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# Reconstructing the Marketplace: The International Timber Trade and Forest Protection

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# RECONSTRUCTING THE MARKETPLACE: THE INTERNATIONAL TIMBER TRADE AND FOREST PROTECTION

PAUL STANTON KIBEL\*

## INTRODUCTION—A FAILED PARADIGM

If we have instituted sustainable forestry in our own backyard—but have done so through exporting the ecological effects of our demands for forest products to nations with fewer environmental safeguards on timber harvesting—have we truly achieved sustainability?<sup>1</sup>

The earth's native forests are being logged at an ecologically unsustainable pace. In the Pacific Rim, the best available evidence indicates that between 25% and 50% of the region's forests have been destroyed in the last fifty years.<sup>2</sup> In the past quarter-century, native tropical forests in South America and Southeast Asia have been reduced from 9.4 million square miles to 3.8 million square miles, a loss of over 60%.<sup>3</sup> Over 70% of the original forests in western Africa have disappeared.<sup>4</sup> In western Ecuador, the percentage of forest cover dropped from 75% in

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<sup>1</sup> Nels Johnson, *Introduction* to pt. 1, in *DEFINING SUSTAINABLE FORESTRY* 13-14 (Gregory H. Aplet et al. eds., 1993).

<sup>2</sup> See MARTHA BELCHER & ANGELA GENNINO, *RAINFOREST ACTION NETWORK AND WORLD RAINFOREST MOVEMENT, SOUTHEAST ASIA RAINFORESTS: A RESOURCE GUIDE & DIRECTORY 1* (1993). See generally *WORLD WILDLIFE FUND, FORESTS IN TROUBLE: A REVIEW OF THE STATUS OF TEMPERATE FORESTS WORLDWIDE* (1992) (discussing temperate forest losses).

<sup>3</sup> Robert M. Hardaway et al., *Tropical Forest Conservation Legislation and Policy: A Global Perspective*, 15 *WHITTIER L. REV.* 919, 921 (1994).

<sup>4</sup> Nancy Chege, *Africa's Non-Timber Forest Economy*, *WORLD WATCH*, July-Aug. 1994, at 19, 23.

1945 to 8% in 1988, a decrease of almost 90%.<sup>5</sup> In the United States, fewer than 10% of the nation's native forests remain.<sup>6</sup> In western Europe, only 1% of the forests are classified as native old growth.<sup>7</sup>

Along with the conversion of native forests to farmland and rangeland,<sup>8</sup> one of the primary forces contributing to this destruction is the demand for timber and wood-based products.<sup>9</sup> Much of this demand is domestic, particularly in developing countries where there is still a great need for firewood.<sup>10</sup> Increasingly, however, the demand for timber and wood-based products is international. In the absence of effective environmental rules to regulate international trade, the native forests of Asia and South America are being logged by, and sold to, economic interests and consumers in the developed world.<sup>11</sup>

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<sup>5</sup> Andrew S. Jones, *The Global Environmental Facility's Failure to Promote Sustainable Forestry in Ecuador: The Case of Ecoforest 2000*, 14 VA. ENVTL. L.J. 507, 517 (1995). Jones, concerned with the decline in forest cover, states that:

Western Ecuador's land surface, in particular, has been transformed, with its forest cover diminished by an estimated ninety percent. . . . [I]n 1945 at least seventy-five percent of the region retained primary forest cover . . . . [B]y 1988 less than eight percent of the land surface in western Ecuador could be classified as "reasonably undisturbed" forest land.

*Id.*

<sup>6</sup> *Grassroots Activism and Savvy Advocacy: Twenty Years of Fighting For Our Forests*, WILD OR., Winter 1994, at 8 (citing Andy Kerr, Oregon Natural Resources Council's Director of Conservation at President Clinton's Forest Summit).

<sup>7</sup> See WORLD RESOURCES INST., *WORLD RESOURCES 1994-95: A GUIDE TO THE GLOBAL ENVIRONMENT* 136 (1995).

<sup>8</sup> Cf. Sarah E. Fandell, *Foreign Investment, Logging, and Environmentalism in Developing Countries: Implications of Stone Container Corporation's Experience in Honduras*, 35 HARV. INT'L L.J. 499, 501 (1994) (suggesting that forest degradation caused by timber logging must be examined in connection with other abuses to forest land).

<sup>9</sup> *Id.* See also Eric S. Howard, *Modifying Land Management in Africa: National and International Efforts*, 4 REV. EUR. COM. & INT'L ENVTL. L. 258 (1995).

<sup>10</sup> See UNITED NATIONS FOOD AND AGRIC. ORG., *THE ROAD FROM RIO: MOVING FORWARD IN FORESTS* 3-8 (1995).

<sup>11</sup> ROBERT WINTERBOTTOM, WORLD RESOURCES INST., *TAKING STOCK: THE TROPICAL FORESTRY ACTION PLAN AFTER FIVE YEARS* 45 (1990) ("Commercial logging of remaining natural forests to maintain or increase timber exports to industrialized countries and to generate export earnings is another important cause of deforestation . . ."). See also UNITED NATIONS FOOD AND AGRIC. ORG., *supra* note 10, at 4 ("This growth in consumption has been associated with a rapid increase in international trade, with the main market areas being Japan, Western Europe, North America and, increasingly, the fast-grow-

The internationalization of the timber trade<sup>12</sup> has been made possible in large part by the free trade regime established under the General Agreement on Tariffs and Trade (GATT).<sup>13</sup> Under GATT, national governments may not condition the import of products on adherence to environmentally responsible production standards, such as the practice of sustainable forestry.<sup>14</sup> GATT also precludes national governments from subsidizing sustainable forestry efforts, or from directly promoting agricultural alternatives to timber and wood-based products.<sup>15</sup> Furthermore, under GATT, national governments have no obligation to maintain minimal health or environmental standards.<sup>16</sup> These trade rules have greatly benefitted multinational timber and paper companies by protecting them from tariffs, subsidies, and regulations that could adversely impact their profits, and by serving as an economic and diplomatic obstacle to the creation of effective international forest protection measures.<sup>17</sup>

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ing economies of Asia.”); Anjali Acharya, *Plundering the Boreal Forests*, *WORLD WATCH*, May-June 1995, at 20, 23 (“Just one quarter of the world’s population—the people of Western Europe, North America and Japan—now consumes three-quarters of the world’s paper.”).

<sup>12</sup> For purposes of this article, the term “timber trade” encompasses all trade involving wood-based products. This includes paper, pulp and wood chips, as well as lumber.

<sup>13</sup> General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. A3, 55 U.N.T.S. 187 [hereinafter GATT].

<sup>14</sup> GATT dispute panels have ruled that the agreement permits bans on certain products, but not on products produced or harvested in a particular manner. This distinction was made clear in the 1991 Dolphin-Tuna dispute between the United States and Mexico. *See generally* GATT Dispute Panel Report on U.S. Restrictions on Imports of Tuna, 30 I.L.M. 1594 (Aug. 16, 1991) [hereinafter Tuna Panel Report].

<sup>15</sup> *See* U.S. TRADE REPRESENTATIVE’S OFFICE, *THE GATT URUGUAY ROUND AGREEMENTS: REPORT ON ENVIRONMENTAL ISSUES* 39, 56, 73 (Aug. 1994). *See generally*, Mark Ritchie, *Free Trade versus Sustainable Agriculture: The Implications of NAFTA*, 22 *ECOLOGIST* 221 (1992).

<sup>16</sup> *See* Kenneth S. Komoroski, *The Failure of Governments to Regulate Industry: A Subsidy Under the GATT?*, 10 *Hous. J. INT’L L.* 189 (1988).

<sup>17</sup> World Wildlife Fund illustrates the problem of how difficult an international forest protection agreement may be:

[T]he giant importers, such as Japan, South Korea and the EC, increasingly trawl the world’s markets of both tropical and temperate timbers to ensure the best prices and qualities. . . . The timber companies are working as fast as possible to ensure that they gain the maximum possible economic advantages from those old growth forests which still exist and remain accessible.

WORLD WILDLIFE FUND, *supra* note 2, at 63.

These same GATT restrictions, while benefitting timber industries, have done great injury to other interests. By facilitating and encouraging the destruction and unsustainable management of native forests, GATT and the international timber trade have inflicted profound environmental and social damage. Thousands of species have gone extinct.<sup>18</sup> Soil erosion and watershed degradation have reduced river flows and damaged water quality and fish habitat.<sup>19</sup> The earth's carbon carrying capacity has been reduced, thereby contributing to global warming.<sup>20</sup> Indigenous people have been forcibly evicted from their traditional lands.<sup>21</sup> The welfare of future generations, who will be deprived of the environmental and economic benefits of native forests, has been jeopardized.<sup>22</sup>

In its current form, the international timber trade is a failed paradigm, providing profits and forest products to only a small sector of the developed world, while imposing tremendous economic, environmental, and social costs. Incorporation of the full costs of logging into the price of products derived from native forests would reform the destructive dynamics of the international timber trade.<sup>23</sup> Likewise, the full benefits of native forest

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<sup>18</sup> Edward O. Wilson, Harvard biologist, estimates that over 50,000 species are becoming extinct annually. Wilson maintains that the primary cause of species extinction is destruction, degradation, and fragmentation of natural habitat. DANIEL C. ESTY, *GREENING THE GATT: TRADE, ENVIRONMENT, AND THE FUTURE* 18 (1994) (discussing Wilson's view). See generally, LESTER R. BROWN, *STATE OF THE WORLD, 1994: A WORLDWATCH INSTITUTE REPORT ON PROGRESS TOWARD A SUSTAINABLE SOCIETY* (1994) (if current trends continue, 5-10% of all species now on the planet may disappear in the next 25 years).

<sup>19</sup> See THEODORE PANAYOTOU & PETER S. ASHTON, *NOT BY TIMBER ALONE: ECONOMICS AND ECOLOGY FOR SUSTAINING TROPICAL FORESTS* 11-12, 110 (1992).

<sup>20</sup> See also Mark E. Harmon et al., *Effects on Carbon Storage of Conversion of Old-Growth Forests to Young Forests*, 247 *SCI.* 699 (1990).

<sup>21</sup> See William A. Shutkin, *International Human Rights Law and the Earth: The Protection of Indigenous Peoples and the Environment*, 31 *VA. J. INT'L L.* 479 (1991).

<sup>22</sup> See generally EDITH B. WEISS, *IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY* (1989).

<sup>23</sup> FRIENDS OF THE EARTH AND WORLD RAINFOREST MOVEMENT, *THE INTERNATIONAL TROPICAL TIMBER AGREEMENT; CONSERVING THE FORESTS OR CHAINSAW CHARTER?* 5 (1992). Friends of the Earth argues that:

A mechanism must be found to incorporate more effectively the value of non-timber forest products and the social values of forests into forest management decision-making. Traditional timber management ap-

conservation must also be recognized in the global marketplace.<sup>24</sup> Until this is done, the full environmental and economic value of native forests will be lost, and ecologically irresponsible logging will remain profitable. This Article proposes a new international regime to help recapture the lost value of native forests and promote global forest protection—the General Agreement on the Timber Trade.

Part I outlines the essential differences between native forest conservation and industrial forestry. Part II chronicles the ecological, social, and economic losses resulting from the destruction of native forests. Part III reveals the national and international components of the timber trade, and demonstrates how these components contribute to unsustainable logging practices. Part IV assesses the effectiveness of prior and ongoing international efforts to reform the global timber trade and promote sustainable forestry. Concluding that these efforts have been largely unsuccessful, Part V sets forth the framework for a more responsive international regime, the General Agreement on the Timber Trade. Part VI proposes legal strategies for reconciling this new proposed agreement with the trade rules established under the General Agreement on Tariffs and Trade.

## I

### NATIVE FORESTS VERSUS INDUSTRIAL FORESTRY

In discussing the relation between the international timber trade and forest conservation, it is important to define exactly what is meant by the term “forest.” It is by no means a self-evident definition. Aside from the generally recognized notion

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proaches should be broadened to include the full range of forest products and services. Once these are accorded their comparable values in the marketplace and in the local community, forest management decisions will more nearly achieve the highest and best use of the world's varied forest resources.

*Id.* at 5.

<sup>24</sup> Antony Scott & David Gordon, *The Russian Timber Rush: Multinational logging companies threaten Siberia's vast forests*, *AMICUS J.*, Fall 1992, at 15, 17. Scott and Gordon argue that society does not see the range of benefits a forest may provide:

We tend to look at a forest's value in terms of the lumber and paper it can provide. But these are perhaps the least valuable of a forest's products. Forests filter air pollution, absorb carbon dioxide and thus mitigate global warming, protect watersheds, safeguard against landslides, and are areas for recreation.

*Id.* at 17

that a forest contains trees, there remains considerable controversy over the use of the term. Much of this controversy is focused on the distinction between industrial timber harvesting operations, such as tree farms and clearcut-short rotation forestry (industrially-managed forests), and natural forest ecosystems (native forests).

For the purposes of this Article, discussion of forest destruction and forest conservation refers primarily to the destruction and conservation of "native" forests. This distinction, or clarification, is more than a mere academic or peripheral note. It cuts to the very essence of this Article's thesis, for the failure to appreciate the significant difference between the two types of forestry models results in the ecological and economic misinformation that has led to the current predicament. It has enabled government and industry to cloud the debate over logging practices by recasting decline, degradation, and resource depletion as progress.

Government and timber industry statistics on reforestation and resource management are often collapsed into the single category of "forests."<sup>25</sup> This definitional consolidation, however, has nothing to do with biology or ecology, and everything to do with economics and politics.<sup>26</sup> It permits agencies and timber interests to downplay the environmental consequences of forest ecosystem destruction and helps frame the debate over forest management in terms of agricultural productivity rather than ecological sustainability. Sweden, for example, has defended the sustainability of its timber industry by focusing international attention on the impressive statistic that 57% of the nation's total land area is considered "forest cover."<sup>27</sup> What this statistic fails to reveal, however, is that 95% of this "forest cover" is industrially-managed tree harvest operations, not natural forests.<sup>28</sup> Sweden's "forest cover" statistic also conceals the ecological real-

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<sup>25</sup> See Bill Devall, *Tree Farms Are Not Forests*, in *CLEARCUT: THE TRAGEDY OF INDUSTRIAL FORESTRY* 50 (Bill Devall ed., 1993); PANAYOTOU & ASHTON, *supra* note 19, at 11; JOSEPH COLLINS & JOHN LEAR, *CHILE'S FREE-MARKET MIRACLE: A SECOND LOOK* 211-13 (1995).

<sup>26</sup> See CHRIS MASER, *THE REDESIGNED FOREST* 106 (1988) ("[T]he concept of short-rotation forestry is an economic concept and has nothing to do with biology of forests.").

<sup>27</sup> See generally WORLD WILDLIFE FUND, *PULP FACT: THE ENVIRONMENTAL AND SOCIAL IMPACTS OF THE PULP AND PAPER INDUSTRY* (May 1995).

