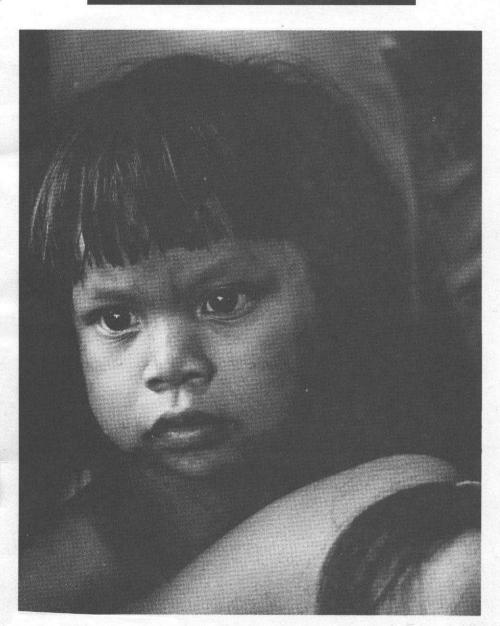


Friends of the Earth

mahogany is murder





A Report for Friends of the Earth

mahogany is murder

MAHOGANY EXTRACTION FROM INDIAN
RESERVES IN BRAZIL

By George Monbiot

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Friends of the Earth

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George Monbiot, August 1992.



Summary

This report documents the extraction of mahogany (*Swietenia macrophylla*) from Indian and biological reserves in the Brazilian Amazon. It strongly suggests that a large part of the Brazilian mahogany being bought by consumers in Britain and other industrialized nations has been extracted illegally from areas set aside for protection. It reveals that mahogany cutters are not only among the major causes of ecological destruction in the southern Amazon, but that they are also threatening the cultural integrity and lives of many of the Indians whose reserves have been invaded. It details the murders of indigenous people at the hands of loggers, the cultural destruction many groups are suffering, the political strength of the Brazilian timber industry and the ways in which consumers in Britain have been misled about the sources of the timber they buy.



Introduction

In 1992, according to FUNAI, the Brazilian Government's Indian Foundation, most of the Brazilian mahogany entering Britain will come from Indian or biological reserves [16]. As the richest legally available sources of mahogany have been depleted, logging companies have been moving into the areas set aside for the protection of Indians and wildlife, where exploitation is illegal [1].

Most of the reserves in which significant quantities of mahogany grow have been invaded, and as a result the mahogany industry has now become one of the greatest threats to the physical survival of the Amazon's Indians. Not only are the forests sustaining them and their traditions being damaged by the cutters, but the roads they open allow colonists to flood into previously inaccessible Indian lands [2,3,4]. Many of the Indians coming into contact with colonists and cutters have no resistance to the diseases they introduce, and epidemics follow the timber frontier [5,6,7]. In some reserves loggers have sent gunmen ahead of them to kill Indians threatening their operations [8,9,10]. In others they have struck deals with individual Indians, trading mahogany for cheap merchandise. These are characteristically inequitable, and have led to friction between the beneficiaries and other members of the tribe [11,12,13].

The Brazilian industry is, according to senior government officials, out of control [14,15,16]. The organizations formed by the timber industry in the eastern Amazon are said to be more powerful than any government agency, and many of the civil servants charged with protecting the Indians and the forests have been bribed or threatened into acquiescence with the illegal trade. This problem extends to members of the judiciary. Some officials are known to draw regular salaries from the loggers. José Lutzenberger, the Brazilian Secretary of State for the Environment, described the outstations of the government's environment agency, IBAMA, as "one hundred per cent branch offices of the logging companies" [17]. In March 1992, when he tried to do something about this situation, he was, for this among other reasons, sacked (see Appendix 2).

Both he and Sydney Possuelo, the current president of FUNAI, complain that little can be done to restrict the supply of illegal mahogany: the cutters are simply too powerful. Great Britain is the largest purchaser of sawn Brazilian mahogany, accounting for 52 per cent of the trade [119]. They call



on British consumers to stop the demand: it is the only hope, they say, for the survival of many of the Amazon's Indians.

The tree

Brazilian mahogany (*Swietenia macrophylla*) grows in a broad band across the southern Amazon - from close to Brazil's eastern coast to the Bolivian border - through the far western Amazon, then narrowing through Ecuador and Colombia to central Venezuela, crossing the Darien Peninsula and occurring on the eastern seaboard of Central America [18]. This study concentrates on Brazil, where most of the mahogany purchased in Britain is extracted.

The mahogany belt coincides with the southern Amazon's greatest density of Indian reserves. This is partly because the region in which it grows is far from the channel of the River Amazon, up which the first outsiders came. While the diseases, slavery and warfare introduced by Europeans led within two centuries to the complete extermination of many of the groups close to the River Amazon itself, those in the southern forests were left largely undisturbed until the second half of this century. It is in these forests that mahogany grows.

Because of the heavy exploitation of the mahogany tree, Brazil has listed the species as Vulnerable in the Annex of the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere. Swietenia macrophylla is classified as a high priority species for genetic resource conservation by the International Board for Plant Genetic Resources. The United States' submission to the 1992 Convention on International Trade in Endangered Species noted "Extant natural populations of the unlisted [Swietenia] species are depleted substantially by extraction [19]."

This is not to suggest, however, that the species is close to biological extinction. A recent study by de Barros *et al* estimates that 16 million cubic metres of mahogany exist outside Indian reserves in the Brazilian Amazon [20]. If this estimate is accurate (Verissimo *et al* note "it is extremely difficult to estimate the regional stock of mahogany and all such estimates should be regarded with scepticism at the present time.") [21], it would appear to suggest that mahogany remains abundant in the Brazilian Amazon.



However, de Barros *et al* calculate an average density of these remaining stocks in the regions in which mahogany is still known to occur of only one tree per ten hectares. This is below the density at which exploitation is commercially viable (conversations with timber cutters suggest that regions in which the trees occur at one per four hectares are just within the range of commercial viability). Accounts from people involved in the trade collected by this author and others [22] over the last three years suggest that most of the viable stands of mahogany outside reserves have already been exploited. The figures may corroborate these accounts and uphold the claims of government officials that mahogany is close to commercial extinction in the accessible areas in which it is legally exploitable [15,16].

The estimate of de Barros *et al* that the Indian reserves in the mahogany belt, which cover 22.5 per cent of its area, contain 13.7 million cubic metres of mahogany indicates, if accurate, that the density of mahogany within these areas is much greater than the density outside them-probably because exploitation of most reserves is a recent phenomenon. This, and the fact that cutters have been able to avoid paying the Indians for their mahogany, or to pay them at rates far lower than those charged by other landowners, makes the exploitation of reserves commercially viable.

In 1990, 84 per cent of the Amazon's mahogany exports came from the state of Pará, 13 per cent from Rondônia and 2.9 per cent from Acre [23].

The environmental effects of cutting

Mahogany has been described as "a perfectly designed boardgame for maximum environmental destruction" [24]. As the trees are highly valuable yet widely dispersed through the forest, mahogany cutters are prepared to traverse large areas of forest to extract them. Uhl et al note: "Mahogany logging is conducted by very large companies, each constructing hundreds of kilometres of logging road each dry season to reach ever more distant mahogany trees. The present transport distance approaches 400 kilometres, but the value of sawn mahogany, at US\$600-800 m³ is compensatory." [25]

The damage the machinery inflicts on the forest in which the mahogany is cut is out of proportion to the amount of wood taken. A study in the south of Pará found that for each mahogany tree removed, 28 other trees were seriously damaged: most of them toppled or uprooted. 1,450 square



metres of forest were affected by the cutting of every mahogany tree [21].

