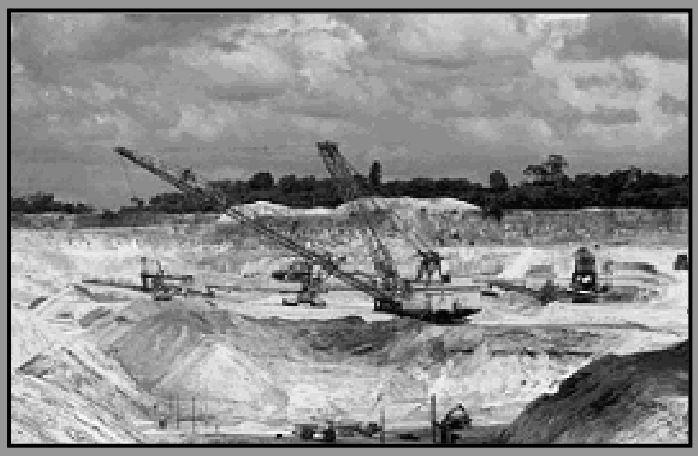
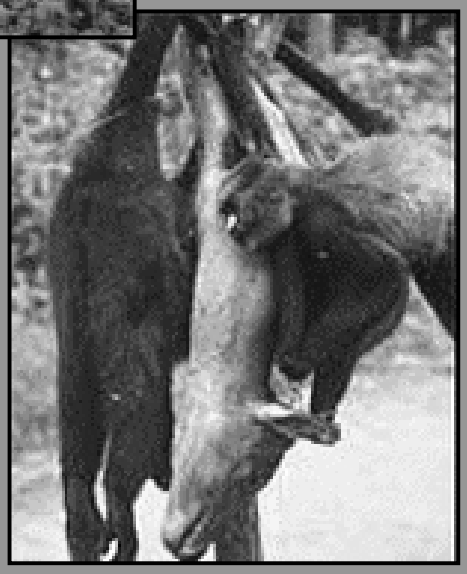
The I M F—
Funding deforestation

How International Monetary Fund loans and policies are responsible for global forest loss





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Executive Summary

International Monetary Fund (IMF) loans and policies have caused extensive deforestation in each of the 15 countries of Africa, Latin America, and Asia studied in this report. This forest loss has occurred both directly, through the IMF's promotion of foreign investment in natural resource sectors, and austerity measures that cut spending on environmental programs; and indirectly, through programs that have unwittingly worsened the conditions of poverty, and by the IMF's insistence upon export-oriented economic growth.

Through "structural adjustment programs" (SAPs), the IMF influences countries' economic policies and practices by conditioning loans upon the acceptance of a series of trade and investment liberalization measures. Along with its partners—most notably the World Bank and the World Trade Organization—the IMF has been instrumental in promoting a regime of privatization, deregulation, foreign investment, and export-oriented growth. Through these policies, the IMF imposes a one-size-fits-all prescription, allegedly for the purpose of economic growth by increasing developing countries' access to hard currency. However, while meeting development objectives has proven elusive in most IMF client countries, the overall effect of these policies on forests globally has been devastating.

Although the architects of corporate globalization claim that trade and investment liberalization is the best strategy for improvements in environmental protection, the record shows that funding for environmental programs has been hampered by the significant cuts in government spending imposed by the IMF. Government spending on important environmental programs has been substantially reduced in Brazil, Nicaragua, Guyana, Papua New Guinea, Russia, Indonesia, Tanzania, and Cameroon. IMF-induced budget cuts have impeded the following activities:

- Promotion of responsible forestry and sustainable development
- Enforcement of forest and wildlife protection measures
- Prevention of mining disasters
- Demarcation of indigenous lands

Additionally, inadequate funding for regulatory agencies has created conditions for:

- Widespread illegal logging, including in national parks and protected reserves
- Corruption in regulatory schemes
- The inability to respond rapidly to natural disasters
- Extensive poaching of imperiled species

Long-term economic prosperity must be based on sustainable development patterns. Instead the IMF prioritizes economic liberalization measures over key social and environmental objectives. The IMF's primary economic liberalization mechanisms have included: reducing export taxes; relaxing mining and forestry codes; removing bans on raw log exports; offering tax holidays to foreign firms; lifting prohibitions on foreign investment, including land ownership; and otherwise eliminating barriers to trade. The institution's focus on promoting export-led growth and foreign investment in the natural resources sectors through these strategies has heavily impacted the world's forests. Absent real improvements in environmental safeguards, the IMF's formula has been a recipe for accelerated deforestation for the countries analyzed herein.

IMF policies have threatened forests and wildlife indirectly through the worsening of poverty conditions in Russia, Ghana, Ivory Coast, and Nicaragua. Through displacement of communities, devaluation of currencies, elimination of social services, and other IMF-driven downward pressures on the living standards of the poor, rural residents in many countries have been forced to exploit forest resources to fulfill their basic needs.

Introduction

Established in 1945, the IMF was created to provide a stable international monetary system to promote international trade by maintaining fixed exchange rates between countries and lending money to countries facing short-term financial hardship. In recent years, however, the IMF has taken on a much broader role in shaping the economic and social policies of developing nations.

The IMF is a primary component of the network of financial institutions that provide funding and other investment assurances to promote global trade and investment liberalization. In addition to the IMF, the World Bank, World Trade Organization, export credit agencies, and private banks (like Citigroup), all have played prominent roles in realigning global economic relationships into an integrated investor-friendly system.

The IMF plays a pivotal role in ensuring the participation of developing countries in this process, by preconditioning loans on the adoption of a series of policy changes, under the name "structural adjustment programs" or SAPs. In this process, the IMF uses the debilitating indebtedness of developing nations—and their fear of defaulting on prior loans—as a leverage point to promote the "free" trade agenda. SAPs have become a dominant tool to open economies to foreign investment and remove protective trade barriers.

The role of SAPs, however, is much broader. They have become *the* vehicle of global economic policy by which international financial institutions have forged a relatively uniform set of reforms to create an integrated global economic system favorable to the investments of transnational corporations. While these policy changes have been justified on the basis of promoting economic growth, the majority of developing countries experienced lower economic growth during the last 20 years of "structural adjustment" than during the previous 20-year period.[1] Construction of this international framework has increased profits to multinational corporations, while detrimentally affecting the world's poor, widening the gulf between those with resources and those without.

This report analyzes the impact of IMF policies on forests in client countries. As compared to the World Bank, its sister institution, the IMF's impact on forests has been relatively underreported. This analysis was thus undertaken to consolidate and contribute to the data available to policy makers, government officials, researchers, and forest advocates pertaining to the relationship between the IMF and forest loss.