<sup>28</sup> TAIGA RESCUE NETWORK, *SCANDINAVIAN FORESTRY: TIMBER VS. FORESTS* 1 (1995) ("There is less than 5% old growth forest left in Scandinavia.").

ity that the destruction of the country's natural forests has "resulted in the loss of more than 200 species of plants and animals, with another 800 species considered rare or declining."<sup>29</sup>

The two main industrial forestry models, tree farms and clearcut-short rotation forestry, are not necessarily distinct or incompatible; many industrial forestry operations combine elements of both. Under the tree farm model, a single species of tree is planted in a row, much like corn, cotton or any other agricultural crop.<sup>30</sup> Sometimes these monoculture tree farms are established on existing farmland, although often they are grown in regions where native forests have recently been cleared by logging.<sup>31</sup> Competing species are eliminated through herbicides and pesticides, and the forest floor is kept clear to allow for more efficient timber harvesting.<sup>32</sup> Although a tree farm can produce a crop of trees (and therefore possibly reduce the pressure to log native forests), it cannot provide the broad range of environmental and economic benefits of a natural forest.<sup>33</sup> Tree farming cannot preserve biodiversity, provide habitat for wildlife, or sustain traditional forest-based indigenous cultures.<sup>34</sup> It cannot effectively prevent soil erosion, protect watersheds, or ensure good water quality for fisheries. Lastly, it has little scenic or recreational value.

Under the second industrial model, clearcut-short rotation forestry, all trees, plant life, and animal habitat are removed from a given area.<sup>35</sup> Next, new tree seeds are planted and the clearcut

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<sup>29</sup> Herb Hammond, *Clearcutting: Ecological and Economic Flaws*, in *CLEARCUT: THE TRAGEDY OF INDUSTRIAL FORESTRY* 27 (Bill Devall ed., 1993).

<sup>30</sup> Reed F. Noss, *Sustainable Forestry or Sustainable Forests?*, in *DEFINING SUSTAINABLE FORESTRY* 18 (Gregory H. Aplet et al. eds., 1993).

<sup>31</sup> WORLD WILDLIFE FUND, *supra* note 27, at 9.

<sup>32</sup> See Devall, *supra* note 25, at 50.

<sup>33</sup> PANAYOTOU & ASHTON, *supra* note 19, at 11 ("Mixed-species plantations, whatever their potential for producing timber, non-timber goods, and environmental services, can neither conserve genetic resources nor preserve natural wilderness. In this respect the natural rainforest is irreplaceable. Any reduction in natural forests inevitably leads to some extinction and attrition of genetic diversity.").

<sup>34</sup> See generally Paul Stanton Kibel, *Canada's International Forest Protection Obligations: A Case of Promises Forgotten in British Columbia and Alberta*, 6 *FORDHAM ENVTL. L.J.* 231 (1995) (explaining that British Columbia's clearcut logging and plantation forestry practices have had an ecologically devastating impact on the region's natural resources).

<sup>35</sup> See Derek Denniston, *The Temperate Rainforest: Canada's Clear-Cut Secret*, *WORLD WATCH*, July-Aug. 1993, at 9, 34.

region is left to recover naturally. Unfortunately, for two reasons this natural recovery rarely occurs. First, when all the plant life and animals are removed, the soil loses its biological vitality and widespread erosion occurs. This leads to poor tree regeneration, soil degradation, and river siltation.<sup>36</sup> As the U.S. State Department and the U.S. Council on Environmental Quality explained in their 1981 *Global 2000 Report* to President Reagan:

Once cleared, the recycling of nutrients is interrupted, often permanently. In the absence of forest cover, the remaining vegetation and exposed soil cannot hold the rainfall and release the water slowly. The critical nutrients are quickly leached from the soils, and erosion sets in—first, sheet erosion, then gully erosion. In some areas only a few years are required for once dense forest lands to turn into virtual pavements of laterite, exposed rock, base soil, or coarse weed grasses, becoming what has been called a “ghost landscape.”<sup>37</sup>

Second, and perhaps more importantly, the plants, animals, and indigenous human cultures that depend on the trees and forest ecosystem have no means to wait out this prolonged period of recovery.<sup>38</sup> For them, the temporary destruction and fragmentation of natural forests often means permanent extinction.

A variation of the clearcut-short rotation model, “highgrading,” involves going into an area and removing the oldest, largest, and most economically valuable trees every few years.<sup>39</sup> Unfortunately, the trees targeted for logging under highgrading are precisely the trees most critical to ecosystem vitality and species preservation.<sup>40</sup> Because highgrading results in tree species deg-

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<sup>36</sup> Lee E. Harding, *Threats to Diversity of Forest Ecosystems in British Columbia*, in *BIODIVERSITY IN BRITISH COLUMBIA: OUR CHANGING ENVIRONMENT* 257 (Lee E. Harding & Emily McCullum eds., 1994) (“In lands managed for timber production, clear-cut logging, reforestation, and short rotations convert large tracts of mature or old growth forests to managed forests, which do not support the same type of ecosystem as naturally disturbed forest. In effect, the natural forest ecosystem in such areas is permanently lost . . .”).

<sup>37</sup> See Todd K. Martens, *Ending Tropical Deforestation: What is the Proper Role for the World Bank?*, 13 *HARV. ENVTL. L. REV.* 485, 486-87 (1989) (citing *THE GLOBAL 2000 REPORT TO THE PRESIDENT: ENTERING THE 21ST CENTURY* 36 (G. Barney ed., 1981)).

<sup>38</sup> For discussion of the impact of destructive logging on indigenous people in the Ecuadorian Amazon, see Joe Kane, *With Spears From All Sides*, *NEW YORKER*, Sept. 27, 1993, at 54-79.

<sup>39</sup> HERB HAMMOND, *SEEING THE FOREST AMONG THE TREES: THE CASE FOR WHOLISTIC FOREST USE* 87 (1992).

<sup>40</sup> *Id.* at 88. Hammond argues that highgrading may endanger an ecosystem in a variety of ways:

radation (the trees with the best genes are cut down), many believe the practice can be as ecologically damaging as clearcut logging.<sup>41</sup>

Unlike industrially-managed forests, native forests are either preserved in their natural state, or managed to retain the environmental and economic benefits of forest ecosystems. Although designation as a protected wilderness area is the best way to preserve forest ecosystems, some types of logging and resource development are compatible with native forest management.<sup>42</sup> Good native forest management has been structured in such a way that it does not compromise the forest's fundamental ecological functions. More specifically, it should not destroy critical wildlife habitat, displace indigenous forest-based people, contribute to soil erosion, degrade watersheds and fisheries, or reduce biological diversity.<sup>43</sup>

The distinction between industrial forestry and native forest conservation is central to the debate over how to best regulate the international timber trade. Native forest management and the timber trade should not be governed by the same trade rules which apply to crops generally. The international timber trade does not deal solely with the harvest and sale of an agricultural commodity, but it also deals with the preservation and potential extinction of ecosystems, species, and human cultures.

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Where a highgrading operation removes only the best trees, essential high quality seed sources—genetic codes precisely adapted to their sites—are lost forever. Most highgrading, however, removes not just selected trees but is actually a form of progressive clearcutting, removing all trees from large continuous tracts and from entire watersheds. Whether this occurs in a very short period, say five years, or over a longer period of twenty or thirty years, similar damage results.

*Id.*

<sup>41</sup> Interview with Lisa Tracy, Co-Director of the Siberian Forest Protection Project, in Sausalito, Cal. (Feb. 12, 1996).

<sup>42</sup> Scott Landis, *Forests in Crisis*, AM. WOODWORKER, June 1994, at 68-71.

<sup>43</sup> See, e.g., ECOTIMBER INTERNATIONAL, WHAT IS ECOTIMBER? (1994). EcoTimber International is a hardwood company that only purchases its woods from sources that have been independently certified as sustainably managed. *Id.* EcoTimber uses four basic criteria to determine whether sources are sustainably managed: (1) commitment to a long-term sustainable forest management plan; (2) use of harvesting methods that preserve the fundamental ecological integrity of the forests, maintain wildlife habitat, and minimize damage to soil, watersheds, and surrounding vegetation; (3) recognition and promotion of the land-use rights and land ownership of local communities; and (4) fair and equitable distribution of profits to working participants. *Id.*

## II

## THE COST OF NATIVE FOREST DESTRUCTION

A. *Ecological Costs of Native Forest Destruction*

To appreciate the full ecological, social, and economic costs of native forest destruction, both global and local levels must be considered. A global assessment provides a comprehensive and statistical picture of how deforestation impacts biodiversity, soil conservation, carbon storage, and climate stability. It reveals the extent to which deforestation has compromised the planet's basic ecological systems, and jeopardized the economic prospects of future generations. The local assessment, however, provides a more intimate and immediate sense of what is happening on the ground. It reveals the unique species, ecosystems, and human cultures which are under threat.

At the global level, the earth is losing native forests at an annual rate of 342,000 square kilometers (35 million hectares or 85 million acres).<sup>44</sup> A 1995 study by the United Nations's Food and Agriculture Organization (FAO) reported that fragmentation and loss of primary tropical forests since 1950 has caused the extinction of approximately 1,500 species per year.<sup>45</sup> The FAO study further concluded if current deforestation rates continue, 10% of tropical forest species, and 492 genetically distinct populations of tree species, may face extinction within the next thirty years.<sup>46</sup>

Recent studies of the world's temperate forests have reached similar conclusions. The condition of the Pacific Northwest's forests were examined in a 1992 report by the Wilderness Society. The Wilderness Society report found erosion from logging roads and clearcuts, coupled with removal of trees in riparian areas, has created problems, such as a significant loss of

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<sup>44</sup> Ted Leiser, *Tropical Deforestation and its Effects on Indigenous Peoples: The Need for Further Development of Human Rights in an Environmental Context* (unpublished manuscript, on file at Pacific Environment and Resources Center, prepared for LL.M. program at Golden Gate University Law School, San Francisco) (citing 1989 report by Norman Myers for Friends of the Earth-UK).

<sup>45</sup> 1995 Report of the United Nations Secretary General to the Commission on Sustainable Development, Prepared by the United Nations Food and Agriculture Organization 10 [hereinafter 1995 FAO Report] (on file with the Pacific Environment and Resources Center).

<sup>46</sup> *Id.*

animal and fish habitat.<sup>47</sup> These consequences of temperate forest destruction have also been documented in the Russian Far East and Chile. In the Russian Far East, logging has pushed the endangered Siberian Tiger to the brink of extinction and caused several rivers to fill in and disappear.<sup>48</sup> In Chile, the conversion of native forests to tree plantations has resulted in deep erosion and a “[p]ronounced drying up of waterways and ground moisture,” with disastrous effects for nearby farmers and farmland.<sup>49</sup>

Most scientists also maintain that the destruction of native forests is a major cause of global warming.<sup>50</sup> The tremendous biomass found in natural forests serves as a critical carbon sink, and the removal of this biomass reduces the earth’s ability to maintain climate balance.<sup>51</sup> This relation of forest conservation to global warming was recognized in the 1992 United Nations Framework Convention on Climate Change, which calls on signatory nations to preserve and increase the earth’s carbon absorption capacities by protecting natural forests.<sup>52</sup>

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<sup>47</sup> H. MICHAEL ANDERSON & JEFFREY T. OLSON, *WILDERNESS SOCIETY, FEDERAL FORESTS AND THE ECONOMIC BASE OF THE PACIFIC NORTHWEST: A STUDY OF REGIONAL TRANSITIONS* at iv (1992).

<sup>48</sup> See Paul Stanton Kibel, *Russia’s Wild East: Ecological Deterioration and the Rule of Law in Siberia*, 7 *GEO. INT’L ENVTL. L. REV.* 59, 61 (1994); David Gordon, *Roar of the Taiga*, *COMMON FUTURE*, Autumn 1995, at 13-16 (“Large scale logging and habitat destruction remain the largest long-term threat to both the Siberian tiger and the unique Ussuriland forests of the Russian Far East.”). See also Eugene Linden, *The Tortured Land*, *TIME*, Sept. 4, 1995, at 42, 49-51.

<sup>49</sup> COLLINS, *supra* note 25, at 212.

<sup>50</sup> See Harmon, *supra* note 20, at 699 (replacing old-growth forests with faster growing forests may not, as has been suggested, actually decrease atmospheric carbon dioxide).

<sup>51</sup> Alan Thien Durning, *SAVING THE FORESTS - WHAT WILL IT TAKE?* (WorldWatch Paper No. 117), 6 (Dec. 1993); Peter S. Thacher, *Alternative Legal and Institutional Approaches to Global Change*, in *GREENHOUSE WARMING: NEGOTIATING A GLOBAL REGIME* 43 (1991). Durning argues that:

To reduce CO<sub>2</sub> from tropical deforestation—or, put more positively, to convert the biota from a net source to a net sink of CO<sub>2</sub>—we must face those issues that tropical developing countries see affecting deforestation, including poor terms of trade, international indebtedness, and growing poverty in the Third World.

*Id.*; KEVIN JARDINE, *THE CARBON BOMB: CLIMATE CHANGE AND THE FATE OF THE NORTHERN BOREAL FORESTS* 4 (Lyn Goldsworthy et al. eds., 1994) (“Deforestation does more than release carbon into the atmosphere; it also reduces the ability of forests to store carbon and act as a carbon sink by destroying them.”).

<sup>52</sup> *United Nations Conference on Environment and Development: Framework Convention on Climate Change*, U.N. Doc. A/AC.237/18 (1992), reprinted

### B. *Social Impact of Native Forest Destruction*

Native forest destruction has also had profound impacts on indigenous, forest-based people. Many national governments, in both the developed and developing world, have refused to recognize the land-tenure rights of indigenous groups.<sup>53</sup> The Lubicon in Canada,<sup>54</sup> the Huaorani in Ecuador,<sup>55</sup> the Yanomami in Brazil,<sup>56</sup> the Udege in Siberia,<sup>57</sup> and the Pygmies in West Africa<sup>58</sup> are regional examples of this global pattern.

The denial of land-tenure rights has enabled governments to assert state control and ownership over indigenous people's traditional forestlands. These governments have then provided logging rights to multinational companies or to domestic companies that often export wood (or food products from recently cleared farmland or rangeland) to the developed world.<sup>59</sup> Mining and oil development rights have also been granted in these forested areas.<sup>60</sup>

The destruction of these forestlands, whether through unsustainable logging, mineral extraction, or conversion to farmland or rangeland, has resulted in the expulsion of indigenous people. This government-sponsored expulsion, or "resettlement," has led to poverty and cultural disintegration among many indigenous groups.<sup>61</sup>

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in 31 I.L.M. 849 (Although forests are not mentioned expressly in the Convention, signatories do pledge to preserve land-based, or "terrestrial" carbon sinks).

<sup>53</sup> See generally Shutkin, *supra* note 21 (arguing that developments in international human rights law may provide a legal means for securing the protection of the environment and natural resources which are central to the cultures of indigenous peoples).

<sup>54</sup> See Acharya, *supra* note 11, at 23.

<sup>55</sup> See Kane, *supra* note 38.

<sup>56</sup> Jose R. Borges, *Strong Lobby Against Yanomami Territory*, WORLD RAINFOREST REP., Oct.-Dec. 1991, at 1, 6 (on file at the Pacific Environment and Resources Center).

<sup>57</sup> *A Special Report: U.S. Government Financing in Siberia and the Russian Far East and its Effects on Biodiversity and Forest Protection*, THE SIBERIAN FORESTS PROTECTION PROJECT, Oct. 1995, at 3 (on file at the Pacific Environment and Resources Center).

<sup>58</sup> See Chege, *supra* note 4, at 22.

<sup>59</sup> MICHELLE SCHWARTZ, NATURAL HERITAGE INST., 1992 REPORT ON THE RELATIONSHIP BETWEEN HUMAN RIGHTS AND THE ENVIRONMENT ES-1, 13 (1992).