While in theory the forest could recover from this disturbance, the relationship between mahogany loggers and colonists in the Brazilian Amazon (see 'cutters and colonists' below), and the cutters' concentration on protected areas of forest, mean that in practice the timber industry must be among the most significant causes of tropical forest destruction in the southern Amazon.

Some Brazilian loggers claim to be operating in an environmentally acceptable or even sustainable fashion. They point to their establishment of mahogany plantations as evidence of sustainable production. These, however, are characteristically located far from the forest in which the mahogany is felled. The establishment of plantations of just one or a few tree species fails to restore the diversity of the forest destroyed. The land area these plantings cover is small by comparison to the area opened up by the cutters' activities. In the Indian and biological reserves from which most mahogany is said to come, no recorded attempts have been made to restore the damage inflicted.

To support their claims of extracting wood only from managed forests, timber cutters produce management certificates issued by the federal Environment Institute, IBAMA. These have long been an object of ridicule among researchers in the Amazon. In 1992, José Lutzenberger revealed that they were being handed out blank by corrupt IBAMA officials for the cutters to fill in for themselves.

Verissimo et al have shown that, for a number of reasons, mahogany regeneration in the logged forest is weak. They suggest that: "It is possible that the present mahogany population established after widespread disturbances, such as fire, several hundred years ago, and has not been able to effectively reproduce since such disturbance events." [21] As most mature mahogany trees are removed by the cutters, and logging takes place before the tree's fruiting season, little seed is left for regeneration. Mahogany does not sprout from cut stumps. They note that in abundant light, however, it would have a good regeneration capacity. As intermediate-sized mahogany trees occur in the logged forest they studied at densities of only 0.3 per hectare, they conclude: "Considering natural mortality, it is unlikely that this stock could produce a second harvest." [21]

Much of the forest in which mahogany grows would likely remain



unexploited for the forseeable future were it not for mahogany extraction. While trees of the species are widely dispersed, few others among the forests in which it grows have a commercial value [21,26].

While mahogany traders in Britain concentrate on where their wood might be coming from in 30 or 40 years' time - assuming the plantations overcome pest problems and reach maturity - they appear to have failed to determine where their timber is coming from now. This author has yet to locate one sustainable commercial timber operation in the Brazilian Amazon.

Cutters and colonists

The immediate damage inflicted in the extraction of mahogany is the least of the problems associated with the industry. Logging is now among the principal means by which new agricultural frontiers are being established in Amazonia: colonists and ranchers make use of the roads cut through previously inaccessible regions, and clear the forest that the loggers have opened up [27,25,21]. In many cases the finance they need for forest clearance comes from their sale to sawmills of the remaining valuable timber on the lands they take [25].

As the mahogany cutters range further than any other loggers and are characteristically the first invaders of reserves, they provide the means by which settlers can reach the remotest parts of the forest. In reserves such as the Guaporé, Uru Eu Wau Wau and Alto Turiaçu the cutters have actively encouraged colonists to follow them, as these people provide both cheap labour and protection from Indians and authorities. Claiming that they are just a small part of the wider invasion, the cutters shelter behind the political difficulties involved in the removal of colonists from reserves.

The damage inflicted by colonists making use of timber cutters' roads has profound effects on the lives of the Indians. The Arara living in the westernmost part of their reserve, for instance, are entirely cut off from those in the east by a continuous belt of deforestation following the road to a sawmill. There are fears for the genetic viability of the small population stranded in the west (see case studies).



The human consequences

1992 is a year of crisis for the Indians of the eastern Amazon. While many of the existing reserve invasions continue, cutters are now massing for what a Brazilian anthropologist describes as "a huge offensive planned for the dry season." [28] In reserves of Indians such as the Parakana, the Xikrin and the Kayapó - all of whom have resisted some of the timber cutters' attempts at exploitation - loggers are reported to be employing all possible means to re-establish themselves, including bribery, threats and political influence [29].

The invasions of reserves in the mahogany belt are systematic. In many cases they are planned among powerful cartels of timber cutters, with or without the involvement of corrupt government officials (see below). It is common for one company to open the roads into a reserve, a second to exploit the timber, and the two to sell to a third [30]. Their combined wealth and power mean that there is little that government or non-governmental institutions can do to stop them.

As a result the cutters have been able to trample the basic rights of the region's most vulnerable peoples. The Brazilian Constitution determines that: "The lands traditionally occupied by the Indians are set aside for their permanent possession, leaving to them the exclusive use of the riches from the soil, the rivers and the lakes existing in them". [1] This provision - like others in the Constitution; the Brazilian Statute of the Indian; the Draft United Nations Declaration on the Rights of Indigenous Peoples; and the International Labour Organization's conventions 107 and 169 - is offended in every reserve in which timber cutters are operating.

The effects on the Indians range from social dismemberment and cultural loss through epidemics of disease to straightforward murder. FUNAI officials complain that there is little hope of preventing the disintegration of indigenous societies in the southern Amazon while the mahogany trade continues unchecked [14,32,30].

The case studies and Appendix 1 (see below) catalogue the murders of people of the Korubo, Flecheiros, Tikuna, Awá-guajá, Zoró, Mura-Piraha, Guaporé and Uru Eu Wau Wau tribes. Indian rights groups in the Amazon stress that the majority of killings of Indians go unrecorded. Most at risk are the isolated groups of the Amazon, which have resisted contact with the



outside world. In some cases the first whites they encounter are the timber cutters' gunmen.

Among those groups which have contact with the invaders, the most evident of the troubles associated with logging is disease. The Catholic Church's Indigenous Council reported last year that almost the entire adult population of the Suruí people of the Sete de Setembro Reserve had contracted one or other venereal disease, and 20 per cent of the population was suffering from tuberculosis [5]. The Uru Eu Wau Wau are believed to have lost half their numbers since first contact in 1981, through diseases introduced by both timber cutters and colonists [33].

Loggers, Indians and government

The tactics of the loggers vary widely. In some cases, they move into the reserve clandestinely, cutting until the Indians discover them. At that point they either leave, threaten the Indians or try to suborn them. In the territories of people such as the Kayapó, renowned for their violent resistance to unauthorized timber cutting, loggers have been known to dash in, fell as many mahogany trees as they can, then approach the Indians through intermediaries, arguing that as the wood has already been felled, the Indians can only gain by receiving a share of the profits once the logs are hauled away and sawn [34].

In other instances, cutters have arrived in Indian villages to distribute truckloads of cheap merchandise: torches, radios, tee-shirts, biscuits and tinned food. A few weeks later they return, claiming that the goods had been sold to the Indians on credit, and that they have come to collect their debts in the form of timber [29].

Once inside the reserves the cutters characteristically single out members of the group and attempt to persuade them of the merits of trading their timber. If they succeed, contracts are drawn up. These are both illegal and, characteristically, one-sided. The Indians are paid in cash, services or merchandise, at rates far below those charged by other landowners [35,36,37]. Even so, several Indian groups have complained that the cutters with whom they deal steal more wood than they pay for.

When individuals receive merchandise or services in return for their acquiescence in logging operations, these characteristically prove



ephemeral or harmful. In most reserves in which Indians are regularly dealing with cutters, alcoholism is a problem, as white rum is handed out or traded for mahogany [3,36]. Cutters bring the Indians they trade with white prostitutes, and some people use the money they make to stay in hotels and eat in restaurants, abandoning their crops and families [35]. Seldom is any of the money invested: the Indians receive no instruction in finance or arithmetic.

The contracts struck between individuals - in some cases young men with no claim to authority [13] - and the cutters have led to conflicts among the Indians, as those who do not want the forests logged find there is little they can do to resist [12].

