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Tropical Forests and Trade Policy: The Legality of Unilateral Attempts to Promote Sustainable Development under the GATT

Brian F. Chase

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**Tropical Forests and Trade Policy:
The Legality of Unilateral Attempts to
Promote Sustainable Development
Under the GATT**

By Brian F. Chase*

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I. INTRODUCTION

The international community generally agrees that trade and environmental policies should mutually promote sustainable development.¹ At the same time, however, "trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade."²

While in theory global trade liberalization and environmental protection are equally laudable goals, recent attempts by individual governments to restrict the international trade in tropical timber products illustrate the difficulty of applying these competing principles in

1. See, e.g., Rio Declaration on Environment and Development, June 14, 1992, 31 I.L.M. 874, 878 (Principle 12 declares that "[s]tates should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries").

2. *Id.*

practice.³ Nevertheless, if sustainable economic growth is the ultimate objective, then the future relationship between trade and the environment must become more symbiotic.

The purpose of this Article is to examine the extent to which environmentally motivated trade practices (sometimes called "eco-protectionist measures") relating to tropical timber products conflict with the rules of the neoliberal trade system built around the General Agreement on Tariffs and Trade (GATT).⁴ Assuming that all import and export restrictions have at least some effect on the international trade in tropical timber, many questions arise.

For example, does the GATT recognize any article XX exceptions that could be used to justify unilateral attempts to promote sustainable development? Moreover, what role has multilateral cooperation played in the international tropical timber trade, and what role can it reasonably be expected to play in the future? Are unilateral trade restrictions the best approach to deal with environmental externalities?⁵ If not, then are there superior alternatives that could promote sustainable development of tropical forests without hindering global trade liberalization efforts? The answers to these specific questions regarding tropical forests will, in turn, have implications for the broader issue of whether freer trade necessarily diminishes world welfare by fostering environmental degradation.

This Article focuses on the potential effects of these trade policies on the depletion of tropical forests. However, before these and other questions can be explored, we must first understand the background of the basic problem: What is tropical deforestation? Where is it occurring and at what rate?

After the primary causes of tropical deforestation have been enumerated, this Article will discuss the economic and ecological impact of tropical deforestation. What consequences does tropical deforestation hold for the world timber trade and the environment?

3. The conflict between economic growth and environmental protection is not limited to the tropical timber dispute, for the impact of international trade on the environment has been called "one of the most divisive issues in the interaction between economics and ecology." Panayotis N. Varangis et al., *Tropical Timber Trade Policies: What Impact Will Eco-Labeling Have?* 1 (Mar. 22-23, 1993) (unpublished manuscript presented at the Environmental Symposium organized by the Economic Chamber of Austria, on file with author) [hereinafter Varangis].

4. General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. A3, T.I.A.S. No. 1700, 55 U.N.T.S. 188 [hereinafter GATT].

5. Environmental externalities exist because of inefficient markets that consistently undervalue natural resources such as tropical forests. Varangis, *supra* note 3, at 4.

International efforts to prevent tropical deforestation, primarily within the framework of the International Tropical Timber Agreement, will then be evaluated. In order to compare these multilateral efforts with unilateral measures, a summary of the recent Austrian experience with tropical timber import restrictions will be presented. The reaction of various Southeast Asian countries will also be detailed.

With a basis for comparison thus established between multilateral action on the one hand and domestic action on the other, it will then be possible to examine the GATT legality of the numerous unilateral measures available for restricting the international tropical timber trade. Since the majority of these measures raise legitimate concerns under the world trading system, additional GATT-consistent alternatives will be mentioned briefly, followed by a few concluding remarks.

II. BACKGROUND

Since 1900, more than half of the world's tropical rain forests have been destroyed and the land converted to other uses.⁶ A 1990 United Nations (U.N.) study concluded that tropical rain forests are disappearing at a rate of seventeen million hectares per year,⁷ and some scientists predict that the remaining tropical forests will be gone by the end of this century.⁸ Obviously, when deforestation occurs at such a rapid rate, it is bound to have serious environmental and social consequences, many of which are not yet fully understood. Others theorize that the indiscriminate exploitation of natural resources such as tropical rain forests could result in environmental conditions being modified dramatically enough to end human life on this planet.⁹ Because of its potentially devastating implications, deforestation will continue to be an issue of worldwide significance during the 1990s.

6. 136 CONG. REC. E3534 (daily ed. Oct. 26, 1990) (statement of Rep. Doug Walgren) [hereinafter Walgren].

7. BRIAN JOHNSON, RESPONDING TO TROPICAL DEFORESTATION: AN ERUPTION OF CRISES—AN ARRAY OF SOLUTIONS 7 (1991) (World Wildlife Fund & Conservation Found., Osborn Ctr. Research Paper).

8. William R. Long, *Rain Forest Boycott Questioned*, L.A. TIMES, Sept. 17, 1991, at E1. By contrast, a recent study conducted by World Bank economists disputes the argument that tropical forests will be totally depleted by the end of this century, calling such predictions "farfetched." Varangis, *supra* note 3, at 4.

9. See, e.g., *Report of the United Nations Conference on the Human Environment*, U.N. Doc. A/CONF.48/14 & Corr. 1, 11 I.L.M. 1416 (1972).

A. *Distinguishing Between Tropical and Non-Tropical Deforestation*

Deforestation can be defined as the process by which land is cleared of forests or trees.¹⁰ Deforestation, which is sometimes euphemistically called "timber extraction," occurs throughout the developed and developing world and can be seen as a by-product of industrialization and development programs. For purposes of this Article, the difference between tropical deforestation and non-tropical deforestation is crucial.

At least in the developed world, many people tend to focus their attention primarily on deforestation occurring in tropical rain forests within the developing world, usually in Brazil's Amazonia.¹¹ That perspective, however, is only partially accurate, for it fails to consider a second, equally controversial form of non-tropical deforestation that is occurring right in the developed world's own back yard. In the United States, for example, there is significant opposition to timber extraction of old-growth forests in the Pacific Northwest.¹² Another example of rapid, non-tropical deforestation may be occurring in the Commonwealth of Independent States, most notably in Russia.¹³ In international discussions, the latter examples of non-tropical deforestation should not be so quickly dismissed, since they raise the same sustainable development concerns as tropical deforestation.¹⁴

10. See WEBSTER'S NEW WORLD DICTIONARY OF THE AMERICAN LANGUAGE 371 (1990). Even if a forest is not totally cleared, it can be "degraded" to the point at which it is considered deforested. JOHNSON, *supra* note 7, at 1.

11. Brazil's Amazonian forests contain nearly 31% of the world's rain forest and cover an area half as large as the United States. Roseann Eshbach, Comment, *A Global Approach to the Protection of the Environment: Balancing State Sovereignty and Global Interests*, 4 TEMP. INT'L L.J. 271, 273 (1990).

12. See, e.g., Tom Kenworthy, *The Owl and the Lumberjack: Can Clinton Break the Logjam?*, WASH. POST, Apr. 2, 1993, at A4 (noting that of the original 25 million acres of the Pacific Northwest's old-growth forest, only about 10% of the forest remains standing). If logging continues at the current rate, these forests will disappear within 20 years. *Purpose of This Newsletter*, in MORI NO KOE: JAPAN AND THE WORLD'S FORESTS, July 1992, at 1 (on file with author) [hereinafter MORI NO KOE I] (*mori no koe* means "voice of the forest" in Japanese).

13. *Siberia Alert: Russian Scientist Visits Japan*, in MORI NO KOE: JAPAN AND THE WORLD'S FORESTS, Oct. 1992, at 15 (on file with author) [hereinafter MORI NO KOE II]. Siberia contains about 54% of the world's coniferous forests. *Id.*

14. Because developed countries often have records of resource abuse and pollution and because these countries' proposals for rain forest conservation typically fail to consider non-tropical deforestation, such proposals are widely resented in the developing world as an unjustified interference with national sovereignty over domestic resources. For a typical response by a political leader in the developing world, see Jonathan Thatcher, *Rich Countries Urged to Exercise Restraint*, REUTERS, Feb. 17, 1993, available in LEXIS, Nexis Li-

To date, however, tropical deforestation has received the lion's share of attention, even though it is clear that all deforestation, including that which takes place in tropical forests, has a significant adverse impact on the environment. The developed world's tendency toward ignoring its own serious deforestation problems causes great resentment on the part of governments in the undeveloped southern countries (South), which understandably feel that their forest policies are unfairly singled out for criticism at the international level.

B. Tropical Forest Location

There are three types of forest zones in the world: tropical, temperate, and boreal.¹⁵ By definition, tropical rain forests grow between the Tropic of Cancer and the Tropic of Capricorn.¹⁶ They primarily consist of dense evergreen forests in which the annual rainfall averages more than eighty inches and temperatures range from sixty-eight to eighty-two degrees Fahrenheit.¹⁷ Temperate forests, on the other hand, are found between the tropics and the Arctic or Antarctic circles.¹⁸ Boreal forests are located within the Arctic circle, in such countries as Norway, Sweden, and Finland.¹⁹ When compared to tropical and temperate forests, boreal forests account for only a small fraction of the world's total forest area, but they are nonetheless considered to be important ecological resources.²⁰ When taken as a

brary, Reuter File (noting Indonesian President Suharto's comment that "[a]s developing countries are suffering from abject poverty, the advanced countries are wasting resources and polluting the environment as a result of an erroneous lifestyle").

15. Since there are three forest zones, tropical, temperate, and boreal, it logically follows that there are also three types of deforestation. The problems of temperate and boreal deforestation are beyond the scope of this Article. Thus, this Article will focus exclusively on deforestation as it is occurring within the tropical zone. It is important to remember, however, that non-tropical deforestation also contributes to global warming.

16. S. 1159, 102d Cong., 1st Sess. § 8 (1991). Rain forests are easily distinguishable from jungles in several important ways. For example, tropical rain forests never have a dry season. *The Quiz*, N.Y. TIMES, Apr. 4, 1993, at 4A, 12 (Educ. Life Supp.). Most of the trees have broad leaves that never fall. Moreover, because little sunlight filters through the thick treetops, there is relatively little undergrowth on the rain forest floor. Jungles, by contrast, are characterized by dense, low vegetation and may occur in either wet or dry climates. Some jungles, unlike their stereotypes, have few trees and consist mostly of thickets of low shrubs. *Id.*

17. *The Quiz*, *supra* note 16, at 12.

18. *President Bush Unveils First \$16 Million in Forests for Future Initiative Projects*, BNA INT'L ENV'T DAILY, Jan. 21, 1993, available in LEXIS, Nexis Library, Bnaied File [hereinafter *Forests for Future Initiative Projects*].