<sup>60</sup> See Kane, *supra* note 38.

<sup>61</sup> See Shutkin, *supra* note 21, at 493-502. See also Asbjorn Eide, *United Nations Action on the Rights of Indigenous Populations*, in THE RIGHTS OF IN-

Fred Lennarson, an advisor to the Lubicon tribe in Canada, has provided a concise and accurate statement of the close relation between indigenous rights and forest preservation. At a 1995 international forestry conference in Berlin, Germany, Lennarson explained:

The Lubicons are people of the boreal forest. Like the species of woodpecker mentioned by an earlier speaker, the Lubicons are threatened with extinction by destruction of the boreal forest upon which they have historically depended for survival. Like the woodpecker, the Lubicons are imminently threatened with extinction by habitat destruction.<sup>62</sup>

### C. *Economic Effects of Native Forest Destruction*

In addition to its ecological and social impacts, native forest destruction jeopardizes economic welfare. Although logging interests have profited from unsustainable forestry practices, other sectors of society have reaped a less pleasant harvest.<sup>63</sup> Commercial fishing has suffered as rivers have filled with silt from the erosion of clearcut hillsides.<sup>64</sup> Because logging has resulted in significant water catchment loss, lowland farmers have seen their croplands ravaged by floods.<sup>65</sup> Because people have little interest in visiting stumps and barren hills, tourism has also been

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DIGENOUS PEOPLES IN INTERNATIONAL LAW 11, 24 (Ruth Thompson ed., 1987) (Eide writes, in regard to a United Nations Working Group on Indigenous Populations, "[t]he Working Group identified several areas as being of primary importance, including the right to self-determination and the right to land and other natural resources . . . . The observers of indigenous populations underlined that the preservation of their life and culture was indissolubly linked to their control over natural resources.").

<sup>62</sup> Fred Lennarson, Remarks at the *Endless Taiga* International Conference (Mar. 27, 1995) (notes on file at the Pacific Environment and Resources Center).

<sup>63</sup> See generally Nigel Dudley et al., *BAD HARVEST? THE TIMBER TRADE AND THE DEGRADATION OF THE WORLD'S FORESTS* (1995) (examining the environmental, cultural, and economic impacts of the global timber trade).

<sup>64</sup> ANDERSON & OLSON, *supra* note 47.

<sup>65</sup> For a discussion of the relation between deforestation and floods in Vietnam, see Paul Stanton Kibel, *Legal Reform and the Fate of the Forests*, ENVTL. POL'Y & LAW, Aug./Sept. 1995, at 243 ("The removal of hillside trees has left riparian slopes exposed and unprotected. . . . This, in turn, has led not only to soil erosion but to destructive floods downstream. According to environmental officials in Can Tho, these floods have left hundreds of people dead and devastated the local farming economy.").

hurt.<sup>66</sup> These cumulative losses have outweighed the profits of logging, resulting in overall, long-term economic decline.

This is why a recent study by the Massachusetts Institute of Technology found that, in the United States, states with the strongest environmental laws have the strongest economies, while states that fail to protect their environment face long-term economic decline.<sup>67</sup> This is also why the countries who have lost the most forests, such as Indonesia and the Philippines, have continued to sink deeper into poverty.<sup>68</sup>

The harm of deforestation has a temporal component.<sup>69</sup> Although the present generation will endure some of the hardships caused by native forest destruction, the brunt of the harm will be borne by future generations.<sup>70</sup> They will suffer the consequences of global warming, lost biodiversity, and degraded farmlands, and will inherit a world lacking wilderness, wildlife, and the richness and wisdom of indigenous cultures. In short, to sat-

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<sup>66</sup> ECOTOURISM: A SUSTAINABLE OPTION? 91 (Erlet Carter & Gwen Lowman eds., 1994) ("Ecotourists are, in general, highly educated, have high income levels and have increased awareness of the importance of the environment. . . . The quality of the environment and the visibility of its flora and fauna are essential features of their experience. They demand conservation.").

<sup>67</sup> For a discussion of the Massachusetts Institute of Technology study, see Becky Dinwoodie, *The Endangered Species Act - A Law That Works*, HEADWATERS J., Winter 1994-95, at 30.

<sup>68</sup> See BELCHER & GENNINO, *supra* note 2.

<sup>69</sup> JOHN RAWLS, A THEORY OF JUSTICE 128, 137, 155 (1971). Rawls states that:

The question arises, however, whether the persons in the original position have obligations and duties to third parties, for example, to their immediate descendants.

. . . . The persons in the original position have no information as to which generation they belong. These broader restrictions on knowledge are appropriate in part because questions of social justice arise between generations as well as within them; for example, the question of the appropriate rate of capital saving and of the conservation of natural resources and the environment of nature.

. . . . They must also take into account the fact that their choice of principles should seem reasonable to others, in particular their descendants, whose rights will be deeply affected by it.

*Id.*

<sup>70</sup> Edith B. Weiss, *Intergenerational Fairness for Fresh Water Resources*, ENVTL. POL'Y & L., Aug./Sept. 1995, at 232. ("Today's environmental damage will affect tomorrow's productivity and competitiveness, either because it imposes large remedial costs on future generations . . . or requires future generations to pay more for the same goods and services.").

isfy the current demand for land, timber, and pulp, the present generation is squandering the natural resource capital of its descendants.<sup>71</sup> This is the environmental and economic legacy that today's generation will pass on.

### III

#### THE COMPONENTS OF THE INTERNATIONAL TIMBER TRADE

The international timber trade is not the only force contributing to native forest destruction. Especially in the developing world, poverty and a rapidly increasing population also play a critical role.<sup>72</sup> To provide food and livelihood for a growing number of people, developing nations have allowed forests to be cleared for rangeland, agricultural, and aquacultural purposes.<sup>73</sup> Just as with the deforestation caused by foreign exports and the timber trade, this conversion-based deforestation has tragic environmental and economic impacts. The erosion, flooding, desertification, and watershed damage caused by the conversion process have generally outweighed the short-term economic benefits provided by the cleared land.<sup>74</sup>

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<sup>71</sup> David W. Pearce & R. Kerry Turner, *ECONOMICS OF NATURAL RESOURCES AND THE ENVIRONMENT* 266 (1990) ("[T]here is an *urgency* about the problem of extinction, for the losses being incurred are irreversible: it is not a matter of regretting a loss and restoring it. The regret is perpetual.").

<sup>72</sup> See UNITED NATIONS FOOD AND AGRIC. ORG., *supra* note 10, at 3-5.

<sup>73</sup> See Fandell, *supra* note 8, at 502. See generally PHILIP HURST, *RAINFOREST POLITICS: ECOLOGICAL DESTRUCTION IN SOUTH-EAST ASIA* (1990).

<sup>74</sup> See Paul Stanton Kibel, *Legal Reform and the Fate of the Forests*, *ENVTL. POL'Y & L.* 1995, at 241, 242 (citing WORLD WILDLIFE FUND, *REPORT ON BIODIVERSITY PROTECTION IN VIETNAM* 43, (July 1994) (on file at the Pacific Environment and Resources Center)). The report finds that indeed the short-term economic gain has not outweighed the long-term environmental destruction:

An alarming 13 million ha (hectares) or almost 40% of the country is classified as bare lands. About 1 million ha of this is accounted for by rocky mountains but the rest is land that was formerly forests and has been cleared for a number of reasons and degraded to a condition of very low productivity.

*Id.* See also WINTERBOTTOM, *supra* note 11, at 28 ("Massive public expenditures on highways, dams, plantations, and agricultural settlements, often supported by multilateral development lending, are used to convert or destroy large areas of forest for projects of questionable economic value."); Martens, *supra* note 37, at 488 ("As a result, the colonists who are often subsistence farmers clear a small plot of land and farm it until the soil can no longer support their crops. They then move to a new location and clear a few more acres.").

The causes of poverty and overpopulation in the developing world are complex and have a profound impact on both current forest degradation and proposals for forest conservation. While these issues are deserving of comprehensive analysis and assessment, an analysis of the origins of poverty and overpopulation in the developing world is beyond the scope of this Article.

In the interest of both clarity and brevity, this Article focuses on the role of the international timber trade in native forest destruction. The issues of third-world poverty and overpopulation are addressed only insofar as they inform our understanding of the timber trade. The following analysis seeks to isolate and deconstruct this particular aspect of the problem of global deforestation. This limited assessment, however, is critical to an understanding of the whole issue.

#### A. *Collusion Between Logging Interests and Government*

In both the developed and the developing world, political and institutional arrangements are often designed to directly benefit the economic interests of parties involved in logging, timber, and paper industries.<sup>75</sup> This government-logging collusion is not part of a covert agenda, but rather is the unfortunate and predictable outcome of power and money influencing politics. As international forestry consultant Anita Kerski observed:

- The industry's current drive towards larger scale and global expansion cannot be explained solely by economics. But neither is it being driven by a political conspiracy of unseen masterminds in transnational corporation boardrooms acting with the careless ease of omnipotence. Social structures sensitive to the needs of pulp and paper elites are built, expanded and improved through the political efforts of a multitude of agents with different interests and motivations, working to-

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<sup>75</sup> LONDON ENVIRONMENTAL ECONOMICS CENTRE, *THE ECONOMIC LINKAGES BETWEEN THE INTERNATIONAL TRADE IN TROPICAL TIMBER AND THE SUSTAINABLE MANAGEMENT OF TROPICAL FORESTS* at iv (1993) (report submitted to the International Tropical Timber Organization) (on file at the Pacific Environment and Resources Center) ("Unfortunately, in many producer countries the widespread prevalence of market and policy failures have distorted the incentives for sustainable management. Failures in concession and pricing systems have produced counterproductive incentives that lead to the 'mining' of production forests."). See Perri Knize, *The Mismanagement of the National Forests*, ATLANTIC MONTHLY, Oct. 1991, at 98 (discussing government-logging industry collusion in the United States).

gether in an *ad hoc* and sometimes uncoordinated fashion against an ever-varying background of resistance.<sup>76</sup>

The goals of these political and institutional arrangements are rather straightforward: to keep the demand for wood-based products high and to keep production costs (such as environmental protection standards) low. Citizens, politicians, industries, and organizations that support policies opposed to these goals, such as decreased consumption or increased forest conservation, are what Kerski labels the "ever-varying background of resistance." The confluence of government policy and timber industry interests demonstrates that this resistance has been held very much in check.

Many governments, for instance, have sought to encourage and attract logging operations by subsidizing the private sector costs of logging. Sometimes these subsidies have been direct. For example, in 1993, the government of British Columbia purchased \$50 million of stock in MacMillan Bloedel, the largest logging company operating in British Columbia.<sup>77</sup> In Chile, the national government extended \$88 million in subsidies between 1974 and 1990 to help convert native forests to tree plantations.<sup>78</sup> In Russia, special government subsidies to railroads allow railways to transport logs for one-fifth of the true market price.<sup>79</sup>

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<sup>76</sup> Anita Kerski, *Pulp, Paper and Power: How an Industry Reshapes its Social Environment*, *ECOLOGIST*, July/Aug. 1995, at 142.

<sup>77</sup> Kibel, *supra* note 34, at 243 n.111 (citing Joyce Nelson, *Taxpayers Stunningly Generous to Forest Firms*, *VICTORIA TIMES-COLONIST*, Oct. 13, 1993, at A5 (noting that in 1993, as a result of public pressure, the British Columbian government sold its shares in MacMillan Bloedel)).

<sup>78</sup> See COLLINS & LEAR, *supra* note 25, at 207. Collins states the following statistics on CONAF (Chile's government forestry corporation) subsidies:

To encourage new plantings CONAF reimbursed 75 percent (later changed to 90 percent) of the estimated costs of planting after one year, with additional reimbursements for the costs of pruning and maintaining plantations. Over the period 1974 and 1986, of the more than 2.5 million acres of trees planted and in private hands, 73 percent were planted either with these generous CONAF subsidies or by CONAF directly . . . . Between 1974 and 1990, total subsidies for planting exceeded \$88 million.

*Id.*

<sup>79</sup> Interview with Lisa Tracy, *supra* note 41.

Similar arrangements exist in many other countries,<sup>80</sup> including the United States.<sup>81</sup>

Other subsidies have been even more direct in nature. For instance, many governments continue to grant logging contracts on public lands with little or no stumpage fees. These concessionary rates do not incorporate the full costs of environmental damage and restoration, and do not incorporate the range of environmental benefits provided by forests.<sup>82</sup> Instead, these low resource prices encourage excessive removal,<sup>83</sup> and tend to emphasize short-term development gains over long-term resource sustainability.<sup>84</sup>

Moreover, low stumpage fees are often accompanied by government failure to adopt or effectively implement environmental and forest protection laws.<sup>85</sup> This failure can be the product of

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<sup>80</sup> See WINTERBOTTOM, *supra* note 11, at 28 ("In many countries, government policies are responsible for the indiscriminate destruction of forest resources. Tax incentives and credit subsidies guarantee large profits to private investors who convert forest to pastures and farms.").

<sup>81</sup> See generally Knize, *supra* note 75.

<sup>82</sup> Jones, *supra* note 5, at 515 n.47. Jones argues that:

Government policies that fail to capture a fair share of the economic rent associated with the logging of public lands (e.g., via high stumpage fees and charges for rights to forest land) induce excessive cutting from a societal perspective because the costs of deforestation (e.g., biodiversity loss, watershed damage, and erosion) are not reflected in the access and removal prices paid by logging companies.

*Id.*

<sup>83</sup> See John A. Ragosta, *Natural Resource Subsidies and the Free Trade Agreement: Economic Justice and Need for Subsidy Discipline*, 24 GEO. WASH. J. INT'L L. & ECON. 255, 273 (1990) ("Low resource prices often encourage excessive removal and discourage governments from paying for adequate environmental protection measures including timber replanting. . . . For example, the relatively poor record of the Canadian provinces on reforestation through 1985 can arguably be traced to the ridiculously low prices they charged for timber.").

<sup>84</sup> PANAYOTOU & ASHTON, *supra* note 19, at 223. Panayotou and Ashton argue that governments cannot only look at the present but rather:

Governments have a unique fiduciary role to play in the setting of incentives to encourage long-term sustainable production of forest resources; to a great extent this role has been subordinated by other priorities. . . . As development agents, governments have tended to emphasize short-term development gains to the detriment of long-term resource sustainability, hence the emphasis on timber production and forestland conversion to other uses.

*Id.*

<sup>85</sup> See Hardaway et al., *supra* note 3, at 922 ("Even where serious enforcement is initiated, legislative conservation policy is undercut by the forces of interest groups with a significant economic stake in rainforest exploitation.").

either legal or illegal measures. In the United States, for instance, Congress passed legislation in 1995 announcing that salvage timber sales from federal lands during the period from July 27, 1995 until September 30, 1997 would satisfy all relevant environmental and wildlife laws.<sup>86</sup> Put another way, the amendment placed these salvage timber sales beyond the reach of environmental and wildlife laws by removing the judiciary's authority to review alleged violations.<sup>87</sup> In other regions, such as the Russian Far East, timber interests may sway some government officials with "hard currency" to ignore environmental regulations.<sup>88</sup>

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*See also* Komoroski, *supra* note 16, at 204 ("Clearly, the failure of a foreign government to require any environmental controls on an industry within their jurisdiction, for which industry the U.S. government correspondingly requires extensive environmental controls, allows that foreign industry to enjoy a competitive market advantage over the U.S. industry.").