The difficulties the Indians have encountered in attempting to improve the terms of these unconstitutional contracts have been described by the Kayapó spokesman Paulinho Paiakan: "At the moment, very few of us can speak or read Portuguese. Fewer even can count or check money deals. Numbers are not part of our tradition. We were always cheated." [38]

When the mahogany runs out - as is happening already in some reserves - the Indians find themselves left with neither money nor forests. Having used the forest to meet all their needs, they become dependent on a cash economy without cash, and many are tempted to sell other rights to their lands - such as mining concessions - in order to keep themselves alive. As Linda Greenbaum notes, the Indians lose their old skills without gaining new ones [35].

Despite their illegality, many of the contracts have been negotiated through FUNAI officials. This process began under the disastrous administration of Romero Jucá Filho, in 1986. The contracts he signed on behalf of the Indians resulted in huge personal gains for himself [39], lower costs for FUNAI - as in some reserves its administrative buildings were constructed by the cutters - and few if any benefits to the Indians. These contracts caused a national scandal and were cancelled by the federal courts in 1988 [40], but the cutters continued to use them in attempts to legitimize their presence.

Jucá was succeeded by FUNAI presidents of varying commitment to Indian rights until, in 1991, Sydney Possuelo was appointed. Though he is determined to stop the abuses, middle ranking officials throughout the Foundation continue to preside over contracts between cutters and Indians,



taking a substantial cut from the loggers in return for convincing the Indians that they are not being treated unfairly.

Some Indian groups have lobbied local FUNAI offices or even travelled to the federal capital, Brasília, to petition the Government for an end to the cutting [8,41], but typically without success: Indians in the Amazon neither swing financial weight nor are considered to be an important part of the electorate. As their numbers have declined in the last five centuries from 5-10 million to 230,000 they are always likely to be outvoted by colonists hoping to gain from the access afforded to new lands by timber cutters' roads. Failing to find political solutions, some Indians have resorted to confiscation of machinery [13,42], hostage taking [43,44] and violence [45,8] in their attempts to get rid of timber cutters. Occasionally these desperate measures are successful.

Among other groups, some members have lobbied FUNAI or environment agencies to allow the continuation of logging, as they wish to continue receiving the merchandise or money the loggers offer [46,47]. This has helped to exacerbate the conflicts between those in favour of logging and those against it.

The scale of the logging in reserves can scarcely be overstated. In 1987, the Brazilian export agency, CACEX, recorded that 69 per cent of all the mahogany leaving Brazil came from the Kayapó reserves [36]. This proportion has since declined due to depletion. The Comissao Pro-Indio reports that from just eight reserves it surveyed in the state of Rondônia, 905,000 cubic metres of fine hardwoods (largely mahogany, followed by cedro and cerejeira) had been taken between 1982 and 1990, with most of the cutting taking place in the last four years [48]. In 1991, 30,000 cubic metres of mahogany were recorded as having been cut from the Xikrin Indians' Catete Reserve, and this was considered to have been only a small part of the total removed [7]. In 1988, the ex-director of FUNAI, Ezequias Heringuer Filho, reported that a preliminary study in Rondônia, Mato Grosso, Amazonas and Pará showed that at least \$1 billion worth of timber had already been removed from indigenous reserves [49].

Illegal mahogany logging is also taking place in biological and extractive reserves [50].



Case studies

The Korubo

The Javari Park, which occupies the westernmost corner of the state of Amazonas, is inhabited by three thousand indigenous people of twelve groups, of which four have had no peaceful contact with the outside world [5]. According to FUNAI, eight of the twelve groups are threatened by illegal logging operations. Of these the Korubo, who have chosen to avoid outsiders (FUNAI's attempts to contact them between 1972 and 1975 were abandoned because of the Korubo's hostility), are perhaps most at risk.

For at least six years, invasions by both Brazilian and Peruvian timber cutters in the Korubo's territory have been increasing, and timber cutting in the Javari Park - according to the Catholic Church's Indigenous Councit - now accounts for "a good part of the timber production of the state of Amazonas." [51] The situation has become so desperate that some of the Korubo have left their forests and fled into surrounding ranchlands [52]. Since the invasions began, at least four Korubo have been murdered by timber cutters' gunmen.

In 1986, one Indian was killed and another wounded when they were caught by timber cutters on the Rio Branco [53]. In November 1989, at the confluence of the Rivers Ituí and Itacoaí, the federal police recovered the bodies of three Korubo believed to have been hunted down and murdered by timber cutters - possibly the first whites these Korubo had encountered [54,55]. The Catholic Church's Indigenous Council, CIMI, reports that the killers of the three are well-known, but that no serious attempts to prosecute them have been made [56].

At the end of 1990, a film crew from the University of Brasília encountered a team of 11 timber cutters entering the forests of the Korubo armed with shotguns, apparently at the beginning of an Indian hunt [56]. In December 1991, two men working for a timber company in Korubo lands went missing. The company dispatched ten armed men to find them and - according to CIMI - punish the Indians believed responsible for their deaths [57]. The two men's corpses were later recovered [58] and it was ascertained that they had been killed by the Korubo. Indian rights activists fear that revenge raids will follow shortly. In October 1987, the maloca (communal house) of a neighbouring isolated group, the so-called



Flecheiros, was razed after the Indians wounded a timber worker. Several of the Indians were reported killed in the fire. The timber cutters stayed in the area [53].

The ecological effects of the cutting in Korubo territory are severe. The anthropologist Delvair Montagner, records: "The timber cutters are the greatest predators in the Park, due to the immense roads which they open in the forest to roll the logs to the streams or the rivers" [53]. Of the Korubo he writes, "the situation of the isolated Indians is terrible. FUNAI must be prudent and act rapidly, before the invaders and criminals decimate them" [53].

Mahogany and cedro in the Javari Park are now confined to a few river valleys, while the timber sumaúma is reported to have been exhausted [51]. In the lands of the Korubo and Matís people in the catchment of the River Ituí, FUNAI calculates that there are 700 to 1,000 timber workers, removing 8,000 to 10,000 logs each dry season. While many of these are small operators, a new invasion of Korubo land by a large sawmill based in the town of Benjamin Constant was sufficiently threatening to drive some of the Indians out of their territory. FUNAI asked the police to expel these cutters, but they refused to act without a formal request from the courts [59,60].

As the Korubo remain out of peaceful contact, it is impossible to assess the effects of introduced disease among them. Some indication of how they might be affected is offered by the condition of two of the other peoples of the Javari Valley whose lands have been invaded by timber cutters. In 1991, epidemics of tuberculosis and leishmaniasis were reported among the Marubo, while the Matís were found to be suffering from widespread measles and flu complicated by bronchial pneumonia [6]. All of these diseases are potentially fatal among Amazonian Indians.

The Guaporé

The people inhabiting the Guaporé Biological Reserve in the state of Rondônia have resisted all contact with the outside world. They have been seen only once by government officials, though many abandoned camps have been found. The reserve is not only this people's last place of refuge, it is also one of the most important wildlife conservation areas in Brazil, where 600,000 hectares contain highly diverse rainforest, cerrado (scrub savannah) and wetland habitats [4].



In 1986, timber companies, with the encouragement of the federal senator Olavo Pires [61] and corrupt officials in the federal government's Environment Institute, IBDF, began building roads into the eastern part of the reserve. In 1988, more cutters arrived, having temporarily left Indian reserves while FUNAI was being prosecuted by the Public Federal Ministry for having signed illegal contracts [49]. By 1990, ten sawmills were cutting mahogany in the reserve, and had taken an estimated 40,000 trees [62]. Their roads ran for up to 82 kilometres into the reserve [46].

A state senator associated with the loggers reportedly approached President Sarney with a request for the reserve's boundaries to be altered, rendering the cutting legal. In an attempt to precipitate this change, he encouraged settlers to move in along the logging roads, informing them that they could probably obtain legal title for the lands they claimed in the reserve [46,63]. 50 families of colonists moved up the logging roads, and 400 speculators staked claims to land in the reserve, erecting signs along the roads [4].