19. *Id.*

20. It is interesting to note that a new coalition was formed in April 1992 for the purposes of preserving boreal forest ecosystems. *New Boreal Forest Protection Group*

whole, temperate and boreal forests comprise fifty-eight percent of the world's total forest area.²¹

Tropical moist forests can be found throughout Central and South America, Southeast Asia, and West-Central Africa. These forests cover an area of 1.5 billion hectares, which represents forty-two percent of the world's total forest area.²² Of these tropical moist forests, slightly more than 650 million hectares are tropical rain forests.²³ This is equivalent to an area over three times the size of the European Community (EC).²⁴ About one billion hectares of closed tropical forests are located in fifteen developing countries.²⁵ Among these developing countries, Brazil, Indonesia, and Zaire possess the largest existing holdings of tropical forests in the world.²⁶ Brazil and Indonesia, like many other countries, experienced substantial increases in deforestation rates during the 1980s and early 1990s.²⁷

C. Tropical Forest Depletion Rates

The rate at which tropical forests are disappearing is hotly contested. Depletion rate estimates range from fourteen million to twenty million hectares of tropical forest per year.²⁸ Analyses indicate, however, that deforestation or "depletion rates" are increasing over time, as timber-harvesting technology improves. For example, in 1988, the U.N. Food and Agricultural Organization (FAO) estimated a worldwide tropical forest depletion rate during the early 1980s of 11.4 million hectares per year.²⁹ In contrast, in 1992, the FAO gave a revised depletion rate estimate of 16.9 million hectares per year, which

Formed, in MORI No KOE I, *supra* note 12, at 9. The new coalition is called the International Working Group on Boreal Forests and is based in Jokkmokk, Sweden. *Id.*

21. Varangis, *supra* note 3, at 2.

22. *Id.*

23. *Id.*

24. *Id.*

25. C.A. Primo Braga, *Tropical Forests and Trade Policy: The Cases of Indonesia and Brazil*, in INT'L TRADE & ENV'T 173, 175 (World Bank Discussion Papers, Patrick Low ed., 1992).

26. The other 12 countries, in order of their tropical forest holdings, are Peru, Colombia, Mexico, Bolivia, India, Papua New Guinea, Myanmar (Burma), Venezuela, Congo, Malaysia, Gabon, and Cameroon. *Id.* at 175-76.

27. *Id.* at 175. India had the highest average annual rate of deforestation (4.1%); Gabon, Papua New Guinea, and the Congo all had the lowest (0.1%) average annual rate of deforestation. *Id.* at 176.

28. Varangis, *supra* note 3, at 3.

29. *Id.*

is equivalent to 0.9 percent of the existing tropical moist forest area, for the longer time frame of 1981 to 1990.³⁰

These increasing forest depletion rates have already had an adverse impact on the economies of several developing countries involved in the tropical timber trade.³¹ The Philippines, for instance, went from being a large net exporter of tropical timber in the 1960s and 1970s to a net importer during the 1980s.³² One study concludes that if forest depletion rates of the 1980s continue into the 1990s, the number of net tropical timber exporters will fall from thirty-three to less than ten by the end of this century.³³

III. PRIMARY CAUSES OF TROPICAL DEFORESTATION

The primary causes of tropical deforestation are well known. Extreme poverty and population growth are among the principal causes. Conversion of forests to alternative uses, including agricultural production, cattle ranching, and commercial logging, and the demand for fuelwood are additional leading factors that directly contribute to the environmental losses.³⁴ The precise contribution of each of these activities to forest depletion is unknown, but one study suggests that sixty-four percent of tropical forest depletion can be attributed to agricultural conversion, eighteen percent to commercial logging, ten percent to the actions of fuel gatherers, and eight percent to cattle ranching.³⁵ Significantly, tropical timber exports, either as logs or processed timber, account for only one percent of all trees felled in developing countries.³⁶ United Nations and World Bank estimates lend additional support to these figures.³⁷

30. *Id.*

31. Thailand has almost completely depleted its tropical forests. Philip Shenon, *Now It's the Jungle That the Khmer Rouge Decimates*, N.Y. TIMES, Feb. 7, 1993, at D4. Consequently, it has been forced to turn to its neighbor, Cambodia, for additional supplies. *Id.*

32. Varangis, *supra* note 3, at 3.

33. *Id.* This prediction could have far-reaching effects on the composition of the International Tropical Timber Organization, which is discussed below in subpart VI(A).

34. Braga, *supra* note 25, at 177.

35. *Id.*

36. OFFICE OF TECHNOLOGY ASSESSMENT, TRADE AND ENVIRONMENT: CONFLICTS AND OPPORTUNITIES 43 (1992) [hereinafter OTA].

37. Braga, *supra* note 25, at 177. World Bank studies conclude that 60% of annual tropical deforestation is caused by agricultural settlement, with the remaining 40% split evenly between commercial logging and other uses, such as road construction, urbanization programs, and fuelwood gathering. *Id.* According to U.N. estimates, less than 4% of all timber removed from tropical forests is exported. JOHNSON, *supra* note 7, at 10.

These activities and various other human activities will be considered in the order of their relative contribution to tropical deforestation. Although outlined separately for ease of discussion, it is important to remember that these factors do not exist independently in the real world; they interact within a single dynamic relationship. Thus, while timber extraction itself accounts for a certain amount of forest depletion, it also fosters agricultural use by providing greater access (that is, logging roads) to the forest's interior.

A. *Poverty and Population Growth*

The principal causes underlying tropical forest destruction are extreme poverty and population growth.³⁸ In the last fifty years, the world's population has grown from two billion to five billion, and population experts predict that there will be 7.5 billion people worldwide by 2035.³⁹ The overwhelming majority of this growth is occurring in the developing world, which leads to Malthusian predictions about land and natural resource scarcity.⁴⁰ Likewise, poverty, malnutrition, disease, and early death can be expected to increase exponentially.⁴¹

Excluding China, approximately three billion people currently live in the world's tropics and subtropics, and 750 million of these people live in absolute poverty in the tropics.⁴² Given these figures, tropical forest land is often perceived by governments in the developing world as a "safety valve" for population increases and as a "cushion" against domestic political pressure for land reform.⁴³ Since these governments control seventy-five percent of the world's tropical forests, landless forest colonists in search of empty terrain will probably continue to put the most significant pressure on rain forest preservation efforts.⁴⁴ Moreover, as the world's population continues to rise, migration pressures on the tropical forests can be expected to continue growing massively in the coming decades.⁴⁵

38. JOHNSON, *supra* note 7, at 2.

39. *Id.* at 14.

40. *Id.*

41. *Id.*

42. *Id.*

43. *Id.* at 2.

44. *Id.* at 14.

45. *Id.*

B. Clearance for Agricultural and Cattle Ranching Purposes

"Slash and burn" agricultural techniques and ranching practices are the two leading causes of direct tropical forest destruction.⁴⁶ For example, after loggers and road builders clear trails into a rain forest's vast interior, farmers and cattle ranchers typically clear surrounding forests with chain saws and, more devastatingly, with fire.⁴⁷

The soil in tropical forests possesses few minerals and nutrients. As a result, most tropical forest vegetation feeds and grows on other dying vegetation in an efficient growth-from-decomposition cycle that takes place almost entirely above ground.⁴⁸ After large areas of a tropical forest have been cleared, however, the soil in tropical forests varies from fair to poor quality⁴⁹ and erodes easily.⁵⁰ Because of the soil's increasing infertility after a tropical forest has been cleared, the cattle ranchers' grazing activities and the farmers' food crops generally dwindle or are exhausted after two or three seasons.⁵¹ Once the land is no longer profitable, the cattle ranchers and farmers are forced to move on, and the cleared land remains a virtual wasteland.

C. Wood and Timber Extraction

It is difficult to separate the removal of wood for commercial purposes from the removal of timber for firewood.⁵² A recent U.N. study, conducted by the FAO, found that seventeen percent of all wood removals in this category of wood and timber extraction were for commercial purposes, ranging from the construction of furniture and houses to shipbuilding and joinery.⁵³ The remaining eighty-three percent of wood and timber extraction resulted from domestic firewood collection.⁵⁴ In countries of the South, wood is frequently seen

46. *Id.* at 11.

47. *Id.*

48. Walgren, *supra* note 6, at E3534.

49. JOHNSON, *supra* note 7, at 11.

50. Eshbach, *supra* note 11, at 275.

51. JOHNSON, *supra* note 7, at 11.

52. *Id.* at 10.

53. *Id.* Tropical timber is especially sought after in world markets because of its lack of knots and inexpensive price. MORI NO KOE I, *supra* note 12, at 1; *see also German Wood Manufacturers to Selectively Import Tropical Timber*, GLOBAL ENVTL. CHANGE REP., Mar. 13, 1992, available in LEXIS, Nexis Library, Omni File (noting that tropical wood's special characteristics also include its long life and resistance to rot) [hereinafter *German Wood Manufacturers*].

54. JOHNSON, *supra* note 7, at 10; *see also* WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 15 (1987) (noting that "[m]illions of people in the developing world are short of fuelwood") [hereinafter *OUR COMMON FUTURE*].

as an inexpensive source of energy, needed to fulfill heating and cooking needs.

D. Government Development Programs

Government schemes to promote development are as varied as they are destructive. Although virgin forest land has little economic value for a developing country, once such land is cleared and occupied, it has great political value. Governments recognize that shantytown slums, which have sprung up around many cities as a by-product of rapid industrialization and modernization efforts, represent potential flashpoints of civil unrest.⁵⁵ By opening up "land without people for people without land," it is hoped that resettlement programs will discourage anti-government sentiment by spreading the poor inhabitants out over a greater, more diffuse area. Such government "development" programs will likely continue as long as tropical forests have a greater political value than economic value.

Compounding the problem are more conventional government development programs initiated to encourage the construction of large industrial projects, which include ports, bridges, highways, mines, and dams.⁵⁶ The purpose of these industrial projects is to enhance the country's infrastructure and to provide raw materials or energy for industrial processes located elsewhere.⁵⁷ Such programs not only destroy thousands of hectares of tropical forest directly, but also contribute to the indirect loss of tens of thousands more hectares of tropical forest due to the landless settlers, forest colonizers, and ranchers that soon follow.

E. Exports

Until very recently, the most important misconception about the underlying causes of tropical deforestation was the perception that tropical timber extraction for export was mainly to blame for tropical deforestation.⁵⁸ In fact, timber extraction for export is less responsible for tropical deforestation than are all of the above-outlined activities.⁵⁹ This fact cannot be overlooked in the debate on whether the international trade in tropical timber should be restricted for environ-

55. JOHNSON, *supra* note 7, at 12.

56. *Id.* at 13.

57. *Id.*

58. *Id.* at 9.

59. See *supra* notes 34-56 and accompanying text; accord 1991 O.J. (C 315) 19 (noting that "[t]he volume of tropical timber traded on the international market accounts for only

mental purposes. It sheds light on how relatively insignificant an effect such environmental restrictions in the developed northern countries (North) have on the South's conduct.

For example, according to a recent study prepared by the FAO, developing states produced 1.92 billion square meters of tropical timber in 1989.⁶⁰ Of this area, only eighty million square cubic meters of tropical timber were exported.⁶¹ According to these same FAO statistics, of the eighty million square meters of tropical timber exported, forty percent of the timber went to other developing countries (mostly in Asia), thirty-two percent went to Japan, twenty-four percent went to Europe and other industrialized countries, and four percent went to the United States and Canada.⁶² Because only about one to four percent of all timber removed from tropical forests is exported,⁶³ the World Bank has concluded that "[timber extraction] activities geared to the domestic market . . . are the main players in the deforestation process."⁶⁴

Without more, however, this one to four percent figure is somewhat misleading, for it fails to disclose the relative economic value of tropical timber exports as sources of foreign exchange earnings, especially in Southeast Asia.⁶⁵ In 1992 Indonesia's tropical forests yielded US \$4.2 billion in total revenues, second only to oil and gas in terms of export earnings.⁶⁶ In 1991 Malaysia, the largest exporter of tropical timber in the world, exported more than twenty million cubic meters

a fraction of that felled each year, the rest being either burned to clear land for farming or used locally").