<sup>86</sup> Emergency Supplemental Appropriations for Additional Disaster Assistance, for Anti-Terrorism Initiatives, for Assistance in the Recovery from the Tragedy that Occurred at Oklahoma City, and Rescissions Act, 1995, Pub. L. No. 104-19, § 2001, 109 Stat. 194, 240-46 (1995). Section 2001(e), 109 Stat. at 244, of this Act provides that salvage timber sales "shall not be subject to administrative review." Section 2001(i), 109 Stat. at 245, provides that such sales shall be deemed to satisfy all applicable federal environmental and natural resource laws.

<sup>87</sup> PATTI A. GOLDMAN, SUBMISSION PURSUANT TO ARTICLE 14 OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION ON THE U.S. LOGGING RIDER (Aug. 1995) (report to Sierra Club Legal Defense Fund). The report states that by removing the judiciary's role,

the logging rider effectively suspends enforcement of environmental laws for two logging programs: (1) logging in the old-growth forests under Option 9—the plan adopted by federal agencies to balance timber harvest against protecting old-growth dependent species like the northern spotted owl, salmon and other aquatic species; and (2) so-called salvage logging. For both logging programs, the rider provides that whatever environmental analysis is produced and whatever procedures are followed by federal agencies for such timber sales "shall be deemed to satisfy the requirements" of several specifically listed and "[a]ll other applicable federal environmental and natural resource laws."

*Id.* at 2.

<sup>88</sup> *See* Scott & Gordon, *supra* note 24, at 16-17. *See also* Richard N. Dean, *Still Dealing with Devils After the Collapse of the Evil Empire*, INT'L TRADE MAG., S.F. RECORDER, Summer 1995, at 37. Dean argues that this corruption is widespread:

because bureaucrats wield extraordinary power in an economy in which almost every form of commercial activity remains heavily regulated. Virtually every foreign business person in Russia has a story about being approached by a government official for a bribe in order to get approval for a project or even basic information necessary to seek such an approval.

*Id.*

There is not even an attempt to paint noncompliance in the color of law.

Non-enforcement of environmental regulations, low stumpage fees, and direct logging subsidies have the same cause: the political and economic power of the timber and paper industries.<sup>89</sup> The consequences are the same as well: the mismanagement and destruction of native forests.

Whether through direct subsidies, low stumpage fees, or lax enforcement of environmental laws, political collusion between government and logging interests adversely impacts native forests. By keeping the production costs of logging low, such collusion has increased the industry's profit margin while simultaneously exerting downward pressure on the market price of timber and wood-based products.<sup>90</sup> These profits and low market prices help increase demand, and provide industry with excess capital. This capital is often spent on advertising, public relations, and political lobbying.<sup>91</sup>

### B. *The Demand for Timber and Wood-Based Products*

Annual consumption of paper and paperboard has grown from 14 million tons in 1913 to 242 million tons in 1990, repre-

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<sup>89</sup> Kerski, *supra* note 76, at 142 ("Crucial to this dynamic are attempts by the [timber and paper] industry and its allies to refashion the political and physical infrastructure through which they work, capturing subsidies, managing demand, centralizing power, and evading, digesting and regulating resistance.").

<sup>90</sup> See Paul Stanton Kibel & Armin Rosencranz, *The Need for International Timber Trade Reform: Legal Strategies for Pacific Rim Forest Protection*, 4 REV. EUR. COMMUNITY & INT'L ENVTL. L. 235 (1995).

<sup>91</sup> See Kerski, *supra* note 76, at 148. Kerski argues that:

To help colonize democratic discussion and replace it with a more predictable type of interchange, pulp and paper companies and industry associations have also set up public relations (PR) operations in all major national markets. The object is not merely to "engineer consent"—using such means as advertising, lobbying, purchasing expert testimony, distributing press releases, commissioning books, manipulating journalists, launching opinion polls and creating "community advisory panels"—but also to monitor industry critics, with an eye to weakening their links to other sectors of the public. . . . One such firm, the US's Burson-Marsteller—which, with annual fees totalling over US\$200 million, over 2,000 employees, 62 offices in 29 countries, and its own "Environmental Practice Group," is the world's largest PR company—includes among its clients Scott Paper, TetraPak, Alliance for Beverage Cartons and the Environment, Shell, the Government of Indonesia, and the British Columbia Forest Alliance (a forest industry front group created by Burson-Marsteller).

*Id.*

senting a 17-fold increase.<sup>92</sup> This growth in consumption can be traced to several key market areas, namely Japan, Western Europe, North America, and, increasingly, the fast growing economies of Asia.<sup>93</sup> Developed countries, having depleted their own timber resources, currently import close to 80% of all timber products,<sup>94</sup> and just one quarter of the world's population—the people of Japan, Western Europe, and North America—consumes three-quarters of the world's paper.<sup>95</sup> Much of the growth in the wood products industry in Japan is due to the proliferation of magazines and newspapers supported by increased advertising, new demands for paper from increased office automation, and packaging for consumer products.<sup>96</sup>

The global demand for timber and wood-based products is one of the critical forces contributing to the destruction of native forests.<sup>97</sup> The market for these goods serves as a major financial impetus for intensive, unsustainable logging.<sup>98</sup> Timber companies based in the developed world operate all over the globe, seeking regions where they can secure large, high-quality, inexpensive supplies of wood.<sup>99</sup> In practice, this means that timber companies prefer to log in regions that contain large tracts of fully mature trees (natural forests) and where environmental regulation costs are minimal.

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<sup>92</sup> Roger Olsson, *Taiga Under Threat: An Environmental Review of Boreal Forest Consumption*, 4 REV. EUR. COMMUNITY & INT'L ENVTL. L. 230 (Summer 1995).

<sup>93</sup> See UNITED NATIONS FOOD AND AGRIC. ORG., *supra* note 10, at 4.

<sup>94</sup> WORLD WILDLIFE FUND, *supra* note 2, at 63.

<sup>95</sup> Acharya, *supra* note 11, at 23.

<sup>96</sup> See JAPAN TROPICAL FOREST ACTION NETWORK, REPORT ON EUCALYPTUS PLANTATION SCHEMES IN BRAZIL AND CHILE BY JAPANESE COMPANIES: INVESTMENT ACTIVITIES BY JAPAN'S PAPER INDUSTRY IN BRAZIL AND CHILE 3 (May 1993).

<sup>97</sup> Roger Olsson, *Paper Consumption and the Fate of the Forests*, TAIGA-NEWS (Taiga Rescue Network, Jokkmokk, Swed.), Feb. 1995, at 1.

<sup>98</sup> FRANCOIS NECTOUX & YOICHI KURODA, WORLD WILDLIFE FUND INT'L, *TIMBER FROM THE SOUTH SEAS: AN ANALYSIS OF JAPAN'S TROPICAL TIMBER TRADE AND ITS ENVIRONMENTAL IMPACT* 23 (1989). Nectoux and Kuroda quote the World Commission on Environment and Development: "The promotion of tropical timber imports into certain industrial countries through low tariffs and favourable trade incentives, combined with weak domestic forest policies in tropical countries and with high costs and disincentives to harvesting in industrial countries, also drives deforestation." *Id.* (citing WORLD COMM'N ON ENV'T & DEV., *OUR COMMON FUTURE*, at 154).

<sup>99</sup> See WORLD WILDLIFE FUND, *supra* note 2, at 63.

The international demand for timber and wood-based products is not the product of the free market's invisible hand. National governments, particularly in the developed world, have adopted policies deliberately intended to keep supply costs low and demand high. These policies have shaped and sustained the international timber trade. Examples of this visible hand abound.

In 1989, the Canadian province of Alberta granted Al-Pac (a Mitubushi-controlled timber and paper company) logging rights on a tract of native forest the size of Belgium.<sup>100</sup> The Albertan government lured Al-Pac by extending a \$300 million loan and by committing \$75 million to road and infrastructure improvement.<sup>101</sup> The Albertan government also approved clearcut logging as the primary harvesting technique for the forests.<sup>102</sup> The vast majority of the forest that Al-Pac cuts will be exported as pulp for paper-making to Japan and the United States.<sup>103</sup>

In 1994, the United States and Russia signed an agreement to promote cooperation in the forest products industries.<sup>104</sup> Among other things, this agreement will facilitate the export of raw logs from the Russian Far East to mills operating in the Pacific Northwest.<sup>105</sup> Because Russia's environmental laws regulating forestry are rarely enforced,<sup>106</sup> U.S. timber interests anticipate that they will be able to access a cheap and plentiful supply of unprocessed wood.

To help further the goals of the forest products agreement, the U.S. Overseas Private Investment Corporation and the U.S.

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<sup>100</sup> Mike Lipske, *Cutting Down Canada*, INT'L WILDLIFE, Mar.-Apr. 1994, at 12.

<sup>101</sup> See Kibel, *supra* note 34, at 246 n.135 (citing Andrew Nikiforuk & Ed Struzik, *The Great Forest Sell-Off*, REPORT ON BUS. MAG., Nov. 1989, at 56, 61).

<sup>102</sup> *Id.* at 235 n.31 (citing Christopher Genovali, *Canada's Forests: An Ecological Holocaust*, S.F. EXAMINER, Feb. 4, 1993, at A19).

<sup>103</sup> See Acharya, *supra* note 11, at 23.

<sup>104</sup> PACIFIC ENVIRONMENT & RESOURCES CENTER (PERC), A SPECIAL REPORT: U.S. GOVERNMENT FINANCING IN SIBERIA AND THE RUSSIAN FAR EAST AND ITS EFFECTS ON BIODIVERSITY AND FOREST PROTECTION 2 (Oct. 1994).

<sup>105</sup> David Gordon, *U.S. Venture Must Protect Russian Taiga*, OREGONIAN, Jan. 18, 1995, at A8.

<sup>106</sup> See L.G. KONDRASHOV ET AL., ENVIRONMENTAL POLICY AND TECHNOLOGY PROJECT, KHABAROVSK, PROBLEMS OF WOOD PRODUCTION 1 (Nov. 1994) (on file at the Pacific Environment and Resources Center) ("Logging is primarily mass felling which leads to grave ecological damage to the forest . . ."). See generally Kibel, *supra* note 48.

Trade and Development Agency (both federal agencies) are providing risk insurance and funding economic feasibility studies for private U.S. timber companies.<sup>107</sup> No environmental impact assessment has been disclosed in connection with this funding.<sup>108</sup> While the U.S. government claims that its role under the agreement is simply to facilitate economic cooperation, others contend that the agency financing amounts to a subsidy. It reduces the risk of and helps lay the political groundwork for environmentally irresponsible logging operations abroad.<sup>109</sup>

The Japanese government has played a similar role. Since 1977, Japan's Overseas Development Assistance Agency (ODA) has helped subsidize forest road building in Burma, Indonesia, Thailand, and other Southeast Asian countries.<sup>110</sup> Most of these aid programs were initiated by the private sector, and approved with little or no environmental evaluation.<sup>111</sup> In a comprehensive report on Japan's role in tropical deforestation, the World Wildlife Fund (WWF) concluded that ODA programs have been a "tool for intensive and destructive logging."<sup>112</sup> The WWF report explained:

This programme has provided subsidies for the construction of logging roads in areas which were later exploited by Japanese companies. The official justification has been that local people want to use the roads. In many cases, this is far from the truth. Logging roads are cut where they are useful for loggers, not for local people, and they are generally not maintained after logging finishes.<sup>113</sup>

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<sup>107</sup> Pacific Environmental & Resources Center, *supra* note 104, at 4-5.

<sup>108</sup> *Id.* at 106.

<sup>109</sup> With regard to overseas logging operations, the PERC Special Report stated that:

[T]he U.S. Trade and Development Agency (TDA) is providing \$500,000 of U.S. taxpayer money to the Global Forestry Management Group (GFMG) to conduct a feasibility study of logging in the Khabarovsk Region, particularly within the Khor watershed. GFMG is a coalition of Pacific Northwest sawmills that are hoping to log Siberian forests and import the wood to their sawmills to make up for a decrease in logging at home. The TDA-sponsored feasibility study will later be used to leverage international financing to log forests in the Khor River watershed.

*Id.* at 3.

<sup>110</sup> NECTOUX & KURODA, *supra* note 98, at 87-94, 122-24.

<sup>111</sup> *Id.* at 92, 94.

<sup>112</sup> *Id.* at 93.

<sup>113</sup> *Id.* at 94.

Sweden has also used foreign aid as a means to promote the interests, and increase the profits, of its domestic paper and timber industry. In 1993, the Swedish International Development Agency helped finance the Bai Bang pulp and paper mill, the largest pulp and paper mill in Vietnam.<sup>114</sup> This mill relies on over 70,000 hectares of natural bamboo, and has been heavily criticized by environmentalists for its impact on Vietnam's natural vegetation and ecosystems.<sup>115</sup>

In addition to adopting policies that help reduce timber and paper prices, national governments have been reluctant to adopt laws that mandate the use of recycled paper, sustainably harvested timber, or wood substitutes. Although some countries now require government agencies to use paper that contains a minimal percentage of recycled materials,<sup>116</sup> and have undertaken research on wood substitutes,<sup>117</sup> there have not been attempts to implement policies that would profoundly alter the marketplace. No laws have been passed requiring the public and private sectors to use hemp or kenaf paper. No trade rules have been adopted that would ban the import of unsustainably harvested timber. No penal code has listed the failure to recycle as a criminal offense. U.S. companies operating in foreign countries need not adhere to U.S. environmental standards when they do business (or purchase natural resources) abroad.<sup>118</sup>

The adoption of such policies would severely weaken the market for products and industries that contribute to the destruction of native forests. They would also discourage the wasteful behavior that helps maintain the demand for wood and pulp paper products. The absence of such laws has hindered efforts to protect forests on a global level.

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<sup>114</sup> WORLD WILDLIFE FUND, *supra* note 27, at 17.

<sup>115</sup> *Id.*

<sup>116</sup> John Holusha, *White House Issues An Order to Bolster Recycling of Paper*, N.Y. TIMES, Oct. 21, 1993, at A1.

<sup>117</sup> *Happy Earth Day - We're Tree Free*, EARTH ISLAND J., Spring 1994, at 19 (providing information on the kenaf research program at the U.S. Department of Agriculture).

<sup>118</sup> Alan Neff, *Not in Their Backyards, Either: A Proposal for a Foreign Environmental Practices Act*, 17 ECOLOGY L.Q. 477, 525 (1990) ("By unilaterally bringing all environmentally harmful practices of U.S. controlled businesses and citizens—wherever they occur—under U.S. jurisdiction, [Foreign Environmental Practices Act] would demonstrate this nation's respect for international customary law regarding the environment.").

In addition to the demand from Japan, western Europe, and the United States, the growing economies of Southeast Asia are likely to place even greater pressure on the world's native forests.<sup>119</sup> If these economies adopt the same consumption patterns as their more developed predecessors, the ecological consequences will be disastrous.<sup>120</sup> Economic growth will lead to an increase in the demand for cheap wood fibre. This fibre will most likely be obtained through the widespread logging of mature, natural forests.<sup>121</sup>

### C. Trade Regimes That Encourage Environmental Degradation

The General Agreement on Tariffs and Trade (GATT),<sup>122</sup> and other regional trade agreements such as the North American Free Trade Agreement (NAFTA)<sup>123</sup> and the European Union (EU),<sup>124</sup> are based largely on the principle of comparative advantage.<sup>125</sup> Because each nation is endowed with different natural resources, different levels of industrialization, and different labor forces, each nation is particularly suited to a different type of economic activity. If imports and exports are allowed to move

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<sup>119</sup> Olsson, *supra* note 92, at 231.