The Indians of the Guaporé Reserve are said by FUNAI to be threatened with extinction if timber cutting continues. A FUNAI expedition in 1989 found more than twenty Guaporé camps, abandoned as the timber cutters came closer: the expedition concluded that the Indians were in a state of near-constant flight. When, for the first and only time, these officials encountered them, the Indians fled in panic [62]. This could be a response to the widely reported killings of members of the Guaporé by timber cutters' gunmen [64].

By the middle of 1990, four expeditions had been mounted by FUNAI, some with, some without the help of the Federal Police, to close down the timber operations in the reserve. After every expedition the cutters began operating again almost immediately, relying on the widespread support of corrupt officials. But at the end of 1990, the senator Olavo Pires was murdered, and corrupt officials were dismissed from both the local FUNAI offices and from the state environment agency. In the dry season of 1991 a more effective operation was launched, which stopped the cutting in the reserve at least until the end of that year [65]. Indigenous rights campaigners are anxiously awaiting the 1992 dry season, concerned that the cutters will return and flush the Guaporé out of the last undisturbed forests in the part of the reserve they inhabit.



The Arara

The Arara Indians of the Xingu catchment in southern Pará (not to be confused with the Arara of Rondônia and Mato Grosso) were first contacted by the Brazilian Government in 1981. By that time, however, they had already suffered terribly from the division of their lands by the TransAmazon Highway (built in 1970) and the accompanying bombing of their villages, aerial drops of contaminated clothing and erection of lethal electric fences by the armed forces and an agricultural company. Their population is believed to have fallen to around one quarter of the precontact numbers [32].

In 1983, a major supplier of British mahogany importers was granted permission by the government's colonization agency to build a ninety kilometre road from the TransAmazon Highway to the banks of the River Iriri, traversing the territory of the westernmost Arara, who were still out of contact. The Arara fled from the lands the company entered, moving to the far west of their territory. In 1987 they were contacted for the first time by FUNAI, and settled in a permanent village in an effort to keep them out of contact with the timber companies.

The company built a sawmill on the banks of the River Iriri and began exploiting mahogany in the Arara's traditional lands. 1,500 families of colonists followed the timber company, settling along the main road and the smaller ones it built.

In 1985, the land the timber firm had entered was mapped as Arara territory, and in 1991 FUNAI applied to the Federal Attorney-General for a repossession order against the company. The Attorney General applied to the courts in Pará [66]. The judge initially granted a preliminary measure against the company, but withdrew it soon afterwards, and the logging firm remains inside the Arara's reserve.

In 1991, the timber company built a 95 kilometre logging road westwards, which came to within 20 kilometres of the western Arara's new village [14,29]. FUNAI reports that the company has destroyed much of the forest the Indians there were using (they rely heavily on hunting, gathering and fishing). The game has already fled from the area. Officials believe that if the road goes any further the Indians will lose their traditional livelihoods.



As the colonists following the timber company have clear-felled a wide tract of forest which the Arara cannot cross, the 38 people surviving in the western territories have no means of contacting the larger populations in the east: FUNAl fears that their population size is genetically unviable [14]. The easternmost Arara are also suffering severely from the presence of timber cutters, and this year there are reports of serious flu outbreaks following contacts between them and employees of the several firms invading their lands. One of these companies is owned by a government agency, INCRA, which is cutting the mahogany for use by a timber company belonging to one of its senior officials [67].

The Tikuna

On 28th March 1988, over 100 Tikuna Indians came together for a meeting with FUNAI representatives in a riverside house in the settlement of Capacete, western Amazonas, to discuss the illegal timber cutting taking place in their lands. A boat arrived at the riverbank containing the timber cutter Oscar Castello Branco and sixteen hired gunmen. The men disembarked, announced that they had come to kill everyone, and opened fire [31]. As the Tikuna tried to flee in canoes, several were gunned down. By the time the massacre was over, 14 Indians, children included, had been killed and 22 wounded [8,68].

Castello Branco was named as the instigator of the massacre by Romeu Tuma, the director-general of the Federal Police in Brazil [68]. Eleven of the sixteen gunmen were identified. Yet, four years later, no prosecutions have taken place [8,69,70]. The region is dominated by timber cutters: the authorities in seven counties are allowing or encouraging illegal timber cutting in Tikuna lands [8]. Many of the region's officials are benefiting directly from reserve invasions. The trial of Castello Branco and his gunmen is politically impossible.

Far from investigating the 1988 massacre, the authorities have done nothing to prevent another one. The Tikuna have repeatedly petitioned for protection, but have received none. Death threats are now arriving regularly in Tikuna villages: one leader has been told that fifteen boxes of cartridges have been set aside for him and his people [71]. As the pressure on Tikuna reserves intensifies, the chances of more killings rise.



The Xikrin

The Xikrin of the Catete Reserve in Pará forcibly expelled the timber companies invading their lands in 1987. But in July 1989, as the anthropologists Lux Vidal and Isabelle Giannini report, two young men of the community, who had no authority as representatives, were persuaded to sign a contract with a major timber company, one of the biggest supplying the British market. The company was given the right to extract 20,000 cubic metres of mahogany per year for five years [13].

Remarkably, half the wood extracted was, under the terms of the contract, granted free to the timber company to compensate it for the costs of extraction. The Regional Administrator of FUNAI, José Ferreira Campos Junior, commented: "The cynicism of this contract is such that 50 per cent of the wood extracted goes to the company to pay for its own extraction of the wood ... It's the first time that I've seen a timber company being paid for extracting timber." He pointed out several other serious aberrations in the contract, making it clear that the Xikrin had been thoroughly misled [72].

The Xikrin were supposed to be paid for the remainder of the timber at the rate of \$20 per tree. The market price in 1989 for standing mahogany trees in the region was \$80 per cubic metre, an average of \$320 per tree. The anthropologists working with the Xikrin report, however, that even this money was not delivered. On the contract a debt of \$7,900 appeared, owed by the Xikrin to the timber company, purporting to have been spent by the company on merchandise for the Indians.

By March 1990, the Xikrin were suffering from alcoholism, prostitution, venereal disease and social breakdown [13]. Finding that they had received almost nothing in return for their wood, the Indians sent warriors to the cutting zone to expel the timber company. With the help of anthropologists they succeeded in annulling the contract and started to look at sustainable development alternatives.

By then, however, the environmental damage caused was serious. Lux Vidal and Isabelle Giannini report: "As the mahogany in the area was widely dispersed, being calculated at one tree per four hectares, its exploitation and extraction resulted in the destruction of a large part of the surrounding forest. For the extraction of 599 mahogany trees, 130.5 kilometres of primary roads and 173 kilometres of secondary roads ... were opened ... We're dealing with a pure and simple loss of the great richness



of the forest. The effects on the flora and fauna are disastrous, destroying the food reserves of the Indians in a very short period of time." [13]

However, in July 1990 the timber company persuaded individuals in the Xikrin community to allow it to continue extracting wood from their reserve in return for a twin motored aeroplane and a road linking their village to the town of Tucuma. The majority of the community was not involved in the contract. The company subcontracted a further five firms in order to accelerate its operations, including two supplying major timber importers in Britain.

