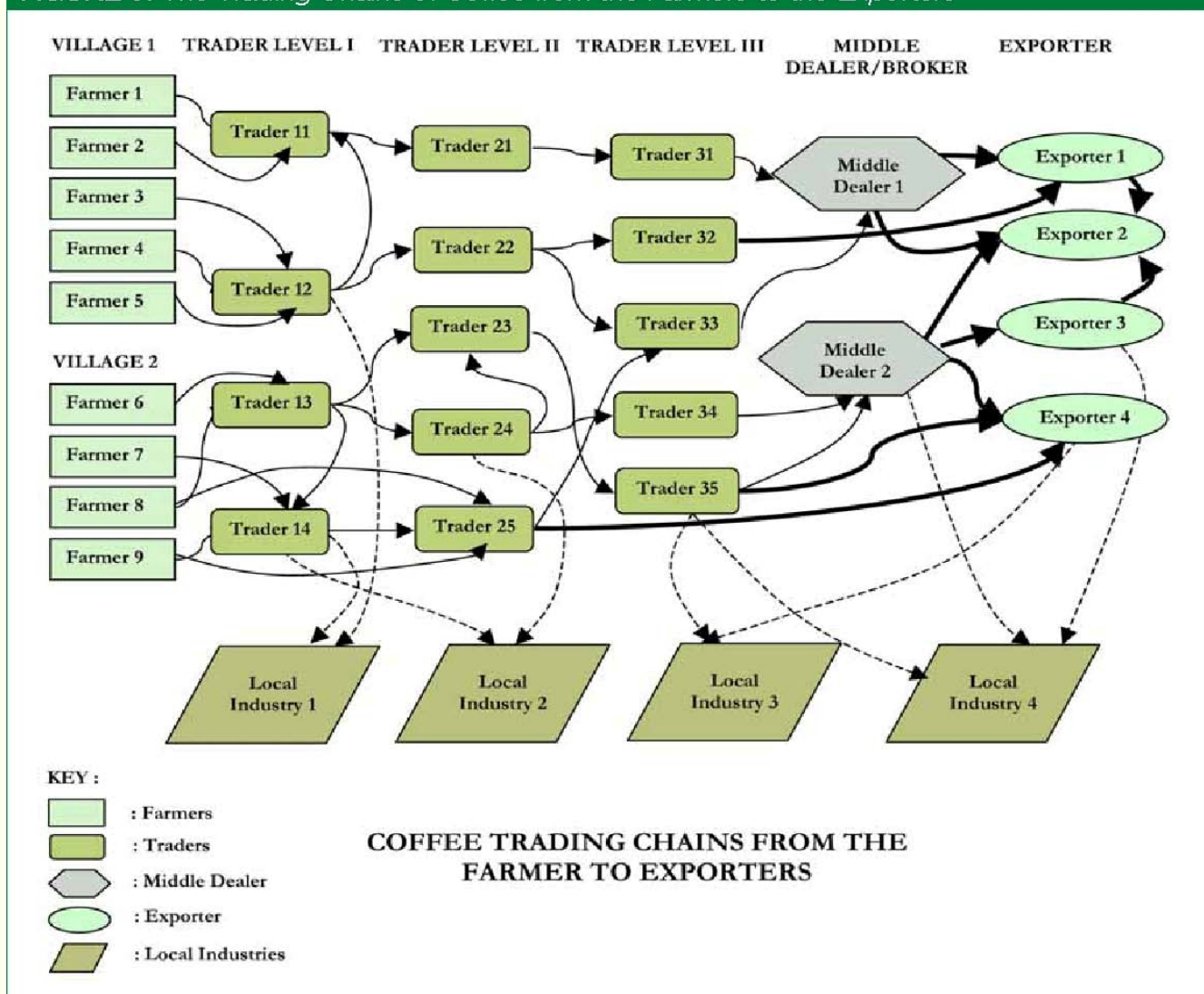
WWF investigations showed trading chains to be highly variable (Fig. 3). In the larger trade chains, some traders fulfill dual roles acting on a sub-village and village level, village and sub-district level or even sub-district and district level. In some cases the sub-district traders sell direct to the exporters or local industries. Coffee transactions may pass through three or four levels before reaching exporters or local industries.

Brokers/middle dealers at provincial and district levels also play an important role in the coffee trading chain. Brokers are most dominant in parts of South Sumatra and in Kotaagung, Lampung. From the traders' point of view, brokers help them accelerate the transaction process with the exporters and local industries, even though the broker-levied fees add to their costs. Because most brokers did not have storage facilities for the coffee beans, transactions could easily be observed on the roads near the exporters' warehouses.

Brokers generally have good relationships with, and access to, exporters and local industries. In some cases, the broker was working in an exporting company or had a relative among the management staff in that company.



FIGURE 3. *The Trading Chains of Coffee from the Farmers to the Exporters*



Not all coffee transactions are for export. The team found that some exporters occasionally sold their coffee to local industries because it didn't meet minimum export standard requirements. And most farmers save some of their coffee yields for their own consumption. This happens at the trader level, too. Although data on quantities of coffee distributed for local use is very difficult to obtain, figures provided by the Provincial Estates Service of Lampung show the companies (Table 5) processing up to 20,000 tons per year.



TABLE 5. Local Coffee Industry in Lampung

1. Nestlé
2. Bola Dunia
3. Jempol
4. Walet
5. Sinar Baru
6. Sinar Dunia
7. Siger

5.4 Coffee Exports from Lampung

5.4.1 General Export

The total export volume of unwashed robusta coffee beans from Lampung steadily increased from 216,271 tons in 2003, 283,032 tons in 2004 to 334,864 tons in 2005. Over the last three years, the beans were sent by up to 48 exporters to up to 52 countries, where they were purchased by over 200 companies. The quality of the exported coffee complies with standards set by the International Coffee Organisation, which is represented by AICE in collaboration with the Trade and Industry Department in Indonesia. There are several classifications for coffee quality, separated into different grades. For export, the beans must pass several quality controls -- for example, water content, dust content, bean size and the level of damage as defined by the National Standard of Indonesia (SNI) (Table 6).

TABLE 5. Local Coffee Industry in Lampung

No	Company	Capacity	Location	Type
1	PT. Nestlé	20,000 tons/year	B. Lampung	Beans
2	PT. Bola Dunia	20,000 tons/year	B. Lampung	Beans
3	PT. Jempol	20,000 tons/year	B. Lampung	Beans
4	PT. Walet	20,000 tons/year	B. Lampung	Beans
5	PT. Sinar Baru	20,000 tons/year	B. Lampung	Beans
6	PT. Sinar Dunia	20,000 tons/year	B. Lampung	Beans
7	PT. Siger	20,000 tons/year	B. Lampung	Beans

Source: Provincial Estate Service of Lampung, 2003

At the farmer level, little attention is given to sorting the coffee beans because of the additional costs involved. To increase the quality of their coffee, farmers dry the beans for nine or 10 days so that the crop reaches the required 13-14 per cent maximum water content.

Two quality classes are used in the trade between farmers and the village level traders. "Unselected beans" have not received any particular treatment other than being dried. "Selected beans" are fully sorted. The farmers usually sell the unselected coffee to local traders for a cheaper price in order to reduce production costs.

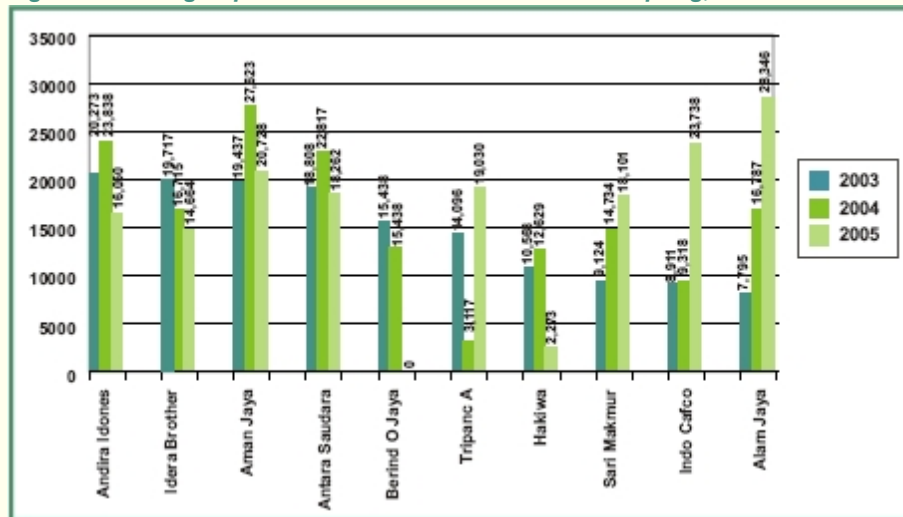
Apart from the above mentioned export conditions, no quality controls are imposed by importing countries. Therefore, all beans produced by farmers in Lampung have the potential to be exported. Currently, there are no conditions relating to the legal origin of the coffee (e.g. whether it comes from a protected area or not) or the use of chemicals in coffee farming. According to AICE (Association of Indonesian Coffee Exporters), clients in consuming companies have never questioned the origin of the coffee they import. The market countries appear to be concerned only with the quality of the coffee, particularly the water content.



5.4.2 Exporting Companies

According to export data provided by the Trade and Industry Department in Lampung, up to 48 companies exported coffee from the province in 2003-2005 (Appendix III). On average over the three years, the largest exporters were Aman Jaya Perdana (22,596 tons), Andira Indonesia (20,054 tons), Antara Saudara (19,962 tons) and Indera Brothers (17,032 tons). In 2005, the largest exporter was PT Alam Jaya with 28,346 tons followed by PT Indo Cafco with 23,738 tons and PT Aman Jaya Perdana with 20,728 tons (Fig. 4). PT Andira Indonesia and Indera Brothers exported only robusta coffee beans, whereas PT Aman Jaya Perdana also exported other crops such as black pepper, cassava and maize.

Fig. 4 The 10 Big Exporters of Robusta Coffee from Lampung, 2003-2005

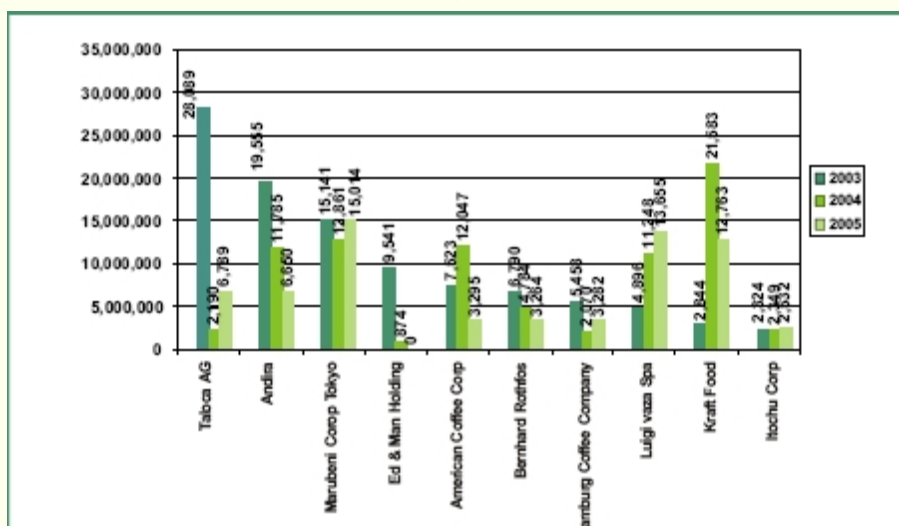


Instant robusta coffee has also been exported from Lampung, though at a smaller scale. The main instant coffee exporter is Nestlé Indonesia, which exported 2,387 tons of instant coffee from Lampung in 2003. The production of instant coffee usually combines both robusta and arabica coffee beans into one blend. One kilogram of coffee beans produces 0.7 kg of instant coffee. Therefore 3,410 tons of coffee beans were required to produce this amount of instant coffee. The destination countries for Nestlé's exported instant coffee include Pakistan, the Philippines and Singapore.

5.4.3 Receiving Companies

Between 2003 and 2005, the top international recipients of robusta coffee from Lampung varied considerably, though over the years the biggest overall recipient appeared to be Kraft Foods, either directly or through its respective traders.

Fig. 5 Amount (in metric tons) of Lampung coffee tainted with beans from BBSNP received by 2003's top coffee recipients, based on data from the Cooperative, Industry and Trade Service of Lampung Province.