<sup>120</sup> Alistair Graham, *Wood Flows Around the Pacific Rim (A Corporate Picture)*, in NATIVE FOREST NETWORK, TOWARDS A GLOBAL TEMPERATE FOREST ACTION PLAN 36, (1992) ("Unless we confront the causal factor of native forest destruction - market demand for wood products - we cannot save these forests. If we do not confront demand, any success we have in protecting our own backyards will merely be reflected in the trashing of someone else's front garden."). Graham further states: "If the nexus between what we mean by 'growth' and demand for virgin fibre is not broken, the future of native forests looks bleak." *Id.* at 42.

<sup>121</sup> *Id.* at 42.

<sup>122</sup> See GATT, *supra* note 13.

<sup>123</sup> North American Free Trade Agreement, 32 I.L.M. 289 (1993) [hereinafter NAFTA].

<sup>124</sup> See generally Frederick M. Abbott, *GATT and the European Community: A Formula for Peaceful Coexistence*, 12 MICH. J. INT'L L. 1 (1990).

<sup>125</sup> Sir James Goldsmith, *The GATT Trap*, EARTH ISLAND J., Winter 1995, at 32. Goldsmith, who is referring to David Ricardo's theories on comparative advantage, asserts that:

Each nation should specialize in those activities that give it a comparative advantage relative to other countries. Thus, a nation should narrow its focus of activity, abandoning certain industries and developing those in which it has a comparative advantage. The results would be that international trade would grow as nations export their surpluses and import those products that they no longer manufacture.

*Id.* at 32.

freely across national borders, each nation will focus its economic activity in areas where it enjoys a comparative advantage.<sup>126</sup> It will concentrate on economic sectors where it can produce a product or service at a lower marginal cost than competing nations.

GATT, NAFTA, and the EU seek the free movement of goods and the economic benefits of comparative advantage by eliminating or reducing the use of import and export restrictions. These trade regimes severely curtail individual nations' authority to impose limits or tariffs on imported goods, as well as their authority to subsidize domestic goods. Nations complying with these trade conditions are entitled to similar treatment from other countries.<sup>127</sup> Nations who violate these conditions are subject to countervailing tariffs and quantitative restrictions from other countries.<sup>128</sup>

The principle of comparative advantage, in combination with the international trade regime described above, is economically sensible.<sup>129</sup> Together they establish a framework that encourages the most cost-effective use of resources.<sup>130</sup> From an ecological perspective, however, these principles and paradigms present many problems.

The most cost-effective means of extracting, obtaining, and processing natural resources may also be the most environmentally destructive. In an unregulated system, nations (or companies) that use the most harmful environmental practices, or purchase natural resources from regions that use such harmful practices, enjoy a comparative advantage over nations (or com-

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<sup>126</sup> *Id.*

<sup>127</sup> See generally U.S. TRADE REPRESENTATIVE'S OFFICE, *supra* note 15.

<sup>128</sup> See Ragosta, *supra* note 83, at 262.

<sup>129</sup> Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L.J. 2039, 2041-42 (1993). Stewart argues that:

The accomplishments of the General Agreement on Tariffs and Trade (GATT) in lowering tariffs and other barriers to trade have helped create a global marketplace in goods and services. The GATT was adopted in 1947 in order to promote trade liberalization. Trade advances global welfare by promoting specialization in accordance with comparative advantage, expanding opportunities to realize scale economies, tightening the discipline of competition, and stimulating wide dissemination of knowledge and technological innovation. Empirical studies confirm that trade liberalization promotes economic growth . . . .

*Id.* at 2041-42 (citations omitted).

<sup>130</sup> See Goldsmith, *supra* note 125, at 32 (paraphrasing the economic comparative advantage theories of David Ricardo).

panies) that maintain more stringent environmental standards.<sup>131</sup> Because multinational companies can choose where to purchase raw natural resources, and where to establish resource processing facilities, there is competition to attract and retain these companies. At the global level, this competition places downward pressure on environmental standards resulting in what many economists call a "race to the bottom."<sup>132</sup>

The downward pressure created by unregulated international trade undermines efforts to protect and sustainably manage native forests in at least five ways. First, it encourages companies based in the developed world to obtain raw wood from developing countries that require less ecologically-protective forestry practices.<sup>133</sup> Second, it weakens the economic position of companies and nations that are committed to ecologically sustainable forestry.<sup>134</sup> Third, it discourages national governments from actively promoting the market for wood-substitutes, such as hemp and kenaf, and from providing more direct financial assistance to ecologically sustainable forestry enterprises. Fourth, it jeopardizes national policies that restrict the export of raw logs and promote local timber processing.<sup>135</sup> Finally, unregulated trading systems such as GATT and NAFTA hinder the cre-

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<sup>131</sup> See Komoroski, *supra* note 16, at 204 ("Clearly, the failure of a foreign government to require any environmental controls on an industry within their jurisdiction, for which industry the U.S. government correspondingly requires extensive environmental controls, allows that foreign industry to enjoy a competitive market advantage over the U.S. industry.") Although Komoroski's comment refers to industries, it is equally applicable to environmental regulation of logging and other natural resource extraction activities.

<sup>132</sup> See generally EARTH ISLAND PRESS, *THE CASE AGAINST FREE TRADE: GATT, NAFTA AND THE GLOBALIZATION OF CORPORATE POWER* (1993).

<sup>133</sup> See WORLD WILDLIFE FUND, *supra* note 2, at 62.

<sup>134</sup> See Komoroski, *supra* note 16, at 202-03. See also Stewart, *supra* note 129, at 2046. Stewart finds that, by the U.S. having such far-reaching and stringent environmental regulatory requirements, "many fear the competitiveness of U.S. firms has been impaired; the nation's ability to attract and retain industry has been seriously undermined. Industry has repeatedly invoked the specter of international competitive disadvantage in opposing stricter environmental standards." *Id.* (citations omitted).

<sup>135</sup> See generally JOHN M. PEREZ-GARCIA, *AN ASSESSMENT OF THE IMPACTS OF RECENT ENVIRONMENTAL AND TRADE RESTRICTIONS ON TIMBER HARVEST AND EXPORTS* (Ctr. for Int'l Trade in Forest Prods., Univ. of Wash. Working Paper No. 33, 1991) (on file at the Pacific Environment and Resources Center).

ation and effective implementation of international environmental regimes that could protect native forests.<sup>136</sup>

The fate of Austria's Tropical Timber Labelling Act provides a vivid example of how existing trade regimes impact forest protection efforts. In 1992, Austria adopted a federal law that introduced a mandatory labelling scheme (regarding logging methods) for all imported timber.<sup>137</sup> The aim of the law was to provide Austrian consumers with a quality label for timber from different types of sustainably managed forests.<sup>138</sup> Although the law did not raise tariffs or impose quantitative restrictions, several timber-producing countries, asserted that the labelling law constituted an impermissible trade barrier under GATT.<sup>139</sup> Fearing that GATT might impose sanctions or authorize countervailing trade measures, Austria repealed the law.<sup>140</sup>

A labelling regime similar to the repealed Austrian law is now being developed in the EU. The proposed EU regime would create an "Eco-Label" to designate products (not only timber) that meet certain objective environmental standards.<sup>141</sup> When the EU announced its intention to apply the regime to wood products in 1995, Jack Creighton, chief executive of the timber giant Weyerhaeuser, attacked the proposal as an unaccept-

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<sup>136</sup> WORLD COMM'N ON FORESTS AND SUSTAINABLE DEV., POSSIBLE MANDATES, KEY ISSUES, STRATEGY AND WORK PLAN 5 (June 1993). The World Commission on Forests and Sustainable Development reports that:

Bans on importing products from tropical forests that do not carry a so-called environmental label have been introduced or are being considered in many countries. Such nontariff barriers violate the UNCED statement of forest principles, which clearly states that "trade in forest products should be based on non-discriminatory and multilaterally agreed rules and procedures consistent with international trade law and practices."

*Id.* See also Paul Stanton Kibel, *The Moveable Feast: Why the International Timber Trade Is Devouring the World's Forests*, 5 HEADWATERS J. 46 (Winter 1995-96).

<sup>137</sup> Hugo M. Schally, *Forests: Toward an International Legal Regime?*, 4 Y.B. OF INT'L ENVTL. L. 30, 38 (1993).

<sup>138</sup> *Id.*

<sup>139</sup> *Trade in Tropical Timber: For the Chop*, ECONOMIST, Jan. 30, 1993, at 61 ("At a GATT council meeting in November, South-East [sic] Asian nations attacked Austria as protectionist. So far, a formal complaint has not been filed. If one is, even Austrian trade officials fear they would lose.").

<sup>140</sup> *Indonesia Welcomes Austrian Plan to Revoke Timber Law*, REUTERS'S NEWswire, Mar. 2, 1993, available in LEXIS, World Library, Reuters File.

<sup>141</sup> See Ray V. Hartwell, III & Lucas Bergkamp, *Eco-Labeling in Europe: New Market-Related Environmental Risks?*, INT'L ENVTL. REP. (BNA), Sept. 23, 1992, at 623.

able trade barrier.<sup>142</sup> Creighton maintained that the proposal was merely a "pretext to keep American and Canadian forest products out of Europe," and viewed the plan as a threat to the "\$2 billion worth of U.S. pulp and paper exports" to the EU.<sup>143</sup>

The Austrian and EU examples illustrate the inflexibility of current international trade rules and GATT's effect on trade-based environmental programs. Caroline Amilien of France's Center for International and European Studies provided a concise outline of the crux of the problem. At a 1994 conference on timber certification at the Yale School of Forestry, Ms. Amilien explained:

Certification and other trade measures face a common set of juridical obstacles, namely compliance with GATT, their consistency with international economic and environmental statements, and their conformity with basic principles of international law. . . . As it may lead to discrimination among products and a restriction of international trade in tropical timber, certification may infringe upon several principles of GATT. . . . Article XI [of GATT] promotes the general elimination of quantitative restrictions. Restricting imports of tropical timber may violate this principle.<sup>144</sup>

Conflicts between forest protection proponents and international trade groups are likely to increase as a result of the 1994 GATT Agreement on Agriculture (GATT Agricultural Agreement) and the 1994 GATT Agreement on Subsidies and Countervailing Measures (GATT Subsidy Agreement).<sup>145</sup> These agreements were attempts to remove public sector interference with international trade by limiting national governments' support for agriculture and restricting the kinds of circumstances in which national governments can finance environmental improvements in the private sector.<sup>146</sup>

These agreements will benefit forest protection efforts in one regard because they will limit government support for de-

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<sup>142</sup> *Timber Industry: Euro Eco-Label Called a Trade Barrier*, GREENWIRE NEWS SERV., June 23, 1995.

<sup>143</sup> *Id.*

<sup>144</sup> Caroline Amilien, *International Legal Issues in Tropical Timber Certification*, paper presented at February 1994 Yale School of Forestry Conference, "Timber Certification: Implications for Tropical Forest Management," at 127-29 (published proceedings on file at the Pacific Environment and Resources Center).

<sup>145</sup> See U.S. TRADE REPRESENTATIVE'S OFFICE, *supra* note 15, at 13-15, 56.

<sup>146</sup> *Id.* at 13, 15.

structive logging activities.<sup>147</sup> Unfortunately, the new GATT accords will do more harm than good, because not only do these agreements fail to effectively distinguish between green (environmentally protective) and brown (environmentally destructive) subsidies, but they also do not authorize government support for sustainable forestry or wood-alternatives. These problems will serve as major obstacles to national programs that aim to raise the environmental standards of domestic logging. The accords will also undercut programs that seek to reduce the underlying demand for timber and wood products.

Consider the case of a government program that provides direct assistance, no-interest loans, or tax breaks to timber companies that practice ecologically sustainable forestry. The goal of such a program would be to enhance the economic viability of existing logging operations that are environmentally responsible and provide fiscal incentives for others to follow suit. Unfortunately, such a program is likely to be deemed an agricultural subsidy under the GATT Agricultural Agreement.<sup>148</sup> Moreover, while the GATT Subsidy Agreement makes an exception for government programs that provide a one-time environmental benefit to industrial plants, no exception exists for natural resource management.<sup>149</sup> A government program to actively promote responsible forest management could therefore constitute a violation of international trade rules.

Government programs to promote the use of wood alternatives, such as hemp and kenaf for paper-making, may also clash with GATT. For instance, to reduce to demand for virgin wood, and thereby protect native forests, governments could provide incentives for farmers to grow hemp or kenaf. Programs could also be established to encourage paper mills and consumers to switch to these alternative sources. Because GATT does not effectively distinguish progressive "green" subsidies for environmental protection from "brown" subsidies for destructive

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<sup>147</sup> *Id.* at 13 ("The Agriculture Agreement will establish meaningful rules and explicit reduction commitments in the areas of export subsidies and domestic subsidies. For the first time, agricultural export subsidies and trade distorting domestic farm subsidies will be subject to explicit multilateral disciplines.").

<sup>148</sup> *Id.* at 15.

<sup>149</sup> *Id.* at 15 ("Government assistance to meet environmental requirements is included in the third category of permissible subsidies, provided such assistance meets certain conditions. Specifically, such assistance must be limited to one-time measures equivalent to not more than 20 percent of the costs of adapting existing facilities to new standards.").

industry and agriculture practices, the promotion of wood alternatives is probably an impermissible "government intervention in world agricultural markets."<sup>150</sup>

GATT also jeopardizes national programs that restrict the exportation of raw logs. Because the majority of a wood product's value is added during the processing stage, the United States and other nations have adopted policies to increase the percentage of logs processed domestically.<sup>151</sup> Raw log export restrictions are closely related to forest management policies, because they can enable countries to obtain greater economic benefit from more limited (and ecologically responsible) logging.<sup>152</sup> However, a GATT dispute resolution between Canada and the United States concluded that national laws requiring the domestic processing of natural resources may violate international trade rules.<sup>153</sup>

The Canada-United States GATT dispute concerned fish, not timber. Canada adopted a regulation which required all salmon or herring caught within British Columbia's coastal waters to be processed in that province.<sup>154</sup> When the regulation was challenged under GATT by the United States, Canada responded that the processing provisions were intended to prevent over-fishing and conserve west coast fish resources.<sup>155</sup> GATT rejected Canada's defense, and determined that the processing requirement "[was] only tangentially aimed at conservation."<sup>156</sup> Under this ruling, a total ban on raw log exports could also be found incompatible with GATT. Such, at least, was the conclu-

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<sup>150</sup> *Id.* at 56. The GATT Agricultural Agreement permits environmental subsidies so long as these subsidies "have no or minimal trade distortion of production effects" and they do not "have the effect of providing price support to producers." *Id.* Because almost all subsidies provide price support and impact production costs, however, these limitations have the practical effect of removing the environmental exception. *Id.*

<sup>151</sup> See PEREZ-GARCIA, *supra* note 135, at 6.

<sup>152</sup> *Id.* ("The overall net effect [of raw log export bans] will be to stimulate processing of logs into lumber and plywood at home.")