The results of the IMF's carefully structured economic architecture include:

- Among the 41 most heavily indebted poor countries of the world, deforestation between 1990 and 1995 greatly exceeded the world's average rate of forest loss. At this time, about 75 percent of these countries were under a loan agreement with the IMF. In two of these countries—Nicaragua and Honduras—almost 12 percent of the forests were lost, seven times the world average.[2]
- In the last decade, over forty African nations have modified investment codes for the mining sector to attract foreign investment.[3]
- The population of chimpanzees is down to 250,000 from 2 million in 1900, due to logging, firewood, and poaching for "bushmeat." [4] Elephant, orangutan, lemur, and gorilla numbers are also collapsing.

The web of liberalization measures constructed by the IMF however, remains a set of human-constructed policies intended to engineer a particular outcome. Despite rhetoric by its advocates to the contrary, "free" trade is not an irreversible and inevitable force of nature. As detailed in the closing section on recommendations, the IMF policies responsible for global deforestation can be altered, even uprooted. We can—and if we are to preserve what remains of the world's imperiled ecosystems, we must—adopt a new model of economic integration, one that balances long-term economic prosperity with the ecological sustainability upon which it rests.

The IMF's Formula for Global Deforestation

There are several ways in which International Monetary Fund policies are harmful to forests. Broadly speaking, the IMF causes deforestation through four different mechanisms:

- Pressuring countries to reduce government spending on environmental programs
- Promoting export-led growth
- Increasing foreign investment
- Worsening of poverty conditions

1. Reduce environmental spending

Through structural adjustment programs, the IMF imposes upon loan recipient nations a substantial reduction in government spending. It is often the case that countries such as Brazil, Cameroon, Russia, and Indonesia are forced to make deep cuts in environmental programs to meet these austerity requirements.

Eight of nine countries examined in one study had natural resource agencies' staffing and budget cuts, and mandates scaled back, as a result of structural adjustment programs.[5] These cuts have hampered enforcement capabilities, weakened the protections for globally imperiled forests, thwarted efforts to prevent illegal logging of "protected" areas, instigated poaching of endangered species, bred corruption in regulatory agencies, and curtailed the demarcation of indigenous lands.

2. Promote export-led growth

The IMF encourages countries to prioritize export-oriented markets, rather than industries producing for domestic consumption. Boosting exports enables countries to raise the capital needed to pay back loans from the IMF and other financial lenders. However, the promotion of exports, in the absence of real improvements in countries' environmental safeguards, has been a recipe for accelerated deforestation. Chief among the sectors that are targeted for export promotion are mining, agriculture and forest products, and the IMF has encouraged the liquidation of forests in the expansion of these sectors.

3. Increase foreign investment

As part of its adjustment programs, the IMF pressures countries to open their economies to foreign investment, including the foreign ownership of land, businesses, currency, and other resources. Attracting foreign investors, aimed at stimulating growth and providing hard currency to developing countries, is prioritized above other important social and environmental objectives. One of the most consistent outcomes from the IMF-imposed increases in foreign investment has been the intensification of natural resource extraction for export markets. Mining, oil and gas development, and logging activities made possible due to investment liberalization have had a devastating impact on forests, wildlife and forest-dependent communities.

4. Worsening of poverty conditions

Many of the impacts of structural adjustment programs have been shouldered by subsistence farmers and landless rural dwellers. Entire villages have been displaced by transnational corporations that have been granted extensive concessions of land for mining and logging. As a result, communities are pushed deeper into forested areas, which then become degraded by the patterns of human settlement.

Poverty has grown in many countries where structural adjustment programs have boosted unemployment rates. Devaluation of currencies, elimination of social services, and other IMF-driven downward pressures on the living standards of the poor have caused increased incursion into forests for the extraction of resources for survival, including wood for fuel and homes.

Case Studies in IMF Deforestation

African nations

Cameroon

Located in central western Africa, Cameroon is one of the most biologically diverse countries on the continent. Its tropical forests, which cover about 14 million hectares, sit in a broad region between Mount Cameroon and mangrove swamps along the coast. Cameroon is home to over 9000 plant species, including 150 that are found nowhere else on earth. Under an IMF structural adjustment program, however, the habitat of many species—such as elephants, rhinoceros, and gorillas—are now threatened.[6]

In the mid-1990s, the IMF prevailed upon Cameroon to devalue its currency and cut export taxes on forest products.[7] This made logging more profitable, and the larger number of species that became commercially viable resulted in higher volumes being logged per hectare.[8] The number of logging firms operating in Cameroon increased substantially, from 177 to 479 between 1990 and 1998 (compared to only 106 in 1980).[9] Transnational timber companies, hungry for valuable tropical trees (including mahogany and ebony), expanded lumber exports by about 50 percent between 1995/96 and 1996/97, resulting in an estimated annual loss of 200,000 hectares of forest in Cameroon.[10] Currently, over 75 percent of the country's forest cover has been or is scheduled to be logged.[11]

Seventy percent of the total volume of tropical timber that is exported is in the form of raw logs,[12] robbing Cameroon of value-added industries that would net additional jobs and contribute to longer-term development needs.

The expansion of forestry operations in Cameroon has favored export-oriented transnational timber companies over local communities who seek to produce wood for domestic use. Cameroon's 1994 forestry laws allow industrial logging operators to waive or postpone the submission of management plans, while local communities must prepare expensive and detailed plans prior to the commencement of logging activities. Penalties for illegal logging activities show a similar pattern of favoritism to transnational timber companies.[13] While these trends are unfair and alarming—considering that community-based forestry has a greater likelihood of establishing sustainable practices—they are a natural outgrowth of the IMF's emphasis on primary exports over production for national use.

A study by the World Bank drew similar conclusions in finding, "the international logging companies that dominate the sector continue to have a free hand in the development and use of the forests of Cameroon. Local communities were left out of the reform process despite the declared objective to include them in forest resource management." [14] As a result, about two-thirds of Cameroon's timber concession area is partly or completely controlled by foreign companies.[15] Of the 295 logging operations in the country, 270 (more than 90 percent) are primarily European companies that ship the logs to Asia.[16]

The IMF has also conditioned its loans to Cameroon upon the reduction of administrative expenditures, which has caused significant cuts in the Ministry of Environment and Forests (MINEF). The Ministry has had to contend with reduced personnel, salary cuts of 40 percent, poor working conditions, and an absence of communication and transportation equipment. Almost 1000 government jobs were cut in the forestry, agriculture, and fishing sectors.[17] The shortfalls triggered corruption and have weakened the government's interest and ability to pursue sustainable forestry.[18] Cameroon's implementation of its 1994 forestry laws has been marred by illegal logging activities and additional corruption. Approximately half of Cameroon's logging licensees were found to be operating illegally in the years 1997-1998, due to expired licenses, logging in protected areas, and other violations.[19]