From July to October, 40 lorries a day were leaving the reserve, each carrying five or six trunks. The aeroplane is not registered in the name of the Xikrin. They have no money either to buy spares or to pay for a pilot. Timber cutters now report that the Catete Reserve is the last place in which mahogany can be found in the Redençao-Tucuma region, so the political and economic pressure to continue the exploitation is intense. The Regional Administrator of FUNAI reported that in September 1990, he was accosted at the airport in Maraba by the owner of the timber company. He was told: "Money pays for anything, and the federal police will not enter the Xikrin area and you will never succeed in opening an enquiry about me." [72]

In January 1992, Isabelle Giannini wrote: "The deforestation in the southern and western parts, from the head-waters of the Rivers Seco and Catete, and the constant contact of the timber companies' workers with the village, is carrying serious consequences for the health of the Indians. In the first two weeks of January 1992 six Xikrin children died of viral dysentery." [7]

The Suruí

In 1991, almost the entire adult population of the Suruí (otherwise known as the Paiter) of the Sete de Setembro Reserve in Rondônia had contracted venereal disease. Twenty per cent of the people were suffering from tuberculosis [5]. While the 530 Suruí have suffered from epidemics since first contact (their numbers have dropped by 90 per cent in twenty years), recent outbreaks have been blamed by the Indians themselves on the presence of loggers in their lands [73].

The social ills associated with logging are just as serious. Having made oral



contracts with timber cutters in 1987 - which paid them but not the rest of the people for the mahogany cut - some of the Suruí men began to indulge in all the luxuries the outside world could offer them. They left their villages and started living in hotels in the nearest towns, where many of them hired white prostitutes on a semi-permanent basis. Those who had profited most from the timber cutting bought cars and hired chauffeurs. They stopped planting crops and ate only in restaurants [35].

Within three years most of the money these men had obtained had dried up, and none had been invested. The Suruí, whose society had hitherto been unstratified, had divided into what they describe as 'chiefs' and 'peasants' [35].

The oral contracts were made initially because the Suruí could see no means of stopping the uncontrolled logging that was taking place in their lands. In 1987, they lost an estimated \$2 million of mahogany before any deals were struck. Some of the men decided that if the trees were to go whether or not the Suruí were paid, they might as well profit by them. FUNAI, then run by Romero Jucá, encouraged the Suruí to work with the cutters. Between 1988 and 1990, 30,000 cubic metres of mahogany were taken from the Sete de Setembro Reserve [48]. In Rondônia timber cutters pay Indians, on average, \$20 per cubic metre of mahogany, and sell it for \$300-400 [3].

Many of the Suruí are opposed to the logging. labadai Suruí, in 1990, told the rest of his people: "My relatives ... no one can authorize the timber cutters to enter. If an Indian lets them, how can we succeed in fighting FUNAI to pull out the sawmills and timber cutters? We shouldn't cut the trees. The trees give the fruit we eat, without the trees the game comes to an end. We want the honey from the trees, the fruits, all there is to be eaten in the forest." [12] One of the Suruí men opposed to the logging disappeared, believed killed, in 1989 [74].

Sometimes the protests of the Suruí opposed to timber cutting do not stop at speeches. In October 1988, the Suruí, Cinta Larga, Arara, Gaviao and Zoró tied up six timber workers they found on the Suruí reserve and threatened to kill them [44]. In October 1991, the Suruí helped organize a demonstration in the town of Jí-Parana, in which 400 Indians blocked the main bridge, to protest against dams, ranching, mining and timber cutting on indigenous land [3].



Despite this, some of the Suruí are continuing to sell their mahogany, even though stocks are now running low. They argue that, as FUNAI has failed to provide medicines, the only way they can afford to treat the epidemics they suffer is through timber sales. Their situation is cruelly ironic: the timber cutters introduce the diseases, and the Indians have to keep selling their timber in order to treat them. As the Catholic Church in Rondônia points out, the Suruí, if the cutting continues, will soon be left with neither forests nor finance.

The British trade

Britain is the largest importer, by value, of tropical timbers in Europe [75]. Brazil is only Britain's third largest supplier of sawn tropical hardwoods, yet, during the 1980s, Britain consumed 74 per cent of all the Brazilian timber entering Europe [76]. In 1990, 62,000 tonnes of the 110,000 tonnes of exported sawn Brazilian mahogany went to the UK [119]. In the same year, Britain also imported from Brazil 3.1 million door and door frame units (or 5,000 tonnes) [78].

Brazilian mahogany imports to Britain, having risen sharply in the 1980s, have, with other tropical timbers, begun to decline. This is partly because of the recession and previous oversupply, partly because of a growing preference for pale timbers, but apparently not, as yet, because of environmental concerns [77]. In 1990, mahogany accounted for 13 per cent of Britain's tropical sawn timber imports.

Mahogany's popularity in Britain arises from its associations with luxury and tradition. Like 'champagne', 'salmon' or 'ivory', 'mahogany' is a word which appears to signify quality. Major uses include doors, window frames, bannisters, coffins, furniture, bathroom fittings, cabinets and fitted kitchens and bedrooms.

Many of the companies trading mahogany in this country are members of Britain's Timber Trade Federation. In 1989 the Federation launched a public relations campaign, called Forests Forever. The stated aims of the campaign are "to fight the increasing adverse criticism directed at every sector of the timber industry by the media and environmental groups"; to react to media comment; to brief journalists and MPs; to promote wood use in the technical press; to encourage members in their market place discussions with customers; to produce videos and lecture kits for schools



and other groups [79]. Claims the Forests Forever campaign makes include:

"The timberman is wrongly accused of being the cause of forest abuse and destruction"; [80]

"Wood is the world's most environmentally-friendly material and renewable resource." [80];

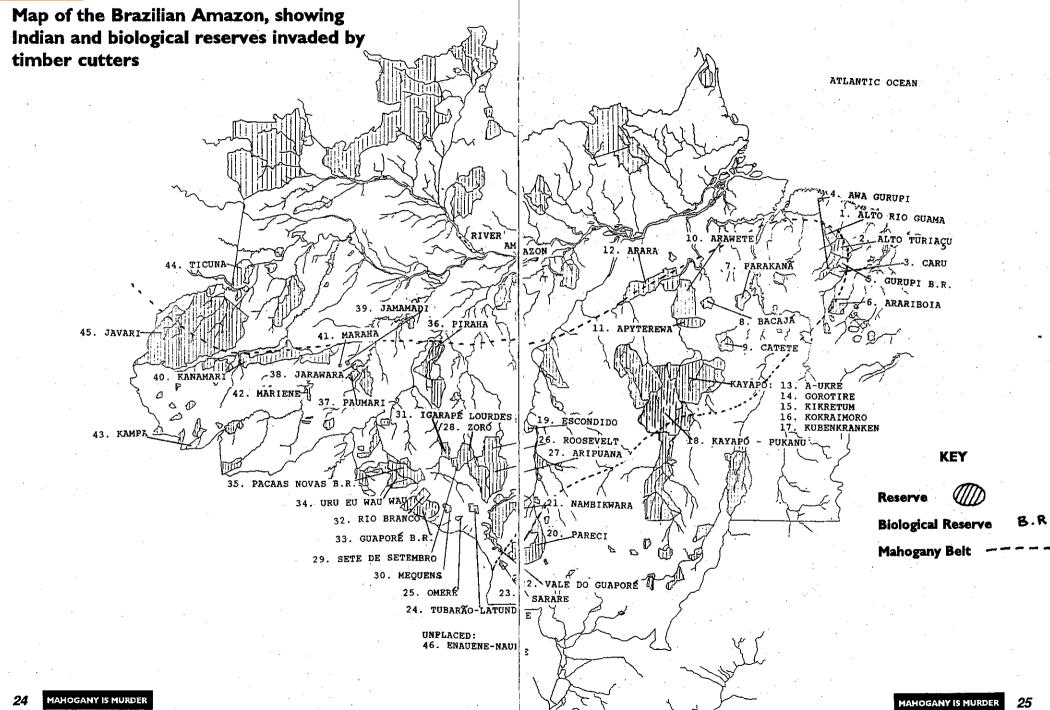
"The timber industry does not destroy rain forests." [81];