<sup>153</sup> GATT Dispute Panel Report on Canada-Measures Affecting Exports of Unprocessed Herring and Salmon, GATT B.I.S.D. (35th Supp.) at 98 (1988) [hereinafter Canadian Fish Exports].

<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> Michael W. Dunleavy, *The Limits of Free Trade: Sovereignty, Environmental Protection and NAFTA*, 51 U. TORONTO FAC. L. REV. 204, 226 (1993).

sion of a 1989 legal analysis conducted by the United States Congressional Research Service.<sup>157</sup>

In addition to their impact on national forest policies, GATT and other regional trade regimes have limited the effectiveness of international efforts to protect native forests. The United Nations Statement of Forest Principles, signed at the 1992 Earth Summit in Rio de Janeiro, provides an excellent example.<sup>158</sup> Although the Statement of Forest Principles provides inspirational language about governments' duty to protect biodiversity and ecosystems,<sup>159</sup> the agreement disallows trade policies based on forest management practices. As a 1993 report by the World Commission on Forests and Sustainable Development emphasized:

Bans on importing products from tropical forests that do not carry a so-called environmental label have been introduced or are being considered in many countries. Such non-tariff barriers violate the UNCED statement of forest principles, which clearly states that "trade in forest products should be based on non-discriminatory and multilaterally agreed rules and procedures consistent with international trade laws and practices."<sup>160</sup>

Similar restrictions reduced the scope and impact of the 1993 North American Agreement on Environmental Cooperation (NAAEC).<sup>161</sup> NAAEC was adopted in response to concern over the potential environmental impact of NAFTA.<sup>162</sup> Although NAAEC requires signatory nations to enforce existing environmental laws, it does not require signatory nations to adopt envi-

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<sup>157</sup> ANDERSON & OLSON, *supra* note 47, at 77 ("A legal analysis of options for regulating log exports by the Congressional Research Service (CRS) concluded that banning private log exports would be permitted under the Constitution but that it would probably violate the General Agreement on Tariffs and Trade (GATT).").

<sup>158</sup> *Non-Legally Binding Authoritative Statement of Forest Principles for a Global Consensus on the Management, Conservation, and Sustainable Development of All Types of Forests*, Report of the United Nations Conference on Environment and Development, U.N. Doc. A/Conf/151/26, Annex 3 (1992) [hereinafter *Global Forest Principles*].

<sup>159</sup> *Id.*, art. 2-4, at 291-92. The Statement of Forest Principles calls upon signatory nations to protect "fragile ecosystems" and assure that the world's forests are "sustainably managed." *Id.*

<sup>160</sup> WORLD COMM'N ON FORESTS AND SUSTAINABLE DEV., *supra* note 136, at 5.

<sup>161</sup> North American Agreement on Environmental Cooperation, 32 I.L.M. 1480 (1993) [hereinafter NAAEC].

<sup>162</sup> NAFTA, *supra* note 123.

ronmental laws or adhere to minimal environmental standards.<sup>163</sup> Moreover, NAFTA prohibits signatory nations from adopting trade measures based on minimum environmental standards (such as ecologically sustainable logging or endangered species' habitat preservation).<sup>164</sup>

In the context of Canadian forest mismanagement, NAAEC has therefore played no role in stopping clearcut logging or in improving the protection of endangered species. Free trade concerns removed the teeth that would have enabled it to play an effective role.<sup>165</sup> As a result, to date the agreement has provided environmental rhetoric but little substance.

#### D. *The Destructive Policies of the World Bank and Other Multilateral Banks*

The World Bank, with headquarters in Washington D.C., was created after World War II.<sup>166</sup> Along with its sister organizations, the International Monetary Fund and GATT, the World Bank's primary task was to create international financial stability and promote global economic growth.<sup>167</sup> The Bank's primary strategy for achieving these goals was to provide private investment guarantees in countries that were struggling economically.<sup>168</sup> Direct lending was envisioned as a secondary priority, at best.<sup>169</sup> The Bank was generally expected to focus its initial ac-

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<sup>163</sup> NAAEC, *supra* note 161, art. 5, 32 I.L.M. at 1483.

<sup>164</sup> NAFTA, *supra* note 123, art. 904.2, 32 I.L.M. at 387. NAFTA allows signatories to ban the import of "products" that do not meet certain national environmental standards. *See, e.g., id.* 706(a) (NAFTA does not allow signatories to discriminate on the basis of production methods (such as logging practices)).

<sup>165</sup> Dunleavy, *supra* note 156, at 248. Dunleavy argues that the agreement reached in NAFTA is a

deferral of environmental issues to parallel and post-agreement discussions [which] is symptomatic of the relegation of environmental concerns to secondary consideration relative to trade imperatives. . . . The conclusion of a North American free trade agreement with environmental considerations held in abeyance represents a fundamental failure to recognize the unavoidable linkage in this modern age of trade and environmental issues.

*Id.*

<sup>166</sup> *See generally* ALFRED E. ECKES, JR., A SEARCH FOR SOLVENCY: BRETON WOODS AND THE INTERNATIONAL MONETARY SYSTEM 1941-1971 (1975) (discussing the development of the international monetary system).

<sup>167</sup> *Id.*

<sup>168</sup> Bruce Rich, *The Cuckoo in the Nest: Fifty Years of Political Meddling by the World Bank*, *ECOLOGIST*, Jan./Feb. 1994, at 8, 9.

<sup>169</sup> *Id.* at 9.

tivities on helping to reconstruct the war-ravaged economies of Europe.<sup>170</sup>

As it turned out, post-war Europe did not need what the Bank had to offer. Because Europe's national governments were politically stable, private investment guarantees were rarely needed.<sup>171</sup> In Europe, moreover, the primary source of post-war lending was the Marshall Plan and not the World Bank.<sup>172</sup> In short, the main premise for creating the World Bank proved to be incorrect, resulting in what one commentator called a "still-born" institution.<sup>173</sup>

The World Bank responded by shifting its focus to direct lending in the developing world. From the 1950s onward, Bank lending focused on "institution-building." The World Bank facilitated the lending process by promoting the creation of autonomous agencies within governments that would be continual World Bank borrowers.<sup>174</sup> Such agencies were intentionally established to be relatively independent financially, as well as politically, from their host governments.<sup>175</sup>

Until the late 1980s, the World Bank funded projects with little or no environmental impact assessment or review.<sup>176</sup> As a result, billions of dollars were invested in projects that caused severe environmental harm.<sup>177</sup> According to a 1990 report by the World Resources Institute (WRI), large scale development assistance projects related to resettlement, mining, irrigation, energy, and transportation infrastructure have contributed greatly to world deforestation.<sup>178</sup> The WRI study further concluded that

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<sup>170</sup> *Id.*

<sup>171</sup> *Id.*

<sup>172</sup> *Id.*

<sup>173</sup> *Id.*

<sup>174</sup> *Id.*

<sup>175</sup> EDWARD S. MASON & ROBERT E. ASHER, *THE WORLD BANK SINCE BRETTON WOODS 701-02* (1973).

<sup>176</sup> Dennis J. Scott, *Retreating from Global Awareness*, ENVTL. L., RECORDER, Fall 1993, at 42. Scott discusses World Bank lending practices:

For years, the World Bank has been criticized for its failure to consider the impacts of its projects upon the environment. The World Bank typically funded large development projects, such as the construction of major dams to provide hydroelectric power, with little or no consideration of the devastating impacts such projects could have upon fragile ecosystems of the local populations living in the region.

*Id.*

<sup>177</sup> See Bruce M. Rich, *The Multilateral Development Banks, Environmental Policy, and the United States*, 12 *ECOLOGY L.Q.* 681 (1985).

<sup>178</sup> WINTERBOTTOM, *supra* note 11, at 45.

these schemes have been used to "convert or destroy large areas of forest for projects of questionable economic value."<sup>179</sup>

The World Bank's colonization project in Polonoreste, Brazil, is an excellent example of this destructive assistance. In Polonoreste, the World Bank financed a project to create new rural settlements and promote subsistence agriculture.<sup>180</sup> This project, which was intended to reduce urban population pressures, called for the construction of a 1,500 kilometer paved highway through the heart of the Amazon Basin.<sup>181</sup> The results of the project were economically and environmentally disastrous. The highway construction, as well as slash and burn land clearing for agriculture (made possible by access from the new highway), led to widespread deforestation.<sup>182</sup> Forests containing endangered and irreplaceable biodiversity were destroyed.<sup>183</sup> In addition, thousands of forest-dwelling indigenous people were forced off their traditional lands.<sup>184</sup>

In 1987 the World Bank responded to the Polonoreste incident and to other destructive forestry projects by announcing plans to reform its project cycle and environmental assessment procedures.<sup>185</sup> These reform efforts culminated in 1991 with the promulgation of Operational Directive 4.01, which required the preparation of an environmental assessment for all World Bank projects, and acknowledged the need for public participation in the planning and approval process.<sup>186</sup> Although Directive 4.01 represents a step in the right direction, thus far it has failed to improve the World Bank's environmental performance. While the new environmental assessment process often identifies environmental problems, these problems are usually ignored or

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<sup>179</sup> *Id.*

<sup>180</sup> Martens, *supra* note 37, at 494.

<sup>181</sup> *Id.*

<sup>182</sup> Rich, *supra* note 177, at 694-96.

<sup>183</sup> *Id.*

<sup>184</sup> *Id.*

<sup>185</sup> See Andrew Steer, *Foreword* to WORLD BANK, MAINSTREAMING THE ENVIRONMENT: THE WORLD BANK GROUP AND THE ENVIRONMENT SINCE THE RIO EARTH SUMMIT at iii (1995) ("The Bank is now entering its 'third generation' of environmental reforms. The first, in the 1987-92 period, was characterized by a major focus on reducing potential harm from Bank-financed projects and, specifically, the codification of environmental assessment (EA) procedures.").

<sup>186</sup> Scott, *supra* note 176, at 42.

downplayed at the loan-approval stage.<sup>187</sup> As Bruce Rich, International Program Director for the Environmental Defense Fund, explains: "The [World Bank's] regional environmental staff are supposed to exercise closer scrutiny over projects, but hampered by both limited budgets and limited authority, they are all but powerless to stop ambitious country directors from riding roughshod over Bank policies."<sup>188</sup>

Unfortunately, the World Bank's pattern of destructive assistance has been repeated by other multilateral development banks.<sup>189</sup> For example, the European Bank for Reconstruction and Development continues to finance natural resource development projects without adequately assessing and mitigating environmental impacts.<sup>190</sup>

#### IV

##### INTERNATIONAL EFFORTS TO REFORM THE TIMBER TRADE AND PROTECT NATIVE FORESTS

Several international initiatives have been proposed which would improve forest management and protect native forests. Some of these initiatives have merely sought to put an environmental spin on destructive logging and deforestation policies.<sup>191</sup> Other efforts, however, have at least attempted to protect native forests and impact the economic forces that are encouraging destructive logging.<sup>192</sup> For the reasons outlined in this Article's ear-

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<sup>187</sup> *Id.* ("A cultural orientation toward loan approval perpetuates World Bank support of environmentally damaging projects. Pre-loan assessment procedures often flag policy violations, which are then ignored in the rush to grant funding.").

<sup>188</sup> Rich, *supra* note 168, at 13.

<sup>189</sup> See Chris A. Wold & Durwood Zaelke, *Promoting Sustainable Development and Democracy in Central and Eastern Europe: The Role of the European Bank for Reconstruction and Development*, 7 AM. U. J. INT'L L. & POL'Y 559 (1992).

<sup>190</sup> See Donald M. Goldberg & David B. Hunter, *EBRD's Environmental Promise: A Bounced Check?*, CENTER FOR INT'L ENVTL. L., ENVTL. L. BRIEF at 2 (Dec. 1994) (on file at the Pacific Environment and Resources Center).

<sup>191</sup> FRIENDS OF THE EARTH AND WORLD RAINFOREST MOVEMENT, *supra* note 23, at 3 ("[T]he International Tropical Timber Organization (ITTO) has become an alibi for inaction at the international level and a diversion from effective change at the national level.").

<sup>192</sup> See WINTERBOTTOM, *supra* note 11, at 27. Winterbottom, in his discussion of the efforts of the Tropical Forest Action Plan, states that:

The plan arose from a widely shared concern that more effective programs in forest conservation and sustainable management, increased attention to policy reform both within and outside the forestry sector, and

lier section on international trade rules, even these well-intentioned international initiatives have not fundamentally reformed the timber trade. Although they may have heightened global awareness of the deforestation problem, they have not affected rules governing the import and export of forest-based products. The principle of unregulated international trade, and the environmental consequences of this principle, remains unchanged.

The experience with past and ongoing international forest protection efforts is not only disappointing,<sup>193</sup> but also dangerous. Fragmentation has resulted, with forest protection supporters dispersing their energies in too many directions.<sup>194</sup> Moreover, the sheer number of international forest initiatives wrongly suggests that the international community is doing its part in protecting native forests. A 1994 law review article noted, “[i]nternational attempts at rainforest regulation are as yet inadequate and ineffective. . . . Such unenforceable or cosmetic laws may even do more harm than good by making it appear that some action towards forest preservation is being done.”<sup>195</sup>

#### A. *The International Tropical Timber Agreement and the International Tropical Timber Organization*

The International Tropical Timber Agreement (ITTA) was adopted in 1983 under the auspices of the United Nations Con-

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improved land-use planning and coordination with agricultural and other development programs could help turn the tide against uncontrolled deforestation and wasteful depletion of tropical forest resources. However, many of the institutions controlling the TFAP—FAO, donors, and national governments—seem to have lost sight of these concerns as the plan has been carried out.

*Id.*

<sup>193</sup> Durning, *supra* note 51, at 7 (“Already a string of well meaning initiatives have failed. The Tropical Forestry Action Plan, the International Tropical Timber Agreement, the International Tropical Timber Organization, and the United Nations’ Statement of Forest Principles were each launched with fanfare and high hopes. They have each proved disappointing, if not fruitless.”).

<sup>194</sup> See WORLD RESOURCES INST., *supra* note 7, at 136. See also BIODIVERSITY ACTION NETWORK AND THE ENVIRONMENTAL LIAISON CENTRE INTERNATIONAL, FOREST POLICY AT THE CROSSROADS: A FORUM FOR POLICY-MAKERS AND NGOS ON GLOBAL FOREST POLICY OPTIONS 1 (1995) (on file at the Pacific Environment Resources Center) (“An NGO pointed out the bewildering assortment of recent international initiatives on forests. Several participants emphasized the need to avoid further fragmentation.”).

<sup>195</sup> Hardaway et al., *supra* note 3, at 952.

ference on Trade and Development.<sup>196</sup> It is primarily a commodity agreement designed to regulate the trade in tropical timber, which encompassed a market of more than \$5 billion during fiscal year 1985.<sup>197</sup> Under the agreement, tropical timber is defined as non-coniferous tropical wood for industrial use produced in countries situated in the tropical zone.<sup>198</sup>

The ITTA aims to provide an effective framework for cooperation and consultation between producing and consuming countries. It promotes the expansion and diversification of international trade in tropical timber and the improvement of structural conditions in the market.<sup>199</sup> For instance, it advocates research and development projects that attempt to increase productivity by improving forest management practices.<sup>200</sup> It also encourages other objectives relating to wood use, improving market intelligence, encouraging the processing of tropical timber in producing countries, improving marketing and distribution of exports, and promoting sustainable logging practices.<sup>201</sup>

To implement the agreement, the International Tropical Timber Organization (ITTO), which functions through the International Tropical Timber Council, was established.<sup>202</sup> The ITTO consists of twenty-two producing countries including Brazil, Columbia, India, Indonesia, Malaysia, and Peru; twenty-five consumer nations including Australia, China, Japan, and the United States; and the European Community.<sup>203</sup>

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<sup>196</sup> International Tropical Timber Agreement, *opened for signature* Jan. 2, 1994, U.N. Doc. TD/TIMBER/11/ U.N. Sales No.E.84.II.D.5 (1983), *reprinted in part in* 23 I.L.M. 1195 [hereinafter ITTA].

