

ILLEGAL LOGGING IN INDONESIA

THE ENVIRONMENTAL,
ECONOMIC AND SOCIAL COSTS



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Executive Summary

Indonesia's rainforests are the third largest in the world, but they also rank amongst the most endangered. Much of the forests have been logged to feed the country's enormous timber processing mills. Indonesia's paper and pulp industry has a record of large-scale, illegal deforestation. A 2007 United Nations Environmental Program report estimated that 73 to 88 percent of timber logged in Indonesia was illegally sourced.ⁱ More recent estimates place the figure at a lower, yet nonetheless startling 40 to 55 percent.^{ii, iii} Even forests with protected status such as national parks, are in danger - according to the central government of Indonesia, timber is illegally harvested from 37 of the nation's 41 national parks.^{iv}

Deforestation accounts for one-fifth of global greenhouse gas emissions, making it one of the most significant contributors to climate change.^v A report sponsored by the Indonesia government estimates that forest degradation contributes to approximately 80 percent of the nation's greenhouse gas emissions.^{vi} Such irresponsible forestry has been critical in making Indonesia the third largest emitter of greenhouse gases in the world.^{vii}

Illegal logging undermines the strength and sustainability of the forest products' economy both in Indonesia and the United States by distorting global prices of timber, undercutting sustainably manufactured products, and jeopardizing the jobs of U.S. workers. Under current conditions, there is no level playing field. Manufacturers across the U.S. are struggling to compete against imported, illegally-harvested low-priced wood and wood products. The U.S. Bureau of Labor Statistics reports that the logging, wood, paper and cabinetry industries have lost 242,000 jobs, or roughly 23 percent of its workforce, since 2006.^{viii} Conservative estimates place U.S. industry losses due to illegal logging-related depressed wood prices and lost exports at over \$1 billion.^{ix}

Increased transparency and comprehensive law enforcement are crucial to protecting forest ecosystems and creating a level playing field for business. It is critical that the U.S. is not complicit in perpetuating illegal logging by allowing access to U.S. markets. Trade and investment agreements should end demand for and trade in wood products that are illegally and or unsustainably sourced. Trade in products from illegal logging should also be addressed as a trade subsidy and remedied through trade laws. The U.S. Lacey Act, which prohibits trafficking and sales of illegally sourced wildlife and plants, must be strengthened through the inclusion of highly processed wood products in import declaration requirement schedules and sufficient appropriations to implementing agencies. In addition, a consistent global commitment is necessary to stem the trade of illegally sourced wood products, ensure sustainable growth for local communities, protect forest ecosystems and mitigate climate change.

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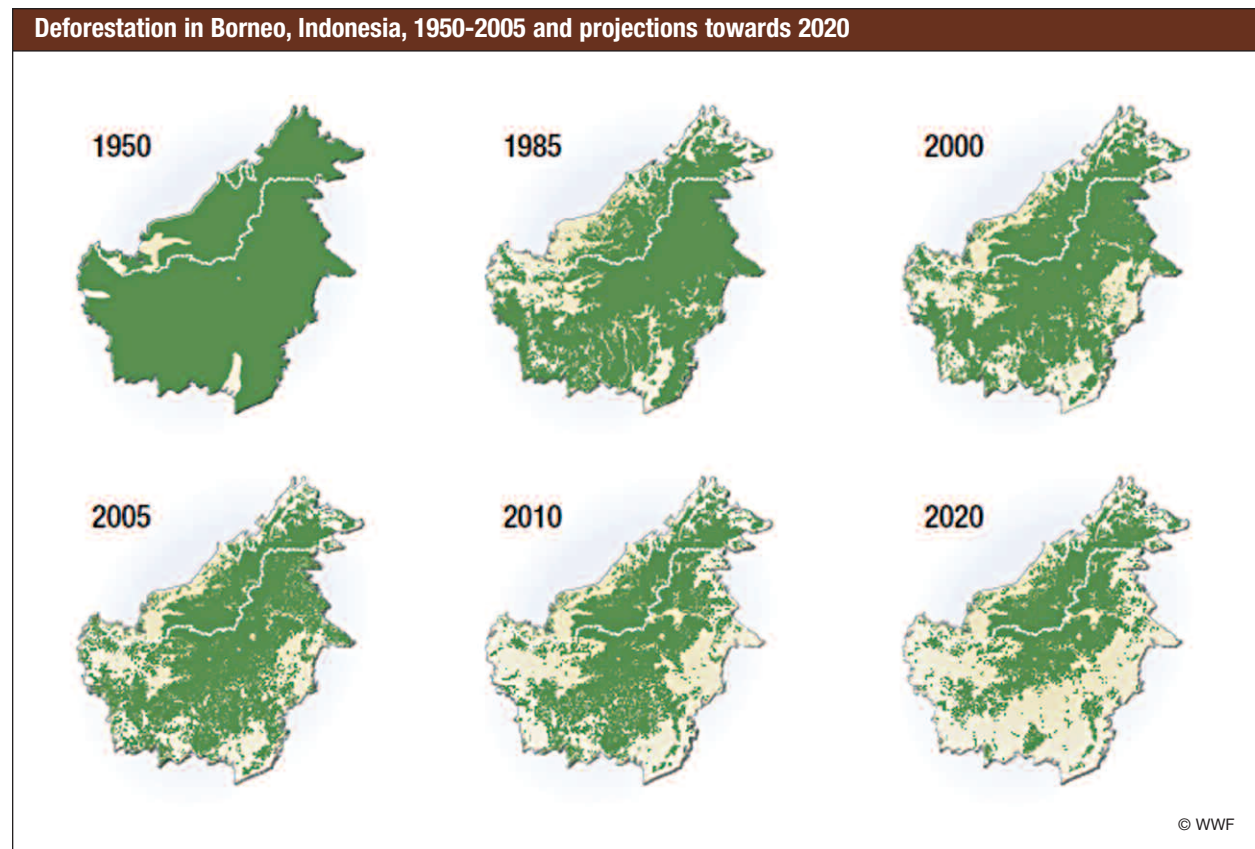
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I. A View of the Forests

Indonesia's Forests

Indonesia's forests cover approximately 463,300 mi², an area so vast they rank behind only the forests of Brazil and the Democratic Republic of Congo in size.¹ These tropical rainforests are some of the most biologically diverse in the world – Indonesia is home to 11 percent of the world's plants species, 10 percent of its mammal species and 16 percent of its bird species, a majority which live in forests.² Endangered species such as the Sumatran tiger, elephant, rhinoceros and orangutan, as well as commercially valuable wood species such as ramin, meranti and merbau are native to these forests.