"The UK industry does not have the resources, in itself, to study and judge human rights situations in every one of the fifty or so forested countries supplying Britain. It asks its commercial suppliers to look carefully at their individual logging activities and impact on local communities and voluntarily offer reassurances to those who buy their wood that respect for human rights is observed." [82]

Many traders have incorporated Forests Forever's assurances into their own publicity material. Others have made their own claims. A survey commissioned by the World Wide Fund for Nature found that 49 per cent of the companies examined made claims about the environmental acceptability of the tropical timber they sold. However, of 81 companies contacted, "only three made any serious attempt to answer the questions raised." [83] The WWF report concluded: "The great majority of the many claims being made in the UK with regard to the environmental acceptability of the sources of tropical timbers and tropical wood products cannot be considered verifiable." [83] A recent World Bank report observes: "In practical terms, no commercial logging of tropical moist forests has proven to be sustainable from the standpoint of the forest ecosystem, and any such logging must be recognized as mining, not sustaining, the basic forest resource." [120]

The biggest beneficiary of the mahogany trade in Britain is the Government, which in 1990 was making, through VAT, an estimated \$468 (£264) on each cubic metre of mahogany sold in this country [76]. This is 142 times more than the Xikrin make on the same mahogany, and 12 times more than the highest recorded payments to Brazilian Indians for their timber. Francesco Martone suggests that the VAT on Brazilian mahogany alone may well exceed the British Overseas Development Administration's spending in 1990/91 on all forestry projects [119].







Take Action

Write to the department of the Environment and the Department of Trade and Industry urging that the UK Government pursues European Community legislation to regulate the imports of tropical hardwoods. The following points should be mentioned:

- That companies exporting mahogany to the UK have been found to be operating illegally inside Indian reserves.
- The UK timber industry has proven unwilling to regulate itself with regards to the import of tropical hardwoods, despite further recent evidence, for example, that illegal exports from the Philippines have also been imported into the UK.

The Rt Hon David Needham MP Minister for Trade Department of Trade and Industry 1 Victoria Street London SW1H 0ET

The Rt Hon Michael Howard MP Secretary of State for the Environment Department of the Environment 2 Marsham Street London SW1P 3EB



Appendix I

Below are brief details of other recorded reserve invasions by timber cutters, in most cases seeking mahogany.

In the state of Pará

Parakana and Arawete Indians: the anthropologist Carlos Fausto reports that their reserves - the Arawete and Apyterewa Indigenous Areas - were entered in 1988 by two large timber companies, both of which supply some of the biggest mahogany importers in Britain. They extracted an estimated 7,500 cubic metres of mahogany before some of their workers were caught by the Indians and the companies were expelled [84]. In March 1992, representatives of one of the companies were reported to be back in the reserve of the Parakana - who were first contacted in 1984 - apparently succeeding in their attempts to persuade the Indians to part with their wood in return for merchandise [85,29].

Awá-guajá, Urubu Kaapor, Tembé, Timbira: The complex of reserves inhabited by these Indians - the Alto-Turiaçu, Alto Rio Guama, Awá and Caru Indigenous Areas and the Gurupi Biological Reserve - are suffering invasions of timber cutters, ranchers and colonists [86,6,87]. The cutters are reported to employ large numbers of gunmen [88]. They have been used to threaten representatives of the Kaapor, Timbira and Tembé [2] and FUNAI officials [89] and, in September 1990, to murder two of the isolated Awá-guajá Indians in the Gurupi Biological Reserve [9]. These people are said by FUNAI to be at risk of extinction at the hands of timber cutters and ranchers, who employ 80 armed men in the Biological Reserve [90]. FUNAI reports the presence of dozens of lorries commuting between these reserves and sawmills in Paragominas and Imperatriz [88]. 1,100 colonists have followed the timber cutters into the Alto-Turiaçu Reserve [9].

Kayapó: In 1987, according to the Brazilian Government's Export Agency, 69 per cent of all the mahogany leaving Brazil came from the Kayapó reserves A-Ukre, Gorotire, Kikretum, Kokraimoro and Kuben-Kran-Ken [36]. This has declined in subsequent years, due to the depletion of stocks, but there are still major loggers in most of the Kayapó areas. In 1992, Kayapó leaders complained that the remotest of their forests - the territory of the Pukanu community - were invaded by a major supplier of the British market, which cut the trees first, then tried, unsuccessfully, to negotiate



their purchase [91]. Cutting has taken place both with and without the consent of members of the Kayapó [92,93], in some cases with contracts encouraged and mediated by FUNAI officials [38]. The result has been lasting conflict between those Kayapó profiting from the cutting and those opposed to it [11,94]. Large areas of the Kayapó forests have been logged over, and members of the Kayapó complain of critical shortages of game, fish and forest products as a result. Some of the Kayapó have now turned to Brazilian and foreign environment groups to help them fight the loggers, or used force to try to remove them or obtain compensation [95].

In the state of Amazonas

Apurina, Jarawara and Paumari: Five reserves belonging to these peoples - the Jarawara, Jamamadi, Canamati, Maraha and Mariene Indigenous Areas - have been suffering constant invasions by timber cutters based in and near Manaus. In a meeting in October 1991, their leaders complained that armed employees of the cutters had sacked their forests and were distributing alcohol to the Indians [3].

Kulina and Kanamari: The Kulina of the Alto Purus complain that the timber company working in their reserve has been extracting wood in exchange for promised goods which never arrived. Instead the Indians were paid in white rum [96]. In 1989, the Kanamari Indians travelled to meet FUNAI representatives, to try to expel the timber company cutting mahogany and cedro in their lands, but FUNAI refused to attend to the problem [97]. In 1991, 12 of the 188 Kulina of the River Jurua died of whooping cough and malaria introduced by the invaders [5].

Paumari: Local timber cutters have been active in the Paumari Reserve since 1988, when 2,000 trees were removed during the dry season, followed by 800 in 1989. The ex-mayor of Lábrea is accused by the Indians of encouraging the invasion of the territory by timber cutters [98].

Mura-Piraha: The Piraha Reserve is being systematically exploited for itaúba (for naval construction) and pau rosa, for the cosmetics industry. The Piraha have been given sugar and alcohol in exchange. Representatives of a neighbouring tribe, the Tenharim, claim that the cutters are trying to exterminate the Piraha by giving them alcohol laced with poison. In one incident a timber cutter threw an Indian baby into the river, where it drowned [99].



In the states of Rondônia and Mato Grosso

Sakirabiar, Makurap and Tupari: Between 1982 and 1990, 120,000 cubic metres of mahogany, cerejeira and cedro were taken from the Rio Mequens Reserve of the Sakirabiar and Makurap Indians, while the Tupari and Makurap of the Rio Branco Reserve lost 70,000 cubic metres between 1986 and 1990 [48]. In the Sakurap-Makurap Reserve, much of the timber has already been exhausted [35]. Many of the Indians have tried to resist this cutting and have been met with force: on Christmas Day 1991, 26 armed men hired by a timber cutter raided a Sakirabiar community to recover the logging vehicles the Indians had confiscated. The gunmen took hostages and shot one man in the head. FUNAI did nothing about the incident until the Indians had occupied its local headquarters for five days, leading to the sacking of its regional administrator [58].

Nambikwara: 20 per cent of the Hahaitesu-Nambikwara have died since 1987 through diseases introduced by timber cutters and colonists [36]. The contracts purporting to allow extraction from their Vale do Guaporé Reserve were drawn up by FUNAI: four timber companies were given permission to remove 109,000 cubic metres of timber, principally mahogany and cerejeira, before the contracts were annulled by the Public Federal Ministry. In return the companies were obliged only to build roads and dirt airstrips and refurbish the wooden houses used by FUNAI employees [100,101,102]. Another Nambikwara reserve, the Sarare, has also been extensively invaded by cutters, with the involvement of local FUNAI officials [103]. The Nambikwara have confiscated timber cutters' machines [42], occupied FUNAI buildings [104,105], and attacked invaders with arrows [45], but they have not been able to stop the illegal cutting.