60. *Little Progress Made at Meeting on Managed Logging, Trade in Tropical Timber*, BNA INT'L ENV'T DAILY, Dec. 11, 1992, available in LEXIS, Nexis Library, Bnaied File [hereinafter *Meeting on Managed Logging*].

61. *Id.*

62. *Id.* In contrast, the World Bank's International Trade Division estimated that in 1987 Japan, the EC, China, and the United States imported 28%, 20.1%, 9.2%, and 7.5% of all tropical timber exports, respectively. Varangis, *supra* note 3, at 11.

63. According to another study, the U.N.'s FAO concluded that the removal of tropical trees for export accounts for "no more than 4 percent" of all tropical trees removed. JOHNSON, *supra* note 7, at 10.

64. David Dodwell, *Survey of the Earth Summit: Trade Bans Unlikely to Succeed*, FIN. TIMES, June 2, 1992, at V.

65. Shoeb Kagda, *Urgent Action Needed to Stop Illegal Timber Trade*, BUS. TIMES, Nov. 21, 1992, at 2. Other countries outside of Southeast Asia with high export shares of tropical timber are: Congo (62%), Cote d'Ivoire (57%), Gabon (78%), Ghana (49%), and Liberia (64%). Varangis, *supra* note 3, at 9-10.

66. *Indonesia's Tropical Forests Yield US \$4.2 Billion*, XINHUA GEN. NEWS SERVICE, Jan. 11, 1993, available in LEXIS, Nexis Library, Xinhua File. Approximately 146,000 people in Malaysia (representing about 3% of the Malaysian work force) are employed in forestry. *Malaysia Protests to GATT Over Tropical Timber Labels*, AGENCE FRANCE

of logs, sawnwood, and veneer products worth an estimated US \$1.5 billion.⁶⁷ None of these official figures include revenue derived from the illegal trade in tropical timber, which is worth an additional US \$8 billion worldwide.⁶⁸

IV. ECONOMIC IMPACT OF TROPICAL DEFORESTATION ON THE WORLD TIMBER TRADE

The majority of economists reject projections that the international trade in timber, which includes both softwood and hardwood, will be adversely affected by tropical deforestation.⁶⁹ Even if the tropical forests were to disappear completely, such an event would have little economic effect on the global timber market for two reasons. First, tropical forests account for less than ten percent of the global supply of industrial wood.⁷⁰ While even a ten percent decrease in the global supply of industrial wood would seem sufficient to increase prices, recent studies suggest that world timber prices will be more affected by technological progress—wood-saving technology on the demand side combined with yield-enhancing and “wood-extending” effects on the supply side—than by tropical deforestation-induced scarcities of wood. In real terms, world prices for timber are thus expected to remain stable.⁷¹

Second, compounding the problem is that the economic values placed on hardwood forests in Europe and North America are typically much higher and arguably more accurate than the stumpage values placed on tropical forests.⁷² When compared to temperate and boreal wood, tropical timber is actually undervalued, since the price of

PRESSE [AGENCE FR. PRESSE], Nov. 5, 1992, available in LEXIS, Nexis Library, Asp File [hereinafter *Malaysia Protests*].

67. Kagda, *supra* note 65, at 2.

68. See Suvendrini Kakuchi, *Asia: Illegal Timber Trade Costs Nations Billion-Dollar Losses*, INTER PRESS SERVICE, Dec. 2, 1992, available in LEXIS, Nexis Library, Inpres File (observing that Asian countries are being robbed of billions of dollars due to the illicit timber trade).

69. Braga, *supra* note 25, at 177.

70. *Id.* Industrial roundwood and sawnwood are non-coniferous (non-cone-bearing) timbers, which means they include temperate as well as tropical woods. Industrial roundwood consists of logs and pulpwoods. Teak is an example of a highly prized tropical timber. Varangis, *supra* note 3, at 8-9.

71. Braga, *supra* note 25, at 177. But see *Rising Lumber Prices Hit Housing Industry*, NIKKEI WEEKLY, Feb. 8, 1993, at 9 (observing that “[t]he price of South Sea logs has risen because tougher cutting and export restrictions have been implemented to protect tropical rain forests”).

72. Jon Liden & Murray Hiebert, *Cambodian Assault: Loggers Are Quick To Exploit the Peace*, FAR E. ECON. REV., June 4, 1992, at 64.

tropical logs harvested from these forests does not reflect their true replacement costs or include the environmental costs associated with their wholesale destruction.⁷³

But while tropical deforestation is unlikely to affect significantly world trade in timber, tropical deforestation likely will have an economic effect on the subgroup of tropical timber-exporting states. Deforestation will result in the loss of an important source of export revenue.⁷⁴ In addition, tropical deforestation will increase developing countries' dependence on foreign timber supplies.⁷⁵ On the whole, developing countries are already net importers of forest products such as pulp and paper from the developed countries in the temperate zone.⁷⁶ Moreover, poor forestry management and inefficient timber-processing practices are predicted to increase the developing world's dependence on temperate and softwood (coniferous) timber products in the 1990s.⁷⁷

V. ECOLOGICAL IMPACT OF TROPICAL DEFORESTATION

Although tropical deforestation is unlikely to have a measurable economic impact on the world timber trade, it has a profound impact on the environment, with severe consequences at the local, regional, and global levels.

A. *Local Effect*

Tropical deforestation has a devastating effect on local tropical plant and animal life, which in turn affects the lives of the indigenous people who rely on the rain forests' natural ecosystem for their food, housing, clothing, and medicine.⁷⁸ In a tropical ecosystem, the "above-ground" plant and animal growth-from-decomposition cycle is

73. For a detailed economic analysis in which timber scarcity is measured in terms of the rate of growth of the "stumpage value," see Varangis, *supra* note 3, at 6.

74. In 1990, tropical timber exports as a percentage of total export revenues were highest in the following countries: Central African Republic (31%); Myanmar (Burma) (28%); Cote d'Ivoire (15%); Malaysia (13%); Papua New Guinea (9%); Guinea-Bissau (9%); Gabon (9%); Cameroon (8%); Indonesia (7%); Liberia (7%); and Ghana (7%). *Id.* at 10. One would expect many Least Developed Countries (LDCs) to appear in this list because such countries lack manufactured exports, which generally have more value than do raw materials.

75. JOHNSON, *supra* note 7, at 17.

76. *Id.*

77. *Id.*

78. *Id.* at 19.

so efficient that soil functions largely as an inert platform.⁷⁹ As noted previously, the soil of a tropical rain forest is largely infertile; consequently, when the rain forest is removed, the underlying soil becomes incapable of supporting any significant plant life.⁸⁰ Moreover, when the rain forests are destroyed, indigenous human groups are forced to relocate, a "social cost" that is often ignored by the forest inhabitants' governments who control seventy-five percent of the world's tropical forests.

In addition to its effect on the indigenous population, rain forest destruction alters the local climate and weather patterns.⁸¹ Because the absorptive capacity of the area is reduced, drastic changes in precipitation are direct and immediate.⁸² The result is that rivers that normally rise and fall during the wet and dry seasons are instead likely to flood surrounding areas.⁸³ Dislodged silt from these floods not only raises river beds, but also disturbs fishing and agricultural production.⁸⁴

B. Regional Effect

Similarly, tropical deforestation has a host of downstream consequences for the surrounding region. The effect of flooding and siltation on irrigated agriculture, hydroelectric schemes, transport links, and riverine and coastal fishing, for instance, may be particularly acute for a tropical country's neighbors.⁸⁵

Downstream flooding also results in the erosion of fertile top soil, which in turn leads to regional desertification. In the last twenty years, for example, farmers worldwide have lost an estimated 480 billion tons of topsoil, an area roughly equivalent to the amount covering all of India's cropland.⁸⁶

C. Global Effect

Tropical deforestation has a dual negative effect on the global environment. The first negative consequence is global warming, which

79. *Id.*

80. *Id.* See *supra* notes 48-51 and accompanying text.

81. *Id.*

82. *Id.*

83. *Id.*

84. *Id.*

85. *Id.* at 20.

86. Stewart Hudson, *Trade, Environment and the Pursuit of Sustainable Development*, INTERNATIONAL TRADE AND ENVIRONMENT 55-56 (Patrick Low ed., 1992).

affects the global commons, the climate; the second negative consequence involves the loss of biological diversity, which affects the level of plant and animal life within individual sovereigns.⁸⁷ The differing treatment afforded to the atmosphere and tropical forests under international law makes the solution of these two separate, but related, problems infinitely more complex.⁸⁸

1. *Global Warming*

Almost all human activity either releases or removes greenhouse gases from the atmosphere.⁸⁹ These greenhouse gases contribute to the phenomenon of global warming. For example, conserving tropical forests removes carbon dioxide from the atmosphere, but burning wood for heat and cooking releases it. Given the existing state of scientific knowledge, it is not possible to trace the source of specific carbon dioxide emissions because carbon dioxide, like other greenhouse

87. See Edith Brown Weiss, *International Environmental Law: Contemporary Issues and The Emergence of a New World Order*, 81 GEO. L.J. 675, 706-7 (1993) (observing that "developing countries have control over resources that are important to the industrialized world, just as the industrialized world has always had control over resources needed by the developing world").

88. For one unrealistic and somewhat radical solution to this problem, see Eshbach, *supra* note 11, at 276 (arguing generally that although tropical forests lie within the territory of individual developing states, they are such an important resource that they should be treated as part of the global commons and subject to regulation by the developed world).

89. Greenhouse gases are those gases associated with the "greenhouse effect." The "greenhouse effect" is defined as the sequence of phenomena comprising the absorption of solar radiation by the earth, the conversion and re-emission of this radiation, and the subsequent absorption of this radiation by atmospheric water vapor, carbon dioxide, and ozone, which prevents dissipation of the radiation into space and which results in a gradual rise in atmospheric temperature. THE AMERICAN HERITAGE DICTIONARY 578 (William Morris ed., 1976). Carbon dioxide is the gas primarily associated with the greenhouse effect. Eshbach, *supra* note 11, at 276.

This phenomenon is known as the "greenhouse effect" because, when greenhouse gases are not filtered, they act like "panes of glass, trapping heat near the surface of the earth." Sharon Begley, *Feeling the Heat on the Greenhouse*, NEWSWEEK, May 22, 1989, at 80, quoted in Eshbach, *supra* note 11, at 276. The result is global warming, which is underscored by the fact that global temperatures on average have been rising over the past several years. *Id.* at 276. Experts expect this warming trend to continue, with temperatures rising one to five degrees Celsius by the middle of the next century. *Id.*

With this predicted global warming trend, summers will be much hotter than typically expected. As temperatures rise, polar glaciers will melt, resulting in a dramatic swelling of the sea level. *Id.* at 277. When this happens, coastal areas will flood, homes will be destroyed, and millions of lives may be lost. *Id.* In other areas, droughts will become more common, storms will be more violent, and wind and rainfall patterns will change; such changes will have a devastating net effect on world agriculture and food production. *Id.*

gases, disperses quickly into the global atmosphere. Nevertheless, estimates can be made.