Indonesian forests are also some of the world's most rapidly disappearing and there is evidence that forest loss is accelerating.³ Between 1990 and 2005, approximately 108,110 mi² of Indonesian forest disappeared, 83,785 mi² of which were virgin forest.⁴ The steady drop in rainforest cover has been alarming – in the 1960s, 82 percent of Indonesia was forested, a number which dropped to 68 percent in 1982, 53 percent in 1995 and 49 percent in more recent estimates.⁵ At current rates of deforestation, 98 percent of Indonesia's lowland forests may be destroyed by 2022.⁶



Illegal Logging in Indonesia

Illegal logging is an extensive, systematic problem in Indonesia. A 2007 United Nations Environment Program report estimated that 73 to 88 percent of timber logged in Indonesia is illegally sourced.⁷ More recent estimates place the figure at a lower, yet nonetheless startling 40 to 55 percent.^{8,9} Even forests with protected status, such as national parks, are in danger - according to the central government of Indonesia, timber is illegally harvested from 37 of the nation's 41 national parks.¹⁰

Illegal logging occurs when the harvest, transport and/or manufacturing process of wood and/or wood products is tainted by unlawful proceedings.

Illegal logging includes but is not limited to the following kinds of activities:

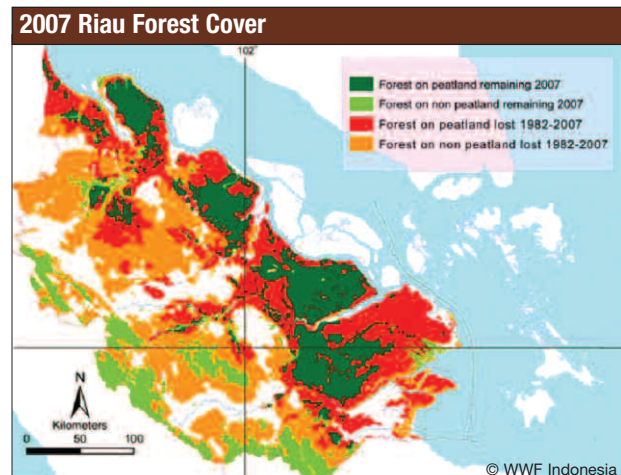
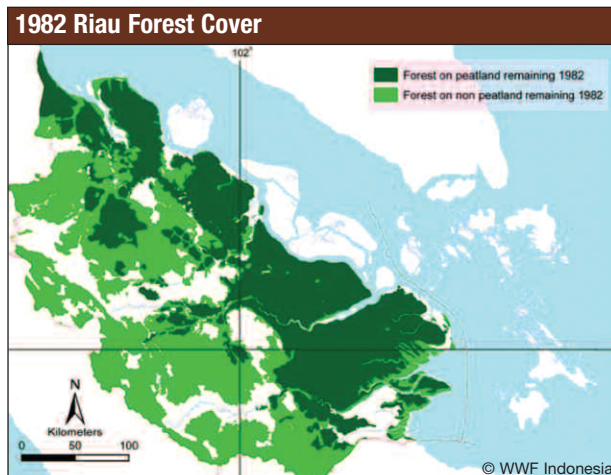
- Unauthorized harvesting in national parks or forest reserves;
- Harvesting without concession permits or beyond concession permit limits;
- Overharvesting on granted lands;
- Transporting timber without proper documentation;
- Timber smuggled, sold or transported as if produced from foreign, legal concessions;
- Purchasing shipments of logs of questionable origin mixed with legal timber harvests;
- Failure to properly report harvests to avoid royalty payments; and
- False customs papers.

The illegal harvest and trade of timber involves a vast, corrupt network of industry, global supply chains, and imperfectly regulated trade practices. A 2007 Washington Post investigation revealed that illegally felled wood from the forests of Indonesia, Burma, Russia, the Congo, and the Amazon are finding their way into homes and offices of unsuspecting U.S. and European consumers, thanks to the irresponsible practices of wood-processing plants in manufacturing countries like China.

Both supply and demand-side companies contribute to unlawful, inequitable and destructive illegal logging practices. Consumer appetite for pulp, paper and furniture in developed nations like the United States, the European Union and Japan, coupled with growing demand in developing countries like China and India, have fueled further exploitation of already depleted forests. Current models of globalization have encouraged the flourish of trade of products made in countries with poorly enforced labor and environmental standards. The true costs of production, including grave environmental repercussions, have not been accounted for. These market patterns are creating an unlevel playing field, resulting in economic losses and job dislocation in North America, where workers and companies are not able to compete.

Timber is illegally harvested from 37 of the nation's 41 national parks.

The development of large-scale commercial plantations is another critical cause of illegal logging. Palm oil plantations are expanding to meet global demands for biofuels and vegetable oils. The promise of lucrative financial returns has accelerated illegal clear cutting practices, robbed deforested areas of the opportunity to recover and established sprawling plantations in what was once forest land.



Global Deforestation and Timber Trade

Brazil, Indonesia, Sudan, Myanmar (Burma), Zambia, Tanzania, Nigeria, the Democratic Republic of the Congo, Zimbabwe and Venezuela are facing the highest rates of deforestation in the world.¹¹ The relative role of domestic and international consumption differs by region and by the type of impact on intact forests. While some countries' domestic demand factors significantly into global trends of deforestation, export-driven industrial-scale logging is responsible for opening up a majority of new forest tracts to exploitation, beginning the transition towards forest loss.