Aikana and Latunde: The ex-director of FUNAI, Ezequias Heringuer Filho, reports that the Tubarao-Latunde reserve has lost 45,000 cubic metres of mahogany and 5,000 cubic metres of cerejeira [49].

Rikbaktsa: The Rikbaktsa of the Escondido Reserve in Mato Grosso, are suffering the invasions of a timber company which, according to the Indians "is practising illegal timber extraction on a grand scale [5]."

Cinta Larga: In February 1991, after timber cutters had ignored repeated requests by the Cinta Larga to leave their lands, 35 Indian men surrounded five of the workers and killed them. It was, the Indians who opposed the cutting believed, the only option left to them. They had spoken to the



cutters, to local politicians and even travelled to Brasília to ask that the law be upheld and the loggers removed, but the political support for the invaders was such that nothing was done [8]. Following illegal contracts signed by FUNAI officials [39], 300,000 cubic metres of timber had been taken from the Cinta Larga's Roosevelt Reserve and Aripuana Park between 1985 and 1990 [48]. The Cinta Larga involved in contracts have followed the course of some of the Suruí: drink, prostitution, hotels and the dissolution of traditional social organization. Many sawmills and 4,000 colonists have entered the Aripuana Park, which has the highest incidence of tuberculosis in the country and in which some Indians still remain uncontacted [106,107].

Uru Eu Wau Wau: In 1981, when the Uru Eu Wau Wau were first contacted, they numbered 1,200. Ten years later the population had been reduced to half, as timber cutters, colonists and miners had introduced the Indians to flu, new strains of malaria and other imported diseases [33,36,108]. Among those who survived the diseases, several are reported to have been murdered by timber cutters' gunmen [109] and many are suffering from alcoholism and outbreaks of venereal disease, following the sexual abuse of Indian women by the invaders. While many timber companies are now taking mahogany from the reserve, large scale exploitation began there following illegal contracts signed by Romero Jucá. The cutters, at least two of whom supply large British importers, have opened an extensive road network (one road cuts 100 kilometres into the Indians' lands, entering the Pacaas Novas Biological Reserve), and deliberately stimulated invasions by colonists [36]. When a local FUNAL official tried to stop wood leaving along these roads in 1989, he was transferred by his boss [110]. In 1990, FUNAI was handing the cutters' confiscated machinery back to them [111], and ignoring Indians' requests for assistance [89], but since then there have been positive changes of personnel at the local FUNAI office [112]. Between 1985 and 1990, an estimated 150,000 cubic metres of timber was removed from the reserve [48].

Omeré: The isolated Omeré lost an estimated 10,000 cubic metres of timber in 1985 [48]. Since then they are reported to have been suffering from massacres and repeated occupations of their land [50].

Gaviao, Arara and Zoró: Members of these tribes, desperate for medicines, a surgery and other necessities FUNAI was supposed to have provided, started selling mahogany and cerejeira from their reserves (Igarapé



Lourdes and Zoró) in 1987 [113]. Since then there have been several serious conflicts between the cutters and the Indians, and members of all these groups have been protesting about the environmental damage caused. In October 1988, the 70-year old Zoró chief Yaminer was kidnapped by timber cutters and shot dead. His body was burnt and left beside a road. Four illegal timber cutters were later charged with his murder [114,115,10].

Pareci: With the involvement of FUNAI, more than 5,000 cubic metres of wood have been taken from the Pareci reserve by one timber cutter, who has been trying to pay the Indians to leave their villages and take part in the cutting. Several other companies have invaded and are supplying sawmills in the town of Cáceres [116].

Enauene: The Enauene-naue reserve was invaded by timber cutters in 1987. The cutters managed to persuade FUNAI to exclude the areas they had taken from a subsequent reserve demarcation [117].

In the state of Acre

Kampa: Following pressure from Indian rights organizations, in 1990 the federal police finally moved into the Kampa do Rio Amonea Reserve to confiscate mahogany and cedar being cut by a timber cutter which had first invaded the area in 1983. Another company, run by the brother of a senior FUNAI official, has been inside the reserve since 1985 [118]. The cutting continues, mostly by individuals working on behalf of large companies. In September 1991, two Kampa Indians travelled to Brasília, to warn that timber cutting was putting their lives at risk [41].



Appendix 2

Open letter from José Lutzenberger to British Consumers, 30th April 1992

"The trade in Brazilian mahogany and other tropical woods is out of control in 1992 most of the timber leaving this country for Britain will come, illegally, from Indian and Biological reserves. By buying Brazilian timber you in Britain are threatening many of the Amazon's indigenous [peoples] with extinction.

The cutters are not only ransacking the forests in these protected areas to supply you with kitchens and lavatory seats: in many places they are also killing the Indians. Indigenous people such as Korubo, Tikuna and Awá-Guajá and others have been murdered by the timber cutters' gunmen. The diseases lumbermen introduce have turned into epidemics. While the logging continues there is little Brazil is doing to protect its forest reserves.

Though timber cutting inside reserves is illegal, timber traders in many parts of the Amazon wield more money and power than most government departments. They have succeeded in corrupting many of the people charged with the protection of the Indians and Forests. My attempts to stop their illegal activities were partly responsible for my sacking.

As there is little we can do to stop the supply, it is up to the people of Britain and other First World countries to stop the demand. Britain uses 52 per cent of the mahogany Brazil produces. Please stop this trade: you are dealing with Human Lives."

Signed

José A Lutzenberger Porto Alegre, April 30, 1992



References

- 1. Senado Federal (1988). *Constituição, República Federativa do Brasil.* Article 231.
- 2. Letter from the Timbira, Kaapor and Tembé to the Indigenous People of Brazil, Canindé 26th December 1990.
- 3. *Porantim* (1991), Conselho Indigenista Misionârio, Brasília, November 1991.
- Rasmusson, U (1989). Comments vis-a-vis the World Bank loan for Rondônia Natural Resource Management, WWF Sweden, 20th December 1989.
- 5. Porantim (1991). Conselho Indigenista Misionârio, September 1991.
- 6. *Mensageiro*, No 68, March/April 1991. Conselho Indigenista Misionârio, Belêm.
- 7. Aconteceu, 24th January 1992. Centro Ecumenico de Documentação e Informação, São Paulo.
- 8. Porantim, April 1991.
- 9. Mensageiro, No 67, January/February 1991.
- 10. Jornal do Brasil, 3rd March 1989.
- 11. Mensageiro, No 65, September/October 1990.
- 12. International Workgroup on Indigenous Affairs Newsletter, June 1990, Copenhagen.
- 13. Vidal, L and I Giannini (1992). Povos Indigenas no Brasil 1987/88/89/
- 90. Aconteceu Especial 18, CEDI.
- 14. Sydney Possuelo, President of FUNAI, pers comm.
- 15. José Lutzenberger, pers comm.
- 16. FUNAI officials. Pará, pers comm.
- 17. Lutzenberger, J (1992). PrepCom or UNCED, New York, March.
- 18. From maps in Lamb, F B (1966). *Mahogany of Tropical America: Its Ecology* and *Management*. University of Michigan Press, Ann Arbor, USA.
- 19. Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1992. Amendments to Appendices I and II of CITES. Proposal from the USA.
- 20. de Barros, P L C et al (1992). Natural and Artificial Reserves of Swietenia macrophylla, King in the Brazilian Amazon a Perspective for Conservation. Manuscript, Belêm, Pará.
- 21. Verissimo, A et al (1992). Mahogany Extraction in the Eastern Amazon: A Case Study. Manuscript.
- 22. Pabst, E (1989). *Timber Export from Brazil.* Manuscript, Greenpeace, Hamburg.