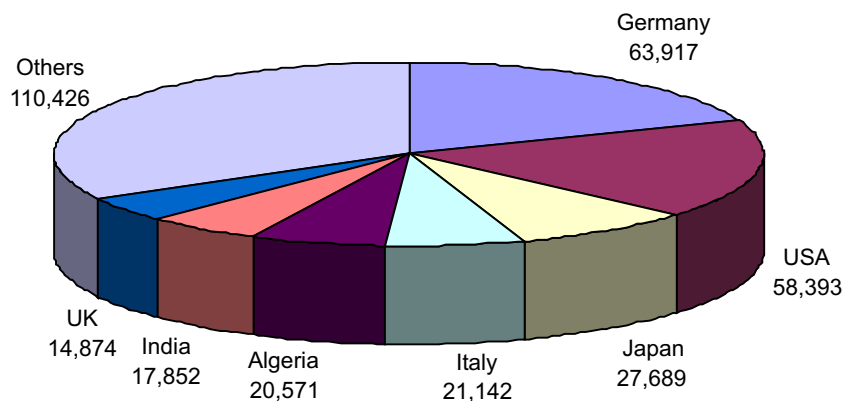




5.4.4 Destination Countries

Robusta coffee was exported to over 50 countries between 2003 and 2005. Yet just seven countries received two-thirds of all Lampung coffee exports tainted with BBSNP beans in 2005: Germany received 19 per cent, the United States 17 per cent, Japan 8 per cent and Italy and Algeria 6 per cent, India 5 per cent and the UK 4 per cent (Fig. 6).

FIGURE 6. Countries receiving Lampung coffee in 2005 (in metric tons).





5.4.5 Exports Tainted with Illegal Coffee Grown inside BBSNP

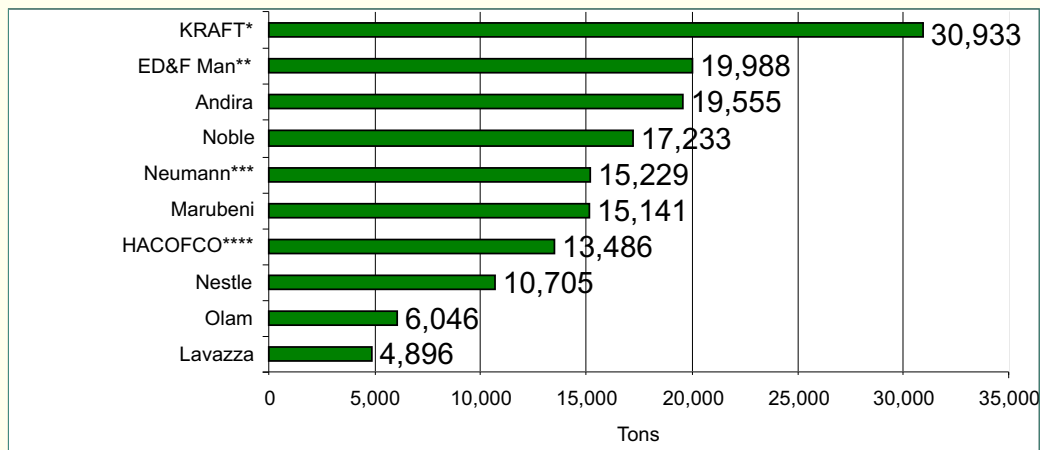
Coffee is grown inside the park illegally as farmers exploit the inability of the government to enforce its laws. The beans are sold to the local traders (collectors) who mix legally and illegally grown beans. Illegally grown coffee thus enters the trading route very early and eventually contaminates (taints) all coffee exported from Bandar Lampung.

Coffee was grown on about 45,000 hectares of BBSNP, with total production estimated at 19,600 tons in 2003. Plantations spread across the park and three administrative districts. These same districts are becoming the main sources of robusta coffee in Lampung.

Field research into the trading routes of coffee from the park to the exporters in Bandar Lampung (Map. 4) the capital of Lampung Province, found direct evidence that at least eight exporting companies were buying stocks tainted with coffee produced illegally in the BBSNP: PT Aman Jaya Perdana, PT Andira Indonesia, PT Indera Brothers, CV Tripanca Group, PT Hakiwa Mandiri Putra, PT Niaga Hijau Lestari, PT Teluk Intan and PT Sari Makmur Tunggal Mandiri. In 2003, these companies exported 97,270 tons of tainted coffee. Other exporters were also suspected of buying tainted stocks as they all rely on collectors in the towns surrounding BBSNP. The eight exporters and many of the other companies had far-reaching links to international coffee buyers, ensuring that tainted coffee infiltrated the international markets. Companies like PT Andira Indonesia were even part of multinational companies with offices throughout the world. PT Nestlé Indonesia, for example, was found to buy tainted coffee from CV. Tripanca Group and PT Indera Brothers, both of whom export instant coffee to foreign countries. When interviewed in September 2005, a district trader confirmed that one of the suppliers of PT Nestlé Indonesia received 100 tons of coffee originating from within the BBSNP each week.

Over hundred companies in Germany imported tainted coffee in 2005. At the top was Andira Netherlands followed by Hamburg Coffee Company and Taloca AG. The number of importing companies in the United States was nearly 100. The American Coffee Corp, Noble Coffee and UK-based E D & F Man Holding, were the top three. In Japan, the Marubeni Corporation had the highest volume of imported tainted coffee, followed by Toyota Tsusho Corporation and Mitsubishi Corporation. These three companies dominated over 80 buyer companies in that country.

FIGURE 7. Top 10 Groups Receiving Lampung Coffee in the year of the investigation 2003 (in metric tons)



*including Taloca AG

**including Cofina and Volcafe

***including Bero Coffee, Bernard Rothfos

****including Hamburg Coffee and American Coffee

During the field investigation in 2003, 243 companies received tainted Lampung coffee (Appendix III). Fifty-five percent of all exported Lampung coffee was received by only six companies (Fig. 7): US-based Kraft (with Taloca), the UK's E D & F Man (with Cofina and Volcafe), the Netherlands Andira, Hong Kong's Noble, Germany's Neumann (with Bero and Rothfos), and Japan's Marubeni. Germany's Hamburg Coffee Company, Switzerland's Nestle, Singapore's Olam and Italy's Lavazza completed the top 10 (Fig.7). During the three-year period 2003 to 2005 combined, just 10 companies received over 50 per cent, 20 companies more than 70 per cent of all Lampung coffee (Appendix III).



Conclusions

- **Conservation actions must be implemented in the field immediately.** Bukit Barisan Selatan National Park (BBSNP), a World Heritage site, is a critical habitat for three of the world's most endangered species: the Sumatran rhino, elephant and tiger. Land encroachment and forest conversion in the park is severe and threatens its integrity and biodiversity. If no efforts are made to stop this degradation, the loss of the mammals' habitat could trigger their local extinction in parts of the park.
- **Coffee is the most serious threat to rhino, tiger and elephant habitat in Bukit Barisan Selatan National Park.** Encroachment had destroyed 28 per cent of the park's forests by 2003. Sixty per cent of that were active agricultural lands, the remaining had been cleared of forest but were not used in 2003. The total area of active coffee plantations in the park was 45,657 hectares. In that area, an estimated 19,600 tons of coffee were produced illegally.
- **All Lampung coffee exports thus were tainted because of a high likelihood of containing illegally grown beans.** Coffee produced in the park was traded freely and intensively. All coffee beans in the area, including illegal coffee from inside the park, were mixed together and their source could no longer be identified. The coffee became tainted with illegally grown beans. Eight exporters in Lampung were proven to buy stocks tainted with coffee produced illegally in the BBSNP in 2003: PT Aman Jaya Perdana, PT Andira Indonesia, PT Indera Brothers, CV Tripanca Group, PT Hakiwa Mandiri Putra, PT Niaga Hijau Lestari, PT Teluk Intan and PT Sari Makmur Tunggal Mandiri. The coffee from these eight exporters and many others also likely to handle tainted coffee was distributed worldwide.
- **The threat to BBSNP from the international coffee market is growing.** Export volume of unwashed robusta coffee beans from Lampung steadily increased from 216,271 tons in 2003 to 283,032 tons in 2004 and 334,864 tons in 2005.
- **Coffee consumers in numerous countries have unwittingly contributed to the loss of BBSNP habitat.** Robusta coffee was exported to up to 52 countries between 2003 and 2005. Seven countries received two thirds of all Lampung coffee exports potentially tainted with BBSNP beans in 2005, Germany, the United States, Japan, Italy, Algeria, India and the UK.
- **The coffee profits that spur the encroachment of BBSNP were concentrated in a handful of international coffee roasters.** During the field investigation in 2003, 243 companies received tainted Lampung coffee. Fifty-five percent of all exported Lampung coffee was received by only six companies: U.S.-based Kraft (including partner Taloca), the UK's E D & F Man, the Netherlands' Andira, Hong Kong's Noble, Germany's Neumann Kaffee Gruppe, and Japan's Marubeni. Germany's Hamburg Coffee Company, Switzerland's Nestlé, Singapore's Olam and Italy's Lavazza completed the top 10.
- **Export figures for the two years following the field investigation confirmed that the same global roasters continued to dominate international Lampung coffee exports. Their purchases finance much of the coffee production in the province, suggesting that they may be in a position to positively influence the fate of rhinos, tigers and elephants in Bukit Barisan Selatan National Park.** Of 2003's top 10 Lampung coffee recipients, Taloca, Kraft and Nestle were the respective top recipients in the years 2003, 2004, and 2005. Japanese firms Marubeni and Itochu maintained similar import levels over the three years. ED & F Man's and Andira's imports dropped, while Nestle's and Lavazza's imports increased. Several other companies received very large volumes in 2004 and 2005, namely J. Mueller Weser, Robert G. Marshall, Pacorini and World Transport, rerouting the stream of Lampung beans into the EU and United States. Globally known roasters Folgers (P&G), Tchibo received smaller shipments of coffee from Bandar Lampung's exporters in 2004.



Solutions/Recommendations

Encroachment to grow robusta coffee has become the main threat to the integrity of Sumatra's Bukit Barisan Selatan National Park. Endangered elephants, tigers and rhinos will only be able to survive if coffee production is moved out of the park and their habitat is restored. WWF suggests a comprehensive package of activities to achieve this.

WWF recommendations for each stakeholder include the following ;

International roasters and traders

- Continue to buy robusta coffee from Lampung, Sumatra, but develop and implement rigorous chain of custody controls that will exclude all illegal, and unsustainably grown coffee, from the supply chain.
- Work with WWF to provide incentives to encourage growers to switch to verifiable and sustainable coffee production on legal lands;
- Work with WWF and government agencies to protect BBS National Park from new encroachment;
- Work with WWF and government agencies to restore the forests of BBS National Park.

Park authorities

- Enforce existing laws and regulations;
- Prevent all new encroachment;
- Launch education and awareness programmes on the importance of the park in terms of its biodiversity value, aimed at communities living around the park, local government and the private sector.

District, province and national authorities

- Enforce existing laws and regulations;-
- Develop regulations that prevent infiltration of illegally grown coffee into the global market;
- Support efforts to protect the park and stop issuing illegal land permits that conflict with park boundaries;-
- Provide land for sustainable coffee production outside park boundaries.



Epilogue

Since concluding field research for this report, WWF has approached the largest coffee companies identified as receiving BBS coffee to seek their commitment to protection of Bukit Barisan Selatan National Park and a sustainable, legal coffee supply in Lampung Province. WWF believes that harnessing global market forces, such as the purchasing power of multinational coffee companies, can and should result in direct benefits to this World Heritage site and its critical habitat for tigers, rhinos and elephants.

One company, Nestlé, has begun to take some action on the ground to clean up part of its chain of custody and to advise farmers on how to produce higher quality coffee. Some companies have responded to our initial overture favorably, at least promising to improve the situation. Others have denied being a part of the problem or failed to respond at all. Appendix IV shows which companies responded in which way to the findings and recommendations of this study.

The global WWF network, with offices in 50 countries around the world, will continue to identify and approach companies receiving coffee from Lampung and encourage them to help protect the Sumatran rhino, tiger, and elephant and undo the damage coffee has done to this unique national park.

To successfully undertake this massive program (45,000 hectares of national park destroyed by coffee plantations), WWF has entered into an alliance with ForestryTrade (www.forestrade.com), a company with a long history of establishing sustainable development programs in Sumatra, and Rainforest Alliance (www.rainforest-alliance.org), an organization best known for its global efforts to certify sustainably produced coffee. WWF is also in discussions with the new Common Code for the Coffee Community (4C) Association to encourage its members to help (1) prevent that coffee production does even more damage to BBS NP and (2) undo the damage coffee production has already done.