The majority of greenhouse emissions come from the developed North. Industrial activities, such as the burning of fossil fuels for electricity and transportation, account for about seventy-five percent of total emissions.⁹⁰ The United States is undoubtedly the world's largest single contributor to these greenhouse emissions.⁹¹

In contrast, the South's precise contribution of greenhouse gases is in dispute, but by all accounts it is increasing. Current estimates range from twenty-five percent to about thirty percent of total carbon dioxide emissions from energy use.⁹² When the effects of deforestation are factored in, however, some analysts argue that this proportion reaches as high as forty percent.⁹³

Tropical deforestation increases the South's contribution of greenhouse gases because trees, as the primary filters of carbon gases, remove carbon dioxide from the air, thereby reducing the greenhouse effect which is causing global warming. Thus, the destruction of forests by burning not only releases carbon dioxide into the atmosphere, but diminishes an important sink for absorbing carbon dioxide created from other sources.⁹⁴

Admittedly, the North emits the majority of greenhouse gases, yet argues that the developing world's tropical forests must be preserved because they function like gigantic "lungs" that assist in filtering out impurities caused by human activity.⁹⁵ Since the relatively rich northern countries are unwilling to contribute their fair portion of funds for conserving this global benefit, the South at least to date has been largely unwilling or unable to subsidize the North's prolific carbon production. As the constructive debate surrounding this issue breaks down, environmental non-governmental organizations (NGOs) and governments in the developed world exchange accusations of degradation of the global commons with governments in the

90. JOHNSON, *supra* note 7, at 20.

91. *Forests for Future Initiative Projects*, *supra* note 18.

92. Interview with Edith Brown Weiss, Professor of Law, Georgetown University Law Center in Washington, D.C., (Apr. 23, 1993).

93. *Id.* Some analysts estimate that deforestation may be responsible for up to 20% of carbon pollution, which is thought to be a major factor behind global warming. Adam Schwarz, *Trade for Trees: Tariff Reform Will Help Save the Forests*, *FAR E. ECON. REV.*, June 4, 1992, at 60.

94. Eshbach, *supra* note 11, at 276.

95. Schwarz, *supra* note 93, at 60.

South, who in turn label demands that they subsidize their rich northern neighbors as "eco-imperialist."

2. *Loss of Biological Diversity*

Tropical forest areas are the most biologically rich on earth.⁹⁶ Although tropical forests cover a mere thirteen percent of the earth's surface,⁹⁷ they contain sixty percent of the world's plant species and most of its animal life.⁹⁸ But deforestation is currently causing more species of animals and plants to become extinct than at any other time since the Cretaceous era, which occurred approximately 135 million years ago.⁹⁹ The result is that many species are becoming extinct before they can even be identified, let alone analyzed.¹⁰⁰

Aside from their importance as a global "storehouse" of genetic diversity,¹⁰¹ tropical forests also contain many potential "miracle drugs" that may lead to important discoveries in the fields of cancer and AIDS research.¹⁰² The 1992 U.N. Earth Summit, held in Rio de Janeiro, attempted to capitalize on the growing awareness of tropical forests as an important source of biological diversity, but, unfortunately, had little success.¹⁰³

96. Sharon Begley, *Research Amid the Camellias*, NEWSWEEK, May 15, 1989, at 59.

97. Segio Gaete, *Environment: Ecologists Accuse IOTW of Promoting Deforestation*, INTER PRESS SERVICE, Jan. 28, 1993, available in LEXIS, Nexis Library, Inpres File.

98. Begley, *supra* note 96, at 59; see also Schwarz, *supra* note 93, at 60.

99. Scientists roughly estimate that species are being destroyed at the rate of 27,000 a year, which amounts to 74 species per day or 3 species per hour. David Walton, *Bountiful and Endangered*, ST. PETERSBURG TIMES, Jan. 24, 1993, at 6D.

100. Heffa Schucking & Patrick Anderson, *Voices Unheard and Unheeded*, in BIODIVERSITY: SOCIAL AND ECOLOGICAL PERSPECTIVES 15 (Vandana Shiva et al. eds., 1991). It is estimated that less than 5% of the rainforest's total plant and animal biological diversity is known to science. *Id.*

101. Schwarz, *supra* note 93, at 60.

102. Begley, *supra* note 96, at 58. For instance, in Amazonia's tropical forests, experiments on several "plants have resulted in two new anti-convulsive drugs, several anesthetics, and an anti-depressant that could be used for treating patients with Parkinson's Disease." Eshbach, *supra* note 11, at 277.

103. Convention on Biological Diversity, June 5, 1992, 31 I.L.M. 818. The U.S. did not sign this international agreement. *Forests for Future Initiative Projects*, *supra* note 18. Instead, President Bush proposed his alternative Forests for the Future Initiative. *Id.*

For some countries, any efforts to prevent tropical deforestation are too little and too late. For example, Thailand's tropical forests are now so depleted that it has now been forced to import timber from surrounding countries like Myanmar (Burma), Cambodia, and Laos. Schwarz, *supra* note 93, at 60.

VI. MULTILATERAL EFFORTS TO REGULATE THE TROPICAL TIMBER TRADE

Because of the severe ecological implications associated with tropical deforestation, multilateral efforts to regulate the tropical timber trade are not new. However, in recent years, there has been an increasing demand to apply the theory of sustainable development¹⁰⁴ to the way in which all forests—primarily those found in the tropics—are harvested.¹⁰⁵ The origins of these multilateral efforts can be found within meetings of the U.N. and the Group of Seven (G-7), but the International Tropical Timber Agreement (ITTA) represents the single most important multilateral effort to date. Thus, it will be examined in detail.

A. *The International Tropical Timber Agreement*

The ITTA was the first international commodity agreement that specifically included provisions for the protection of the environment.¹⁰⁶ Because the ITTA is a unique hybrid agreement—part commodity and part international environmental agreement—it is a worthwhile endeavor to understand something of its purpose and history.¹⁰⁷

1. *Purpose and History*

In 1977 the Japanese originally tabled a resolution on timber at the United Nations Conference on Trade and Development (UNCTAD).¹⁰⁸ Although the Japanese imagined a commodity agree-

104. The phrase "sustainable development" refers to the means by which development is made to fulfill "the needs of the present without compromising the ability of future generations to meet their own needs." OUR COMMON FUTURE, *supra* note 54, at 8.

105. See, e.g., United Nations Conference on Environment and Development: Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, June 13, 1992, A/CONF.151/6/Rev.1, 31 I.L.M. 881, 882 ("[t]hese principles should apply to all types of forests . . . in all geographic regions and climatic zones") [hereinafter *Forest Principles*].

106. Ursula Wassermann, *UNCTAD: International Tropical Timber Agreement*, 18 J. WORLD TRADE L. 89, 89 (1984).

107. Some argue that the ITTA is a trade agreement rather than an international environmental treaty. Compare *Tropical Timber; Spare that Tree*, ECONOMIST, Nov. 14, 1992, at 40 ("The ITTA . . . is a trade agreement . . .") with 1991 O.J. (C 199) 16 (noting that the EC Commission labels the ITTA a unique commodity agreement that specifically incorporates environmental objectives).

108. Marcus Colchester, *The International Tropical Timber Organization: Kill or Cure for the Rainforests?*, 4 TRANSNAT'L ASS'NS 226 (1991). Previously, in its resolution 93 (IV) of May 30, 1976, UNCTAD requested its Secretary-General to convene preparatory meet-

ment of the sort that governed the international trade in jute and rubber, what resulted was much different.¹⁰⁹ Whereas the jute and rubber commodity agreements confined themselves strictly to trade issues, it soon became clear in the negotiations that timber, which is traded internationally and comes from a variety of sources from different regions of the world's forests, could not be treated as a single, well-defined commodity.

Although the UNCTAD negotiations were initially intended to cover both temperate and tropical timber, temperate timber was eventually excluded from the negotiations' terms of reference, surprisingly at the insistence of the developing world.¹¹⁰ As a result, the negotiations' emphasis shifted to the international tropical timber trade, and the negotiations grew in both size and complexity. To the typical host of civil servants who usually participate in trade negotiations were added foresters who could elaborate on the technical aspects of the industry.

As the negotiations became more narrowly focused, an environmental policy and advocacy group, the International Institute for Environment and Development (IIED), became involved. One author has succinctly observed that the IIED forcefully argued its case that any resulting commodity agreement could not limit itself merely to the technical and commercial aspects of timber extraction and trade, but also had to provide for the other crucial ecological and genetic services supplied by forests.¹¹¹ Because of intense pressure imposed by domestic environmental groups, the industrialized countries, in particular, could no longer afford to ignore the IIED's arguments. In late 1983, after six years of multilateral negotiation, the ITTA was finally signed by the individual members of the International Tropical Timber Organization (ITTO).

ings for international negotiations on individual commodity products. *Register of International Treaties and Other Agreements in the Field of the Environment*, U.N. Environment Programme, 1989 Y.B. INT'L ENVTL. L. 498, U.N. Doc. UNEP/GC.15/Inf.2. This effort was known as the "Integrated Programme for Commodities," and the negotiations concerning tropical timber took place under its aegis. *Id.*

109. Colchester, *supra* note 108, at 226.

110. *Tropical Forestry Meeting Opens: Environmentalists Urge Stricter Curbs*, BNA INT'L ENV'T DAILY, Dec. 2, 1992, available in LEXIS, Nexis Library, Bnaied File [hereinafter *Tropical Forestry Meeting*]. Some tropical timber-exporting countries, such as Indonesia, apparently feel that including temperate woods in the ITTA will reduce the importance of the international trade in tropical timber. *Malaysia, Indonesia to Push for Expansion of Timber Pact*, AGENCE FR. PRESSE, Dec. 3, 1992, available in LEXIS, Nexis Library, Afp File.

111. Colchester, *supra* note 108, at 226-7.

But before any commodity agreement with environmental provisions could be signed, another point of dispute had to be settled. The national governments participating in the negotiations were primarily concerned with how power under the new international agreement would be divided. The resulting voting system clearly reveals where the parties think the relevant trade and environmental priorities are located.

Under the ITTA's complicated formula, votes are divided equally between consumers in the developed world and exporters of tropical wood in the developing world.¹¹² Consumer states are then apportioned a certain number of votes based on their consumption of tropical timber, which apparently also determines the size of their funding obligations.¹¹³ Japan, which imports roughly sixty percent of its timber requirements, has the most votes of any consumer country because it is the largest importer of tropical timber. In comparison to Japan's high consumption rate of 45.7 percent of total tropical timber exports, the respective consumption rates of the United States (9.7 percent), South Korea (7.9 percent), and France (6.4 percent) seem insignificant.¹¹⁴ These countries thus have a limited ability to influence ITTA policy via voting.

Similarly, producers of tropical timber receive weighted votes based on the amount of timber they export.¹¹⁵ On the producer side, this means that Malaysia, which exports 42.1 percent of all tropical timber, has the most votes, followed by Indonesia (exporting 19.5 percent of all tropical timber), and the Philippines (exporting 8.2 percent of all tropical timber).¹¹⁶ By way of contrast, a country's actual area of tropical forests is given only secondary importance.