- Brazilian wood is generally consumed domestically; 15 to 16 percent of harvested timber is exported, largely destined for the U.S., EU, China, Japan, Mexico and Canada.¹²
- Most wood harvested in West/Central Africa is consumed by domestic markets; remaining wood is predominantly exported to Europe and China.¹³
- Burmese timber is characterized by illegal smuggling to China, where timber is processed and consumed by Chinese markets or exported to the U.S. and Europe.¹⁴
- A large amount of Indonesian timber is smuggled to Malaysia or exported to Japan, the U.S., South Korea, China and the E.U.¹⁵

U.S. wood imports are predominantly of Chinese, Canadian and Brazilian origin.¹⁶ In turn, China imports a large amount of logs from Malaysia, Papua New Guinea, West/Central Africa, Russia, Myanmar, the EU and Russia.¹⁷ Poor law enforcement has sheltered a system in which trees of questionable legal status are guaranteed safe harvest and shipment at the right price.¹⁸

II. Environmental Impacts of Illegal Logging

The Many Facets of Destruction

Deforestation accounts for one-fifth of global greenhouse gas emissions and is one of the most significant contributors to climate change.¹⁹ Trees serve a vital carbon sequestration function and are a cost-effective way of offsetting carbon that is released into the atmosphere. Deforestation not only robs the global community of a cost-effective way to mitigate climate change, it also exacerbates the current crisis by releasing additional carbon. Although a 2010 UN Food and Agriculture Organization report indicates that deforestation rates in Indonesia have declined drastically from 7336 mi² to 1931 mi² per year since 2000, by including plantations in reforestation rate calculations, these numbers obscure the reality that natural forest loss has continued at an alarming pace.²⁰

A report sponsored by the Indonesian government estimates that deforestation, forest degradation and the burning of peat lands contribute approximately 80 percent of the nation's greenhouse gas emissions.²¹ Illegal behavior in the country's pulp and paper industry has been critical in driving immense amounts of greenhouse gas emissions.²²

Illegal logging has adverse environmental, economic, political and social impacts. The loss of valuable forest cover has devastated wildlife, traditional ways of living and the productivity and resilience of ecosystems. Denuded land loses the ability to retain soil and water, contributing to soil erosion, flooding, landslides and severe, even irreversible declines in productivity. Plant species and animal populations are disrupted and endangered by infrastructure built to access and transport timber which requires machinery and infrastructure which can fragment and damage tracts of wilderness. Logging roads offer increased access to animal habitats, increasing the risk of poaching and lowering chances of survival for many endangered

and ecologically important species such as the Sumatran tiger, rhinoceros, orangutan and elephant. In 2008, several sources reported that paper conglomerate Asia Pulp & Paper (APP) had built an unlicensed 45km road through forest and peat in Sumatra's Riau province, severely fragmenting the forest habitat. Logging interests have had an active presence in Riau for the last quarter century, permanently impacting the landscape and biodiversity of the area. In the last 25 years, the province has lost 65 percent of its forests, elephant populations have declined 84 percent to 210 individuals, and tiger populations have declined by 70 percent, to less than 192 individuals.²³

How Do Forests Prevent Climate Change?

Healthy forests are carbon sinks, sequestering carbon from the atmosphere. Growing vegetation such as trees and plants absorb carbon dioxide through photosynthesis, a process in which carbon dioxide, water and light energy are converted into organic compounds that help plants grow. These plants fix carbon, serving as a sink to contain these climate changing gases. Forests ecosystems then store this carbon, acting as carbon reservoirs for the duration of their lives.

Forest soils, enriched by biomass such as leaves, decaying trees and animal waste, are another important carbon sink. Soils contain more carbon than all terrestrial plant-life and the atmosphere combined.²⁴ When plants and animals die and decompose, their carbon-containing molecules are broken down and returned to the atmosphere or soil.

Carbon flows through ecosystems in a continual cycle, thus forests can be carbon sinks or sources. Forests, soils and peat swamps release large amounts of climate-changing greenhouse gases when they are burned, degraded or destroyed. When these valuable ecosystems are destroyed, not only are large amounts of fixed carbon released into the atmosphere, but priceless carbon sinks are also permanently eliminated. Destroying forests endangers one of the most important low-cost, naturally occurring, climate change-mitigating mechanisms we count on.

Not all forests have the same environmental worth and utility – tree plantations and old-growth forests both contain trees and soils but have different impacts on the environment. Old-growth and natural forests contain a varied mix of large, old trees, fallen logs and diverse understory plant-life. These forests are minimally disturbed by humans and house many rare and endangered species. Forests disturbed by logging, clear-cutting or fires, particularly those in the tropics, lose much of the carbon they store and often do not sequester as much carbon as undisturbed forests. They may require a century to several millennia to recover and much of the original biodiversity may be permanently decimated. Similarly, tree plantations lack the multi-layered canopies, intact soils and biodiversity of old-growth and natural forests. Disturbed forests and tree plantations store less carbon than natural and old-growth forests.²⁵

Why is Peat Important?

Peat land, large accumulations of partially decayed vegetation and biomass, are critical carbon reservoirs. Peat swamps store more carbon dioxide per unit area than any other ecosystem; the peat swamps of Riau contain an estimated 16.9 billion tons of carbon, two-thirds of the amount of global carbon emissions from fossil fuels in 2004.²⁶

Draining, logging and poor management of peat lands, which contain commercially valued timber species such as meranti, ramin and merbau, have played a key role in releasing immense amounts of carbon dioxide and increasing forest fire susceptibility. Scores of Indonesian forests and peat swamps have been cleared for pulp or oil palm plantations, settlements, development and agricultural use.

Logging and land clearance for pulp wood and palm oil plantations requires the draining and desiccation of peat land. These areas then emit massive amounts of CO₂ and become carbon-rich fuel for intense, long-burning fires. On average, the burning of peat lands releases one billion tons of carbon dioxide, or the equivalent of 15 percent of fossil fuel combustion in a single year.²⁷ The logging and burning of these peat lands has contributed to Indonesia's standing as the third largest emitter of greenhouse gas emissions in the world.²⁸

Smoke from illegally set forest fires in Riau drifting towards Malaysia, recorded by MODIS satellite.