References

- Anon, 2003a, Bengkulu in Figure 2002, Statistics of Bengkulu Province, Bengkulu, Indonesia.
- Anon, 2003b, Lampung in Figure 2002, Statistics of Lampung Province, Bandar Lampung, Indonesia.
- Anon, 2003c, South Sumatra in Figure 2002, Statistics of South Sumatra Province, Palembang, Indonesia.
- Anon, 2004, Elephant Conservation in Sumatra, Downloaded June 2004
<http://wcs.org/sw-around_the_globe/Asia/Sumatra/sumatraelephants>
- Hutabarat, A.A., Subrata, D.D., and van Strien, N.J. (Editors), 2001, Annual Report 2001, IRCP and PKBI, Bogor, Indonesia.
- International Coffee Organization, Exports By Exporting Countries To All Destinations, October 2006,
<http://www.ico.org/prices/m1.htm>
- Kemf, E and van Strein, N.J., 2002, *Wanted Alive, Asian Rhino in the Wild, A WWF Species Status Report*, WWF International, Switzerland.
- Kinnaird, M.F., Sanderson, E.W., O'Brien, Wibisono, H.T., and Gillian Woolmer, 2003, *Deforestation Trends in A Tropical Landscape and Implications for Endangered Mammals*, WCS-IP, Bogor, Indonesia.
- O'Brien, T.G., and Kinnaird, M.F., 25 April 2003, *Science Vol.300: Caffeine and Conservation.*, American Association for Advancement of Science, with assistance of Stanford University's HighWire Press. www.sciencemag.org
- O'Brien, T. G., Kinnaird, M. F. And Wibisono H. T., 2003, *Crouching Tiger, Hidden Prey: Sumatran Tiger and Prey Population in a Tropical Forest Landscape*, Animal Conservation 6: 131-139
- Respati, S., 2004, Penyusunan Draft Buku Informasi Fasilitas dan Obyek Penelitian pada Balai Taman Nasional Bukit Barisan Selatan (Development of Information Book on Facility and Research Objects in Bukit Barisan Selatan National Park), Internship Report for Pre-employment in Forestry Department, Kotaagung.
- Shepherd, C.R. and Magnus N., 2004, *Nowhere to Hide: The Trade in Sumatran Tiger*, A TRAFFIC Southeast Asia Report, Malaysia.
- Dinerstein, E., C. Loucks, A. Heydlaff, E. Wikramanayake, G. Bryja, J. Forest, J. Ginsberg, S. Klenzendorf, P. Leimgruber, T. O'Brien, E. Sanderson, J. Seidensticker and M. Songer. 2006. *Setting Priorities for the Conservation and Recovery of Wild Tigers: 2005-2015. A User's Guide*. WWF, WCS, Smithsonian, and NFWF-STF, Washington, D.C. New York.
- The Jakarta Post, 1 July 2004, "Villagers Flee After Elephant Trample Elderly Woman"
- The Jakarta Post, 7 July 2004, "Illegal logging Unchecked on Sumatra Island"
- UNEP-WCMC, 2004, UNEP-WCMC Species Database: CITES-listed Species, <http://www.cites.org/eng/resources/species.html>
- Zetra, B., A. Rafiastanto, W. M. Rombang and C. R. Trainor, 2002, "Rediscovery of the Critically Endangered Sumatran Ground Cuckoo," *Carpococcyx viridis*, Forktail No. 18 August 2002, p. 63, Oriental Bird Club, United Kingdom



Appendix I

The economic value of coffee for traders and the Bukit Benungla community

Bukit Benungla is an encroached area inside Bukit Barisan Selatan National Park. It is located near the village of Teluk Agung, in the Mekaku Ilir sub-district of Muara Dua district, in South Sumatra province.

Coffee from this area, whether grown within the national park or in the areas surrounding it, follows a very similar trading route. Farmers usually sell their produce to a local trader, who mixes together the coffee, regardless of whether it was sourced from within or outside the park. These local traders then sell the coffee to larger traders (Fig. 1). We interviewed farmers from Bukit Benungla community about their coffee production and economic status (Table 1).

Table 1. Production and Economic Condition of Bukit Benungla Farmers

No.	Name of Farmer	Location	Start Encroach	Family Dependent	Area (Ha)	Total Coffee(Kgs)	Coffee Production (Kg/Ha)	Coffee Value (Rp./Kg)	Total income (Rp/year)
1	Mustofa	Bukit Benungla	1999	4	3	2,500	833	4,500	11,250,000.0
2	Yusmaidi	Bukit Benungla	1999	3	6	7,000	1,167	4,500	31,500,000.0
3	Sahrudin	Bukit Benungla	1999	3	4	5,000	1,250	4,500	22,500,000.0
4	Yamin	Bukit Benungla	2001	4	2	200	100	4,500	900,000.0
5	Suadi	Bukit Benungla	2000	2	2	1,500	750	4,500	6,750,000.0
6	Adeng	Bukit Benungla	2001	2	2	300	150	4,500	1,350,000.0
	Average			3	3	2,750	708	4,500	12,375,000

Farmers have been clearing forest areas in the park since 1999 and continue to do so. Each household has encroached an average of 3 hectares. The coffee yield in Bukit Benungla is relatively good, reaching 1,083kg per hectare. We found that an average family, with three dependents, made around Rp.1 million per month from their coffee production. The higher end of production - - those farmers who began encroaching in 1999 - - brought in an average of Rp.21,750,000 per year or about Rp.1.8 million per month (Table. 1).

The farmers usually sell their coffee to local traders in Teluk Agung village (Tab. 2, Fig. 1). The village is an obvious choice, being relatively close by and reasonably accessible from Bukit Benungla. A survey in Teluk Agung confirmed that local traders receive coffee from a number of local farmers, among them those from Bukit Benungla. The local traders may then sell this coffee to other local traders or to larger traders, depending on the volume of coffee they have accumulated.

Table 2 and Figure 1 and 2 show the full trading routes from Bukit Benungla farmers to exporters in Bandar Lampung.

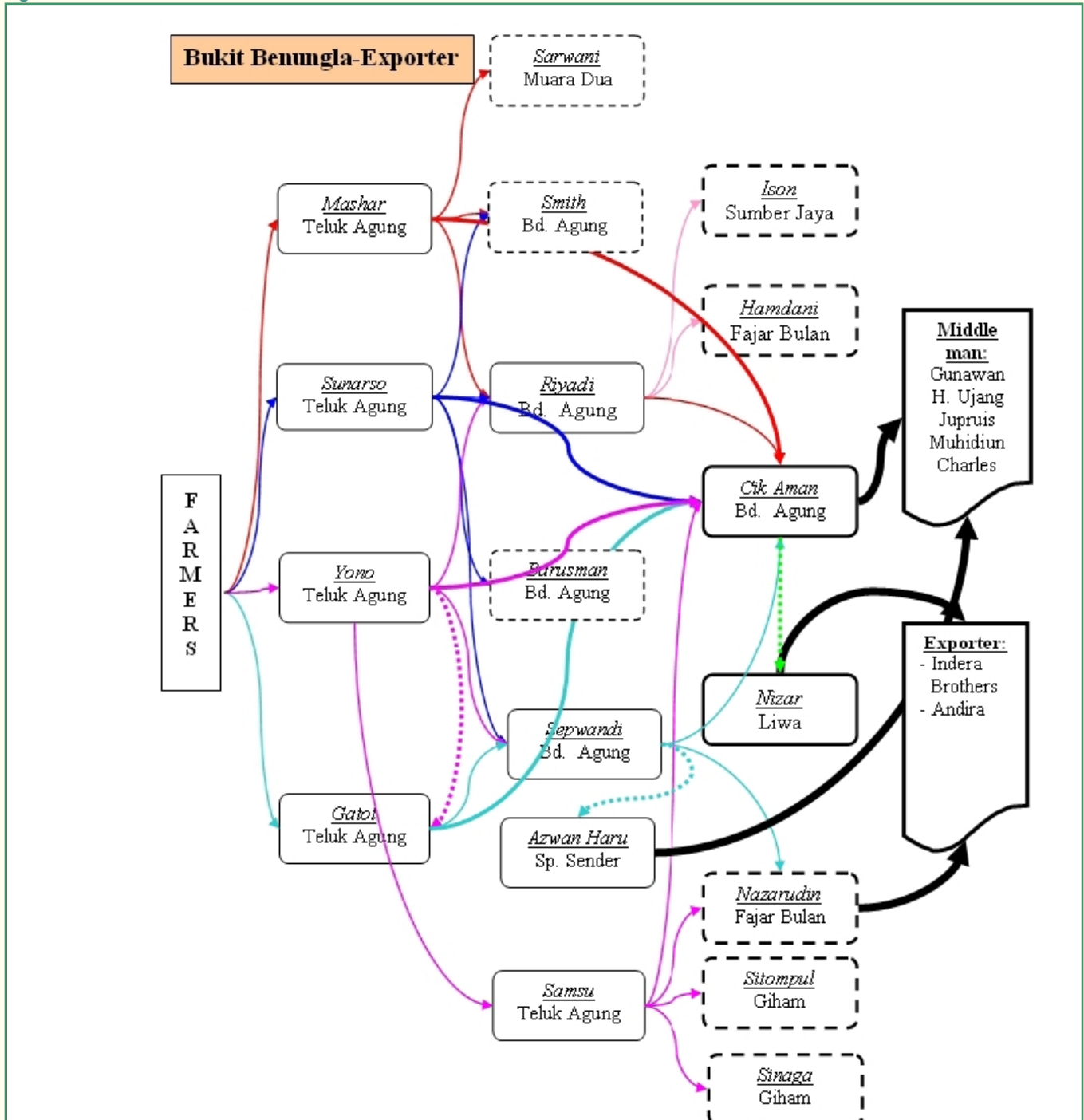


Table 2.

Trading routes between Bukit Benungla and exporters			
No	Trader	Bought from	Sold to
1	<u>Mashar</u> Teluk Agung	Farmers from Teluk Agung and the surrounding areas, such as: Talang Tebing Kemuning, Air Baru, Muara, Asri, Bukit Benungla , Kepahyang.	Banding Agung Market (Cik Aman/Herman, Riyadi, Smith), Muara Dua (Sarwani).
2	<u>Samsu</u> Teluk Agung	Talang Air Baru-Pulau Duku (<i>Margono, Waitam</i>), Talang Air Jangkang-Teluk Agung (<i>Beni, Jonet</i>), farmers from the vicinity of Teluk Agung, including: Talang Air Baru, Tebing Kemuning, Akar Jangkang, Bukit Benungla .	Banding Agung market (Cik Aman/Herman), Giham (<i>Sinaga, Sitompul</i>), Fajar Bulan (Nazarudin).
3	<u>Sunarsa</u> Teluk Agung	Farmers from the vicinity of Teluk Agung , including: Talang Tebing Kemuning, Kemang Bandung, Muara, Air Jangkang, Pematang Tiga.	Banding Agung market (Sepwandi, Cik Aman/Herman, Smith, Barusman).
4	<u>Yono</u> Teluk Agung	Farmers from the vicinity of Teluk Agung , including: Talang Selabuh Belimbing, Tebing Kemuning, Muara, Air Jangkang, Pematang Tiga.	Teluk Agung (Gatot), Banding Agung market (Cik Aman/Herman, Riyadi, Sepwandi).
5	<u>Riyadi</u> Banding Agung	Kota Dalam (<i>Tarmusi, Buyung</i>), Teluk Agung (Darwis, Yono, Mashar, Sunarso), Galang Tinggi (<i>Rizal, Wahid, Sulaiman</i>), Perekan (<i>Sanap, H.Acan</i>), farmers from Pasar Banding, Lombok, Sukabandar (Ujung Rembun), and vicinity.	Fajar Bulan (<i>Hamdani</i>), Sumberjaya (<i>Isan</i>), Sepatuha (<i>Sugiharno</i>), Banding Agung market (Cik Aman/Herman).
6	<u>Sepwandi</u> Banding Agung	Teluk Agung (Tareh, Sunarso, Samsu, Gatot), Galang Tinggi (Wahid, Sulaiman), Tanjung Besar (Sumitra), Kota Dalam (Tarmusi, Cedi), Talang Jawa (Parmi, Ratnawati, Muhidin), Talang Atar Lebar (Eni Suharto), Talang Mutung (Husni Aris, Kirno), farmers from Pasar Banding Agung, Lombok, Sukabandar and vicinity.	Fajar Bulan (Nazarudin), Pasar Banding Agung (Cik Aman/Herman), Simpang Sender (<i>Hepni, Haru</i>).
7	<u>Cik Aman/Herman</u> Banding Agung	Teluk Agung (Gatot, Yono, Sunarsa, Samsu), Tanjung Besar (Karyadi), Galang Tinggi (Seh Basri, Sulaiman, Wahid), Srimenanti (Sulari), Simpang Sender (Hepni, Haru, Sarwani, Din), Kota Batu (Awan Tripa, David), farmers from Pasar Banding, Lombok, Sukabandar (Ujung Rembun), and vicinity.	Sale to Bandar Lampung through middle men : H Ujang, Jupruis, Muhidun, Charles, Gunawan.
8	<u>Nizar</u> Liwa	Sampot/Padang Cahya market (Alex, Tasir), Kembahang (Nazirman), Tanjung Besar (Sumitra), Ps. Banding Agung (Cik Aman), Kota Batu (Simamora, Awan Tripa).	PT. Indera Brothers.
9	<u>Azwan Haru</u> Simpang Sender	Ujung Rembun-Sukabandar (Wajud, M.Yunus), Sepatuha (Solihin, Nawir), Kayu Muluh (Akil), farmers from Simpang Sender, Ujung Rembun-Sukabandar, and vicinity.	Sale to Bandar Lampung through middle man : Gunawan.
10	<u>Nazaruddin</u> Fajar Bulan	No data.	No data.