<sup>197</sup> See Hardaway et al., *supra* note 3, at 948.

<sup>198</sup> ITTA, *supra* note 196, art. 2.

<sup>199</sup> FRIENDS OF THE EARTH AND WORLD RAINFOREST MOVEMENT, *supra* note 23, at 9.

<sup>200</sup> *Id.*

<sup>201</sup> *Id.*

<sup>202</sup> *Id.* at 10. The Charter states that:

The International Tropical Timber Agreement, as opened for signature . . . in November 1983, formally established both the International Tropical Timber Council (ITTC) and the International Tropical Timber Organization (ITTO). The former comprises the intergovernmental forum and decision-making organ of the Agreement, and the latter the permanent Secretariat charged with implementing the Agreement, under the direction of the ITTC.

*Id.*

<sup>203</sup> *Id.* See also ARMIN ROSENCRANZ ET AL., THE PRINCIPLES, STRUCTURE AND IMPLEMENTATION OF INTERNATIONAL ENVIRONMENTAL LAW 34-35 (1995)

Although its major concern is the tropical timber trade, the ITTO has begun to focus on sustainable forest management.<sup>204</sup> For example, the ITTO has called for member nations to file reports covering the legal and institutional framework for forest management policies, areas and distribution of protected and producing forest, as well as statistical information on production, supply, stocks, and market prices of tropical timber.<sup>205</sup> The ITTO has also discussed the possibility of labelling timber from sustainably managed forests.<sup>206</sup> Unfortunately, most nations have not fulfilled their reporting obligations, and no labelling scheme has been approved.<sup>207</sup>

On January 26, 1994, a new ITTA was signed.<sup>208</sup> Similar to the objectives of the original ITTA, the 1994 agreement aims to: (1) promote and support research and development and to improve market intelligence to ensure greater transparency in the international timber market; and (2) promote increased and fur-

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(draft report for the NAT'L SCI. FOUND. PROJECT) (on file at the Pacific Environment and Resources Center).

<sup>204</sup> See Hardaway et al., *supra* note 3, at 949.

<sup>205</sup> ITTA, *supra* note 196, art. 27 (requiring the ITTA to collect and disseminate information from "inter-governmental, governmental and non-governmental organizations, in order to help ensure the availability of recent and reliable data and information on all factors concerning tropical timber.").

<sup>206</sup> *Harmonising Criteria and Indicators*, TROPICAL FOREST UPDATE (ITTO, Yokohama, Japan), Sept. 1995, at 7 (on file at the Pacific Environment and Resources Center). The update states that several purposes may be served by criteria and indicators:

[T]hey may be used to assess the sustainability of forestry operations (at the national or local levels) and to guide programmes aimed at improving forest management, and they may be used in the timber trade as benchmarks for certification programmes. . . . In February [of] this year [1995], a meeting was organized by the Food and Agriculture Organization of the United Nations in cooperation with ITTO to review the possibilities of harmonising the criteria and indicators . . . .

*Id.*

<sup>207</sup> FRIENDS OF THE EARTH AND WORLD RAINFOREST MOVEMENT, *supra* note 23. The Charter notes the ITTO's shortcomings:

In practice, however, the Organization's ability to act as a focal point for collation and dissemination of information has been very unsatisfactory. Although the ITTO is expected to collate statistics on timber prices, levels of stocks and production capacity, as well as tariffs, quotas and freight rates, at present even basic information on volumes of timber traded is neither consistent nor reliable. Information on removals of timber from forests, the quality of forest areas and forest management is deficient.

*Id.*

<sup>208</sup> International Tropical Timber Agreement, *done* Jan. 26, 1994, 33 I.L.M. 1014 [hereinafter 1994 ITTA].

ther processing of tropical timber from sustainable sources in producing member countries.<sup>209</sup> The agreement also seeks to improve marketing and distribution of tropical timber exports and to encourage member states to develop national policies aimed at sustainable utilization and conservation of forests.<sup>210</sup>

The ITTA has recently incorporated new provisions calling for all tropical timber exports to come from sustainably managed forests by the year 2000.<sup>211</sup> This pledge, labeled Target 2000, calls upon ITTO member-nations to make "progress towards achieving sustainable management of tropical forests, and trade in tropical timber from sustainably managed resources by the year 2000."<sup>212</sup> In addition, the 1994 ITTA established a new forest conservation program called the Bali Partnership Fund.<sup>213</sup> Under the terms of this new fund, developed countries pledge to provide significant resources to help developing countries pay for forest conservation efforts.<sup>214</sup>

The Target 2000 program and the Bali Partnership Fund have faced heavy criticism from forest protection advocates.<sup>215</sup> They cite the ITTO's refusal to establish objective standards for sustainable forestry and the minimal amount of funding currently pledged to the forest conservation fund as reasons for their ineffectiveness.<sup>216</sup> The new Target 2000 provisions are viewed as environmental window-dressing for the ITTA/ITTO's primary purposes—namely to increase the supply of timber and the profitability of the timber industry.<sup>217</sup>

In a comprehensive review of the ITTA's impact on forest management, the international environmental group Friends of the Earth (FOE) observed: "Norms and guidelines established by the ITTO have not been backed up with mechanisms to ensure, promote or even to monitor compliance with these norms,

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<sup>209</sup> *Id.*, art. I, 33 I.L.M. at 1017.

<sup>210</sup> *Id.*

<sup>211</sup> *Id.*, 33 I.L.M. at 1016 (Preamble) ("Noting the commitment of all members, made in Bali, Indonesia, in May 1990, to achieve exports of tropical timber products from sustainably managed sources by the year 2000 . . .").

<sup>212</sup> FRIENDS OF THE EARTH AND WORLD RAINFOREST MOVEMENT, *supra* note 23, at 31.

<sup>213</sup> 1994 ITTA, *supra* note 208, art. 21, 33 I.L.M. at 1028.

<sup>214</sup> *Id.*

<sup>215</sup> See generally Marcus Colchester, *The International Tropical Timber Organization: Kill or Cure for the Rainforests?*, 20 *ECOLOGIST* 166 (1990).

<sup>216</sup> *Id.*

<sup>217</sup> *Id.*

or provide incentives for their implementation, let alone to enact sanctions against those who have not complied.”<sup>218</sup> The FOE report concluded that the ITTO “has become an alibi for inaction at the international level and a diversion from effective change at the national level. The ITTO has neither achieved an effective reform of the timber trade nor provided any mechanism to achieve such reform.”<sup>219</sup>

Aside from the ITTA’s failure to make progress on forest conservation or trade reform, there is an additional weakness in the regime. In its current form, the ITTA covers only tropical forests and any attempts to expand the regime to all types of timber (and forests) have been strongly resisted by consumer countries such as Japan.<sup>220</sup> Thus, even if the ITTA improves the effectiveness of its forest conservation programs, the world’s temperate forests will not benefit from this progress. Native forests in Scandinavia, Russia, North America, and Chile will still remain at risk.

#### B. *Commission on Sustainable Development and the Biodiversity Convention*

At the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, an agreement was reached on the conservation and sustainable use of the world’s biodiversity. The Convention on Biological Diversity (Biodiversity Convention) went into effect September 7, 1992, after it was ratified by the required minimum of 30 countries.<sup>221</sup>

The Convention defines biological diversity as “the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity

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<sup>218</sup> FRIENDS OF THE EARTH AND WORLD RAINFOREST MOVEMENT, *supra* note 23, at 3.

<sup>219</sup> *Id.*

<sup>220</sup> WORLD RESOURCES INST., *supra* note 7, at 136 (“In 1993, ITTA was being renegotiated, and there was heated debate over whether in the future it should include all timbers. Brazil, Malaysia, and Northern non-governmental organizations (NGOs) supported this proposal; consumer countries were generally opposed.”).

<sup>221</sup> Convention on Biological Diversity, *opened for signature* June 5, 1992, 31 I.L.M. 818, 837 (entered into force Sept. 7, 1992) [hereinafter Biodiversity Convention]. *See also* United Nations Convention on Biological Diversity, *opened for signature* June 5, 1992, 31 I.L.M. 1004.

within species, between species and of ecosystems."<sup>222</sup> The Convention relates to native forests in that such forests are home to much of the world's animal and plant species, and constitute diverse and complex ecosystems.<sup>223</sup> Moreover, because native forests often protect surrounding lowland and river ecosystems, their destruction can have profound detrimental effects on non-forest biological diversity.<sup>224</sup>

Although the Biodiversity Convention sets forth numerous obligations, most of these are aspirational and offer no specific standards or methods to ensure compliance. Article 8(c) requires that signatory nations "[r]egulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use."<sup>225</sup> Article 8(d) obliges countries to "[p]romote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings."<sup>226</sup> Under article 10(b), nations agree to "[a]dopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity."<sup>227</sup>

The environmentally progressive provisions listed above, however, are balanced against provisions that reaffirm each nation's sovereign right to manage and exploit its natural resources, and to adopt its own nature protection standards.<sup>228</sup> Taken as a whole, the Biodiversity Convention is broad and vague enough to be consistent with almost all natural resource policies, whether these policies are environmentally protective or destructive. Despite these conflicting provisions, most environmentalists have generally praised the Biodiversity Convention for at least acknowledging the global threat to endangered species and ecosys-

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<sup>222</sup> Biodiversity Convention, *supra* note 221, art. 2, 31 I.L.M. at 823.

<sup>223</sup> See *supra* notes 44-47 and accompanying text.

<sup>224</sup> See *supra* notes 64-65 and accompanying text.

<sup>225</sup> Biodiversity Convention, *supra* note 221, art. 8(c), 31 I.L.M. at 825.

<sup>226</sup> *Id.*, art. 8(d), 31 I.L.M. at 825.

<sup>227</sup> *Id.*, art. 10(b), 31 I.L.M. at 827.

<sup>228</sup> *Id.*, at 822-23 (Preamble) ("*Reaffirming* that States have sovereign rights over their own biological resources . . . . *Recognizing* that economic and social development and poverty eradication are the first and overriding priorities of developing countries.").

tems, yet at the same time faulting the agreement for its lack of enforcement mechanisms.<sup>229</sup>

UNCED resulted in the creation of a new institution, the Commission on Sustainable Development (CSD), to help implement and monitor compliance with the Biodiversity Convention and the other agreements signed at the Rio conference.<sup>230</sup> The CSD, however, has been unable to establish more precise definitions of the Convention's terms, let alone determine whether individual nations are in compliance with these terms.

Additionally, the CSD has failed to establish objective criteria and indicators for sustainable forest management.<sup>231</sup> Until these objective criteria and indicators are set forth, there are no standards by which the CSD can monitor forest sector compliance with the Biodiversity Convention. In the absence of compliance standards, enforcement and effective implementation of the agreement is extremely difficult, if not impossible.

In November 1995, the CSD took some steps that indicated that it may be willing to play a more constructive role in the area of global forest protection. At a meeting in Jakarta, Indonesia, the CSD backed off somewhat from its 1994 rejection of several proposals for an international forest protection protocol.<sup>232</sup> Although it did not commit to any specific goals, the CSD's Inter-Governmental Panel on Forests has agreed to consider proposals for an international forest agreement.<sup>233</sup> The CSD's willingness to serve as a forum for such proposals is a positive development.<sup>234</sup> It seems unlikely, however, that the CSD will take the lead in either drafting or promoting a binding international agreement to protect native forests.

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<sup>229</sup> See Jutta Brunee et al., *Beyond Rio? The Evolution of International Environmental Law*, ALTERNATIVES, Nov. 1993, at 16 (on file at the Pacific Environment and Resources Center).

<sup>230</sup> See *Institutional Arrangement to Follow Up the United Nations Conference on Environment and Development*, G.A. Res. 191, U.N. GAOR 2d Comm., 47th Sess., U.N. Doc A/47/191 (1992).

<sup>231</sup> BIODIVERSITY ACTION NETWORK AND THE ENVIRONMENTAL LIAISON CENTRE INTERNATIONAL, *supra* note 194, at 1-3.

<sup>232</sup> *Forests Back on the Agenda*, ARBORVITAE, Jan. 1996, at 1 (Forest Conservation Newsletter of the International Union for the Conservation of Nature and the World Wildlife Fund) (on file at the Pacific Environment and Resources Center).

<sup>233</sup> *Id.*

<sup>234</sup> *Id.*

### C. *United Nations Statement of Forest Principles*

At the 1992 UNCED meeting, more than 178 states adopted a statement of principles for the sustainable management of forests.<sup>235</sup> Although the principles adopted are broadly worded, and at times somewhat inconsistent, the statement represents the first direct attempt to address forest management practices in the context of international law. The agreement title, *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests*, reflects the difficult politics that surrounded its drafting and adoption. Many environmental and human rights groups were hopeful that the 1992 UNCED meeting would produce a binding global forest protection agreement.<sup>236</sup> Strong resistance by developing countries, such as India and Malaysia, as well as multinational corporate interests, however, made such an agreement impossible.<sup>237</sup> Instead, what finally emerged was a non-binding "soft" legal instrument containing fifteen principles, thirteen of which merely recommend what states "should do" to ensure sustainable forestry practices.<sup>238</sup>

Specifically, the U.N. Statement of Forest Principles (SFP) calls for information and technological exchanges between parties to the agreement, encourages public participation—including that of indigenous people likely to be affected by a proposed forestry project—and acknowledges the extreme importance of conducting sustainable forestry practices.<sup>239</sup> Contrary to these more progressive, aspirational provisions, the SFP also reaffirms each nation's exclusive sovereign jurisdiction over its forests, as well as

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<sup>235</sup> See generally *Global Forest Principles*, supra note 158.

<sup>236</sup> Paul Lewis, *Talks in Rio Wrap Up Principles for Preserving the World's Forests*, N.Y. TIMES, June 13, 1992, at 4. The article states that:

The Forest Principles chart a tortuous middle course between the desire of countries with tropical forests, like Malaysia, India and Brazil, to assert their sovereignty over a valuable natural resource and the wish of most Northern countries to define forests as a global asset. William K. Reilly, Administrator of the Environmental Protection Agency, expressed some disappointment with the outcome today, saying the principles were "not as strong as we would have liked."

*Id.*

<sup>237</sup> *Id.*

<sup>238</sup> See *Global Forest Principles*, supra note 158. See also Michael McCarthy, *Big Powers Forced to Settle for Compromise on Forests*, TIMES (LONDON), June 15, 1992, at 12.