©NASA 2005

Asia Pulp & Paper

Asia Pulp & Paper (APP) is the third largest pulp and paper producer in the world with a record of rainforest destruction in Indonesia.²⁹ APP has played a large role in illegal logging in Indonesia; at least 30% of APP's fiber supply is of suspected illegal origin.³⁰ APP Indonesia produces over 7 million tons of pulp, paper and packaging and its products are sold to over 65 countries on six continents.³¹

APP generates large profits by exploiting old-growth forests and local forest communities. A 2006 World Wildlife Fund report estimates that APP is responsible for clearing approximately 300 mi² every year since 2002.³² APP subsidiaries in Indonesia have not only devastated forests and wildlife in Indonesia, they have also been responsible for grave human rights abuses – APP companies have violently seized land, intimidated local communities members and barred access to public areas.³³ APP produces mainly in Indonesia and China, but has also been linked to illegal logging in Cambodia.³⁴

In Indonesia, APP's transgressions include but are not limited to:

- Clearing peat swamp forests with peat depth more than 3 meters, a violation of Indonesian law³⁵
- Sourcing wood from illegal logging operations³⁶
- Purchasing wood from proposed national parks³⁷
- Logging beyond legal limits or without proper licensing³⁸
- Building logging roads without meeting official requirements or obtaining licensing³⁹
- Purchasing and processing wood from illegal suppliers without proper licensing.⁴⁰

The World Wildlife Fund (WWF), which works with the largest companies in the world to develop sustainability plans, has broken ties with APP.⁴¹ The Forest Stewardship Council and the Rainforest Alliance have also publically disassociated from APP due to the company's destructive practices. Notable brands such as Staples, Walmart and Office Depot have also ended relations with APP for these reasons.^{42, 43} Despite this, APP continues to expand its forest-clearing operations in Indonesia, further threatening forests, animals and people."⁴⁴

III. A Destructive Legacy

A History of Vanishing Forests

The destruction of Indonesia's forests has largely occurred within the last few decades. In 1967, then President Soeharto nationalized Indonesia's forests, dividing forest lands into logging and plantation concessions which were allocated to key businesses, family members and political partners.⁴⁵ Irresponsible stewardship of concessions, coupled with controlled timber prices and limited export of unprocessed wood, generated large profits for the industry. During Soeharto's 32-year rule, the timber sector boomed and greatly increased processing capacity in pursuit of short-term financial gains. Indonesia's pulp and paper industry grew nine-fold between the late 1980s and the end of the century.⁴⁶ By the late 1970's, Indonesia had become the world's largest exporter of tropical timber.⁴⁷

A legacy of the Soeharto regime is the overcapacity of the manufacturing sector, built to generate the most profit in a short amount of time. The decline of timber supplies to feed Indonesia's excess export capacity has incentivized illegal logging in deeper, protected forest areas in order to feed production in mills. In 2000, the consumption of wood in the pulp production sector alone exceeded the entire legal supply of Indonesian timber.⁴⁸

Indonesia's forestry record is marred by poor management, corruption and exploitation. In 1989, the Reforestation Fund was established in order to support the reforestation and rehabilitation of degraded land and forests. In actuality, this funding served the Soeharto regime's development agenda, which was focused on entirely on economic growth and industrialization and disregarded environmental sustainability and indigenous land rights. A large portion of funding was allocated to a small number of companies with close political ties and little intention of investing in reforestation and rehabilitation.⁴⁹ The funds were also misallocated for non-forestry related purposes such as the 1997 South East Asian Games.⁵⁰ A financial audit of Reforestation Fund projects revealed that the government lost \$5.2 billion as a result of corruption, fraud and uncollected taxes.⁵¹



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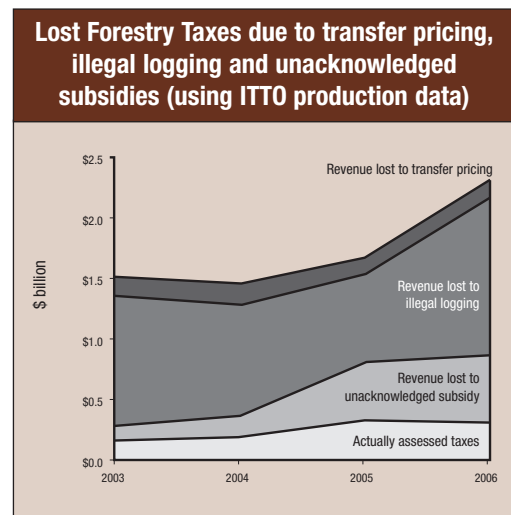
Reform after Soeharto

After the end of Soeharto's regime in 1998, reform and decentralization policies were enacted in an effort to reverse the economic and environmental devastation instigated by national-level policies. Instead of reversing irresponsible practices, decentralization and reform further exacerbated the unsustainable extraction of natural resources by encouraging corruption and negligence to proliferate on provincial and local levels. The lucrative nature of the forestry sector motivated local officials to reap personal benefits by disregarding forestry laws. Rather than taking action to stem illegal logging, district parliaments took a share of profits made from harvesting illegal wood by taxing these goods.⁵²

More recently, the Ministry of Forestry has regained some authority over forest control through recentralization efforts, yet these changes have failed to stem forest loss. Presently, the Ministry has official authority to issue clear cut and "land conversion" permits; however, local institutions continue to issue their own permits. The result is ongoing logging with an apparent façade of legality. Overlapping responsibilities and lack of coordination between governance bodies, coupled with ambiguous legislation and rampant corruption has led to continued forest abuses. Responsible forestry initiatives are hindered by weak coordination and conflicting interests on local, provincial and national levels.⁵³

IV. Forests and the Economy

Indonesia's forests are a critical component in the nation's economic development. Forestry itself comprises a small sliver of the nation's total gross domestic product (0.8 percent), but wood-processing industries and trade of timber and timber products are a large part of the Indonesian economy.⁵⁴ The wood processing industry includes critical jobs in harvesting, processing, manufacture and trade. Forests are also crucial to supporting small-scale, informal economies. The Indonesian Ministry of Forestry has estimated that 30 million people depend on the forest for their livelihoods and for environmental services such as water filtration and flood protection.⁵⁵