Figure. 1



Traders were grouped into 3 categories depending on their trading partners. Local traders, such as Mashar, Sunarsa and Yono (Tab. 3), usually collect coffee directly from the farmers. Their total transaction volume was less than Rp.500 million (Tab. 3, Fig. 1). Middle traders, including Riyadi, Sepwandi¹ and Samsu, tend to buy coffee from the local traders and sell it to large traders such as Cik Aman, Nizar, Azwan Haru and Nazarudin.



Table 3

Volume and value of coffee traded by local, middle and large traders with links to Bukit Benungla farmers						
No	Name of trader	Location	Volume (kg)	Value (Rp/kg)	Total value (Rp)	Vehicle
1	Mashar	Teluk Agung	60,000	4,000	240,000,000	No data
2	Samsu	Teluk Agung	500,000	4,000	2,000,000,000	No data
3	Sunarsa	Teluk Agung	80,000	4,000	320,000,000	No data
4	Yono	Teluk Agung	113,000	4,000	452,000,000	No data
5	Riyadi	Banding Agung	300,000	4,000	1,200,000,000	No data
6	Sepwandi	Banding Agung	5,000,000	4,000	20,000,000,000	No data
7	Cik Aman/Herman	Banding Agung	1,225,000	4,000	4,900,000,000	No data
8	Nizar	Liwa	787,472	4,000	3,149,888,000	trucks BE4167M, BE4255M, BE4099W, BE4207Y, BE4247AR, BE4542AU
9	Azwan Haru	Simpang Sender	250,000	4,000	1,000,000,000	No data
10	Nazarudin	Fajar Bulan	1,440,000	5,000	7,200,000,000	No data

A middle trader's transaction value tends to be in the range of Rp.1-3 billion per year, while large traders have an annual turnover in excess of Rp.3 billion. Their trading partners classify them as middle traders. It is the large traders who tend to have direct access to exporters or middle men such as Gunawan, Juprus and Charles (Fig. 1).

It also highlights how transactions don't always follow neat steps between local, middle and large traders and on to exporters. There are frequent transactions between similar types of traders, as well as leaps directly from local to large traders. Reasons for such anomalies relate to the availability of coffee in the market chains.

If there is an abundance of coffee at the farmer level, local traders can collect large amounts and sell it directly to the large traders. However, when supplies are limited, more transactions between traders at similar levels occur before one has accumulated the necessary amount of coffee to sell to a middle or large trader.

The flowchart classifies Sepwandi as a middle trader because there is no direct connection between him and any exporters. However, the large volume of coffee collected and Sepwandi's total transaction value of Rp.20 billion suggest that the data collected could be misleading and he may actually deal directly with exporters. On the other hand, Azwan Haru, who has direct contact with a broker, has a total transaction value of just Rp.1 billion. In this case, it is possible that Azwan Haru did not have any capital and simply collected fees from the middle traders and brokers.

GONE IN AN INSTANT

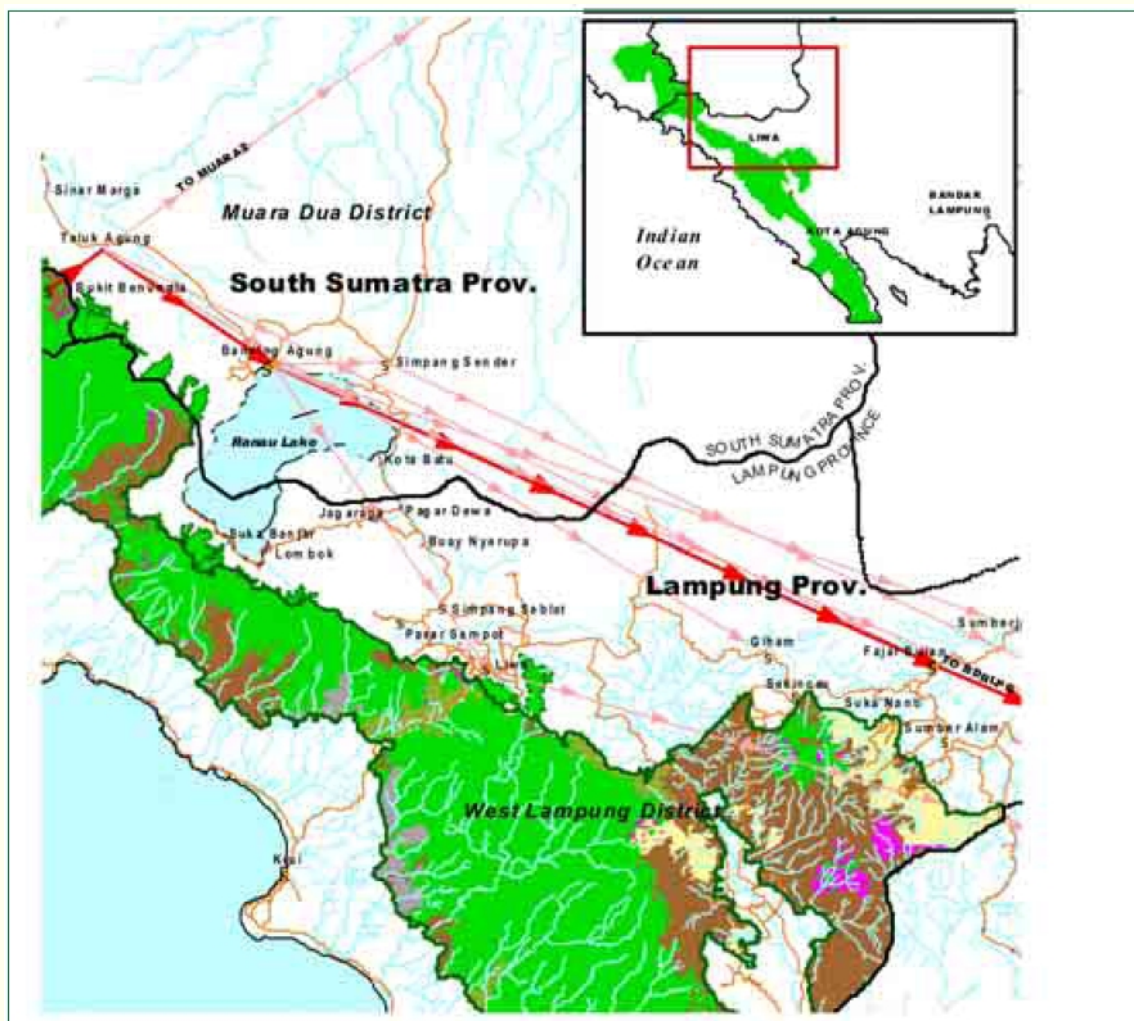
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How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



The map below illustrates the transaction route from Bukit Benungla to the exporters in Bandar Lampung. The majority of trade heads first to Teluk Agung and continues to Banding Agung in South Sumatra. From Banding Agung, the coffee is then distributed to a number of destinations, including Liwa, Simpang Sender, Giham and Fajar Bulan. However, most of it goes to Fajar Bulan an important sub-district in Lampung's coffee route. From Fajar Bulan, the coffee is usually taken to exporters or local industries in Bandar Lampung.

Figure 2





Appendix II

Evidence of illegal coffee trading from Kayu Are to PT Aman Jaya Perdana, Bandar Lampung

Kayu Are is an “illegal” village in Bukit Barisan Selatan National Park (BBSNP). It is at the centre of the zone with the highest levels of encroachment (see map). Administratively, this area is under the Sukajadi village, Suoh sub-district, in the district of Lampung Barat. Kayu Are has been inhabited since 1961 and has long been an area of coffee cultivation. Community members are aware that the village exists in an area of the national park that they are forbidden to inhabit.

Suoh is a sub-district of around 200 households, with one elementary school, one teacher, a mosque and a health facility that opens on market days usually two days per week. In the last three years, the local government has demanded an annual household tax of Rp.424,000. The ethnic make-up of the area comprises Javanese, Sundanese (people from West Java), Sumendo and Ogan (both from South Sumatra).

The village head, named Samin, is a coffee farmer and local trader. Originally from Serang, Banten, in West Java, he moved to Kayu Are in 1973. He currently produces around 3,500kg of coffee on his 7-hectare farm. In his role as a local trader, Samin collects coffee from other farmers from the Suoh area. During the three months of the coffee harvest season, he will collect around 8-10 tons on a market day and 2-3 tons on all other days. This adds up to between 324 and 438 tons in a season. During the rest of the year, a much smaller volume of coffee continues to be traded from farmers' stocks.

One of Samin's customers, Mustafa, has a warehouse in Way Tenong (see map) and is classified as a large-level trader. The photos below (pictures 1 to 4) show a green Toyota Land Cruiser with the words “Terlanjur Sayang” across the windscreen being loaded with coffee at Samin's house in Kayu Are (photos 1 and 2) and unloaded at Mustafa's warehouse in Way Tenong (pictures 3 and 4).

Picture 1.



Loading coffee from Samin's house in Kayu Are onto an old green Toyota Land Cruiser

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Picture 2.



© WWF-Indonesia / BBS / Marino

The same vehicle being loaded with coffee at Samin's house

Picture 3.



© WWF-Indonesia/BBS/Marino

Transporting coffee from the vehicle to the warehouse

Picture 4.



© WWF-Indonesia / BBS / Marino

Mustafa's warehouse in Way Tenong; his name is on the sign

Once all the coffee has been delivered to his warehouse, Mustafa mixes the coffee from Kayu Are with coffee from other traders and farmers. This mixing process helps to hide any poorer quality coffee beans among the better ones (see pictures 5 and 6). By spreading out all the beans, the water content of freshly collected beans is reduced (see picture 6).

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat Bukit Barisan Selatan National Park Sumatra, Indonesia



Picture 5. The Workers Spilling Out the Coffee Beans from the Gunny Bags
(Photo Credit WWF-Indonesia/BBS)



Picture 6. The Mixing of Coffee Beans and Spreading it to Reduce the Water Content (Photo Credit WWF-Indonesia/BBS)

Mustafa usually sells his coffee to Sarmin, a trader in the sub-district of Sekincau (see map). With more capital at his disposal, Sarmin is able to collect larger volumes of coffee from farmers and other traders. He collects coffee from traders in his white Mitsubishi Colt T120 (registration number BE 9652 NB, with "Gista Sport" emblazoned across the windscreen) or his larger truck (see below).

The following five photographs show him picking up coffee from Mustafa's warehouse (pictures 7 and 8) and transporting it to his own warehouse in Sekincau (pictures 9, 10 and 11).



Picture 7. Sarmin Vehicle in Front of Mustafa's Warehouse
(Photo Credit WWF-Indonesia/BBS)



Picture 8. Loading the Coffee from Mustafa's Warehouse into the Sarmin's Mitsubishi Colt T120 (Photo Credit WWFIndonesia/BBS)

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



Picture 9. Arriving in Sarmin Warehouse in Sekincau
(Photo Credit WWF-Indonesia/BBS)



Picture 10. Weighing the Coffee from the vehicle
Inside the Warehouse
(Photo Credit WWF-Indonesia/BBS)



Picture 11. Arranging the Gunny Bag for
Further Transport after Weighing
(Photo Credit WWF-Indonesia/BBS)

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



During the scene witnessed here, soon after the vehicle arrived at Sarmin's warehouse, his workers unloaded the coffee and weighed it. The coffee was mixed with previously collected coffee from other source then made ready for transportation to an exporter in Bandar Lampung. Traders such as Sarmin tend to have more than one exporter customer in Bandar Lampung, in case their coffee is rejected by the expected exporter.

Sarmin uses a larger vehicle (a yellow Mitsubishi 120 PS truck, registration number BE4248 M see pictures 12 and 13) to transport his coffee to an exporter in Bandar Lampung. He and other traders, such as Nazarudin (see Appendix 1), transport the coffee in the middle of the night.