The net result of this weighted voting system is that "*the more a country contributes to the destruction of tropical forests, the more votes with which it is rewarded.*"¹¹⁷ The ITTA's voting structure thereby ensures that the goal of promoting the international trade in tropical timber outweighs its secondary conservation role. Viewed from this perspective, the ITTO-created voting system can be seen as a serious

112. As noted in subpart II(C), the number of net tropical timber-exporters is expected to fall dramatically during the 1990s, from thirty-three to less than ten by the end of this century. In the coming years it will be interesting to see what impact, if any, declining exports will have on the ITTA's existing voting structure.

113. Colchester, *supra* note 108, at 227.

114. *Tropical Forestry Meeting*, *supra* note 110.

115. Colchester, *supra* note 108, at 227.

116. *Tropical Forestry Meeting*, *supra* note 110.

117. Colchester, *supra* note 108, at 227.

structural impediment to promoting sustainable timber harvesting at the multilateral level.

2. *Structure and Function*

The ITTA is governed by the International Tropical Timber Council (ITTC). The ITTC consists of fifty states, including twenty-three timber-producing countries¹¹⁸ and twenty-seven timber-consuming countries.¹¹⁹ In the ITTA articles, the ITTC was delegated the contradictory duties of "promoting the trade in tropical timber," while simultaneously "encouraging the sustainable use and conservation of tropical forests and their genetic resources, and of maintaining [their] ecological balance."¹²⁰ As noted above, the ITTA's voting structure ensures that the ITTC's former goal will almost always trump the latter one.

Even though the ITTA was signed in November 1983, it did not enter into force until April 1, 1985.¹²¹ During this two and a half year waiting period, a second battle erupted concerning where the ITTC's secretariat position would be located and who would be its executive director. In the resulting compromise, it was decided that the ITTC secretariat would be located in Yokohama, Japan and that the executive director post would go to a Malaysian.¹²² Given the voting arrangements, this result is hardly surprising.

With its structural and functional roles finally resolved, in 1986 the ITTC finally began getting down to its work of promoting the sustainable logging of tropical timber. In the ensuing years, the ITTC met periodically in a series of meetings, similar to "rounds" within the GATT.

118. According to the ITTC, its twenty-three producing member states, which are located in Africa, Asia, and Latin America, together control 80% of the world's tropical forest area. *Tropical Forestry Meeting*, *supra* note 110.

119. *Expansion of Timber Agreement May Be Unwieldy: ITTO Chief*, AGENCE FR. PRESSE, Dec. 7, 1992, available in LEXIS, Nexis Library, Afp File. The twenty-seven consuming countries of the ITTC, located in North America, Europe, Asia, and Oceania, account for more than 95% of the global trade in tropical timber products. *Tropical Forestry Meeting*, *supra* note 110.

120. Colchester, *supra* note 108, at 227.

121. *Id.*

122. *Id.*

3. 1990 Bali Meeting and Target 2000

During its 1990 annual meeting in Bali, the ITTC announced "Target 2000,"¹²³ the year by which all tropical timber is to be derived from sustainable logging practices.¹²⁴ The problem is that there is no single definition of what constitutes sustainable logging of tropical timber.¹²⁵ So-called "deep" ecologists argue that there is no such thing as sustainable timber extraction, while tropical exporting countries counter that they are already practicing sustainable logging.¹²⁶ To date, the ITTC has not agreed on any single definition of what constitutes "sustainable management and use of tropical rainforests."¹²⁷ The absence of a working definition of sustainable logging further contributes to the ITTC's perceived weakness.

4. 1993 Quito Meeting

In January 1993, the ITTC met in Quito, Ecuador to define and coordinate programs for the sustainable use of tropical forests and to discuss renegotiation of the ITTA, which will expire in March of 1994.¹²⁸

More significantly, a group of tropical timber-exporting countries, led by Malaysia and Indonesia, also proposed amending the ITTA in order to expand its mandate to all of the world's forests, not just those located in the tropics.¹²⁹ The proposal was summarily rejected by the ITTC's consumer nations, led by the United States and Canada. As one delegate put it, the tropical timber-importing countries "are only interested in buying tropical woods at low prices and are not willing to include their temperate woods in the agreements."¹³⁰

123. *Tropical Forestry Meeting*, *supra* note 110.

124. *German Wood Manufacturers*, *supra* note 53.

125. *Netherlands: Dutch in Malaysian Rain Forest Study*, FINANCIELE DAGBLAD, Oct. 17, 1992, available in LEXIS, World Library, Txtlne File.

126. See, e.g., *Malaysia Protests*, *supra* note 66 (noting that Malaysia denies allegations of indiscriminate logging, countering that it practices sustainable forest management).

127. *Meeting on Managed Logging*, *supra* note 60. According to one estimate, only 1% of tropical forests are managed sustainably today. See *Tropical Timber; Spare That Tree*, *supra* note 107, at 40.

128. Gaete, *supra* note 97.

129. *Id.*; see also Bronwen Maddox, *Catch-all Forestry Rules Urged*, FIN. TIMES, Jan. 27, 1993, at 28.

130. Gaete, *supra* note 97.

B. Criticism of the ITTC Levied by Non-Governmental Organizations

NGOs initially favored the ITTA because they thought it would lead shortly to sustainable harvesting of tropical timber. However, NGOs have grown frustrated as the years pass and the world's forests continue to be destroyed.¹³¹ In particular, they charge that the ITTC can never be truly effective so long as Japan controls its annual budget and has the greatest total number (thirty-three percent) of ITTC votes.¹³²

NGOs also feel that the ITTC's deliberations, like those of the GATT panels, must become more transparent and less secretive. These NGOs, however, fail to remain cognizant of one important fact: Multilateral negotiation is typically slow, but usually fairer than unilateral action.

C. Multilateralism or Unilateralism?

Multilateral negotiations involve attempts to build a global or regional consensus on issues that adversely impact one or more of the participating countries' interests. The rate of progress is often tortuous at best, and nowhere is this fact more evident than in disputes between the North and South. Global warming and tropical deforestation have been particularly thorny issues with which the international community continues to grapple.

Within this context fits the snail-like progress made between tropical timber importers and exporters. This slow, albeit steady, progress wears upon the patience of all parties involved, as can easily be imagined. But while international consensus-building is admittedly a cumbersome and inefficient process, it is equally true that it is far more democratic than the unilateral imposition of trade sanctions acceptable to the stronger of the two negotiating parties, which in this particular dispute would be the industrialized North.

As the Austrian example in the next section will illustrate, a growing number of tropical timber-importing states in the developed world have grown frustrated by the slow rate of progress in achieving global consensus on the environment. Because developed countries are more economically powerful and in a superior position to impose

131. *New International Group Will Conduct Scientific Rain Forest Research*, BNA INT'L ENV'T DAILY, Jan. 15, 1992, available in LEXIS, Nexis Library, Bnaied File.

132. In fiscal 1992, for example, Japan contributed more than US \$10 million, or 35% of the ITTO's operating budget. *Meeting on Managed Logging*, *supra* note 60.

their will upon the world trading community, they have argued that they should decide unilaterally what constitutes sustainable use of forest resources located outside of their own territories. These countries feel—perhaps justifiably so—that there will be little, if any, tropical forest left in the world by the time the international community reaches a consensus on the specific actions to be taken to prevent continued deforestation from occurring.

With the GATT in mind, it is also important to point out that valid environmental policy interests must be ever vigilant against capture by domestic protectionist sentiment, which leads to unjustifiable discrimination against developing countries.¹³³ To allow protectionist sentiment to dominate leads to valid environmental concerns being frustrated, detrimental trade wars erupting, and well-supported cries of “eco-imperialism” being invoked by Third World nations, who merely seek to improve the living standards of their burgeoning populations via development programs already utilized in the developed world.¹³⁴

Like all deforestation, tropical deforestation is a serious problem, but “might does not make right” and this problem could best be resolved at the international level, either under the auspices of the United Nations or within the framework of the U.N.-affiliated conference of timber-trading nations, the ITTO.¹³⁵

In fact, unilateral restrictions on the importation of tropical timber products actually have an adverse effect on global trade liberalization efforts without solving the problem of global warming. Instead, unilateral efforts by countries such as Austria are illegal under the GATT because they constitute a form of arbitrary and unjustifiable discrimination—singling out the relatively minor role tropical deforestation plays in the larger problem of global warming. On the other hand, the most significant cause of global warming—the burning of non-renewable fossil fuels in the developed world—is ignored precisely by those who should be held most responsible.

Against this backdrop, Austria’s recent attempt to restrict the international trade in tropical timber products is worth scrutinizing, as it represents the most recent example of what undoubtedly will be a

133. See *Environment Concerns Must Not Be Kidnapped by Protectionists, Says Arthur Dunkel*, GATT PRESS COMMUNIQUÉ RELEASE DE PRESSE (GATT/1530), Feb. 11, 1992.

134. The majority of the world’s population lives in the developing world; thus, the pressure to industrialize is unlikely to ebb anytime soon.

135. *Certification System Would Classify Tropical-Timber Goods*, NIKKEI WEEKLY, Dec. 28, 1992, at 3 [hereinafter *Certification System*].

growing trend in dealing with the multilateral problem on a unilateral basis. The Austrian experience represents the latest, but by no means the last, example of a developed country that tried to "do the right thing," but in the wrong way. The following proverb with a modern day twist could be said to apply: The road to sustainable development is littered with good intentions—good intentions that are contrary to GATT, as well as environmentally counterproductive.

VII. THE AUSTRIAN CASE: A COUNTERPRODUCTIVE EXERCISE IN UNILATERALISM

In early 1993, commenting on Austria's confrontation with the member states of the Association of Southeast Asian Nations (ASEAN),¹³⁶ the *Economist* magazine observed that the next hot international business issue would likely concern the "trade in tropical timber."¹³⁷ With the regularity of the vernal equinox, unilateral restrictions on tropical timber imports will continue to appear on the world's political landscape during the 1990s.

A. *Origins of the Dispute*

The dispute originally broke out in June 1992 when Austria's Parliament introduced new legislation concerning tropical timber imports.¹³⁸ Like other countries in the developed world considering similar restrictions, Austria's purported purpose in enacting this legislation was to promote the sustainable use of tropical forests located in the developing world.¹³⁹ The new legislation was also the result of domestic pressure from environmental groups concerned with tropical deforestation's contribution to global warming.¹⁴⁰ Significantly, the Austrian Parliament placed no corresponding sustainability restrictions on temperate timber extraction methods nor on the burning of

136. The contracting parties of ASEAN include Indonesia, Malaysia, the Philippines, Singapore, and Thailand. *ASEAN Criticizes Austrian Labelling Measures on Tropical Timber*, 95 GATT FOCUS NEWSLETTER (General Agreement on Tariffs and Trade, Geneva, Switz.), Nov.-Dec. 1992, at 4 [hereinafter *ASEAN Criticizes Austrian Labelling Measures*].

137. *Trade in Tropical Timber: For the Chop*, *ECONOMIST*, Jan. 30, 1993, at 61 [hereinafter *Trade in Tropical Timber*].