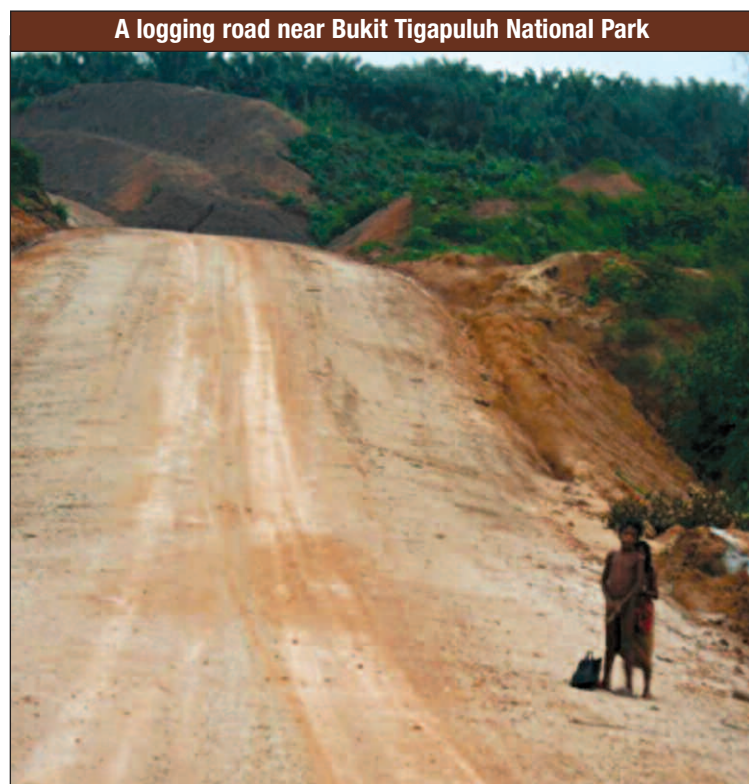
Indonesia is one of the world's top exporters of tropical timber.⁵⁶ Legal timber harvest impacts roughly 2,700- 3,000 mi² of forest land a year, but moderate estimates taking illegal logging into account indicate that 4,633 to 5,405 mi² of forest are affected by logging activities.⁵⁷

Illegal logging is not simply an environmental issue or a problem confined to the timber industry; poor governance, irresponsible industry and corruption have far-reaching effects. The World Bank estimates that illegal logging costs developing nations close to \$15 billion in lost assets and revenue annually.⁵⁸ In Indonesia alone, illegal timber harvest and trade costs the government at least \$2 billion per year due to corruption, uncollected taxes, unacknowledged subsidies, and general poor management of resources. These calculations do not include smuggling and unreported activities and lost funding for health, education and development of local communities.⁵⁹ Rampant corruption stemming from illegal logging has significantly undermined the Indonesian legal system, stifling just law enforcement and transparency. Most importantly, illegal logging deprives developing countries of the opportunity to realize the economic value of preserving their forests as part of the global solution to stopping climate change.⁶⁰

Local Communities

Despite the handsome profits accompanying the trade of timber, populations in areas from which timber is extracted remain impoverished. Loggers receive little payment for their work and tend to be indebted to logging bosses. In addition, loggers and sawmill workers often operate dangerous machinery under poor conditions, with no health or safety safeguards.⁶¹

Communities which depend upon these forests to sustain local economies for generations rarely derive much benefit from the proliferation of logging roads and unsustainable extraction of natural resources. Indigenous peoples are now faced with a reduction in game and plants traditionally harvested from these areas, and the general lack of lasting benefits accompanying the spread of logging.⁶²



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The Illegal Timber Market

Current market prices for timber perversely favor illegally harvested timber. A 2004 study by Seneca Creek Associates for the American Forest and Paper Association found that illegal logging has depressed global timber product prices by 7 to 16 percent.⁶³ A study in the same year by the Center for International Forestry Research found that the forestry firms paid an average of \$85/ mi² to deliver legal timber to a sawmill, compared to \$32/ mi² for illegal timber. Similarly, the prices for processing legal and illegal wood for a small concession were \$46/mi² compared to \$5/mi².⁶⁴

Illegal logging is correlated to a decline in jobs in the forestry and wood products sector, as well as human rights abuses. Unsustainable and illegal logging practices have dramatically reduced available timber supplies, driving job loss trends. The Indonesian Forestry Workers Union, FSP Kahutindo, reports that at least four production chain jobs are lost per every cubic meter of illegal timber cleared.⁶⁵ Indonesian workers within the forestry industry also risk facing numerous workers' rights abuses, including low wages and a lack of workplace safety protocols, particularly as migrant workers within Malaysian timber companies.⁶⁶

VI. Ongoing Corruption and Mismanagement

The Underlying Factors

A corrupt legal and regulatory system has produced incentives to act illegally while an extensive bureaucratic system has fostered roadblocks in building a transparent, accountable system of governance. Corruption has been found in nearly all corners of industry, civil society and governance. Loggers in collusion with officials often illegally fell timber, notify district task forces of the location of the timber, and purchase back the impounded wood at an auction.⁶⁷ An estimated 1/3 of the final value of timber is spent on payments to government officials.⁶⁸

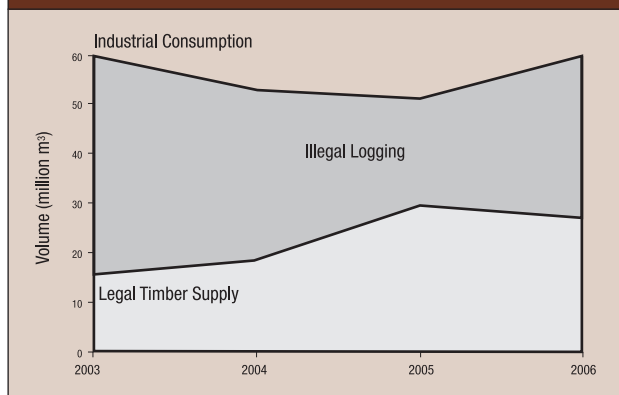
Taking Measures

In 2001, the Ministry of Forestry initiated a mill inspection program and discovered that illegal timber was being used at each and every mill. While there was ample evidence to convict plant operators, powerful wood-processing interests eventually persuaded the ministry against further inspection and action.⁶⁹ In 2002, the Ministry of Forestry's Industrial Restructuring Working Group developed an investigation procedure to probe the origin of timber processed in large mills. Initial investigations resulted in the discovery of several mills relying on illegally sourced timber, including one with falsified claims of sustainable products. This investigation resulted in the withdrawal of three large U.K. purchasers from the Indonesian market; however Ministry inspections were abandoned in 2004.⁷⁰