Central African Republic

The dense, moist forests of the Central African Republic cover about four million hectares. Although the country has maintained loan arrangements with the IMF dating back to the 1980's, it came under increased pressure when the Central African Republic signed a three-year, $66 million loan agreement with the IMF in 1998.[20] The IMF has encouraged the Central African Republic to increase exploitation of forest and mineral resources. "Mineral resources in the Central African Republic have so far been insufficiently exploited…" reads a policy framework paper jointly drafted by the IMF, World Bank, and Central African Republic in 1998.[21]

The Central African Republic has followed the IMF's advice, and between 1993 and 1999, total log production increased three-fold. About half of the humid forest area is now held by a handful of transnational logging companies.[22] Despite government efforts to ensure that wood exports have been processed to capture the jobs that come from value-added products, raw log exports have increasingly dominated the sector, making up 71 percent of wood exports in 1999.[23]

Logging in the Central African Republic tends to be of a selective nature. While the lack of clearcut logging operations may appear to mean that forestry's impact is lessened, the effect has been that logging companies penetrate deeper into the forest in search of the most valuable species, most notably sapelli, ayous, and sipo trees.[24]

Once logging activities have been concluded, additional damage is done as settlers and poachers (of "bushmeat" and ivory) gain access to new areas via the logging roads. This has resulted in tragic consequences for the Central African Republic's populations of gorillas, elephants, and rhinos:

- Survival of two species of endangered gorilla—the western and lowland gorillas—is threatened by continued human encroachment and illegal poaching.[25]
- Expansion of commercial logging, human inhabitation, and trade in ivory have led to a decrease in habitat available for forest elephants,[26] which migrate between the Central African Republic, Cameroon, and the Congo.[27] It has been estimated that in the Central African Republic and Congo, as many as 200 elephants are killed each year.[28]
- The western black rhino, one of the world's most imperiled species with perhaps fewer than 10 animals surviving, has already been eliminated from the Central African Republic altogether, due to excessive poaching.[29]

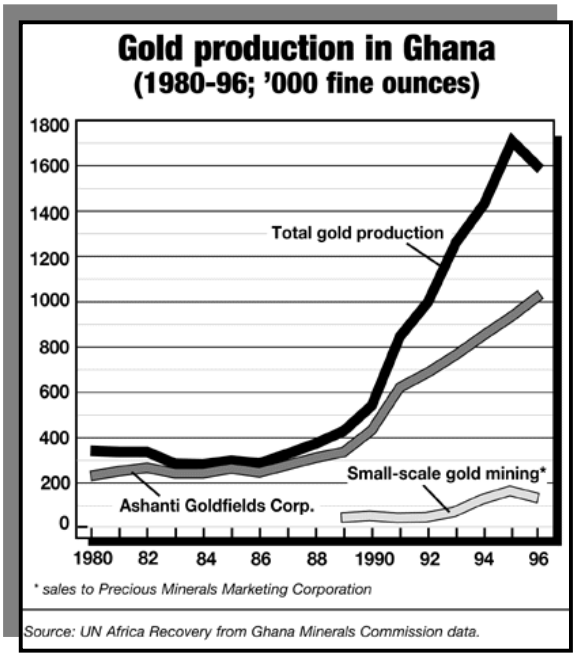
New mining codes were also adopted by the Central African Republic in 2000, as directed by the IMF.[30] In 2001, the nation adopted a new finance law that provided for the reduction of duties on the export of minerals.[31] It is anticipated that these measures will cause additional harm to the county's natural areas.

Ghana

Beginning in 1983, Ghana has been implementing IMF structural adjustment programs focused on export-led growth, which has included measures to

devalue the currency and remove various barriers to trade.[32] While this has resulted in significant economic gains, it has also meant severe detrimental consequences for the rainforests and forest-dwelling people of this western African nation. Ghana's most recent three-year, $239 million loan from the IMF was initiated in 1999, and modified in 2000.[33]

Upon the advice of the IMF, Ghana relaxed mining regulations and nurtured investment by the mining industry through generous incentives and tariff reductions during the 1980s and 1990s. As a result, more than 250 mining companies have been granted concessions, totaling 58,167 square kilometers. Most of these companies operate surface mines, but a few are underground mining operators.[34] Diamonds, bauxite, manganese, and especially gold are the predominant minerals sought in Ghana, and most are being extracted by Canadian, Australian, South African, United States, and other foreign-owned interests.[35]



Export earnings from mining have overtaken earnings from cocoa. From 1992 to 1995, mining exports climbed from $107.9 million to $682. 2 million.[36] Output for Ghana's gold industry alone grew by 500 percent between 1983 and 1995,[37] and by 750 percent between 1983 and 1998.[38, 39]

Mining in Ghana has had a tremendously detrimental effect on the country's tropical forests, which blanket one-third of the nation. Sixty percent of rainforests in Ghana's Wassa West District have already been destroyed by mining operations, which have also polluted surface and groundwater with cyanide and other chemicals.[40]

The mines have also devastated local communities. Nearby villages suffer from contaminated water supplies and cracked buildings from the mines' blasting.[41] In many cases, the land used for mining operations in Ghana has been forcibly acquired from peasant farmers under ambiguous regulations. Sometimes this acquisition occurred with no compensation.[42] In some instances, the mines have been responsible for the dislocation and forced resettlement of communities numbering in the hundreds and even thousands.[43] Numerous violations of human rights, including shootings and beatings, have also been committed in relation to the mines.

Since 1981, Ghana has experienced forest loss at a rate of 750 hectares/year, or two percent. Forest cover has dropped to 25 percent of its original size, owing to a rate of deforestation that has increased by 50 percent in ten years.[44]

A combination of logging by multinational companies and rural residents seeking income for their basic needs has fueled what is now Ghana's third largest export sector. Between 1983 and 1988, forestry grew six-fold in terms of revenues. At the current rate, the Ghanaian trees mahogany, odum and afromosia are expected to be depleted by 2007. [45]

Ivory Coast / Cote d'Ivoire

For over a decade, the Ivory Coast has been under the influence of IMF structural adjustment programs, of which intensification of exports has been a significant factor. The 1990s saw the heightened pursuit of fiscal and structural reform in the Ivory Coast.[46] The Ivory Coast devalued their currency in 1994 and eliminated export taxes in compliance with the IMF's adjustment program and in 1995 the country liberalized its domestic markets.