Picture 12. Loading the Coffee to the Truck in Front of Sarmin's Warehouse for further Transport to the Exporter (Photo Credit WWF- Indonesia/BBS)



Picture 13. Sarmin's Truck Side by Side with His Other Smaller Vehicle with Similar Wording in Front Ready to Move to Bandar Lampung (Photo Credit WWF-Indonesia/BBS)

The trucks travel in convoy for their own security, stopping in Bukit Kemuning to join other coffee trucks from Lahat, South Sumatra and other places. At dawn, they continue on their way to Bandar Lampung. For ease of communications with the traders, the truck drivers usually carry cell phones. Once in Bandar Lampung, they disperse to their respective target exporters.

Pictures 14 and 15 show Sarmin's truck arriving at the PT Aman Jaya Perdana warehouse in Bandar Lampung and the coffee being weighed.



Picture 14. Sarmin's Truck Entering PT Aman Jaya Perdana Gate and Registering to the Security to Report the Necessary Information (Photo Credit WWF-Indonesia/BBS)

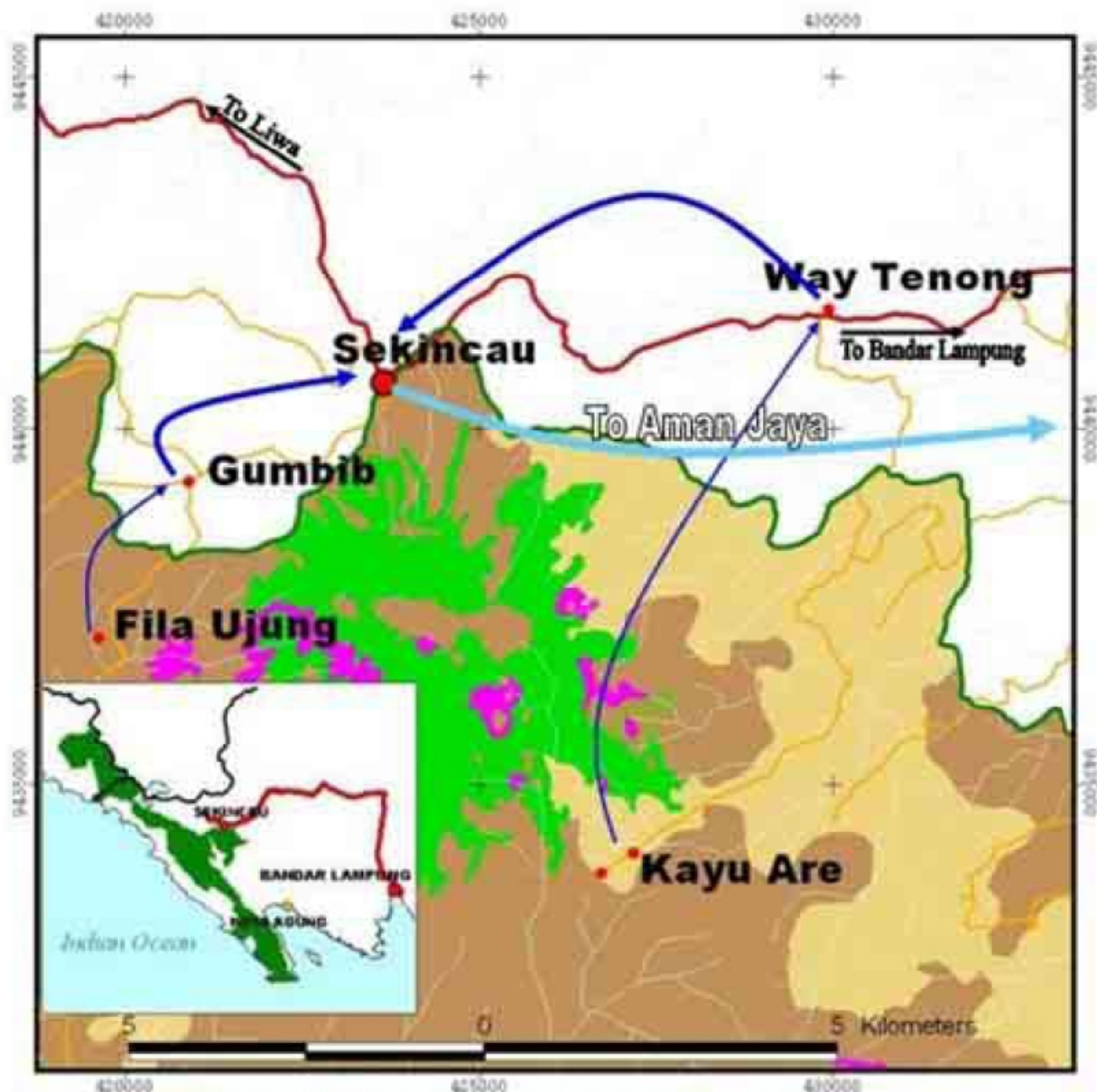


Picture 15. The Sarmin's Truck is following the Weighing Procedure inside PT Aman Jaya Perdana Warehouse (Photo Credit WWF-Indonesia/BBS)

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



COFFEE TRADING FROM FARMERS TO AMAN JAYA

KEY:

- Exporter
- Big Trader
- Farmers and traders
- District

- BBSNP Boundary
- Province Boundary
- Rivers
- Roads
- Main roads

- ↔ Track of Farmers to Trader Level I
- ↔ Track of Trader Level I to Big Trader
- ↔ Track of Big trader to Exporter

- Bukit Barisan Selatan NP
- Landuse**
 - Coarse grass (dam), coffee
 - Coffee, pepper, shrub
 - Dense Forest
 - New encroachment/ Young plant
 - Water



Sources

- Coffee Survey (WWF)
- Landsat Image 1999-2003 (WWF, CI, WCSL, Analyze by WWF)
- Groundtruth and other survey (WWF, BTH EBS, WCS, Ulayat RPU)
- Administration data, road, river (FIMP, WWF, Watas)
- Forest status (Sub BPHUT T) Karang and Bungkul, digitize by WWF)



Appendix IIIa

Exporters of Coffee shipments from Lampung, Sumatra, Indonesia in 2003, 2004 and 2005

Exporters 2003 (42)	Exporters 2004 (49)	Exporters 2005 (50)
ABOD. CV		
	AGRIKOM INDONUSA ABADI. PT	AGRIKOM INDONUSA ABADI. PT
	ALAM JAYA. CV	ALAM JAYA. CV
AMAN JAYA PERDANA. PT	AMAN JAYA PERDANA. PT	AMAN JAYA PERDANA. PT
ANDIRA INDONESIA. PT	ANDIRA INDONESIA. PT	ANDIRA INDONESIA. PT
ANEKA SUMBER BUMI JAYA. PT	ANEKA SUMBER BUMI JAYA. PT	
	ANEKA SUMBER KENCANA. PT	
ANTARA SAUDARA. CV	ANTARA SAUDARA. CV	ANTARA SAUDARA. CV
ARDI KENCANA MAKMUR. PT	ARDI KENCANA MAKMUR. PT	
	ARYA DUTA. CV	ARYA DUTA. CV
ASENDA SATRIA PERKASA. PT	ASENDA SATRIA PERKASA. PT	ASENDA SATRIA PERKASA. PT
	BENTENG MAS SEJAHTERA. PT	BENTENG MAS SEJAHTERA. PT
BERINDO JAYA. PT	BERINDO JAYA. PT	
	BERSERI LESTARI. PT	
	BINTANG TERANG NUSANTARA. PT	BINTANG TERANG NUSANTARA. PT
BUDI SEMESTA SATRIA. PT	BUDI SEMESTA SATRIA. PT	BUDI SEMESTA SATRIA. PT
BUDI WAHANA BINA. PT		
CENDANA MAKMUR. CV	CENDANA MAKMUR. CV	CENDANA MAKMUR. CV
		CIDENG MAKMUR PRATAMA. PT
		COFINDO LESTARI. PT
ELYANA & Co. PT	ELYANA & Co. PT	ELYANA & Co. PT
FA ANDISON TRADING		
GERBANG CAHAYA UTAMA. PT	GERBANG CAHAYA UTAMA. PT	GERBANG CAHAYA UTAMA. PT
HAKIWA MANDIRI PUTRA. PT	HAKIWA MANDIRI PUTRA. PT	HAKIWA MANDIRI PUTRA. PT
	HASIL BUMI RAYA. CV	HASIL BUMI RAYA. CV
		IDENG MAKMUR PRATAMA. PT
INDRA BROTHERS. PT	INDRA BROTHERS. PT	INDRA BROTHERS. PT
INDO CAFCO. PT	INDO CAFCO. PT	INDO CAFCO. PT
INDOKOM CITRA PERSADA. PT	INDOKOM CITRA PERSADA. PT	INDOKOM CITRA PERSADA. PT
ISTANA LAMPUNG JAYA MEGAH. PT	ISTANA LAMPUNG JAYA MEGAH. PT	ISTANA LAMPUNG JAYA MEGAH. PT
	IVANDA. CV	IVANDA. CV

Exporters of Lampung coffee were determined from records of the Cooperative, Industry and Trade Service of Lampung Province. Company names with obvious spelling mistakes were corrected. Companies which were listed repeatedly were recorded only once. Disclaimer: the provided list is likely to contain spelling mistakes and may not be complete

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat Bukit Barisan Selatan National Park Sumatra, Indonesia



		JASA BUMI,CV
		JAVA AGRO,PT
		KARYA MANDIRI,CV
	KIAT EXPORINDO BERSAMA. PT	KIAT EXPORINDO BERSAMA. PT
LAJU SINAR ABADI. PT	LAJU SINAR ABADI. PT	LAJU SINAR ABADI. PT
LEMBAH GUNUNG. PT	LEMBAH GUNUNG. PT	LEMBAH GUNUNG. PT
MAKMUR JAYA SENTOSA. CV	MAKMUR JAYA SENTOSA. CV	MAKMUR JAYA SENTOSA. CV
MANDITO AGUNG. PT	MANDITO AGUNG. PT	MANDITO AGUNG. PT
	MULIA SARI PERMAI. PT	MULIA SARI PERMAI. PT
		MULTI ORGANIK,CV
MUSTIKA BUMI. CV	MUSTIKA BUMI. CV	MUSTIKA BUMI. CV
NESTLE INDONESIA. PT	NESTLE INDONESIA. PT	NESTLE INDONESIA. PT
NIAGA HIJAU LESTARI. PT	NIAGA HIJAU LESTARI. PT	NIAGA HIJAU LESTARI. PT
OLAM INDONESIA. PT	OLAM INDONESIA. PT	OLAM INDONESIA. PT
		PRASIDHA ANEKA NIAGA,PT
		PURNAWIRA MUSTIKA,CV
PUTERA BALI ADYAMULIA. PT	PUTERA BALI ADYAMULIA. PT	PUTERA BALI ADYAMULIA. PT
PUTERA NUSANTARA. CV	PUTERA NUSANTARA. CV	PUTERA NUSANTARA. CV
RODA MANDALA DWIPA. CV	RODA MANDALA DWIPA. CV	RODA MANDALA DWIPA. CV
	SARI MAKMUR INDONESIA. PT	
SARI MAKMUR TUNGGAL MANDIRI. PT	SARI MAKMUR TUNGGAL MANDIRI. PT	SARI MAKMUR TUNGGAL MANDIRI. PT
SUMATERA JAYA. PT	SUMATERA JAYA. PT	SUMATERA JAYA. PT
SUMBER NIAGA HASIL ALAM. CV	SUMBER NIAGA HASIL ALAM. CV	SUMBER NIAGA HASIL ALAM. CV
SURYA INDAH. CV		
TAMAN SUKA INDAH. PT		
TELUK INTAN. PT	TELUK INTAN. PT	
TRI RATU MUKTI KENCANA. PT	TRI RATU MUKTI KENCANA. PT	TRI RATU MUKTI KENCANA. PT
TRI HARTO,CV	TRI HARTO,CV	TRI HARTO,CV
TRIPANCA GROUP,CV	TRIPANCA GROUP,CV	TRIPANCA GROUP,CV
	TRI SAKTI. CV	TRI SAKTI. CV
VOLKOPI INDONESIA. PT	VOLKOPI INDONESIA. PT	
WIJAYANTI. CV	WIJAYANTI. CV	WIJAYANTI. CV
ZAMRUT KHATULIST. PT		



Appendix IIIb

Recipients of Coffee shipments from Lampung, Sumatra, Indonesia in 2003, 2004 and 2005