In light of the fundamental weaknesses in current Indonesian forestry laws, anti-money laundering and corruption laws have been used to combat illegal logging – in 2003 the Indonesian government made forestry and environmental crimes predicate offenses. The Ministry of Forestry teamed up with the financial intelligence unit, Pusat Pelaporan dan Analisis Transaksi Keuangan (PPATK) to tackle timber crimes by following the flow of money. While the PPATK developed cases involving police cases, it lacks investigative authority and has not successfully convicted illegal timber trade actors of money laundering.⁷¹

Indonesia has implemented trade measures to deter trade of illegally logged, unprocessed timber. The government banned the export of round logs in September 2004 and rough sawn wood in October 2004. Unfortunately, such bans have been easily circumvented due to lax enforcement by Indonesia, as well as neighboring and trading partner countries. Other efforts, such as President Yudhoyono's March 2005 Presidential Instruction on Eradication, have enjoyed moderate field interception successes, but have failed to bring down the most influential logging interests due to the influence wielded by corrupt judiciary and police forces.⁷²

Reported volume of wood consumed by Indonesia's forestry industry, compared with legal supply (including wood imports), 2003-2006.



© 2009 Human Rights Watch

One initiative that has been used to target illegal logging is the Corruption Eradication Commission (KPK), established by President Yudhoyono. The KPK is an independent commission which addresses corruption and targets logging-related crimes through investigations and trials in an anti-corruption court. In an effort to reduce the likelihood of corruption within the commission, members of the KPK are paid higher salaries and are not permitted to hold positions in other agencies. Strict deadlines are set for investigations and indictments, so postponement tactics commonly used in other investigations are less likely. The KPK has

had a strong investigation record; however, the scope of the commission's work has largely been limited to high-level officials. Few members of the most rampantly corrupt police and judiciary bodies have been indicted and enmity between police and KPK forces has fueled high-level scandals and discovery of graft and corruption within both forces.^{73, 74}

The Continued Struggle

The issue of illegal logging illustrates just how closely intertwined power, wealth and privilege are. Commissions like the KPK cannot take on the extensive, systematic problem alone. To date, punishment of transgressors has been rare. Corruption and lack of political will have proved to be a highly effective deterrent of effective action against law breakers. District-level illegal logging task forces and forest management agencies have been found complicit in illegal logging schemes; excess harvests are often unreported, illegal and legal timber is mixed and false payment documents are issued. Not only are police and government officials often complicit in illegal activities, members of the judiciary often play a hand in the perpetuation of illegal logging. During December 2008, in Sumatra's Riau district, the center of national pulp and paper production, legal cases involving illegal logging, bribery and fraud against 13 timber and pulp companies were dismissed, despite public outcry.⁷⁵

Inconsistencies in the legal framework and overlapping responsibilities between different ministries and national, district and provincial governments have further complicated law enforcement. For example, there is no formal mechanism for the Ministry of Industry, which issues mill licenses, to coordinate with the Ministry of Forestry to ensure that national mill demand is in check with the legal supply of timber.⁷⁶ Indonesia's timber industry is currently capable of processing two to five times the legal supply of timber. Today, processing demand still exceeds legal harvest by about four to one.⁷⁷ Filling the gap between capacity and legal supply further perpetuates illegal logging practices and a vicious, destructive and unsustainable cycle.

Today, processing demand still exceeds legal harvest by about four to one.

Poor monitoring, management, resource allocation and access to information remain severe obstacles in eradicating illegal logging. The Ministry for Politics, Law and Security, which is responsible for coordinating action on illegal logging, currently lacks sufficient funding to carry out this objective.⁷⁸ In addition, logging companies are better funded, equipped and armed than those seeking to protect forests, such as park rangers or environmental activists.⁷⁹

VI. Destruction Beyond Borders

Impacts on the United States

The forest products industry in the United States generates over \$200 billion in annual sales and accounts for approximately 6 percent of total U.S. manufacturing GDP, on par with the automotive and plastics industries. Over one million people work in the industry, making it one of the top 10 manufacturing employers in the United States.⁸⁰

From hardwood plywood manufacturers in Oregon, to paper producers in Wisconsin, manufacturers across the U.S. are struggling to compete against imported, illegally-harvested low-priced wood and wood products. The U.S. Bureau of Labor Statistics reports that the logging, wood, paper and cabinetry industries have lost 242,000 jobs, or roughly 23 percent of its workforce, since 2006.⁸¹ Employment of production workers in the flooring and hardwood plywood industry has declined at an average annual rate of about 2 percent between 2003 and 2007.⁸²

The U.S. manufacturing industry relies heavily on the domestic market for sales. Illegal logging increases the supply of wood products on global markets, contributing to increased production and consumption of wood flooring and hardwood plywood. U.S. imports of wood products such as flooring and hardwood plywood have grown significantly in recent years, accounting for 48 percent of the market.⁸³ Conservative estimates place U.S. industry losses due to illegal logging-related depressed wood prices and lost exports at over \$1 billion. It has been estimated that the U.S. would stand to gain \$460 million a year on wood exports between 2002 and 2012 with the eradication of illegal logging.⁸⁴

The U.S. pulp and paper industry has also been hard hit by a rise in unfair imports. The United Steelworkers (USW) reports that imports of paper products, like coated free sheet (CFS) paper, have increased to meet rising demand while domestic production has fallen. Declining production has led to job losses – between 2002 and 2007, ten U.S. CFS paper mills closed and 2,800 jobs were lost.⁸⁵ A more recent report from the U.S. International Trade Commission found that from 2006 to 2009, the number of production workers within certain coated paper mills dropped nearly 50 percent, from 4,514 to 2,165.⁸⁶ Major exporters of CFS paper include countries where reliance on illegal timber is a concern, such as China and Indonesia.