As a result, cocoa production exploded by 44 percent from 1994 to 1996.[47] The Ivory Coast became the world's leading producer of cocoa, with 40 percent of the global market. The country also ranks third in coffee production, behind only Brazil and Columbia.[48] The flourishing of the agricultural sector, under its flagship crop of cocoa has, however, brought about substantial changes in land use. This land conversion has been a major factor in the decrease in the Ivory

Coast's forest cover by 67 percent since its 1960 independence from France.[49] Forests now total about six million acres, where they once covered 70 million acres, or most of the southern half of the country.[50]

The lucrative cocoa market has spurred farmers to illegally expand their plots into the Ivory Coast's protected forests, threatening about one-third of these areas. Forested areas intended for protection through their official government designation of "sacred" and "classified" are being slashed, burned, and cultivated for export crops. In these forests, almost half a million farmers and their families have grown up to 100,000 tons of cocoa, about ten percent of the 1996/1997 harvest. [51]

In 1994, Europe-destined wood products accounted for 11 percent of exports.[52] The logging activities continue to expose the more remote areas of the Ivory Coast to poachers. Where local residents have hunted wild animals for sustenance for thousands of years, today's "bushmeat" trade has evolved into a commercial industry where traditional tools have been supplanted by automatic rifles. The hunting of chimpanzees, birds, turtles and other species has grown into an estimated $121 million industry in the Ivory Coast. [53]

The forests of the Ivory Coast remain some of the most significant forested areas throughout Africa. Their loss poses serious risks for regional climatic patterns, which are closely tied to the presence of forest cover. Ironically, the cocoa production is dependent upon these weather conditions and overproduction of cocoa could ultimately threaten the success of the crop.

The IMF has also recently pressured the Ivory Coast to expand its mining and petroleum sectors.[54]

Madagascar

Called the "naturalist's promised land" by French explorer Phillippe de Commerson in 1771, Madagascar is one of the most ecologically rich countries in the world. Twelve thousand species are found on the island the size of Texas; 80 percent are endemic, existing nowhere else.[55] Nine new species of lemur were recently discovered in Madagascar, placing the country only behind Brazil in the number of primates that call it home.[56]

In 1996, the Malagasy government accepted a three-year, $118 million loan[57] and bowed to IMF pressure in their agreement to further liberalize trade policies and open its economy to foreign investment. Among the measures adopted were allowing foreigners to own land[58] and eliminating export taxes.[59]

The liberalization of Madagascar's trade and investment policies has encouraged the pursuit of mining plans by a subsidiary of Rio Tinto, a London-based mining company.[60] Ranking as the world's largest mining company, Rio Tinto has an abysmal track record of environmental and human rights violations, stretching from Indonesia to South Africa (under apartheid) to Brazil.[61]

The controversial "Mineral Sands Project" would involve the extraction of ilmenite, which is processed into titanium dioxide, used to produce a white pigment for paint, plastics, and other products. Extracting an estimated 350,000 to 700,000 tons of ilmenite each year, the mine would yield between $25 million and $50 million annually. [62]

If the mine is approved, it would cover an expansive 15,000 acres [63] and stretch along 40 miles of coastline. The site for the proposed mine includes more than two-thirds of the unique littoral forests that exist on Madagascar's southeastern coast. The plant diversity of the mining area is high, including 16 species that exist only where the mining would occur. These species face potential extinction if the mine moves

forward; also threatened is the brown collared lemur, which is locally endemic.[64]

Several actions by the company and the government indicate that the mine will be approved. In 1998, the Malagasy government agreed to reduce the tax rate on the proposed Mineral Sands Project to two percent from the standard five percent rate. The Rio Tinto corporation has already spent at least $30 million

assessing the mineral deposits, and has undertaken an extensive environmental impact assessment. The Malagasy government has agreed to make its decision whether to grant or withhold approval by December of 2001, once Rio Tinto has completed their environmental assessment.[65]

Tanzania

The east African nation of Tanzania harbors approximately 33.5 million hectares of forested land,[66] approximately one-third of the total land area. Open hardwood woodlands are Tanzania's dominant forest type, with some closed forests and mangroves also present.

Tanzania signed a structural adjustment agreement with the IMF in 1986, and began to emphasize production for export markets.[67] Tanzania has continued to sign IMF loan agreements over the last 15 years, and most recently received a three-year, $181.5 million loan from the IMF in 2000.[68]

Tanzania's structural adjustment program has led to the clearing of land at a rate of 400,000 hectares per year. Between 1980 and 1993, 25 percent of the nation's forests were lost, almost half due to cultivation of export crops.[69]

In Tanzania's Simanjiro district, forests have been lost due to the expansion of export-oriented agriculture. Eighty large-scale commercial farms, ranging from 90 to 13,000 hectares, produce bean seeds mostly destined for the Netherlands. Over 50,000 hectares of land have been cleared for the production of these crops, displacing the local Maasai inhabitants.[70]

Large-scale agriculture for the production of export crops continues to increase in Tanzania (partially due to the lifting of a tax on agricultural exports), while agriculture for domestic consumption remains low.[71] This imbalance in utilization of agricultural products—and the displacement of thousands of local inhabitants[72]—exposes the shortcomings of the IMF's emphasis on export earnings: although foreign investment may be stimulated, poverty has in many instances been enhanced, not alleviated. Meanwhile, forests are lost as both habitat for wildlife and resources for development.

Mining for gemstones and other precious minerals by domestic and foreign companies has also grown significantly in the Simanjiro district since the opening Tanzania's economy. As mining companies have acquired large concessions, local pastoralists and farmers have lost access to land and water rights, and forests have been plundered to supply fuel related to the mines. [73]

Tanzania's mining industry has grown dramatically, from $30 to $71.6 million, between 1994 and 1999. As of 1999, minerals comprised 13.2 percent of all of the country's exports, up from 5.8 percent in 1994.[74] The government's adoption of the 1998 Mining Act is aimed at promoting even more investment in the mining sector. A 1999 paper prepared jointly by the Tanzanian government and the IMF reads:

"The government's vision is to develop over the next 10 to 30 years a strong, vibrant, well-organized mining industry led by the private sector... The target is for mining to contribute not less than 10 percent to

the GDP (compared with the present 1.7 percent share)." [75]

As with many developing countries, Tanzania's burdensome debt (including loans from the IMF) has resulted in the scaling back of funding for environmental agencies.[76] In the late 1990's, annual debt service due averaged $438 million, or 37 percent of export revenues.[77]

Tanzania's growth in mineral exports, 1994-1999

(Value in millions of U.S. dollars)

	1994	1995	1996	1997	1998	1999
Value of mineral exports	30.0	44.9	55.9	51.1	26.4	71.6
Percentage of total exports	5.8	6.8	7.3	6.8	4.5	13.2

Asian/Pacific nations

Indonesia

Ten percent of the world's remaining tropical forests are found in Indonesia. The country's forests harbor some of the world's richest biological diversity, including rhinoceros, Sumatran tiger, orangutan, the sun bear, and high numbers of bird, reptile, amphibian, butterfly, and tree species.