138. *ASEAN Urged to Take Common Stand on Ecolabelling*, *STRAITS TIMES* (Malaysia), Oct. 3, 1992, available in LEXIS, Nexis Library, Strait File.

139. Austria's purpose is "purported" because of potential "de facto" discrimination against tropical timber importers. John H. Jackson, *World Trade Rules and Environmental Policies: Congruence or Conflict?*, 49 WASH. & LEE L. REV. 1227, 1236-37 (1992).

140. *ASEAN Criticizes Austrian Labelling Measures*, *supra* note 136, at 2.

fossil fuels, which is the most important source of global warming gases.

B. Austria's Restrictions on Tropical Timber

The Austrian legislation as initially proposed consisted of two parts: an import tax and a mandatory labeling law. Both parts contemplated extraterritorial enforcement and were to go into effect on September 1, 1992.¹⁴¹

1. The Import Tax

Under the first prong of Austria's rain forest legislation, the Economic Affairs Ministry was to increase the import tax on all products made from or containing tropical wood from eight percent to a whopping seventy percent.¹⁴² The revenue from this "eco-tariff," estimated at US \$18.2 million,¹⁴³ would then be donated to international environmental projects that promote sustainable harvesting of tropical forests.¹⁴⁴ As noted previously, there is to date no international consensus concerning what constitutes sustainable logging. While this fact is not dispositive, it does make any unilateral decision on what constitutes sustainable use of tropical forests somewhat arbitrary, especially given that the decision is imposed on others by a government that does not have any such forests located within its own jurisdiction.

2. The Mandatory Labeling Law

The second, slightly less polemical prong of the Austrian legislation concerned a selective import certification system combined with a mandatory labeling law.¹⁴⁵ Under the so-called "eco-labeling" law, the first law of its kind, the Austrian Parliament mandated that all tropical wood imports be labeled with tags reading "Made from Tropical Wood" or "Contains Tropical Wood."¹⁴⁶ Similarly, the import cer-

141. *Id.*

142. *Austrian Industry, Malaysians Angered Over Tropical Wood Labeling Requirement*, BNA INT'L ENV'T DAILY, Nov. 16, 1992, available in LEXIS, Nexis Library, Bnaied File [hereinafter *Austrian Industry*].

143. Michael Lindemann, *Parliament Votes to Scrap World-First Tropical Wood Taxes*, UPI, Dec. 4, 1992, available in LEXIS, Nexis Library, UPI File.

144. *International Trade, Reilly Says GATT Needs "Greening" After End of Uruguay Round Negotiations*, BNA DAILY REP. FOR EXECUTIVES, Nov. 16, 1992, available in LEXIS, Legis Library, Drexec File.

145. Austria is the first country ever to introduce a so-called "eco-labeling" law concerning tropical timber. *Austrian Industry*, *supra* note 142.

146. Lindemann, *supra* note 143.

tification system was to distinguish between products made from tropical timber that was harvested in a sustainable fashion and that which was not.¹⁴⁷ Under the legislation, the Austrian authorities were to determine which forestry practices constituted sustainable logging and to decide which tropical timber-exporting countries complied with their definition of sustainable logging practices.¹⁴⁸

C. *The ASEAN Response*

Charging unfair discrimination and citing eco-labeling as a non-tariff barrier (NTB) to trade, ASEAN's member states quickly mounted their own aggressive counter-campaign of "objective information" on tropical timber extraction.¹⁴⁹ Malaysia, in particular, feared that it was only a matter of time before other EC members would be prompted by domestic ecological movements to enact similar legislation. Thus, Malaysia quickly asked its neighbors to join it in retaliating "tit for tat" with trade sanctions against Austrian imports to Southeast Asia.¹⁵⁰

In tandem with this threat of retaliation, Malaysian officials also lodged a formal protest with the GATT's Committee on Technical Barriers to Trade, alleging unfair discrimination.¹⁵¹ In its protest, the Malaysian government charged that Austria was attempting to decide unilaterally what constituted "sustainably managed forests when there is still no international consensus."¹⁵² Moreover, Malaysia was quick to point out that Austria could have an ulterior motive for placing

147. Timber logged by sustainable forest management techniques is to be rewarded with an additional certification that states: "This timber was cut from an area of the forest where limited logging does not invite deforestation." *Certification System*, *supra* note 135, at 3.

148. *ASEAN Criticizes Austrian Labelling Measures*, *supra* note 136, at 2.

149. *ASEAN to Combat West's Anti-Tropical Wood Policy*, AGENCE FR. PRESSE, Oct. 12, 1992, available in LEXIS, Nexis Library, Afp File. Even in the aftermath of the Austro-ASEAN dispute, Malaysia has continued to lead the counterattack against the anti-tropical timber campaign in the industrialized countries. *Malaysia Steps Up Counter Campaign*, in MORI NO KOE I, *supra* note 12, at 7. In December 1991 Malaysian Primary Industries Minister Dr. Lim Keng Yaik announced that the Malaysian government would allocate approximately ten million Malaysian dollars (approximately US \$4 million) towards these efforts. *Id.*

150. *Malaysia Threatens Trade Ban on Austria Over Wood Products*, UPI, Oct. 27, 1992, available in LEXIS, Nexis Library, UPI File.

151. *Malaysia Protests*, *supra* note 66. At the GATT, Argentina, Australia, Bolivia, Brazil, Canada, Chile, Colombia, Cote d'Ivoire, Hong Kong, India, Japan, Mexico, Pakistan, Peru, and South Korea all said they shared the ASEAN concerns. *ASEAN Criticizes Austrian Labelling Measures*, *supra* note 136, at 2. The European Community, in contrast, stressed that "eco-labeling" requirements are not *per se* GATT prohibited. *Id.*

152. *Malaysia Protests*, *supra* note 66.

unilateral restrictions on the international trade in tropical timber, since it produces twelve million cubic meters of temperate timber products annually.¹⁵³ Hence, while Austria's regulations appeared "on their face" to be non-discriminatory, in practice they represented a form of "de facto" discrimination because they did not apply to the "like temperate timber products" of foreign or domestic producers.¹⁵⁴ An analysis of the Austrian furniture industry underscored this claim of discrimination.¹⁵⁵

An official in the Austrian Environmental Ministry denied discriminatory intent, countering that the Austrian import restrictions did not "apply to Malaysia or Indonesia only but to every country, including Austria."¹⁵⁶ This comment is somewhat disingenuous given that Austria, unlike Malaysia and Indonesia, does not have any tropical forests.¹⁵⁷ Still, Austria's response to Malaysia's accusations raises a troublesome wrinkle in the GATT, which recognizes some import restrictions designed to preserve animal and plant life provided that they are non-discriminatory. In some sense, a rain forest-free country such as Austria will always discriminate against those tropical countries that do possess rain forests. This will make it difficult to meet the GATT's General Exceptions requirements of article XX.¹⁵⁸ This issue will be discussed at greater length in Section IX.

153. *Id.*

154. Jackson, *supra* note 139, at 1236-37.

155. The furniture industry provides an example of what Professor John H. Jackson has termed "de jure" discrimination, since 90% of the furniture imported into Austria is made from temperate rather than tropical wood. *EC Eco-Label Program Raises Concerns for Brazilian Business, Government Officials*, BNA INT'L ENV'T DAILY, Feb. 3, 1993, available in LEXIS, Nexis Library, Bnaied File [hereinafter *EC Eco-Label Program*]. Although Austria has chosen to allow only tropical wood imports derived from sustainable forestry practices, the majority of the temperate wood products that it imports are not harvested in a sustainable manner. *Id.* Nevertheless, no similar import restrictions apply to temperate wood furniture, making Austria's actions inconsistent as well as discriminatory. *Id.*

156. *Austrian Industry*, *supra* note 142.

157. The Austrian official's comment from the Environmental Ministry seems all the more absurd as even the Ministry of Economic Affairs conceded that its import tax would result in economic losses for the tropical timber exporting countries. *Id.*

158. Under the General Exceptions to the GATT, article XX(g) requires that any measure adopted by a contracting party must be "made effective in conjunction with restrictions on domestic production or consumption." The problem is, however, what should the GATT's reaction be when there is no corresponding domestic production of tropical timber products or consumption to restrict? For a more detailed discussion of this thorny issue, see Steve Charnovitz, *Exploring the Environmental Exceptions in GATT Article XX*, 25 J. WORLD TRADE, 37, 51 (1991).

D. *Repeal of the Import Tax*

While Austria's import tax was very popular domestically¹⁵⁹ and encouraged similar "innovative" initiatives in the United States, Belgium, and the European Parliament, it was almost certain that if such a "penal tariff" was ever challenged, the tariff would be rejected in the GATT.¹⁶⁰ The GATT implications of such measures will be examined in subpart IX(A), but apparently the Austrian Parliament concluded that its own actions were unnecessary and a form of unjustifiable discrimination, for it shortly decided to scrap the import tax measure in early December 1992.¹⁶¹ A cabinet level minister in the Austrian government conceded that while "Austria can play a role in multilateral negotiations . . . [,] it cannot be the only actor."¹⁶²

A Greenpeace environmentalist, in a blast of angry rhetoric, retorted that the Austrian government's actions were nothing more than a "cowardly climbdown in the face of threats of a few elitist government representatives from Southeast Asia who have no mandate from the affected populations."¹⁶³ Austrian companies, on the other hand, were generally supportive of the move, since they feared retaliatory trade measures would be imposed on them by ASEAN member states.¹⁶⁴

E. *The Austro-Malaysian Compromise*

It remains unknown what the GATT's formal response to the Austro-ASEAN tropical timber complaint would have been because the controversy was defused in December 1992. In return for Aus-

159. Eighty Austrian mayors supported the higher import tax on tropical timber, and ten thousand people wrote to express their support for the tax measure. Lindemann, *supra* note 143.

160. *Trade in Tropical Timber*, *supra* note 137, at 61.

161. Lindemann, *supra* note 143.

162. *Parliament Rescinds Tropical Wood Tax, Maintains Product Eco-Label Requirement*, BNA INT'L ENV'T DAILY, Jan. 19, 1993, available in LEXIS, Nexis Library, Bnaied File (quoting Austrian Economic Affairs Minister Wolfgang Schuessel) [hereinafter *Parliament Rescinds Tropical Wood Tax*].

163. Lindemann, *supra* note 143. The decision to rescind the June resolution was also criticized by the Greens, the Liberal Party, and various other political parties in Austria. *Parliament Rescinds Tropical Wood Tax*, *supra* note 162.

164. *Austrian Industry*, *supra* note 142. In 1991, Austrian exports to Malaysia were worth US \$84.6 million, and Malaysian imports to Austria were valued at US \$93 million. Lindemann, *supra* note 143. Austria's Economic Affairs Minister, Wolfgang Schuessel, also worried that contracts worth an estimated US \$1.8 billion over the next few years would be placed in jeopardy if sanctions were imposed. *Parliament Rescinds Tropical Wood Tax*, *supra* note 162.

tria's rescinding the import tax, Malaysia agreed to withdraw its complaint before the GATT. Tensions were further reduced, and Austria promised to form a joint committee to study the import-certification initiative in greater detail. During the interim, the "eco-labeling" law on tropical wood products remains in effect.¹⁶⁵

The debate surrounding tropical timber and trade does not end with the cessation of hostilities between Austria and Malaysia, however, since the United States, Japan, and other Organization for Economic Co-operation and Development (OECD) countries are calling for additional limits or bans on tropical timber from countries that are deemed to have unsustainable forest policies.¹⁶⁶ The GATT legality of these proposed measures is thus worth examining.