Recipients 2003 (214)	Recipients 2004 (321)	Recipients 2005 (275)
A.R.C	A & P & L KOUDIS	A & P & L KOUDIS SA
ABAU HAMDAN FREERES	ABE LOGISTIC	A REDDY NATIONAL
AGRIZALA CO	AFM CAFE ZONE	ABDULLA MOHAMMAD
AJINOMOTO GENERAL FOODS	AFRICAFAE	AFWD
ALLCOM SP ZOO	AFRO TRADE	AGRICOLA TRADING
ALSHM: TRADING	AFWD TRADING	AGRICULTURE TRADING
AMERICAN COFFEE CORP	AGRITECHNICS	AGRIZALA Co Ltd
AMT & PER & LED	AGRIZALA	AHMAD ALI AMER
ANDIRA NETHERLANDS	AHMAD ALI AMER	AHMED ADULLA
ANT AND FER	AIK CHEONG COFFEE	AIK CHEONG COFFEE
ANTLANTIC (USA)	ALEXMAN	ALEXMAN POLKOVNIK
ANTOINE CHARABATTI & CO	ALSAHIN TRADING	AMERICAN COFFEE
ANTRACO CORP	ALYAMENI CAFÉ	ANDI SARL
AONI - 2000	AMERICAN COFFEE	ANDIRA NETHERLAND
ARAB INTERNATIONAL	AMTARACO CORP	ANTOINE CHARABATI
ASTGHAT SOLK LTD ARMENIA	ANDES COFFEE	APL KOUDIS. SA
ATLAND HAMBURG	ANDIRA NETHERLAND	AROME ET DELICES
AZEIANDE RUINETE COFFEE	ANDIRA USA	ATLANTIC USA
BALIRING DOUWE EGBERTS	ANTOINE CHARABATI	AZEN SHABATI
BAQUE COMERCIALE	APL KOUDIS	AZIENDE RIUNITE
BATH SINGAPORE	APRO TRADE	AZMISHABAN
BERNHARD ROTHFOS	ATLANTIC SPECIALITY	BAMBRIX FETHI
BERO COFFEE	ATLANTIC USA	BARTHCO VOLLERS
BLASER TRADING AG	AZIENDE RIUNITE	BERNHARD ROTHFOS
BRAZILIAN FOOD	BALIRNY DOUWE EGBERTS	BERO POLSKA
BROOKERS CO	BARTHCO INTERNATIONAL	BERTHOLD VOLLERS
CAFE BADILATTI SA	BERNHARD ROTHFOS	BLASSER TRADING
CAFE DU BRAZIL	BERO COFFEE	BONCAFE INTERNATIONAL
CAFE ROASTER SA	BERTHOLD VOLLER	BRAUNER INT'L
CHAIB RUE	BONCAFE INTERNATIONAL	BRAZILIAN FOOD
CHARLES EL HAYIK	BRAZILIAN FOODS	C & P ASIA
COFFEE BROHERN	BROOKS CO LTD	C STEINWEG TALLING
COFFEE HANDELS	CAFE BADILATI	C&P ASIA
COFFEE IN COMPAGNE	CAFÉ BROKERS	CAFE BADILATI SA
COFINA LTD	CAFÉ DU BRASIL	CAFE DU BRASIL
COFINFOR-R-DO	CAFÉ SANTIAGO	CAFES LES DUCS
COFIRO ASTERS SA	CAFES LES DUCS	CAFES VICTORIA
COFRO CAFE BERO ITALY	CAFFEE BOGHGI	CAFIMPORT

Recipients of Lampung coffee were determined from records of the Cooperative, Industry and Trade Service of Lampung Province. Company names with obvious spelling mistakes were corrected. Companies which were listed repeatedly were recorded only once. Companies with the same base name but different "second" names (e.g. Bero Japan, Bero Polska) were only listed once under their base name. Disclaimer: the provided list is likely to contain spelling mistakes and may not be complete.

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



COMPANIA MARCANTIL	CCL PRODUCTS	CCL PRODUCTS
COMTRADE SPA	CELAMR	CEO EM RUEFF INC
CONCORCIO SA	CIA DE ELABORADOR	CHIN SAN COFFEE
CONTINAF BV	COFFEE BROKERS	CHINA YANEW
CONTRAS SPA-GENOA	COFFEE NARA COMPANY	CIA DE ELABORADES
CORGIL JAPAN	COFFEIN COMPAGNIE	CLAM INTERNATIONAL
CORIMEX TRADING SA	COFFY HANDELS	COFFE BROKER
CORNELDER METAL	COFI ROASTERS	COFFEE NARA COUMP.
COSECIO CAFE SA	COMMODITY SUPPLIES	COFFEIN COMPAGNIE
DAANRNHOUWER & CO	COMPANIA DE CAFÉ	COFFEIN COMPANY
DAESANG CORP.	COMPANIA MERCANTIL	COFFY HANDELS
DELTA TRANSPORT	COMTRADE SRL	COFIROASTERS SA
DOLSONG CORP	CONSORCIO CAFE SA	COMODITY SUPPLIES.
DONG SUH FOODS CORP	CONTINAF B.V	COMPANIA DE ELABORANDO
DOUWE EGBERT FRANCE SA.	CONTINENTAL TRADE	COMPANIA MERCANTILE
EBENEZER COFFEE	COPRO CAFÉ	COMTRADE SRL
ECOM AGROINDUSTRIAL CORP	CORPORA TRESS NOUTES	CONSORCIO CAFÉ
ECOM BERO INDUSTRIAL CORP	CST CONTAINER	CONTINAF BV
ED & F MAN HOLDING	DAARNHOUWER	CONTRADE SRL
EGYPTIAN TRADERS	DAESAN CORP	CORTINA
EKA COFFEE	DAHIMNA CORPORATION	COURMET FOODS
EL HAMID TRADING COMPANY	DEK DEURSE	CTV ZAASTAD
ELIA	DELTA TRANSPORT	CUS NOBE
ELITE CAFE SP	DING HAO ACME	DAARN HOUWER
ELITE ROMANIA	DONG SUH FOODS	DAESANG CORPORATION
ELRL FEKIR ZOUBIR	DOURAGHI Co	DAMBRIX FETHI
ENG GUAN CHAN	DOUWE EGBERTS	DELTA TRANSPORT
ENG HIAP SENG	EASTERN COFFEE	DEUTSCHE DEK
ESMAIL & AHMED	EBENZER	DING HAO ACME
EUR MEIBARKI KUPOR	ECOM AGROINDUSTRIAL	DONG SUH FOODS
EURELFEKIR	ED & F MAN	DOURAGHI Co
EUROBRIDGE SA	EGYPTIAN TRADERS	DOUWE EGBERT
EVENUE JUSTE	EKA COFFEE	ECOM AGROINDUSTRIAL
FEE HANDEL	EL AALEM IMPORT	EDEL SA PART INDUSTRIAL
FINE FOODS INTERNATIONAL	EL HAMD TRADING	EGYPTIAN TRADERS
FOLGER COOFFEE COMPANY	ELIA LTD	EL COFFE
FORT COFIEGRANDERY	ELITE CAFE	EL HAMD TRADING
FOSCHI SRL	ELSAHAM TRADING	ELIA Ltd
FOX COMPANY	ENG GUAN CHAN	ELITE
FRESH FOOD	ENG HIAP SENG	ELITE CAFE
G. BIJDENDIJK B.V	ETS KARROUR	ELITE INDUSTRIES
GEBRWESTH OFF BERLIN	EURL BACHSO	ENERGOSTRO BUSINESS
GIE ASCOM	EURO COMMODITIES	ENG GUAN HIN
GIZA FOOD SHAHEEN CAFE	FAMA CORPORATION	ENG HIAP SENG
GUAN HIN & COMPANY	FENG JEN TRADING	EURL BACHSO
H.R.C	FINE FOODS	EURO COMMODITIES
HALOP CO	FLITFOOD	FAMA CORPORATION
HAMBURG COFFEE COMPANY	FOLGER COFFEE	FOX COMPANY
HANMAYIN CO	FORT KOFFIEBRADERIU	FRESH FOODS TRADING
HARMOZI TRADING CO	FOX COMPANY	FUGA AG

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



HASSAN FAUSY MARZOUK	FRESH FOOD TRADING	G.BIJDENDIJK
HENRY BATH SINGAPORE	FUGA AG	GEBR WESTHOFF
HIJDENDIK BV	G TODARO SAS TRIESTE	GEO WM RUEFF
HITOCU CORP	G.BIJDENDIJK	GEPROCOR SEA
HSIN KUANG	GARBONES COMERCIO	GIZA FOOD COMPANY
IJIMASIA PTE	GEBR WESHOF	GOLDEN COFFEE
IJOLCOFFEE AS	GEPROCOR	GOLDEN JEAS
IMAX OVERSEA	GIE ASCOM PTE Ltd	GOLDEN LENS Co, Ltd
INDO COFFEE	GIZA FOOD SHAHEEN	GOURMET FOODS
INDOMA	GOLDEN COFFEE	GOUTLER COFFE
INTER AMERICAN	GOURMENT FOODS	GRAND CAFE Ltd
INTER FOOD CO	GRAND KAFE	GREEN WORLD TRADING
INTERCOM SPA	GREEN LAND FOR	GRESCENZI CAFE
INTERNATIONAL SOLUTION	GREEN WORLD TRADING	GUAN HIN & Co
INTERPRIME CORP	GUAN HIN & Co	GUGLIELMO, SPA
ISHIMITSU & CO	GUS NOBE SA	GUSNOBESA
ITOCHU CORP	H A BENNETT & SONS	H A BENET
IVORY STONE	HABYCAF S A R L	HACO ASIA
JOHN BURTON	HAMBURG COFFEE COMPANY	HAMBURG COFFEE COMPANY
KANWAY COMPANY	HASAN FAWZY MARZOUK	HANMAYUN
KDY PTE Ltd	HENRY BATH	HASSAN FAWZY
KIM GUAN GUAN COFFEE	HIDUSTAN LEVER	HENRY BATH
KIN WAY COMPANY	HIGH HILL COFFEE	HIGHHILL COFFEE
KONSORTIUM CAFFT	HORIZONS INTERNATIONAL	HINDUSTAN LEVER Ltd
KORD GMBH	HOSTONE S A R L	HING HIAP
KRAFF FOODS	HOW WELL CAFFEE	HING HILL COFFEE
KWONG SENG HUNG	HUSTON S A R L	HWA FONG CURRY
LAMCO SPA	HWA FONG CUKRY	I & M SMITH
LASSIVAGAS SA	I & M SMITH	INDO COFFEE INT'L
LEGANESE BROKERAGE ANTERPRISE	IJIMASIA	INTEL SARL
LES CAFES DU BRASIL	INDO CAFE	INTER AMERICA COFFEE
LES COFES BOURNEIX	INDO COFFEE INT'L	INTER FOODS
LIAM HENG ENTERPRISE	INTER AMERICAN COFFEE	INTER PRIME CORP
LIAN AIK TRADING	INTERFOOD	INTERFOOD Co
LIAN HOUNG & COMPANY	INTERKOM SPA	INTERKOM SPA
LIEM LEE TRADING	INTERMECIAN COFFE	INTL SARL
LOTTE SHIPPING CO	INTERPRIME CORP	ISHIMITSHU
LOUIS DREYFOS TRADING	INTERPRIME CROP SARL	ITHOCHU CORPORATION
LTD ALMANI	ISHIMITSHU	IVORY STONES
LUIGI LAVAZZA SPA	IST GOURMENT FFODS	J. MULLER WESER GMBH
MARUBENI CORP TOKYO	ITHOCHU CORPORATION	JARDIN Co, Ltd
MEIRAKU CORP	IVORY STONE	JASA BUMI CAFFEE
MIASSEL S GARRIGUES CO	J & K TRADING	JENCO TORREF
MIROKU CORP	J MUELLER WESER	JOHN BURTON
MISCOMPANY FOR	JALAL ZAMANI	JORDAN COMMODITY
MISR CAFE	JOHN BURTON	JOSE MIQUEL MASQUES
MITSUBISHI CORP TOKYO	JOHN S. CONNOR	KAMPERY DEVELOPMENT
MITSUMOTO COFFEE	KANEMATSU CORP	KANEMATSU CORP
MOHAMED MOHAMAD	KHENG JEONG HENG	KHENG JEONG HENG
MOHAMED MOUSOWI	KHENG NAM HIANG	KHENG NAM HIANG