In 1997, Indonesia was consumed by the Asian financial crisis that originated in Thailand. Indonesia was granted a $43 billion emergency loan deal that the IMF coordinated with a consortium of international financial donors. The package included a mandate for the removal of major restrictions on foreign investment and export markets. The IMF also insisted upon reform of Indonesia's banking sector; unfortunately, their strategy has essentially created a massive subsidy for the forestry sector and poorly managed forests, accelerating deforestation.[78]

Under IMF pressure, the Indonesian government lifted a 10-year ban on the export of raw, unfinished logs in 1998. Although the ban had promoted domestic jobs associated with value-added processing of wood products, the IMF insisted that the ban be lifted to generate foreign investment and economic growth. As expected, the lifting of the ban has fueled the export of unprocessed logs. What was not anticipated, however, was the resulting depressed domestic supply of logs that has pressured producers to accelerate extensive illegal logging to meet raw material demand. The IMF's policy change had unintentionally triggered an increase in the imbalance between demand and raw material supply, spurring the exacerbation of illegal logging.

By the end of the 1990s, it became evident that the rate of forest exploitation had become unsustainable. The annual wood demand to operate Indonesian sawmills, wood factories, and pulp and paper mills was two times the sustainable logging rate.[79] These pressures created incentives for indiscriminant logging, both legal and illegal.[80] Pervasive illegal logging has damaged orangutan habitat in Tanjung Puting and Gunung Leuser National Parks, which each serve as a refuge to 2000-2500 orangutans,[81] with 15,000 and 30,000 remaining in the world.

The rapid growth of export markets for palm oil (produced for margarine, soaps, and other products) has also been the source of extensive deforestation in Indonesia. In the 1990s, the Indonesian government had been encouraging the clearing of millions of acres of ancient forest for conversion to palm oil plantations. Clearcutting and burning what remained proved to be the least expensive method for companies to transform their forested concessions to agricultural lands. The result was extensive and devastating: in 1997, forest fires blanketed broad areas of Indonesia, Malaysia, and Singapore, hospitalizing approximately 40,000 people due to respiratory problems. Over two million hectares of plantations and adjacent forests were quickly consumed by fire.[82]

Despite visibility of smoke from the fires at the meetings in which the IMF negotiated the assistance package with the Indonesian government,[83] no forest-related conditions were included to stem repeated burning and deforestation. The IMF went on to promote further expansion of Indonesia's palm oil sector through liberalization measures, including incentives to producers and investors, and tariff reductions.[84] In every subsequent year, the fires have

continued to rage in Sumarta and Kalimantan, including up to 1000 distinct fires throughout Sumatra in 2000.[85]

Annual expansion of oil palm plantations in Indonesia is expected to reach as much as 330,000 hectares.[86] Customary land rights and access to natural resources of indigenous peoples have been ignored by the Indonesian government and the companies that have invested in the sector. In Sumatra and Kalimantan, violence against local inhabitants and those who oppose the loss of their lands and livelihoods has become commonplace. [87] Also hard hit by the fires have been many natural and "protected" areas, including Indonesia's Kutai National Park, home to 2000 orangutans. [88]

Problems such as damage to national parks, uncontrolled fires, illegal logging, and threats to globally imperiled species should trigger heightened governmental concern and action. Unfortunately, spending cuts in Indonesia's environmental programs have been driven by IMF-imposed austerity measures, and management of protected areas has suffered from a dwindling budget in real terms every year since 1996.[89] Funding has been insufficient to maintain enforcement mechanisms or promote sound forest management.

Russia

The Russian taiga forests represent over 50 percent of the world's coniferous forests, and one-fifth of the world's standing forests. Russia has more forests than any other country. Much of the land remains relatively undisturbed,[90] and a host of species extirpated in many European countries have survived in the Russian forests.

After the break-up of the Soviet Union, Russia sought broad assistance from the IMF in its transition to a free market economy. The prescription was nothing short of a disaster, with the number of poor people soaring from two to 60 million.[91] The IMF's reckless promotion of contractionary macroeconomic policies and rapid liberalization of trade and capital accounts contributed to the more than 50 percent decline in Russia's GDP (a collapse rarely experienced outside war or natural disasters).[92] The depressed economy has set the stage for the liquidation of forests for under-priced, and in many cases illegally harvested, log exports that have exploded in the last ten years.

In response to IMF policy mandates, Russia cut their budget for protected areas by 40 percent,[93] leading to a decline in government control over forest management. This has caused rampant illegal logging, including a system of forged logging licenses, timber certificates, and export papers widely available on the black market.[94]

In May of 2000, Russia's President Putin decided to eliminate the State Committee for Nature Protection and the Federal Forest Service, transferring their responsibilities to the Ministry of Natural Resources, which gives higher priority to timber extraction.[95] The move prompted heated criticism from federal and local parliaments and non-governmental organizations, which felt this put the "fox in charge of the henhouse." [96]

Foreign investment and the export of wood products has been one of the major factors in the expansion of Russia's logging industry.[97] Under the current economic model of forest utilization, timber production is primarily oriented towards the export of raw materials.[98] With decreased domestic demand for wood, production for export markets has become the basis of the Russian timber industry. In the last ten years, low-priced Russian timber exports to eastern Asia countries have surged, with Russia providing 42 percent of China's total log imports. [99] Timber exports to Europe (70 percent in the form of unprocessed logs) increased by 50 percent during this period.[100]

In northern European Russia, the fragmentation of primary forests from logging and road building has put at risk Europe's largest remaining intact forests. It was estimated in 1999 that the most valuable of these old growth forests would be eliminated in five to ten years if existing logging rates and practices continued.[101]

On the opposite end of Russia, the Samarga Watershed, a pristine wilderness area in the Sikhote-Alin Mountains, is meeting the same fate. The region is the traditional hunting grounds of the indigenous Udege people and serves as habitat to Siberian tigers, Japanese cherry salmon, and the Himilayan black bear. In August of 2001, one million acres were auctioned off to logging interests, without any environmental review or consent of the local community, in violation of Russian law.[102]

The 2001 version of the Red Book of Rare and Endangered Animal Species in Russia lists 414 species, up from 246 in 1983.[103]

Papua New Guinea

One of the planet's largest remaining rainforests is found in Papua New Guinea, and 75 percent of its original forest cover remains intact. Its forests provide habitat for 200 species of mammals, 20,000 plant species, 1500 species of trees, and 750 species of birds, half of which are endemic to the island. [104]

Typical of its structural adjustment programs, the IMF has over the past 20 years pressured Papua New Guinea to reduce government spending and the size of the civil service, resulting in the deconstruction of the Department of Environment and Conservation. Papua New Guinea's ability to manage its forests and control logging has been impeded by this reduction. [105]