VIII. THE LEGALITY OF VARIOUS UNILATERAL MEASURES DESIGNED TO RESTRICT THE INTERNATIONAL TROPICAL TIMBER TRADE

Unilateral attempts to restrict the international tropical timber trade come from tropical timber-exporting states in the South as well as tropical timber-importing states in the North. The particular trade restrictions take many forms that impose light or heavy burdens on global trade. In order to analyze their legality under the GATT, these unilateral efforts to restrict the international tropical timber trade will be grouped into three categories: (1) export bans and quantitative restrictions; (2) import bans, boycotts, and tariffs; and (3) eco-labeling and certification programs.

A. Export Bans and Quantitative Restrictions

On the timber-exporting side, unilateral restrictions to restrict the international tropical timber trade include export bans and quantitative restrictions, which are sometimes referred to as "quotas." Producing states also frequently impose customs duties and export taxes.

A primary purpose of such policies is to stimulate value-added processing at the local level, thereby increasing foreign exchange earnings, while simultaneously reducing the log content of timber product exports.¹⁶⁷ It is also believed that limiting or banning the ex-

165. *Parliament Rescinds Tropical Wood Tax*, *supra* note 162.

166. The Netherlands are preparing to introduce their own import certification programs for tropical timber. Germany is studying import certification programs. *Certification System*, *supra* note 135, at 3.

167. Varangis, *supra* note 3, at 12.

port of unprocessed or semiprocessed logs will buttress conservation policies, but this claim is of dubious merit.¹⁶⁸ Notable examples where such restrictive policies have been employed include most Latin America countries, the state of British Columbia in Canada, the state of Washington in the United States, and most Southeast Asian countries, including Indonesia, Myanmar (Burma), the Philippines, Malaysia, Thailand, and Cambodia.¹⁶⁹

Despite these purposes, the export bans and quantitative restrictions on tropical timber trade that are imposed by tropical timber-exporting states are unlikely to be found consistent with the states' obligations under GATT articles III:1 and XI:1.¹⁷⁰

Article III:1 precludes "internal quantitative regulations" from being applied to domestic products "so as to afford protection to domestic industry."¹⁷¹ Quantitative restrictions on international tropical timber trade do not comply with the provisions of article III because tropical timber-exporting states do not place corresponding limitations on domestic consumption of their forests, which means that export restrictions favor domestic processing of tropical timber products.¹⁷² Similarly, export bans violate the terms of article XI:1, which provides that contracting parties shall not institute or maintain prohibitions on the exportation of any product destined for the territory of any other member.¹⁷³ Because export bans and quantitative restrictions are otherwise prohibited by the GATT, tropical timber-exporting countries may only justify the use of such restrictions if they satisfy one of the general exceptions to GATT article XX.¹⁷⁴

According to article XX(g) of the GATT, export bans or quantitative restrictions can be introduced to conserve natural resources *only* if domestic consumption of the resource is simultaneously reduced.¹⁷⁵ The theory behind this requirement is that only a contracting party prepared to make its own economic sacrifices may

168. Similar bans on the export of unprocessed logs have been imposed by many states in the Pacific Northwest. *Id.*

169. *Id.*

170. GATT, *supra* note 4, arts. III:1, XI:1, 55 U.N.T.S. at 204, 224.

171. *Id.* art. III:1, 55 U.N.T.S. at 204.

172. Jeffrey R. Vincent, *The Tropical Timber Trade and Sustainable Development*, SCIENCE, June 19, 1992, at 1654.

173. GATT, *supra* note 4, art. XI:1, 55 U.N.T.S. at 224.

174. *Id.* art. XX, 55 U.N.T.S. at 262.

175. Similarly, a GATT article XX(b) measure would not be "necessary" to protect plant life unless domestic restrictions corresponding to those on exports were imposed. For a discussion of "necessary," see *infra* subpart VIII(B).

restrict the exploitation of its natural resources in the world market.¹⁷⁶ Such a constraint is readily understandable from the perspective of a disciple of free trade, but not as quickly from the standpoint of an ecologist.

Ecologists would support export restrictions if they thought that total consumption of the resource would decline as a result. The problem is that in the context of tropical forests, trade restraints of this sort are environmentally counterproductive because they actually encourage increased consumption patterns.

To elaborate, economists have in recent years disputed the efficacy of increasing value-added processing by limiting or banning timber exports. They question whether the benefits of such policies are great enough to offset the costs involved. Studies conducted in Malaysia and Indonesia during the 1980s, for example, indicate that the costs of export restrictions have exceeded the associated benefits.¹⁷⁷ The various studies all cite the systematic undervaluation of raw or unprocessed logs in reaching this conclusion, since log export bans have the effect of depressing domestic log prices when compared with international prices.¹⁷⁸ The relatively lower level of local prices has a twofold effect. First, it encourages the wasteful use of logs in local processing¹⁷⁹ and, second, it further contributes to the already high rate of domestic consumption.¹⁸⁰ The net result of these export restrictions is greater exploitation of the tropical forests.

Compounding the problem of export restrictions on tropical timber is recent GATT-panel practice. In the U.S.-Canada Herring and Salmon dispute, for example, a GATT panel examined an analogous export restriction, finding that it was prohibited.¹⁸¹ The panel empha-

176. Margareta E. Kulesa, *Free Trade and Protection of the Environment: Is the GATT in Need of Reform?*, 27 *INTERECONOMICS* 165, 171 (1992).

177. See Vincent, *supra* note 172, at 1651; Kenji Takeuchi, *Trade Policy for Resource Based Industrialization: Costs and Benefits of Indonesia's Log Export Ban 2-3*, 12, 13 (International Trade Division, World Bank, 1991, unpublished working paper, on file with author).

178. Varangis, *supra* note 3, at 14; see also Vincent, *supra* note 172, at 1654.

179. LUIS F. CONSTANTINO, *ON THE EFFICIENCY OF INDONESIA'S SAWMILLING AND PLYMILLING INDUSTRIES*, Ministry of Forestry, Food and Agriculture Organization of the United Nations, Indonesia, UTF/INS/065/INS: Forestry Studies Field Document No. IV-5, Jakarta, Jan. 1990, at 45.

180. Varangis, *supra* note 3, at 14. For a discussion of the effect of domestic consumption's contribution to tropical deforestation, see *supra* Part III.

181. *Canada: Measures Affecting Exports of Unprocessed Herring and Salmon, Report of the Panel*, GATT Doc. L/6268 (Mar. 22, 1988); see also Ted L. McDorman, *International Trade Law Meets International Fisheries Law: The Canada-U.S. Salmon and Herring Dispute*, 7 *J. INT'L ARB.* 107 (Dec. 1990).

sized that as required by article XX(g), Canada's export ban did not limit the access of domestic processors and consumers of salmon and herring supplies at all, but rather only limited the access of foreign processors and consumers.¹⁸² As mentioned above, tropical timber-exporting states do not place corresponding restrictions on domestic consumption of their forests, making their export restrictions on tropical timber very difficult to distinguish from this case.

The most likely reason that Indonesia's and Malaysia's export bans and quantitative restrictions on timber logs have not been challenged in the GATT to date is that the GATT member states of the developed world are more willing to provide these lesser developed countries some leeway in fulfilling their GATT obligations than the developed member states are willing to provide to each other.¹⁸³ This permissive attitude may soon change though, given the escalating rate of tropical deforestation.

B. Import Bans, Boycotts, and Tariffs

On the timber-importing side, unilateral restrictions appear in a panoply of forms, which include import bans, quantitative restrictions, qualified bans, eco-tariffs, and import taxes. Austria's import tax represents the most prominent example falling within this category, but as already noted, it is by no means the only case.

In recent years, a proliferation of sub-national attempts to restrict tropical timber imports has occurred. For example, about two hundred city councils in Germany and fifty-one percent of Dutch municipalities have banned the use of tropical timber.¹⁸⁴ In the United States, numerous cities¹⁸⁵ and at least four states—Arizona, Califor-

182. OTA, *supra* note 36, at 85. In 1988, Canada advised the U.S. that it would accept the adoption of the Panel's report by the GATT Council as well as remove its export restriction. *Id.*

183. See GATT, *supra* note 4, art. XVIII, 55 U.N.T.S. at 276; Part IV, Protocol Amending the General Agreement on Tariffs and Trade to Introduce a Part IV on Trade and development, Feb. 8, 1965, 17 U.S.T. 1977, 572 U.N.T.S. 320 (entered into force June 27, 1966).

184. NELS JOHNSON & BRUCE CABARLE, WORLD RESOURCES INSTITUTE, SURVIVING THE CUT: NATURAL FOREST MANAGEMENT IN THE HUMID TROPICS 3 (Final Draft prepared for the Feb. 23, 1993 meeting of the Advisory Panel of the project on the "National Economic Implications of a Transition to Sustainable Agriculture in the United States," on file with author).

185. See, e.g., R. Daniel Foster, *Thumbs Up for a Wooden Performance*, L.A. TIMES, Feb. 11, 1993, at J1 (observing that "[r]ecently, Santa Monica and Los Angeles enacted laws severely limiting the purchase of tropical hardwoods within their borders").

nia, New York, and Minnesota—have banned the use of all tropical timber products in public construction projects.¹⁸⁶

Import bans and boycotts, at least as currently contemplated,¹⁸⁷ are almost certainly illegal under the GATT.¹⁸⁸ This conclusion is based on three arguments, all of which were present in the Austrian example previously discussed in Part VII. First, import bans and boycotts are prohibited by the GATT because, on their face, they discriminate between tropical and non-tropical timber.¹⁸⁹ This discrimination is evident when tropical timber's treatment is compared with that received by either imports or domestic supplies of temperate timber. In Austria's case, this discrimination against tropical timber products came from both foreign and domestic sources.

If, on the one hand, a GATT-contracting party with tropical timber restrictions imports non-tropical timber, either temperate or boreal, then that party is in violation of the GATT's most-favored-nation (MFN) requirement that appears in article I.¹⁹⁰ Article I requires that MFN status be afforded to all "like" products in the international stream of trade.¹⁹¹ Therefore, because tropical and non-tropical timber are considered to be "like" products in a number of different industries worldwide, the GATT prohibits a country from imposing import restrictions on the one without the other being regulated as well.¹⁹²

186. Varangis, *supra* note 3, at 15-16. The effect of sub-national regulation on the world trading system raises fascinating questions that are only just being considered. Unfortunately, these questions are beyond the scope of this Article.

187. The author knows of no current unilateral restrictions—on the import or export side—that apply equally to temperate, tropical, and boreal timber products.

188. The GATT Secretariat has already determined that unilateral import restrictions on the tropical timber trade represent one "unconvincing case" for trade restraints on environmental grounds. GATT SECRETARIAT, *TRADE AND THE ENVIRONMENT* 28 (1992); see also *Expanding Trade Can Help Solve Environmental Problems, Says Report*, 83 GATT FOCUS NEWSLETTER (General Agreement on Tariffs and Trade, Geneva, Switz.), Mar. 4, 1992, at 4 (noting that there are GATT constraints when "there is concern about production or consumption activities in another country").