- 23. Hahn, L (1991). Amazonian Wood Exports. Manuscript, Greenpeace, Brazil.
- 24. Uhl, C (1989), pers comm.
- 25. Uhl, C et al (1990). Wood as an Economic Catalyst to Ecological Change in Amazonia. Manuscript.
- 26. Albrechtsen 1991 cited in de Barros et al (1992). Natural and Artificial Reserves of Swietenia Macrophylla, King in the Brazilian Amazon a Perspective for Conservation. Manuscript, Belèm, Pará.
- 27. Plowden, C and Y Kusuda (1989). Logging in the Brazilian Rainforest. Greenpeace, US.
- 28. Viveiros de Castro, E, pers comm.
- 29. Comissao Pastoral Indigenista do Xingu, 1992, pers comm.
- 30. FUNAI Belêm, pers comm.
- 31. Jornal Maguta, No 32, 3rd April 1988. Benjamin Constant, Brazil.
- 32. FUNAl Altamira, pers comm.
- 33. Survival International (1991). Urgent Action Bulletin: Uru Eu Wau Wau Population Halved. Remainder Face Genocide.
- Testimony of Kayapó leaders visiting Britain, 1992.
- 35. Greenbaum, L (1989). Plundering the timber on Brazilian Indian reservations. *Cultural Survival Quarterly*, Volume 13, no 1.
- 36. CEDI 1992. Povos Indigenas no Brasil 1987/88/89/90. Aconteceu Especial 18.
- 37. Apoena Meirelles, Jornal do Brasil, 26th October 1988.
- 38. Paulinho Paiakan, 19th March 1992. Letter to the Bodyshop.
- 39. Senhor, 20th November 1987.
- 40. Correio Braziliense, 6th August 1988.
- 41. Aconteceu, 20th September 1991.
- 42. O Estado de Sao Paulo, 9th September 1988.
- 43. Fausto, C (1992). Povos Indigenas no Brasil 1987/88/89/90. Aconteceu Especial 18. CEDI
- 44. O Globo, 24th October 1988.
- 45. Diario Popular, 12th November 1989.
- 46. Rasmusson, U (1989). Travel report from visits to the state of Rondônia, Brazil. Manuscript. Friends of the Earth, Sweden.
- 47. O Estado de Sao Paulo, 25th September 1988.
- 48. Informe Jurídico, No 17 August 91. Comissao Pro Indio de Sao Paulo.
- 49. Diario do Grande ABC, 8th September 1988.
- 50. Ecoporé 1991. Simposio: Madeiras e Minérios em Areas de Preservação Permanente. Ação Ecolôgica Vale do Guaporé.
- 51. Porantim, June 91.
- 52. Aconteceu, 13th December 1991.

53. Delvair Montagner, 1992. Povos Indigenas no Brasil 1987/88/89/90.

Aconteceu Especial 18, CEDI.

- 54. Correio Braziliense, 23rd November 1989.
- 55. Noticias Populares, 5th November 1989.
- 57. Porantim, December 1991.
- 58. Porantim, January/February 1992.
- 59. Jornal do Brasil, 19th Novemver 1991.
- 60. Correio Braziliense, 20th November 1991.
- 61. Jornal da Tarde, 12th September 1990.
- 62. Folha de Sao Paulo, 19th August 1990.
- 63. Porantim, December 1989.
- 64. Conselho Indigenista Misionârio, Rondônia, 1990, pers comm.
- 65. Rasmusson, U (1992), pers comm.
- 66. Potiguar, J A T (1991). Application to Federal Judge Daniel Paes Ribeiro, 4th Federal Judiciary District, Pará.
- 67. O Liberal, 10th November 1988.
- 68. Jornal do Brasil, 8th April 1988.
- 69. Jornal do Comercio, Rio de Janeiro, 30th January 1992.
- 70. Aconteceu, 27th March 1992.
- 71. Porantim, March 1991.
- 72. Jose Ferreira Campos Junior, cited in Vidal, L and I Giannini (1992). Povos Indigenas no Brasil 1987/88/89/90. Aconteceu Especial 18, CEDI.
- 73. Girardet, H, Nexus TV, 1990. *Halting the Fires,* Fragile Earth, Channel Four.
- 74. Correio Braziliense, 1st February 1989.
- 75. Friends of the Earth (in prep). A Hardwood Story: Europe's Involvement in the Tropical Timber Trade (provisional); 2nd Edition. Friends of the Earth, London.
- 76. Johnson, B (1990). *The Value of Tropical Timber and Who Benefits From It.* Paper Prepared for WWF (UK). December 1990.
- 77. The Public Ledger, 22nd February 1992, London.
- 78. Tropical Timbers, March 1991.
- 79. Timber Trade Federation, 7th December 1989. Letter to All Members of the Timber Trade.
- 80. Forests Forever, a Campaign for Wood: leaflet for customers.
- 81. Timber Trade Federation (1990). Forests Forever: Correcting some Wrong Impressions about Timber Production and the Rain Forest.
- 82. Timber Trade Federation (1990). Forests Forever: A Guide to Wood and Forests.
- 83. Read, M (1991). *Truth or Trickery?* A Report to the World Wide Fund for Nature UK.
- 84. Carlos Fausto, 1992. Povos Indigenas no Brasil 1987/88/89/90.

Acervo ISA

Aconteceu Especial 18, CEDI.

- 85. Viveiros de Castro, E and C Fausto, pers comm 1992.
- 86. O Liberal, 16th January 1991.
- 87. Diario Popular, 10th March 1988.
- 88. Aconteceu, 21st February 1992.
- 89. Porantim, September 1990.
- 90. Porantim, July/August 1991.
- 91. Two Kayapó leaders during their visit to the UK, April 1992.
- 92. Correio Braziliense, 4th May 1989.
- 93. O Liberal, 16th June 1989.
- 94. O Globo, 9th, May 1989.
- 95. O Estado de Sao Paulo, 13th December 1990.
- 96. Gazeta do Acre, 3rd April 1987.
- 97. Neves L J de O (1992). Povos Indigenas no Brasil 1987/88/89/90.

Aconteceu Especial 18, CEDI.

- 98. Jornal do Dia, 8th August 1989.
- 99. Almeida, S (1992). Povos Indigenas no Brasil 1987/88/89/90.

Aconteceu Especial 18, CEDI.

- 100. Diario de Cuiabá, 14th July 1989.
- 101. Jornal do Brasil, 5th November 1987.
- 102. Diario de Cuiabá, 13th July 1989.
- 103. Gazeta Mercantil, 16th February 1990.
- 104. Gazeta do Povo, 26th February 1989.
- 105. Jornal do Dia, 23rd June 1989.
- 106. Jornal do Brasil, 13th April 1987.
- 107. Correio Braziliense, 6th August 1988.
- 108. Diario Popular, 17th March 1988.
- 109. CIMI Rondônia, pers comm.
- 110. FUNAl official, name withheld, letter of July 1989.
- 111. Jornal de Santa Catarina, 17th June 1990.
- 112. Rasmusson, U (1992). Trip report, WWF Sweden.
- 113. Jornal do Brasil, 25th February 1987.
- 114. Jornal do Brasil, 26th October 1988.
- 115. Correio Braziliense, 4th November 1988.
- 116. Jornal do Brasil, 28th September 1990.
- 117. Porantim, July/August 1987.
- 118. Nucleo de Direitos Indigenas, Brasília, April 1990.
- 119. Martone, F (1991). *Tropical Timber Imports from Brazil into the European Community*. Greenpeace International Tropical Forests Campaign.
- 120. Talbot, L (1990). A Proposal for the World Bank's Policy and Strategy for Tropical Moist Forests in Africa. World Bank, Washington.



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