Papua New Guinea has taken several steps to foster the timber industry over the last few years, including reducing its tax on log exports from 33 percent to 0-5 percent in 1998. The following year, Papua New Guinea agreed to broadly reduce tariffs from an average of 21.9 percent to an average of 6.4 percent.[106] Of the companies engaged in logging operations in Papua New Guinea, only about half paid corporate income tax in 2000, according to Prime Minister Mekere Morauta.[107]

Taking advantage of these incentives, Malaysian companies have moved on to logging in Papua New Guinea, having already despoiled their own forests. A concession expansion of 800,000 hectares was granted to a Malaysian firm in 1999.[108] Later that year, Prime Minister Morauta announced a moratorium on new logging operations in Papua New Guinea, and ordered a review of existing concessions. However, the government has been unable to halt indiscriminate logging operations that are responsible for the decline of Papua New Guinea's rainforests,[109] and has since approved at least two new timber project areas.[110]

The difficulties created for local residents of the Manus Province exemplify the social and environmental problems associated with logging in Papua New Guinea. Due to logging on their island from 1997 through 2000, their food source has become scarce as fisheries have been silted in by erosion and game animals have disappeared due to loss of forest habitat. Water quality has been damaged with diesel run-off from machinery, harming aquatic species and drinking water supplies. Logging roads now carve up the landscape, but the schools, clinics, and permanent roads that the residents hoped would bring meaningful development have remained elusive.[111]

With the IMF's blessing, the government of Papua New Guinea is also looking to the mining industry as a means to economic growth. The country currently has several companies mining for gold and copper, including Rio Tinto, the world largest mining company. The mines have caused degradation to soil and water quality, forest loss, and pollution from lead, cyanide, and mercury. However, in its March, 2000 Letter of Intent to the IMF, Papua New Guinea pledged to initiate new projects in the mining sector.[112]

Latin American nations

Brazil

Brazil's rainforests comprise about one-third of the remaining tropical forests in the world. In these forests resides the world's greatest storehouse of unexamined biological diversity.

After its own currency, the real, began to show signs of contagion from the Asian financial crisis, Brazil signed a standby loan agreement with the International Monetary Fund for $41.5 billion. Terrified speculators withdrew their investments, causing central bank reserves to plummet, and the currency collapsed in 1999.

As part of the IMF program, the Brazilian government implemented substantial cuts in spending. One area targeted for cuts was the G7's Pilot Program for the Conservation of Brazilian Tropical Forest, the largest official program for the protection of the Amazon. The initiative was cut by 90 percent.

The Pilot Program had been approved at the 1992 Earth Summit, and focused on surveying the rainforest, demarcating indigenous lands, promoting sustainable development, controlling deforestation, and setting aside ten percent of the land under a protected status. Although Brazil was only to provide ten percent of the funds for the $250 million project, while the G7 countries and the World Bank provided the majority of the funding, Brazil gutted the project, funding it only enough to cover some administrative functions.[113] In response to international outcry, Brazil restored funding for the Pilot Program to less than one-third of its original budget.[114]

Overall spending on environmental programs was reduced by approximately two-thirds. The budget for the Ministry of the Environment totaled less than three percent of the approved funding, preventing the implementation of ten out of 16 environmental programs.[115] Of the $32 million allocated for Brazilian forest protection in 2000, only $19 million was actually spent.[116]

Brazil's economic crisis stimulated illegal burning and clearing of land as a result of the increase in people dependent upon subsistence farming.[117] As much as 80 percent of the logging that occurs in Brazil's Amazon forest is illegal.[118] Between 17,000 and 20,000 square kilometers (larger than the U.S. state of Hawaii) are destroyed each year from illegal logging and farming. These accelerated levels of illegal logging, combined with a regulatory agency without the budgetary resources to protect natural resources, has worsened the prospects for Brazil's forests.

Chile

The country of Chile is a unique case for studying the forest impacts of IMF-style reforms. Chile's forests have been relentlessly pounded for decades through policies and practices advocated by the IMF; however, the link is not so much through the imposition of structural adjustment measures, as is the case for most countries assessed in this report. Being that the IMF and others have held up Chile as the Latin American market liberalization model, Chile serves as an excellent case example of the effects of the economic regime prescribed by the International Monetary Fund.

Chile willfully embraced trade and investment liberalization measures, beginning with General Augusto Pinochet's 1973 coup against the democratically elected government of Salvador Allende. Pinochet brought in the "Chicago Boys," a Chilean team of 30 economists, trained under the tutelage of free market economist Milton Friedman at the University of Chicago's School of Economics, and gave them free reign of the Chilean economy.

In 1975, the Chicago Boys held a significant economic seminar in which they proposed "shock treatment," or extreme economic austerity, including broad cuts in government spending, privatization, and liberalization of trade. The plan, however, was only partly the vision of the Chicago Boys; the IMF helped formulate the program as well, and made it a precondition of future loans by Chile.[119] In the early 1980s, when the International Monetary Fund extended a loan to Chile, it conditioned it upon the devaluation of the currency and other adjustment measures.[120] The outcome of almost thirty years of implementing Friedman's neoliberal theories has been an ecological catastrophe.

Chile is home to one-third of the world's remaining temperate old growth forests, as well as one of the last two remaining extensive temperate rainforests. Due to their isolation, these forests have evolved as a virtual biological island, containing hundreds of tree and vascular plant species found nowhere else on earth. Chile's vast tracks of ancient forests harbor trees that are thousands of years old, as well as mountain monkeys, pudu deer, austral parrots, Patagonia woodpeckers, and many other species that have been identified as endangered, but have not received much-needed protection. Chile's level of temperate forest species biological diversity is unparalleled anywhere in the world.[121]

Forestry in Chile has largely consisted of the government-subsidized conversion from natural forests to non-native eucalyptus and radiata pine plantations, under the Decree Law 701 of 1974 and other incentives. Land under plantation management has grown from 200 thousand hectares in 1974 to over 2.1 million hectares today.[122] Wood products represent the fastest growing sector for NAFTA markets, and 12 percent of Chile's overall exports (which also substantially include fish, minerals, and agricultural products). Ninety percent of Chilean wood exports depart in an unprocessed or slightly processed form, such as chips, pulp, and raw logs.

Between 1983 and 1989, Chile's wood exports doubled.[123] Chilean forest advocates now estimate that between 120,000 and 200,000 hectares of native forest are destroyed or degraded every year in Chile.[124] Foreign logging firms, such as International Paper, Boise Cascade and Trillium Corporation of the United States, and Marubeni and Mitsubishi of Japan, have capitalized on Chile's free market economy. As a result of logging operations, the alerce tree, considered to be Chile's equivalent to the redwoods of the United States, has been placed on both the IUCN Red List of threatened species and Appendix I of the Convention on International Trade in Endangered Species (CITES).[125] The alerce tree is now the target of extensive illegal logging, which continues to occur due to lack of resources and political will of CONAF, Chile's forest service.