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



MR. AHMAD ALI AMIER	KILANG KOPI	KILANG KOPI
MUSSOS NOBLE COFFEE	KIM GUAN GUAN	KOH TIN COFFEE
NAMURA TRADING CO	KONSORTIUM CAFE	KONSORTIUM CAFE
NATIONAL BRANDS	KORD GMBH	KORD GMBH
NEGROS COFFEE COMPANY	KRAFT FOODS	KRAFT FOODS
NESTLE	LAMBADA COFFEE	KRAFT FOODS
NOBEL COFFEE	LAMCO SPA	LAMCO SPA
NOMURA TRADING	LAN AIK TRADING	LDC COFFEE
OLAM INTERNATIONAL	LEE GAIK KHUAN	LEE GAIK KHUAN
ONG SAM BEE	LEI DA ALUJAS COZALES	LEIDA ALUJAS CONZALES
ORLEANS	LEONG HUAT & CO	LEONG HUAT & Co
P. G. COFFEE CORP	LES CAFES DU BRASIL	LES CAFES DU BRASIL
PACIFIC ACME	LES CAFES VICTORIA	LES CAFES SODECAF
PENGJEN TRADING & CO	LIAM HENG ENTERPRISE	LES CAFES VICTORIA
PORT COFFEE BRANDRIY	LIAN AIK TRADING	LIAN AIK TRADING
PRODUCT PROMOTION	LIEN LEE TRADING	LIEN LEE TRADING
RAMILJMFEX	LJ COOPER	LORDEN FINANCE
RICH & HARD	LOGISTIC MARITIME	LOTTE SAMKANG
ROBERT G MARSHALL	LOGISTIC MARITIME	LTD ALMANI
ROBINSON ROOE	LOTTE SAMKANG	LUIGI LAVAZZA
ROHLIG GRINDROAD	LOUIS DREYFUS	LUM SWEE SENG Co.
ROMANORPROGEIS	LTD ALMANI	MOHAMED MOHAMAD
ROMILOS DA VELOPOULO	LTD ORBI	MAHFOUZ AMER
ROSO CO	LUIGI LAVAZA	MAISON P JABIN
ROTHFOS CORP	MAHFOEZ AMER	MAJED EL HASSAN
S ISHIMITSU & CO	MAISON J QUILLE	MAN BAYI COFFEE
SA SUCRE EXPORT	MANILA PHILIPINA	MARADI OCEAN WAYS
SANDALY TRADING COMPANY	MARCELS GARRIGUES	MARCEL S GARRIGUEST
SARICA GOURMENT COFFEE	MARUBENI CORPORATION	MARUBENI CORPORATION
SELOCAP NEW ORLEANS	MEXICAFE CANADA	MAURICE MAARAWI
SEMARAK KOTA INTERPRISE	MISR CAFE	MERCAFF SA
SENG HUAT COFFEE	MITSUBISHI CORP	MERCON COFFEE
SILOCAF OF NEW ORLEANS	MITSUMOTO COFFEE	MESSRS AROME
SIN LIAU KEE	MM SODECAF	MESSRS CEROME
SIONG ENG & CO	MM VICTORIA	MEXICO CANADA
SNC MORSI ET MERZOURI	MOHAMED MOHAMAD	MISR CAFE COMPANY
SOCATEC SA	MR MAHFOUZ	MISTER COFFEE
SOCIETE COMERSIAL	MR. AHMAD ALI AMER	MITSUBISHI CORPORATION
SOCIETE HABYCAF	MR. MAHFOUZ AMER	mitsui & Co
SOCODEC SWITZERLAND	NARASER EXPORT	MOHAMAD MOHAMED
SOO HUP SENG TRADING CO	NATIONAL BRANDS LTD	MORENO INTERNATIONAL
STE COMERCIALE	NEGROS COFFEE	Mr A REDDY NATIONAL BRANDS
STE TAJMAHAL	NESTLE FOODS	Mr. MAJED EL HASAN
SUCAFINA SA	NEW ORLANE	N.V SUPREMO, SA
SWING CO	NOBLE CAFFE	NARASUS EXPORT
TAJMAHAL	NOMURA TRADING	NATIONAL BRANDS
TALOCA AG	OLAM INTERNATIONAL	NED COFFEE B.V
TAR LIONG SON	ONG SAM BEE	NEGROS COFFEE
TATA COFFEE	ORIENT INTERNATIONAL	NESTLE
TECK LEE SENG COFFEE	ORIMI TRADE	NOBLE RESOURCE SA

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



TJIMOSIR PTE	OWL INTERNATIONAL	NOMURA TRADING
TOMILIMPEX LTD	PACIFIC ACME COFFEE	NV SUPREMO
TONG FONG COFFEE	PACORINI SRL	OLAM INTERNATIONAL
TOYOTA FUSO	PAITSUMOTO	OM ALTALH Co
TOYOTA TSUSKO CORP	PETACO INTERNATIONAL	ONG SAM BEE,Co
TRANSESUD	POTTS MC CANLESS	OW INTERNATIONAL
TSIT WING COFFEE CO	PRODUCT PROMOTION	P W BELLINGALL
UCC COFFEE TAIWAN CO	ROAH ESTABLISHMENT	PACORINI SILOCAF
UEM LEE TRADING	ROBERT G MARSHALL	POLARIS
ULAM INTERNATIONAL	ROHLIG GRINDROAD	POTTSINC CANLESS
UNIPRO CV	ROTHFOS CORP	PRODUCT PROMOTION
UNITEA MOSENE	RUMANIA & Co	PW BELIINGAL
UNITED COFFEE CO	S ISHIMITSHU	RANILOS DEVELOPOUS
UNITED LOGISTIK	SA SUCRE EXPORT	RJ DEVELOPOULOS
VASSILAGOS SPA	SAIF INTL	ROBERT G MARSHALL
VICO SA	SAPPHIRE TRADING	ROHLIG GRINDROAD
VOLCAFE	SARIKA GOURMENT	ROMANI & Co
VYCO SA	SARL SOLIMAT IMPORT	ROTHFOS CORPORATION
WALTER MATTER	SDV	ROYAL COFFEE
WESTHOFF BERLIN	SENG HUAT COFFE	SOO HUP SENG
WORLD TRANSPORT AGENCY	SHAIPRE TRADING	SA LIE COFFEE
YOUNG FORT ADM BUILDING	SILOCAF OF NEW ORLANE	SA SUCRE EXPORT
YOUNG IN TRADERS	SIN BOON KEE	SAI KEE KOPI
YVALTER MATER AS	SIN LIEW KEE	SAM KIEN
	SIONG ENG & Co	SANITEX
	SOCIETE COMMERCIALE	SARIKA COURMENT
	SOCIETE TAJMAHAL	SARL INTERNATIONAL
	SOCOMECE	SARMAD GENERAL
	SODECAFSA	SEA BRIDGE AGENCIES
	SOO HUP SENG	SEAL SERVICES PTE
	SOUSSA	SELATAN MEGAH
	STARBUCKS* COFFEE	SENG HUAT COFFEE
	STE SODECAF SA	SENG JAT CHOUU
	STE TAJ MAHAL	SENG JIT CHOON
	SUCAFINA SA	SERENEGTI TRADING
	SUNG IL INDUSTRIES	SIN BON KEE
	SYARIKAT ZALIKHA	SIN LIEW KEE COFFEE
	SYKT KWONG SENG HUNG	SIN SENG HUAT
	SYN TAI NUNG	SING BOON KEE
	TALOCA AG ZUG	SIONG ENG & Co
	TAR LEONG SDN	SNC PALAIS
	TATA COFFEE LIMITED	SNC POLAIS DU CAFE
	TCHIBO GMBH	SOCIETE HABYCAF
	TECK LEE SENG COFFEE	SOCIETE TAJMAHAL
	TENCO TORREFFE COM	SODECAF
	THEOBROMA	SOLUBLES INSTANTANECES
	TODARO	SOO HUP SENG
	TOMEN CORPORATION	SPED CONSULL
	TOMILIMPEX	STANBURY TRADING
	TOYOTA TSUSHO	STE COMMERCIALE

50 * The Starbucks Coffee Company has provided information to WWF that its inclusion in Lampung export data is the result of an error in the database of the authorities in Lampung Province and that its policy is to never purchase robusta beans, the kind of coffee cultivated in the Lampung region.

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



	TRANSISUD	SUCAFINA SA
	TSIT WING COFFEE	SUCHOUXING YUE
	UCC COFFEE	SUCRE EXPORT
	UNIMASTER LOGISTIC	SUPREMO SA
	VAN EKRI & Co	SYARIKAT KWONG
	VASSILAGAS S.A	TA TRANSPORT
	VOLCAFE	TAR LEONG
	VOLLERS BELGIUM	TATA COFFE Ltd
	VYCO SA	TECK LEE SENG
	WALTER MATTER SA	TEL TRANSPORT
	WAN KE MI	TENCO TORREF
	WEINGEIST	TIEN SUN TRADING
	WESER INTERNATIONAL	TORREFATTORI ASSOCIATI
	WESTHOFF GMBH	TOYOTA TSUSHO
	WORLD TRANSPORT	TRADECO SWITZERLAND
	YENNEW FOODS	TRANSFREIGHT
	YEW LEE COFFEE	TROPICAL FINE
	YORK CAFE	TSIT WING COFFEE
	YOUNG IN TRADERS	UFFI PACIFIC
	ROAH ESTABLISHMENT	UNI MASTER LOGISTICS
	ROBERT G MARSHALL	UNIVERSAL ROBINA CORP
	ROHLIG GRINDROAD	VASSILAGES
	ROTHFOS CORP	VGB TRADING
	RUMANIA & Co	VOLCAFE SWITZERLAND
	S ISHIMITSHU	VYCO SA
	SA SUCRE EXPORT	WA KE MI
	SAIF INT'L	WALTER MATER S.A.
	SAPPHIRE TRADING	WAN KE MI IMPORTING
	SARIKA GOURMENT	WESTHOFF
	SARL SOLIMAT IMPORT	WORLD TRANSPORT
	SDV	YEN FOODS
	SENG HUAT COFFE	YEW LEE COFFEE
	SHAPIRE TRADING	YORK CAFÉ
	SILOCAF OF NEW ORLANE	YOUNG IN TRADERS
	SIN BOON KEE	ZAANSTAD STUISPORDER
	SIN LIEW KEE	
	SIONG ENG & Co	
	SOCIETE COMMERCIALE	
	SOCIETE TAJMAHAL	
	SOCOMECE	
	SODECAFSA	
	SOO HUP SENG	
	SOUSSA	
	STARBUCKS COFFEE	
	STE SODECAF SA	
	STE TAJ MAHAL	
	SUCAFINA SA	
	SUNG IL INDUSTRIES	
	SYARIKAT ZALIKHA	
	SYKT KWONG SENG HUNG	

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown
Coffee Is Driving The Destruction Of
Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



	SYN TAI NUNG	
	TALOCA AG ZUG	
	TAR LEONG SDN	
	TATA COFFEE LIMITED	
	TCHIBO GMBH	
	TECK LEE SENG COFFEE	
	TENCO TORREFFE COM	
	THEOBROMA	
	TODARO	
	TOMEN CORPORATION	
	TOMILIMPEX	
	TOYOTA TSUSHO	
	TRANSISUD	
	TSIT WING COFFEE	
	UCC COFFEE	
	UNIMASTER LOGISTIC	
	VAN EKRIS & Co	
	VASSILAGAS S.A	
	VOLCAFE	
	VOLLERS BELGIUM	
	VYCO SA	
	WALTER MATTER SA	
	WAN KE MI	
	WEINGEIST	
	WESER INTERNATIONAL	
	WESTHOFF GMBH	
	WORLD TRANSPORT	
	YENEW FOODS	
	YEW LEE COFFEE	
	YORK CAFE	
	YOUNG IN TRADERS	



Appendix IIIc

Top Global Companies Receiving Tainted Coffee from Lampung, Sumatra, Indonesia in 2003, 2004, and 2005.

Companies are ranked by their three year total volume. The accumulated percentage of individual companies' total volumes is an indication of how many companies control what percentage of the Lampung coffee market.