189. Some proponents of unilateral restrictions on tropical timber have attempted to justify the differing treatment received by non-tropical and tropical woods on the ground that unlike temperate forests tropical forests "probably do not reforest fully naturally." Walgren, *supra* note 6, at E3534. The GATT would consider this argument unconvincing when tropical and non-tropical woods directly compete within a given market as "like products."

190. GATT, *supra* note 4, art. I, 55 U.N.T.S. at 196.

191. *Id.*

192. Temperate softwood and tropical hardwood logs directly compete in the plywood, construction, and furniture industries. MORI NO KOE I, *supra* note 12, at 1.

If, on the other hand, a GATT-contracting party decides to impose a law that affects the "offering for sale" of tropical timber products, then that restriction cannot be applied "so as to afford protection to domestic production" of "like domestic products."¹⁹³ Otherwise, the law is prohibited under article III of the GATT, which imposes a national treatment obligation (NTO) on all its members. This means that a country that harvests or manufactures timber products from domestic sources will be in violation of its GATT obligations to the extent that it is unjustifiably discriminating against any "like" tropical timber imports.

Second, import restrictions on tropical timber are largely processed-based, and processed-based distinctions for environmental purposes have already been determined to be prohibited under the GATT.¹⁹⁴ More specifically, the legal basis for a developed country imposing import bans on products from a developing country based on differences in environmental standards has already been challenged successfully under the GATT. The GATT 1991 panel decision invalidating the U.S. ban on imports of Mexican tuna has established a difficult-to-distinguish precedent in the tropical forest context.¹⁹⁵

Third, import bans, boycotts, and eco-tariffs are prohibited under the GATT because they are not "necessary" as that term is used in article XX(b). The relevant inquiry therefore, as framed by recent GATT panels, is whether a measure is "necessary to protect human, animal, plant life or health." A measure is unnecessary if an alternative, consistent with the GATT, is available.¹⁹⁶ One GATT panel recently went so far as to hold that any contracting party wishing to invoke an article XX exception must first exhaust all other reasonably available consistent alternatives before it can resort to a measure inconsistent with the GATT.¹⁹⁷ In the Mexican Tuna-Dolphin context, this meant that the U.S. could not justify its unilateral restrictions on

193. GATT, *supra* note 4, art. III, 55 U.N.T.S. at 204.

194. 1 GATT INT'L TRADE 1990-91 23 (1992).

195. Kulesa, *supra* note 176, at 170; *see also infra* notes 198, 208-212 and accompanying text.

196. Charnovitz, *supra* note 158, at 48-49 (quoting *Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes*, GATT Doc. No. DS10/R (Nov. 7, 1990) ¶ 74); *see also* 1 GATT INT'L TRADE 1990-91, *supra* note 194, at 23 n.30.

197. *United States—Restrictions on Imports of Tuna*, Report of the Panel, GATT Doc. No. DS21/R (Sept. 3, 1991), at 46 [hereinafter *Mexican Tuna-Dolphin Report*].

the incidental killing of dolphins because it did not first attempt multi-lateral negotiation.¹⁹⁸

Assuming, *arguendo*, that the GATT was reformed to allow import bans and boycotts, these measures should still not be utilized against tropical timber products, because notwithstanding the GATT they are still environmentally counterproductive. First, import bans and boycotts further depress the already undervalued tropical forests, making them less competitive against alternative uses such as agriculture and ranching.¹⁹⁹ Second, developed countries' import bans and boycotts influence at most a small fraction of the world's total tropical timber production.²⁰⁰ As mentioned previously, eighty percent or more of all tropical timber production is consumed either domestically or in other developing countries.²⁰¹ Finally, import bans and boycotts fail to address the primary causes of deforestation, which include poverty, rapid population growth, and clearance for agriculture and cattle ranching purposes.

C. *Eco-Labeling and Certification Programs*

Austria's mandatory labeling law is currently the most visible one on the international trade landscape, but it is by no means unique. Numerous public and private parties in tropical timber-importing countries are contemplating similar programs, making this topic a worthwhile recipient of further study.²⁰²

Eco-labeling laws and their associated certification programs usually concern differences in production and process methods (PPMs) and can be either mandatory or voluntary.²⁰³ In fact, the majority of

198. *Id.* The Austrian restrictions on tropical timber imports cannot be distinguished from the Mexican-Tuna Dolphin case on the basis of multilateral negotiations. Assuming, *arguendo*, that the Austrians first attempted to voice their concerns within the ITTO's framework, the negotiations had not yet been broken off and the dialogue continued, albeit at a slow pace. This author believes that a GATT panel examining the validity of Austria's restrictions would require that multilateral negotiations in the ITTO be entirely terminated before finding Austria's unilateral import restrictions "necessary." See discussion *supra* subpart VI(C).

199. Varangis, *supra* note 3, at 16.

200. *Id.*

201. JOHNSON & CABARLE, *supra* note 184, at 4; accord Varangis, *supra* note 3, at 16.

202. See, e.g., *EC Eco-Label Program*, *supra* note 155 (public mandatory labeling program imposed by EC); JOHNSON & CABARLE, *supra* note 184, at 23-30 (private voluntary labeling programs). The U.S. Congress has attempted to pass mandatory labeling laws on several occasions. See, e.g., H.R. 2854, 102d Cong., 2d Sess. (1992) (referred to as the "Tropical Forest Consumer Information and Protection Act of 1991").

203. See Varangis, *supra* note 3, at 20.

labeling laws to date seem to be voluntary.²⁰⁴ Among other considerations,²⁰⁵ it appears that the distinction between "mandatory" and "voluntary" may have significant implications for an environmental labeling law's ultimate legality under the GATT.

It is important to remember that consumption-related standards are not prohibited under the GATT so long as they are applied in a non-discriminatory fashion between domestic goods and imports.²⁰⁶ At least tentatively, mandatory labeling laws as applied to tropical timber appear to be prohibited under GATT because they unjustifiably discriminate between "like" timber products under the "soft" MFN and NTO requirements contained in the preamble of article XX.²⁰⁷ If this conclusion is correct, then much of the discussion on import bans and boycotts applies here with equal force.

On the other hand, the outcome of the Mexican Tuna-Dolphin dispute indicates that while countries are likely to fail in their efforts to enforce their preferred PPMs at an extraterritorial level, they can have domestic laws requiring the labeling of products with information on how much their production affects the environment.²⁰⁸ Mexico, in that case, challenged the U.S. Dolphin Protection Consumer Information Act, which regulates the use of the term "dolphin-safe" on tuna fish cans. In that instance, the panel found the law to be consistent with the GATT.²⁰⁹ The problem is that mandatory labeling laws as applied to tropical timber would have to overcome the higher hurdle of discrimination in favor of "like" temperate wood products, a problem not present in the Mexican Tuna-Dolphin case. In contrast, environmental labeling laws introduced on a voluntary basis are almost certainly legal under the GATT because they are undertaken on a cooperative basis merely to enhance consumer awareness rather than to deny the imported product's entry into the local market.²¹⁰ It is ironic that the very proliferation of voluntary labeling programs may act to confuse consumers rather than enhance their environmen-

204. See generally ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT [OECD], ENVIRONMENTAL LABELLING IN OECD COUNTRIES 43-70 (1991) [hereinafter ENVIRONMENTAL LABELLING].

205. *Id.* at 34 (discussing hypothetical violations of GATT articles IX(1) and X(1)).

206. Varangis, *supra* note 3, at 20.

207. Jackson, *supra* note 139, at 1240; see also OTA, *supra* note 36, at 43 (observing that "[r]eplacing the [unilateral] restriction with a labeling scheme, by which imports would all be permitted but customers would be informed of how the wood was harvested, would lessen the chances of a conflict with GATT") (emphasis added).

208. See Jackson, *supra* note 139, at 1240-41.

209. Mexican Tuna-Dolphin Report, *supra* note 197, ¶¶ 5.41-5.44.

210. ENVIRONMENTAL LABELLING, *supra* note 204, at 33.

tal awareness.²¹¹ Some economists also argue that labeling programs generate "perverse results from an environmental perspective,"²¹² but, in any case, additional research is needed.

In sum, the majority of unilateral restrictions on the international trade in tropical timber products are most likely illegal under the GATT because they discriminate unjustifiably, apply extraterritorially, and constitute unnecessary non-tariff barriers.²¹³ GATT panel practice lends additional credence to this conclusion.

Moreover, from an environmental perspective, these well-intentioned measures have at best a marginal impact on preventing tropical deforestation. At worst, these efforts actually contribute to the problem, making them environmentally counterproductive exercises in unilateralism.

IX. CONCLUSION

Perhaps one of the most controversial topics in environmental policy today concerns the trend in which trade instruments are used as "big sticks" with which to achieve important environmental objectives.²¹⁴ As this Article has attempted to illustrate, tropical forests and trade policy lie at the heart of this too-often acrimonious dispute.

More specifically, this Article has tried to demonstrate that, at least as currently contemplated, unilateral attempts to impose environmentally motivated restrictions on tropical timber products from the developing world are largely prohibited under GATT and raise well-founded fears of eco-imperialism. Consequently, these measures should not be used, for while the process of harvesting tropical forests in a sustainable manner to prevent deforestation is a laudable goal that should be encouraged, the primary forum for the regulation of

211. Additionally, in order to be found GATT consistent, this particular unilateral trade restriction should not be undertaken if the producers are unwilling or unable to subscribe to any certification criteria undertaken pursuant to the "voluntary" labeling law. JOHNSON & CABARLE, *supra* note 184, at 13. This is true because some tropical timber harvesters, especially smaller and undercapitalized operations, cannot afford the initial startup costs (e.g., training and monitoring) that must be expended in order to comply with a labeling program's definition of sustainability. *Id.*

212. Varangis, *supra* note 3, at 19.

213. If the recent Rio Earth Summit is any indication, the majority of the international community will likely support the GATT's conclusion that unilateral measures should be discouraged. See Forest Principles, *supra* note 105, at 887 ("Unilateral measures, incompatible with international obligations or agreements, to restrict and/or ban [the] international trade in timber or other forest products should be removed or avoided.").

214. Jacques de Miramon & Candice Stevens, *The Trade/Environment Policy Balance*, 176 OECD OBSERVER, June 1992, at 25.

tropical forests lies at the international level. Primary responsibility at the multilateral level, however, does not preclude all unilateral action—nor does the GATT.

One of the simplest ways that unilateral action by Austria and others could be made consistent with the GATT is by expanding these efforts to encompass all timber products, no matter what their origin. Unilateral measures consistent with the GATT should be encouraged because they may lend impetus to much needed reforms at the multilateral level. Interest has also been expressed in innovative alternatives, such as levying a tax on carbon dioxide emissions or a "carbon tax."²¹⁵ Such a program would generate the financial resources necessary for major programs related to the conservation of tropical forests.²¹⁶

Whether the members of the international community including the GATT's contracting parties will, in the near future, find the collective resolve needed to mend the existing juncture between tropical forests and trade policy remains to be seen.

215. JOHNSON, *supra* note 7, at 47.

216. *Id.*