Chile's growth in forestry and mining export revenues, 1970-1994

(Value in millions of U.S. dollars)

	1970	1980	1994
Forestry exports	44	580	1520
Mining exports	950	2772	5107

Source: INFOR, 1995.

Plantation forestry in Chile, 1955-1995

	1955	1975	1995
Hectares in plantation	26,000	400,000	1,700,000

Source: Ancient Forest International, 1996.

Chile's forest protection laws routinely are not enforced. Chile's Forestry Action Plan found that almost all of the native forests exploited in Chile are done without proper management; and according to the University Austral of Valdivia, only 20 percent of forests logged are done under management plans.[126] The Central Bank of Chile has estimated that all of Chile's native forests will be eliminated by 2015 if current rates of deforestation continue.

Forestry practices in Chile have been responsible for the displacement of tens of thousands of rural families and indigenous Mapuche peoples, who are struggling to achieve recognition of their territorial rights over these lands. [127]

Ecuador

Situated on the northwest coast of South America, Ecuador contains almost 20 million acres of old growth, tropical Andean and Amazonian rainforests. Though Ecuador occupies about 0.2 percent of the planet's land surface, ten percent of the Earth's plant species are found there.[128]

The IMF has been very direct in its pressure on the Ecuadorian government to expand its mineral and oil production.[129] In 2000, as part of a one-year, $304 million stand-by credit agreement, Ecuador pledged to the IMF that it would boost oil exports from 90 million to 190 million barrels in two years.[130] Following this commitment, Ecuador initiated a massive and controversial mineral project that threatens important forest areas and indigenous peoples.

In June of 2001, Ecuador approved the bid by a multinational consortium, led by Occidental Petroleum, Chase Manhattan Bank, and Alberta Energy, to construct a crude oil pipeline through 11 protected areas, including the pristine cloud forests of the Mindo Valley in the northwest part of the country. The 95-mile long pipeline is planned to transport oil from the Amazon Forest to the Pacific Coast.

The valley provides habitat to many endangered plants and animals, including the endangered spectacle bear, and has been designated by BirdLife International (BLI) as South America's first "Important Bird Area." [131] A BLI study found that the area is a major breeding ground for the endangered black-breasted puffleg hummingbird. BLI has identified 45 Mindo Valley birds as vulnerable to extinction and ten others to be globally threatened. [132]

The country's existing pipeline ruptured in May, 2001 due to a landslide, releasing 7,000 barrels of oil. The spill was the 14th major release of oil in a three-year period.[133] In 20 years of presence in Ecuador, Texaco spilled millions of gallons of oil in the Amazonian rainforest.[134]

Biodiversity and past spills were not taken into account, however, when the pipeline was approved. The pipeline was authorized by the government before an environmental impact study was done and absent consultation with affected communities, in violation of Ecuadorian law.

The pipeline consortium plans to source its crude oil by constructing hundreds of oil wells in the Yasani National Park, a UNESCO Biosphere Reserve that environmentalists have identified as "the last pristine corner of the most important National Park in Continental Ecuador." [135] The 900,000-hectare park is home to the Huaorani tribe, an ethnic minority whose culture is threatened by the development, and is known worldwide for its biodiversity, including over 200 species of trees.

In his defense of the pipeline project, Ecuadorian President Gustavo Noboa cited pressure from the IMF. During the same speech, Noboa declared "war" on environmentalists and stated that the IMF supported his position on the pipeline. Violence has escalated, with oil company officials beating environmental activists at demonstrations against the pipeline.[136] Jeffrey Franks, the IMF's representative in Ecuador, insisted that failure to move the pipeline project forward could jeopardize Ecuador's international economic support.[137]

Guyana

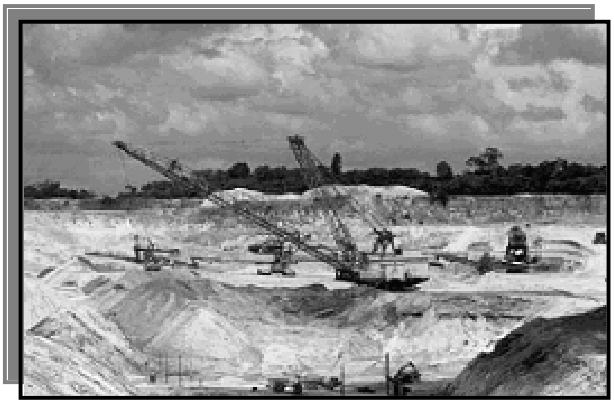
The forests of Guyana cover at least 75 percent of the country's 21.5 million hectares, making it one of the most heavily forested countries in the world. Forest types include montane forests, wet tropical forests, dry evergreen forests, and mangrove forests.

Guyana has been under an IMF structural adjustment program since the late 1980s, during which time the

IMF has sought to make mining, logging, and petroleum among the country's key economic sectors. The IMF prevailed in opening Guyana's forests to heightened exploitation by these sectors, but failed to promote the necessary social and environmental protections to control the risks inherent in rapid market liberalization and growth of resource extraction sectors. Guyana's forests and indigenous people have paid dearly for the IMF's tunnel vision for export-led growth.

In response to pressure from the IMF, Guyana altered its mining policies and offered generous exemptions on income taxes, promoting more foreign investment in the mining sector (mostly gold and diamonds).[138] In 1999, there were 32 foreign mining companies active, with large-scale mining permits covering about ten percent of Guyana.[139] Two mining concessions issued in 1999 detrimentally impact over 400 indigenous communities, none of which were contacted or consulted prior to approval of the mines.[140]

In 1995, a gold mine operated by a Canadian consortium caused a major disaster when a tailings dam breached. The mine spilled between one and three million cubic meters of cyanide-laced residues into Guyana's main river, the Essequibo, killing the river, fish, birds, and mammals.[141] Three local residents were also hospitalized for cyanide poisoning.



Foreign investment in the logging industry has also boomed in the last decade, as Guyana has offered incentives such as tax holidays and export allowances. Also as part of its IMF adjustment program, Guyana increased from nine million to 14 million hectares the amount of land under the jurisdiction of the Guyana Forest Commission. As a result, over half of the forests capable of being logged are under concession by foreign companies.[142]

Much of the foreign investment in Guyana's logging industry has been marked by extremely generous tax breaks. A mostly Malaysian company that acquired a 1.7-million-hectare concession for plywood production and log exports was given a comprehensive tax holiday.[143] When the IMF specifically identified the Demerara Woods as a priority for Guyana to privatize, a British consortium made a fortune, with the citizens of Guyana subsidizing the sell off of their own resources.[144]

While the flurry of environmentally harmful investment in the mining and logging sectors should have sparked additional environmental oversight by the Guyanese government, the opposite has occurred. IMF-imposed budget reductions have left Guyana's environmental agencies with insufficient funds to effectively enforce the country's environmental regulations.[145] In particular, the Guyana Forest Commission's limited staff with few trained foresters has proven unable to monitor or regulate logging operations.[146] A study by the World Bank also found that Guyana's mining commission lacked both the regulators to control mining and the researchers to study environmental problems,[147] helping to explain the disastrous mine spill on the Essequibo River.