	2003	2003	2004	2004	2005	2005	All Years	All Years
Lampung Coffee Recipients	kg	% of Total	kg	% of Total	kg	% of Total	kg	Accumulated % of Total
							(ranked)	
KRAFT*	30,932,660	14.30%	22,690,250	8.02%	19,588,200	5.85%	73,211,110	8.78%
J. Mueller Weser	0	0.00%	28,175,840	9.96%	34,893,460	10.42%	63,069,300	16.34%
Nestle	10,705,458	4.95%	15,903,604	5.62%	22,332,580	6.67%	48,941,642	22.20%
Pacorini Silocaf	1,071,000	0.50%	21,133,410	7.47%	24,450,900	7.30%	46,655,310	27.80%
Marubeni Corporation	15,140,740	7.00%	12,860,950	4.54%	15,013,940	4.48%	43,015,630	32.95%
Andira	19,555,100	9.04%	11,784,800	4.16%	6,650,100	1.99%	37,990,000	37.51%
HACOFCO**	13,486,400	6.24%	14,116,800	4.99%	6,577,200	1.96%	34,180,400	41.61%
Neumann Kaffee Gruppe***	15,291,700	7.07%	13,246,360	4.68%	4,119,200	1.23%	32,657,260	45.52%
Lavazza	4,895,900	2.26%	11,136,800	3.93%	13,655,200	4.08%	29,687,900	49.08%
ED&F Man****	19,987,500	9.24%	1,790,400	0.63%	2,191,200	0.65%	23,969,100	51.95%
Robert G Marshall	252,000	0.12%	2,688,000	0.95%	20,406,000	6.09%	23,346,000	54.75%
World Transport	210,000	0.10%	7,494,120	2.65%	13,075,000	3.90%	20,779,120	57.24%
Noble Coffee	17,232,865	7.97%	1,772,700	0.63%	1,563,000	0.47%	20,568,565	59.71%
Olam International	6,045,600	2.80%	7,321,800	2.59%	5,464,800	1.63%	18,832,200	61.97%
CCL Products	0	0.00%	3,949,730	1.40%	10,427,400	3.11%	14,377,130	63.69%
Kord	966,000	0.45%	4,724,400	1.67%	7,665,500	2.29%	13,355,900	65.29%
Elite	1,754,600	0.81%	5,850,600	2.07%	5,183,400	1.55%	12,788,600	66.82%
Dong Suh	755,800	0.35%	5,241,000	1.85%	6,501,000	1.94%	12,497,800	68.32%
Gebr. Westhoff	1,006,980	0.47%	4,284,000	1.51%	4,848,000	1.45%	10,138,980	69.54%
Ecom	4,877,700	2.26%	214,200	0.08%	2,301,780	0.69%	7,393,680	70.42%
Itochu Corporation	2,324,020	1.07%	2,348,980	0.83%	2,646,000	0.79%	7,319,000	71.30%
Potts	0	0.00%	3,027,220	1.07%	4,217,860	1.26%	7,245,080	72.17%
Coffy	0	0.00%	3,799,800	1.34%	2,394,000	0.71%	6,193,800	72.91%
Delta Transport	850,200	0.39%	2,740,800	0.97%	2,191,200	0.65%	5,782,200	73.61%
Tata Coffee	1,200,000	0.55%	1,318,500	0.47%	2,301,780	0.69%	4,820,280	74.18%
Dreyfus	970,200	0.45%	3,202,800	1.13%	451,400	0.13%	4,624,400	74.74%
Elaborador	0	0.00%	3,318,600	1.17%	1,076,280	0.32%	4,394,880	75.26%
Coffein	0	0.00%	488,000	0.17%	2,851,500	0.85%	3,339,500	75.67%
Agricola	0	0.00%	0	0.00%	3,051,600	0.91%	3,051,600	76.03%
Vollers	0	0.00%	435,900	0.15%	2,531,760	0.76%	2,967,660	76.39%
Highhill Coffee	0	0.00%	99,000	0.03%	2,851,500	0.85%	2,950,500	76.74%
All Recipients	216,270,978		283,031,952		334,863,540		834,166,470	

* including Taloca AG

**including Hamburg Coffee and American Coffee

***including Bero Coffee, Bernard Rothfos

****including Cofina and Volcafe



Appendix IV

Companies' responses

In 2005 WWF offices sent this letter and a draft copy of this report to 20 companies buying tainted Lampung coffee.

Dear Sirs:

Re: Illegal coffee growing and habitat destruction in the Bukit Barisan Selatan National Park, Sumatra, Indonesia

Over the past year WWF has undertaken field research regarding illegal coffee growing within the Bukit Barisan Selatan National Park (BBSNP). The BBSNP is a 3,500 km United Nations designated World Heritage Site, in Lampung province, Indonesia. It contains some of Sumatra's last protected lowland forest.

The BBSNP is extremely rich in biodiversity and is home to three of the world's most endangered species: the Sumatran elephant (fewer than 2,000 survive today), the Sumatran rhino (total global population: 300 animals and declining rapidly), and the Sumatran tiger (total global population around 400 animals, also declining rapidly).

WWF has conducted a detailed investigation on:

- the ecological value of the national park
- the mapping of park encroachment by illegal coffee plantation
- the identification of the key participants in the local coffee trade
- the tracking of trading routes from illegal coffee growers inside the park to exporters
- the role played by named international coffee buyers in this ecological disaster

In brief, local communities have illegally occupied the park and are converting the forest to grow illegal robusta coffee plantations. This coffee has entered the supply chain of international coffee makers. The impacting ecological result are that the degraded forest area in the BBSNP now accounts for an estimated 28% of the park original cover.

The information WWF has collected will be presented in a report to be launched publicly this autumn. Your company ..., has been identified in the report section titled "Exports Tainted with Illegal Coffee from the BBSNP" (section 5.4.5). The section is included in the Chapter 5 of our report, which we have attached.

Prior to publishing the report, we would like to give you the opportunity to check the information related to your company. We would be grateful if you could please provide comments and feedback on the accuracy of this information in writing by Friday 29th July 2005.

If necessary, please advise where changes have to be made and upon which sources the changes are based. We can ensure you that WWF will integrate the provided information or abridged summary into the final report. In the event that we do not receive an answer from you within the requested time frame, we will assume the information is correct and accurate.

Yours sincerely,

Christian Thompson
Endangered Species Programme
WWF-UK

Encl. Chapter 5 of the report

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown
Coffee Is Driving The Destruction Of
Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



WWF sent this second letter/message to companies which had promised to improve the situation.

12 July 2006

Dear Sirs: ...

Re: Illegal coffee growing and habitat destruction in the Bukit Barisan Selatan National Park, Sumatra, Indonesia

WWF wrote to you in 2005 to inform you that our investigations have demonstrated that your company is buying coffee grown illegally inside Bukit Barisan Selatan National Park (BBSNP) in Sumatra, Indonesia. This letter is to enquire what steps your company has taken to rectify this problem, and to recommend a future course of action to ensure that your company's coffee is not associated with the illegal destruction of conservation areas of global significance.

BBSNP is a United Nations designated World Heritage Site that contains some of Sumatra's last remaining lowland forests, and is an essential refuge for three of the world's most endangered species: the Sumatran elephant (fewer than 2,000 survive today), the Sumatran rhino (total global population of 300 animals and declining rapidly) and the Sumatran tiger (global population around 400 animals, also declining rapidly.) BBSNP also contains a large amount of other important and threatened biodiversity.

Despite the high level of protection afforded to the park, illegal encroachment and conversion of the forest for agricultural purposes is fast destroying the park and threatening the survival of the species living within it. It is estimated that 28% of the park is degraded, and 17% of this has been degraded for agricultural cultivation with robusta coffee as the main crop. WWF's investigations revealed that this illegally cultivated robusta coffee (termed 'tainted coffee') has entered the supply chain of international coffee makers. These findings are detailed in our report: "Gone in an Instant: How the trade in illegally grown coffee is driving the destruction of rhino, tiger and elephant habitat" (see enclosed), which identifies your company as one of the biggest international buyers of 'tainted' coffee.

After our initial correspondence with you, we received a reply on DATE / /2005. WWF is heartened by this response, and now urges you to:

- 1) Support the collaborative venture that WWF has developed with leading organizations in chain-of-custody analysis and certification systems for coffee. Through this work, your entire supply chain (from producer field to container at the port) of beans will be thoroughly investigated, enabling you to fully understand the chain-of-custody. This will allow you to implement safeguards, if needed, to ensure that you do not procure beans that have been illegally harvested within BBSNP.
- 2) Join our team to establish sites for the sustainable and certified production of coffee, cocoa and spices in the BBSNP buffer zone. This will enable coffee growers who have illegally encroached BBSNP to abandon sites inside the park and begin more sustainable production in the buffer zone.
- 3) Join our team to reforest the areas that have been degraded inside the park, and help us protect the rhinos, tigers and elephants and their habitat for years to come.

We will be publishing 'Gone in an Instant' in early September to the international media through our global network operating in almost 100 countries. When we release the report, we would like to highlight as a responsible company that is working with us to ensure its operations do not lead to the further endangerment of three of the world's most enigmatic species. As such, please reply before mid-September to inform us whether is prepared to take the necessary actions, as outlined above, to ensure its coffee comes from legal, legitimate and sustainable sources.

If we do not hear from you by this date, we will unfortunately have to publish the report as it stands.

Yours sincerely,



Companies' Responses to WWF

a) Companies that are in an early stage of engaging with WWF on the tainted coffee issue

No.	Company	Contact
1.	Kraft Foods Inc. Three Lakes Drive, Northfield, Illinois, USA www.kraft.com	Mr Paul Carothers Vice President Global Public Affair
2.	Luigi Lavazza S.p.A. Corso Novara, 59, 10154 Turin, Italy www.lavazza.com	Valentina Maglio, Legal Dept-Institutional Relations, and Mario Cerutti, Supply Chain Director
3.	Nestlé S.A. 1.Ave. Nestle 55, 1800 Vevey, Switzerland 2.Lyoner Strasse 23, 60523 Frankfurt am Main, Germany 3.Wisma Nestle, Jl. Let. Jen. TB Simatupang Kav. 88, Jakarta 12520, Indonesia www.nestle.com	1.Debora Rukmawati, 2.Achim Drewes, Head of Corporate Information Centre 3.Syahlan Siregar, Corporate Affairs Director
4.	Olam International Limited 9 Temasek Boulevard #11-02, Suntec Tower Two, Singapore 038989 www.olamonline.com	Vasanth Subramanian, General Manager-Finance, Olam International Ltd, Singapore, and Milan Bist, Olam Indonesia

b) Companies that acknowledged the problem and promised to improve the situation

No.	Company	Contact
1.	Noble Group 18th Floor, Mass Mutual Tower, 38 Gloucester Road, Hong Kong www.thisisnoble.com	Eliot S. Spitz President

c) Companies that denied any involvement with the tainted coffee problem.

No.	Company	Contact
1.	Marubeni Corporation 4-2, Ohtemachi 1-chome, Chiyoda-ku, Tokyo 100-8088, Japan	Mr Takashi Kawano General Manager, Beverage Unit
2.	Bero Coffee Japan Bureau Toranomom, Suite 505, Toranomom 2-7-16, Minato-ku, 105-0001 Tokyo www.berocoffeejapan.com	Mr M. Haruguchi Manager
3.	Bernhard Rothfos GmbH & Co. Am Sandtorkai 5, 20457 Hamburg, Germany www.greencoffee trading.com	Bernard Cremieux Mr Managing Director
4.	ED&F Man Holdings Ltd Cottons Centre, Hays Lane, London SE1 2QE, United Kingdom www.edfman.com	Mr Steve Wateridge Head of Coffee & Cocoa Research

GONE IN AN INSTANT

Asian Rhino and Elephant Action Strategy

How The Trade In Illegally Grown Coffee Is Driving The Destruction Of Rhino, Tiger and Elephant Habitat
Bukit Barisan Selatan National Park
Sumatra, Indonesia



d) Companies that did not reply

No.	Company	Contact
1.	American Coffee Corporation 11 Hanover Square Suite 706, New York, New York 10005, USA www.amcof.com www.hacofco.de	Mr Donald Pisano Chairman
2.	Andira Netherlands* Weena 695, Entrance B - 4th floor, 3013 AM Rotterdam, The Netherlands www.andirausa.com <i>* Andira Netherlands initially acknowledged the problem and suggested that WWF contact Andira Indonesia. Andira Indonesia did not respond to several attempts to contact them.</i>	1. Peter Buurman, Netherlands 2. Henk van Geurp, Jakarta, Indonesia
3.	Hamburg Coffee Company Zippelhaus 5, 20457 Hamburg, Germany www.hacofco.de	
4	Daarnhouwer & Co. BV Ebbehout 2, 1507 EA Zaandam 2037, 1500 GA Zaandam, The Netherlands www.daarnhouwer.com	
5.	Itochu Corporation 5-1, Kita-Aoyama 2-chome, Minato-ku, Tokyo 107-8077, Japan www.itochu.co.jp	Mr Ueno
6.	Astghatsolk Ltd Armenia 86-4 Serasia Street, Yerevan, Armenia	
7.	Röhlig-Grindrod (Pty) Ltd 5th Floor, Foretrust Building, Martin Hammerschlag Way, Heerengracht Foreshore, Cape Town, 8001, South Africa	Walter Grindrod Executive Director
8.	Tata Coffee 1 Bishop Lefroy Road, Calcutta 700 020, India www.tatatea.com/tata_coffee.htm	Mr R Krishna Kumar Chairman

GONE IN AN INSTANT

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Notes



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GONE IN AN INSTANT

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Sumatra, Indonesia

WWF is the world's largest and most experienced independent conservation organization, with almost 5 million supporters and a global network active in more than 90 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and waste consumption

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Jakarta Indonesia
www.panda.org/species
www.panda.org/areas