Towards a Sustainable Industry

Sustainable practices deliver real economic benefits. The recent growth in independent certification and sustainable forest management programs has helped timber producers, processors, traders and retailers control their supply chains and provide solid evidence that their timber is legally sourced and sustainable. For example, the Forest Stewardship Council (FSC) has certified forests representing 463,387 mi² of forest in 81 countries and covers 4270 mi² of forest in Indonesia.⁸⁷ By 2009, 1,255,600 mi² of forest land had been certified by chain of custody programs such as FSC, an area which has more than doubled since 2002.^{88,89} These certification programs are important indicators of responsible production and consumption of forest products. Manufacturers who require certified timber are making gains in the market as consumers and policies in developed countries increasingly favor transparent supply chains and sustainably produced products. Logging companies and manufacturers that use FSC certification are gaining a foothold in the market as consumers and policies in developed countries increasingly favor transparent supply chains and more sustainably produced products.



VII. Looking Ahead

The future of Indonesia's forests and wildlife is in grave peril, but there is still much we can do to remedy the problem, protect remaining forest habitats and curb illegal logging.

Next Steps for Indonesia

The Government of Indonesia must improve transparency, reinforce existing legislation, strengthen tracking mechanisms and strike down corruption. Better governance can in-part be achieved by:

- Allowing for timely, public access to accurate data;
- Increasing transparency;
- Creating measures for community participation, recognition of rights and tenure, and improved civil society engagement;
- Improving coordination within government agencies to establish a thorough,publically accessible tracking system; and
- More effective law enforcement against offending agencies and companies.

Existing law enforcement and anti-corruption efforts in Indonesia must be strengthened and expanded. It is clear that the end to unlawful forest devastation can only be achieved through a combination of comprehensive supply and demand-side measures.

Demand Side Responsibility

Consumer countries must ensure that they are not complicit in the destruction of the world's forests. Systematic government tolerance for unlawful practices such as tariff misclassification, subsidies, and fraudulent labeling currently results in unfair trade advantages for the Indonesian timber and wood products' industries.

Free trade should not mean illegal trade. Access to North American and European markets should not be granted to illegally harvested products. Global and domestic trade laws can and should be powerful tools to level the playing field and remedy the serious, large-scale distortion of the wood product market. Official recognition that the systematic non-enforcement of Indonesian forestry laws is an unfair trade subsidy would help address the underlying market distortions fueling rampant illegal logging. Governments can and should use their trade rules to align producers' economic incentives with environmental and social goals.

Affected U.S. pulp and paper producers and their employees' union, the United Steelworkers, have brought the issue of unfair timber harvest practices in Indonesia and China to the attention of the U.S. Department of Commerce (DOC) and the International Trade Commission (ITC). The DOC and ITC have initiated investigations to address the origins and impacts of paper products from China and Indonesia, and specifically whether these products have benefited from unfair subsidy advantages as a result of illegal logging. According to the Department of Commerce, subsidies are "financial assistance from foreign government that benefit the production, manufacture or exportation of goods."⁹⁰ In preliminary determinations, the Department of Commerce has found that the systematic tolerance for illegal logging, the provision of timber for less than adequate remuneration, and government debt forgiveness justified levying countervailable duties on coated paper producers from Indonesia.⁹¹

Given the overwhelming evidence linking the Indonesian pulp and paper industry to illegal logging, environmental devastation and unfair trade subsidies, it is critical that the Department of Commerce request and receive complete information regarding the harvest and trade of Indonesian timber products to ensure the U.S. does not reward illegal logging by allowing access to U.S. markets. Such investigations could set a powerful precedent for responsible industry and government practices.

Supporting legal wood supply chains is simply one component of comprehensive action we must take in order to avert the social, economic and environmental controversies linked to deforestation and key commodities, such as pulp and paper. Moving forward, customers, investors and governments must adopt wider safeguard policies and practices for procurement, investments and multi-lateral relations. Illegal logging and forest degradation must also be addressed through comprehensive policies that prevent further conversion of natural forests and peatlands and protect biological diversity and ecosystem resilience.

Negotiations towards a global solution to climate change should include effective assistance to prevent deforestation and shared commitments to limit emissions. As these negotiations progress, consuming countries that are imposing their own measures to mitigate global climate change should ensure that such measures do not create perverse incentives for energy-intensive wood and wood products industries to simply relocate to less-regulated countries. Such a result could actually increase, rather than decrease, global emissions.

Systematic government tolerance for unlawful practices such as tariff misclassification, subsidies and fraudulent labeling currently results in large, unjust advantages for the Indonesian timber and wood products industry.

Better data, increased transparency, and supply chain verification are also crucial facets of maintaining the values of forest ecosystems and a level playing field for fair and responsible timber harvests. The prohibition of illegally sourced timber products and promotion of third-party verification can provide consumers and manufacturers with information about the legality and sustainability of purchased forest products. Effective regulation would support responsible industry practices at home and abroad.

Indonesia has signed Memoranda of Understanding with the U.S., the U.K., China and Japan. The 2006 U.S. – Indonesia Memorandum of Understanding on combating illegal logging established a working group to facilitate bilateral consultation, information sharing, capacity building and cooperation on law enforcement. Another goal of the MOU is to ensure market access for legally produced Indonesian products. The MOU was a step in the right direction; however, the agreement is nonbinding and has yet to bring concrete, positive results to fruition.

The Lacey Act

The Lacey Act, passed in 1900 in the U.S., prohibits interstate and international trafficking of wildlife, fish, and plants that have been illegally taken, traded or sold. The statute has been a powerful tool for U.S. agencies combating wildlife crime. The latest 2008 amendment extends civil and criminal penalties to the illegal harvest and sale of plants and derivative products, such as timber and wood products. The newly amended Lacey Act provides basic transparency for wood shipments and taking action against the import of illegally sourced wood. This groundbreaking law is changing the way companies think about their supply chains and timber and wood fiber sources.