Although turning over the majority of the country's forests to foreign interests was done allegedly to bring economic returns to Guyana, this has not materialized. Studies by both the World Bank and the World Resources Institute have found that the prices paid by foreign companies for Guyana's timber are extremely low, providing not only little revenue for development, but creating unfair competition for local producers. The World Bank study warns, "This kind of forest mining entails a boom-and-bust pattern of development that can be highly disruptive to employment levels, trade balances, and other factors of macro-economic stability." [148]

Honduras

With IMF encouragement, Honduras implemented measures to stimulate export production in the early 1990s. [149] While under the influence of IMF adjustment, Honduras lost almost 12 percent of its

forest cover in just five years due to increased logging.[150]

In 1998, Hurricane Mitch tore through Central America, leaving a path of devastation. As many as 11,000 Hondurans were killed and millions were left homeless.

Deforestation in Honduras exacerbated the mudslides and floods, contributing to the scale of the disaster. Many of these hills were denuded due to the agricultural and timber export-oriented policies that the IMF impressed upon Honduras. Austerity measures—designed by the IMF so that Honduras could pay off its debt—also set the country up to

fall: the emergency response capacity to address the disaster was terribly understaffed.[151]

Nicaragua

Despite deforestation in recent decades, Nicaragua is the most forested country in Central America, and has retained significant expanses of primary forest. The forests (mostly rainforest, but also including some pine forests and mangroves) are incredibly diverse, housing many species of monkeys, large cats (including jaguar), sloths, and anteaters.

An IMF loan to Nicaragua in 1994 was conditioned upon the expansion of the country's forestry sector, and large concessions were subsequently granted to foreign companies for natural resource exploitation. Forestry grew from 1.5 to 3.2 percent of the GDP in three years. Combined with IMF-directed cuts in agricultural supports, this led to severe deforestation.[152]

In Nicaragua, about 150,000 hectares of forests are lost to commercial logging operations and advancing slash-and-burn agriculture every year. Nicaragua has lost 60 percent of its forest cover in the last 50 years. This deforestation is responsible for the drying up of 200 rivers and the loss of three million tons of topsoil, according to Jaime Incer, former Nicaraguan Minister of Natural Resources.[153] If current rates of forest loss are not brought under control, it is expected that Nicaragua's broadleaf forests will be depleted in ten to 20 years.[154]

One of the larger concessions offered by the Nicaraguan government—a 62,000-hectare tract—was awarded to Kimyung, a Korean logging company, in 1994. The concession area included the land of Sumus and Miskitos indigenous communities. Kimyung's concession was eventually revoked in 1998 after local residents prevailed in demonstrating illegal activities by the company.[155]

Under pressure from the IMF to cut government spending, Nicaragua's Ministry of the Environment and Natural Resources had its funding reduced by 36 percent.[156] The resulting lack of enforcement rendered virtually meaningless a 5-year moratorium on the cutting and exporting of mahogany, royal cedar, and pochote, instituted by President Aleman in 1997. Illegal logging continued to degrade the precious hardwoods, and in 1999, the president reversed the ban and instead imposed a 7.5 percent tax on the trade of precious woods. [157]

As with Honduras, deforestation contributed to the scope of the destruction of life and land associated with Hurricane Mitch, Central America's worst natural disaster in two decades. Terrible mudslides and flooding killed 6,000 people and caused billions of dollars in damage, due in part to rapid rainfall runoff and erosion from the deforested landscape.

In acknowledging the role deforestation played, the Nicaraguan government said in 2000: "The frequent recurrence of natural phenomena and the mismanagement of our natural resources have increased ecological risk factors, and resulted in greater environmental deterioration and vulnerability. Hurricane Mitch exposed national deficiencies in confronting major disasters and the extreme burden they place on our population, particularly the poor." [158]

Recommendations

The findings in this report indicate that the policies promoted and imposed by the International Monetary Fund have been and continue to be a substantial threat to efforts to effectively protect the world's forests. The consistency of forest degradation in the countries analyzed herein calls into question the credibility of the IMF when it claims that its policies do not harm the environment, or that environmental concerns are outside of its mandate. It is apparent that global protection of forests will not be possible without either a fundamental transformation of the approach taken by the IMF, or the removal of its ability to promote and impose policies that harm forests.

Immediate action needs to be taken to reverse the course of global deforestation perpetrated by the International Monetary Fund. Short of closing the IMF, the following steps could effectively prevent the ecological tragedies identified in this report:

1. Congress should instruct the U.S. Treasury Department to oppose IMF loans, grants, documents, and strategies that include policies that lead to the destruction or degradation of primary or endangered forests and displacement of indigenous communities.

It is clear that deforestation is linked to specific policies, including reduction of governmental spending for environmental programs and agencies, accelerated foreign investment in resource extraction industries, and promotion of export-oriented natural resource markets. The United States Congress can stem the detrimental impact to the world's forests by insisting that the administration use its influence in the IMF to prevent policies from being enacted that cause substantial damage to primary or endangered forests, or indigenous residents.

2. The IMF and its member nations should work towards the elimination of subsidies that are harmful to forests. "Ecological dumping" serves to reward countries with weak environmental standards by providing them a comparative advantage in trade with other nations.

3. The IMF and its member nations should invest greater resources into tackling the problems of illegal logging and poaching of wildlife.

4. The IMF and its member nations should practice and promote greater transparency and participation by civil society at all levels of agency action. This should include open board meetings and web site publication of transcripts from all IMF Board discussions and interventions by the U.S. Treasury Department.

5. The IMF should conduct environmental and sustainability assessments of all loans, grants, documents, and strategies.

6. The IMF should embrace a broader range of guiding principles:

- Alleviate poverty through building community self-reliance and the capacity to meet essential development needs
- Ensure sustainable development
- Enhance cultural integrity
- Protect natural resources, including forests
- Promote equity among nations
- Build economic stability

7. The IMF should link economic and environmental progress.

Initiatives aimed at promoting economic growth should be coupled with environmental safeguards and improvements in natural resource protections that make economic growth sustainable. Extraction and use of non-renewable resources should be linked to investment in strategies for long-term sustainability.

8. The IMF and is partner creditors should cancel the debt of the world's heavily indebted poor countries.

The burden of substantial debt to the financial institutions of industrialized countries renders developing nations unable to alleviate poverty conditions, address pressing development needs, or conserve their natural areas.

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