Enforcement of the underlying prohibition on trade in illegal products began in May 2008. Unfortunately, import declaration requirements have been phased in on a staggered schedule and highly processed wood products, such as pulp and paper, have been excluded from the schedule altogether. These products are one of the single largest users of wood fiber and are at extremely high risk of having illegal origins, thus it is imperative that they are included in the first stages of declaration enforcement. Excluding pulp and paper from the declaration requirements increases the likelihood of continued illegal log trading and perpetuates the harmful effects of illegally imported timber. Moving forward, it will be critical to enact a strong enforcement program containing a clear schedule for imports of all wood and wood products and mechanisms for electronically accessible import data.

Effective implementation of the Lacey Act has also been undermined by insufficient funding. Despite recommendations from a broad coalition of supporting industry and environmental groups, and urgent need by key implementing agencies such as the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service, Congress has not appropriated funds to agencies responsible for implementing core provisions. Only limited funds have been appropriated to the U.S. State Department for outreach and education of foreign governments and businesses.



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Forest Law Enforcement, Governance and Trade (FLEGT)

Elsewhere, Indonesia continues to actively negotiate a Voluntary Partnership Agreement (VPA) with the European Union under the Forest Law Enforcement, Governance and Trade (FLEGT) regulation of 2003. This agreement ensures that only licensed Indonesian timber will reach EU countries. The system is intended to stem the trade of illegal timber, support sustainable forest management and implement a

transparent and accountable tracking and licensing system. A national Timber Legality Verification System (SVLK) has been developed out of the VPA process, which requires, in principle, the inspection of the entire purchasing chain of a timber stock. Countries in Asia and Africa, including Indonesia, China, Malaysia, and Vietnam have signed or are in the process of negotiating agreements for a broader legality licensing scheme. The system faces challenges in maintaining long-term stakeholder engagement, private sector participation and demand for FLEGT-licensed timber, however many stakeholders anticipate the broad positive impacts this system may yet bring.

Reducing Emissions from Deforestation and Forest Degradation (REDD)

A consistent, global commitment is necessary to stem the trade of illegally sourced wood products. Broad adoption of current laws like the Lacey Act, the EU FLEGT, bilateral agreements and MOUs and government procurement policies could greatly bolster an international REDD (Reducing Emissions from Deforestation and Forest Degradation) framework.

REDD mechanisms are currently being designed with the intent to curb the release of carbon dioxide emissions by placing a price value for the carbon stored by forests. Developed nations would pay forest-rich nations for preserving their forests and adopting better forest management practices. The 2009 United Nations Framework Convention on Climate Change talks in Copenhagen came close to laying out a framework for REDD financing, forest carbon credit marketplaces and baseline deforestation rates. While it remains to be seen when an official international framework will be adopted, REDD schemes have the potential to effectively address global warming, protect forests and stem illegal logging.

Indonesia, with its carbon-rich peat swamps and rapid deforestation rate, has been seen as a crucial target – and challenge – for REDD. The Indonesian government, quick to see the financial benefits this new schema might offer, was the first country to issue regulations specifically written to address REDD, allowing indigenous peoples, local authorities and private investors to engage in REDD projects.⁹² As REDD schemes are developed, the Indonesian government must strengthen internal capacity to effectively manage, distribute and monitor funds.



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There is great risk that the international community will rush into REDD investments that can provide crucial “offsets” for carbon markets in the US and elsewhere, without the necessary safeguards to protect the environmental integrity of the outcomes. This will leave forests vulnerable to further destruction and prevent meaningful actions by Northern countries to reduce emissions. The Indonesian government’s recent attempts to classify environmentally devastating oil palm plantations as forests are an alarming yet telling sign of the challenges that lie ahead.⁹³ Further incentivization of the creation of oil palm plantations would legalize further deforestation – much of it technically illegal – and accelerate natural forest clearance, biodiversity loss and greenhouse gas emissions.

Multi-lateral coordination and engagement is critical for meaningful reductions of greenhouse gas emissions and true ecosystem protection. REDD schemes must use science-based forest definitions, guard against natural forest conversion and include key safeguards for community rights and tenure. It is imperative that these policies encourage governance reforms and include robust, multi-level monitoring, reporting and verification systems. REDD policies in Indonesia will only succeed if the development of legal and sustainable forest product markets is supported. Otherwise, even the most well-intentioned plans would be undercut by demand-side forces and leakage of illegal timber products.

Policy Recommendations

- The Indonesian government must enforce existing forestry and anti-corruption laws and improve transparency and public access to information.
- Trade in products created from illegal logging should be addressed as a trade subsidy and remedied through trade laws.
- Trade and investment agreements should end demand for and trade in wood products that are illegally and or unsustainably sourced.
- Adequate funding must be appropriated to the U.S. Department of Agriculture Animal and Plant Health Inspection Service to enforce the Lacey Act.
- Pulp and paper must be included in the Lacey Act import declaration requirement schedule so importers are held fully responsible for the materials they import.
- Developed and developing countries must flesh out and implement REDD schemes with robust multi-level monitoring, reporting and verification systems, safeguards for community rights and tenure, and governance reforms that ensure lasting, sustainable growth with tangible benefits for local communities.

VIII. Conclusion

Rapid rates of deforestation are contributing to global climate change - approximately 20 percent of annual global warming emissions originate from forest destruction. At the same time, products of illegal logging - from pulp and paper, to building products and furniture - are undercutting sustainable forest practices throughout the world, resulting in job loss in communities in the United States. In countries like Indonesia, where a majority of logging is performed illegally, serious job loss is occurring and the real economic value of preserving tropical rainforests as a critical climate change solution is being lost forever.

Solutions to illegal logging must benefit the environment, communities and workers in both developed and developing world economies. Increased transparency and comprehensive law enforcement are crucial to protecting forest ecosystems and creating a level playing field for business. The steps we take now to reform the harvest, trade and purchase of wood and wood products have the power to alter the future of Indonesia's forests, mitigate climate change and preserve forest products jobs and sustainable forestry in North America.

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