<sup>239</sup> *Global Forest Principles*, supra note 158, Principles 2(b), 4, 5(a) and 11.

each nation's right to establish and determine the environmental appropriateness of forest management standards.<sup>240</sup> The SFP also declares that national forest policies should not contradict existing rules pertaining to international trade.<sup>241</sup>

Because of its non-binding status, and because in certain respects it strengthens the legal right of nations to destructively log native forests, many were disappointed by the final form of the SFP.<sup>242</sup> Even though negotiations surrounding the issue were contentious, some believe that the agreement nonetheless signifies progress.<sup>243</sup> Its defenders argue that, although weak and often contradictory, the SFP at least provides a framework and starting point for future global forest protection initiatives.<sup>244</sup>

The CSD, discussed above, is currently involved in helping implement the SFP. In June 1995, the CSD established an Intergovernment Panel on Forests to assess previous actions to combat deforestation and propose new measures to encourage sustainable development of forests.<sup>245</sup> There have also been proposals for the CSD to add a binding forest protocol to the Biodiversity Convention.<sup>246</sup> Ideally, such a protocol could

<sup>240</sup> *Id.*, Principles 1(a) & 2(a)-2(b).

<sup>241</sup> *Id.*, Principles 13(a) & 14. Principle 13 (a) holds: "Trade in forest products should be based on non-discriminatory and multilaterally agreed rules and procedures consistent with international trade law and practices. In this context, open and free trade in forest products should be facilitated." Principle 14 holds: "Unilateral measures, incompatible with international obligations or agreements, to restrict and/or ban international trade in timber or other forest products should be removed or avoided . . . ."

<sup>242</sup> See McCarthy, *supra* note 238, at 12.

<sup>243</sup> Lewis, *supra* note 236, at 4 ("But some other Western officials said the principles went further than they had expected at the start of the summit talks.").

<sup>244</sup> WORLD COMM'N ON FORESTS AND SUSTAINABLE DEV., *supra* note 136, at 2.

<sup>245</sup> *Forest News*, CSD UPDATE, Vol. II, No. 1 (Secretariat of the United Nations Comm'n on Sustainable Dev., New York, N.Y.) 9-10 (July 1995) <gopher://gopher.un.org:70/00/esc/cn17/1995-96/update/update5.txt>.

<sup>246</sup> BIODIVERSITY ACTION NETWORK AND THE ENVIRONMENTAL LIAISON CENTRE INTERNATIONAL, *supra* note 194, at 2. BIONET and ELCI find governments disagree on a need for a forest convention and thus have trouble beginning negotiations to further this end:

In this context, the need to operate on a consensus basis was stressed. One participant stressed it was premature to consider deciding between a forest convention and a forest protocol under the Biodiversity Convention, since the rationale for either has not been firmly established. One NGO noted that a weak forest convention would not receive support from most NGOs. There was wide agreement that a definitive choice now on a legal instrument or instruments on forests was premature.

strengthen, or possibly replace, the somewhat tentative provisions of the SFP.

Because it is the first attempt to forge global consensus on the issue of forest management, the SFP is a significant document, providing the foundation for the future implementation of an effective global forest protection regime.<sup>247</sup> In its current form, however, the SFP does little to improve native forest protection. The right of nations to destructively log, and the primacy of unregulated international trade in forest products, remain firmly in place.

#### D. *Convention on the International Trade in Endangered Species*

As of 1995, over 113 nations have signed the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).<sup>248</sup> CITES does not seek to directly protect endangered species or the development practices that destroy their habitats. Rather, it aims to reduce the economic incentive to kill endangered species by closing off the international market.<sup>249</sup> The primary objective of CITES is to restrict or prevent international commercial trade in endangered species or products derived from such species.

CITES regulates by means of an international permit system.<sup>250</sup> For plant and animal species threatened with extinction, international import or export is generally forbidden.<sup>251</sup> For plant and animal species suffering decline, but not yet facing extinction, international permits must be secured before importation or exportation can occur.<sup>252</sup> In theory, CITES permits the endangered species trade to be monitored and controlled, so that the trade does not cause species extinction or decline.

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*Id.*

<sup>247</sup> Lewis, *supra* note 236, at 4. ("It was also suggested that the proposed new Sustainable Development Commission, which will monitor compliance with commitments made at the Earth Summit, could call for negotiations on a binding treaty when it reviews the way the world's forests are being managed.").

<sup>248</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora, *opened for signature* Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 (entered into force on July 1, 1975) [hereinafter CITES].

<sup>249</sup> *Id.*, art. II, III, 27 U.S.T. at 1092-93, 993 U.N.T.S. at 245-46.

<sup>250</sup> *Id.*, art. IV, 27 U.S.T. at 1095-97, 993 U.N.T.S. at 247-48.

<sup>251</sup> *Id.*, art. III, 27 U.S.T. at 1093-94, 993 U.N.T.S. at 246-47.

<sup>252</sup> *Id.*, art. IV, V, 27 U.S.T. at 1095-98, 993 U.N.T.S. at 247-48.

In recognizing the connection between conservation of natural resources and international trade, CITES is rightfully credited as a breakthrough agreement. By restricting or eliminating the international market for certain products, the treaty aims to reduce the poaching of many endangered species.<sup>253</sup> As such, CITES represents an acknowledgement by the international community that, at least in certain instances, there are justifiable environmental exceptions to the principle of unregulated trade.

Unfortunately, the exception CITES establishes is very narrow. Most significantly, the CITES exception does not include products made possible by the destruction of endangered species' critical habitats.<sup>254</sup> Because the destruction of natural habitat plays a much larger role in global species extinction than hunting,<sup>255</sup> CITES has not improved the condition of most endangered species.

For example, many lumber and paper products are obtained from the unsustainable logging of native forests containing endangered species.<sup>256</sup> CITES does not require nations to ban or restrict the import of such lumber or paper products, only the import of endangered plants or animals that happen to rely on the native forest for their existence.<sup>257</sup>

CITES serves as an important example of how the regulation of international trade can positively impact environmental protection. In its present form, however, CITES is too narrow in scope to reform the timber trade and protect native forests.

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<sup>253</sup> See Christine Crawford, *Conflicts Between the Convention on International Trade in Endangered Species and the GATT in Light of Actions to Halt the Rhinoceros and Tiger Trade*, 7 GEO. INT'L ENVTL. L. REV. 555, 560-65 (1995) (describing efforts under the Treaty to limit trade in rhinoceros and tiger parts).

<sup>254</sup> PATRICIA W. BIRNIE & ALAN E. BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* 475 (1992) ("CITES is not designed to protect and conserve migratory or other species in their habitats or to protect them from threats to their existence, such as pollution, over-exploitation, or by-catches. Its sole aim is to control or prevent international commercial trade in endangered species . . .").

<sup>255</sup> Biodiversity Convention, *supra* note 221, at 822 (Preamble) ("Noting further that the fundamental requirement for the conservation of biological diversity is the *in-situ* conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings . . .").

<sup>256</sup> See ANDERSON & OLSON, *supra* note 47, at 6-7 (discussing the spotted owl whose critical habitat is the Pacific Northwest old growth forests); Gordon, *supra* note 48, at 13-16 (discussing the Siberian Tiger, whose critical habitat is the native forests of Russian Far East).

<sup>257</sup> See CITES, *supra* note 248.

E. *The United Nations Food and Agriculture Organization's Tropical Forest Action Plan*

In June 1985, the FAO launched the Tropical Forest Action Plan (TFAP).<sup>258</sup> The TFAP arose from a recognition that more effective programs in forest conservation and sustainable land-use planning and management, along with increased attention to policy reform, could curb the severity of the deforestation problem in tropical countries.<sup>259</sup> The plan identified five "priority" areas in the development and conservation of tropical forest resources: forestry in land use, forest-based industrial development, fuelwood and energy, conservation of tropical forest ecosystems, and institution building.<sup>260</sup>

When the TFAP was launched, many environmental groups were optimistic about its potential to arrest deforestation rates.<sup>261</sup> The FAO had worked closely with several environmental groups, particularly the World Resources Institute, in developing the program.<sup>262</sup> Moreover, the TFAP appeared willing to focus on many of deforestation's underlying problems, including irresponsible funding by international agencies and the failure of governments to implement sustainable land-management and ecosystem protection programs.<sup>263</sup>

The TFAP is designed to operate at two basic levels. First, it provides a forum to help coordinate the programs and investments of the numerous U.N. development agencies involved in the forestry sector.<sup>264</sup> Second, it establishes a process for tropical countries to formulate their own comprehensive forest management plans.<sup>265</sup> The TFAP has so far failed to make significant progress on either of these fronts. U.N. development agencies have continued to promote forest sector policies that undermine native forest protection. Moreover, the national forest policies

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<sup>258</sup> *Tropical Forest Action Plan*, U.N. Food and Agriculture Commission on Forest Development, 4th Sess., Agenda Item 56, at 1-19, U.N. Doc. TFAP E.42 XVI. 14 (1985).

<sup>259</sup> WINTERBOTTOM, *supra* note 11, at 27.

<sup>260</sup> Hardaway et al., *supra* note 3, at 950 (citing World Wildlife Fund, *The Importance of Tropical Forest, and the Cost of Destruction*, in TROPICAL FOREST CONSERVATION: WORLD WILDLIFE FUND INTERNATIONAL POSITION PAPER, at 21.).

<sup>261</sup> See Durning, *supra* note 51, at 7.

<sup>262</sup> See WINTERBOTTOM, *supra* note 11, at 3.

<sup>263</sup> *Id.*

<sup>264</sup> WORLD RESOURCES INST., *supra* note 7, at 136.

<sup>265</sup> *Id.*

developed under the TFAP have, if anything, called for more intensive and destructive logging of native forests.

More than 50% of TFAP investment has gone towards forestry and forest industries, while only 20% has gone towards forest conservation programs.<sup>266</sup> These priorities are also reflected in national plans developed under the TFAP. Under Cameroon's TFAP plan, 14 million hectares of untouched primary forest will be made available for logging.<sup>267</sup> Under Peru's TFAP plan, logging in primary Amazonian forest will increase 30% to 50%.<sup>268</sup>

The World Resources Institute, one of the TFAP's chief sponsors and drafters, has criticized the plan. In a comprehensive report entitled *Taking Stock: The Tropical Forestry Action Plan After Five Years*, the World Resources Institute concluded:

Although the plan arose from a widely shared concern that more effective programs in forest conservation and sustainable management . . . could help turn the tide against uncontrolled deforestation and wasteful depletion of tropical forest resources, many of the institutions controlling the TFAP—FAO, donors, and national governments—seem to have lost sight of these concerns as the plan has been carried out. "At a minimum, these agencies have let their interest in accelerating investment in the forestry sector overshadow these concerns

. . . ."<sup>269</sup>

#### F. *Environmental Reform Within the General Agreement on Tariffs and Trade*

In addition to international initiatives to protect native forests directly, there have been attempts to reform the rules and institutions governing international trade. There are now two forums where environmental issues in the context of GATT are being discussed: the Working Group on Environmental Measures and International Trade (EMIT) and the Committee on Trade and the Environment (CTE).

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<sup>266</sup> WINTERBOTTOM, *supra* note 11, at 13 ("Forestry in land use and forest industries together account for more than half the proposed investment in 12 national TFAPs that have recently been completed, while forest conservation and fuel-wood programs only amount to 20 percent of the total investment.").

<sup>267</sup> See Sean Cadman, *The Environmental Impacts of Current Forestry Management Practices and New Forestry Alternatives*, in TOWARDS A GLOBAL TEMPERATE FOREST ACTION PLAN 79 (1992).

<sup>268</sup> *Id.*

<sup>269</sup> WINTERBOTTOM, *supra* note 11, at 27.

EMIT was originally chartered in 1971, just prior to the Stockholm Conference on the Human Environment.<sup>270</sup> It remained dormant and did not convene until 1991, most likely to help GATT develop environmental policy positions for the 1992 UNCED meeting in Rio.<sup>271</sup> EMIT, which is not a negotiating body, lacks the power to formally propose or adopt environmental amendments to GATT.<sup>272</sup> Rather, the United States Trade Representative's Office characterized EMIT's purpose as being "a vehicle for analyzing the nature and significance of the relationships between trade and environmental policy in certain areas."<sup>273</sup>

CTE was established in Marrakesh, Morocco, in April 1994, at the signing of the GATT Uruguay Round.<sup>274</sup> It is authorized to make recommendations regarding conflicts between environmental protection and GATT's trade rules.<sup>275</sup> Like EMIT, CTE cannot propose or adopt environmental amendments to GATT, and its analysis or recommendations need not be followed by other GATT administrative or dispute resolution bodies.<sup>276</sup>

Although EMIT and CTE may someday play a meaningful role in reforming GATT's environmental policies, they currently do not. They have proven ineffective forums for change, as demonstrated by the lack of virility of the 1994 agriculture and subsidy agreements,<sup>277</sup> as well as the findings of a 1992 GATT report entitled *Trade and the Environment*.<sup>278</sup> This report concluded that environmental treaties and domestic legislation, not GATT, are in need of reform.<sup>279</sup> Such outward-looking conclusions indicate that EMIT and CTE have not moved, and probably will not move, GATT in a more progressive direction on environmental issues.

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<sup>270</sup> U.S. TRADE REPRESENTATIVE'S OFFICE, *supra* note 15, at 30.

<sup>271</sup> *Id.*

<sup>272</sup> *Id.*

<sup>273</sup> *Id.*

<sup>274</sup> See Robert Costanza et al., *Sustainable Trade: A New Paradigm for World Welfare*, 37 ENV'T 16, 40-41 (1995).

<sup>275</sup> *Id.*

<sup>276</sup> *Id.*

<sup>277</sup> See *supra* notes 146-51 and accompanying text.

<sup>278</sup> For comprehensive discussion of this report, see Hamilton Southworth, III, *GATT and the Environment - General Agreement on Tariffs and Trade, Trade and the Environment*, GATT Doc. 1529 (February 13, 1992), 32 VA. J. INT'L L. 997 (1992).

<sup>279</sup> *Id.*

## V

THE GENERAL AGREEMENT ON THE TIMBER  
TRADE—A GATT FOR FORESTS

As the preceding analysis demonstrates, considerable evidence exists suggesting that the international wood-products trade is one of the key forces contributing to the destruction of the world's native forests. Evidence also indicates that past international initiatives to reform the timber trade have not been successful. Despite numerous agreements, statements, plans, committees, commissions, and working groups, the international rules affecting the forest products trade have not been altered.

The failure to confront the trade implications of deforestation has undermined forest protection efforts at both national and international levels. Now is the time for the global community to meet this challenge by formally acknowledging the role that international trade plays in native forest destruction and by developing effective responses. Such actions must be used to help forge a new economic paradigm, one that moves the timber trade toward what one commentator has called "ecological pricing."<sup>280</sup> Such pricing will allow the market to recognize the full ecological as well as economical value of forests, and also help account for the full economic and ecological costs of deforestation.<sup>281</sup>

A new international regime is needed to effectively reform the timber trade. Although this regime would confront broad-based policy issues and seek broad-based changes, it could achieve these objectives through a narrowly-based agenda. This agenda would not seek to create huge administrative organs to develop, fund, and monitor forest sector projects, nor would it require signatories to prepare expensive and elaborate programs. Rather, like GATT, it would consist primarily of a short list of what is permitted and what is prohibited, and a forum to ensure these rules are followed.<sup>282</sup> Using this simple structure, forest protection advocates could create an agreement and an institution that would serve native forest interests as effectively as GATT has served unregulated international trade. In recognition of both its structural inspiration and the main target of its

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<sup>280</sup> See Durning, *supra* note 51, at 20-31.

<sup>281</sup> *Id.*

<sup>282</sup> See generally GATT, *supra* note 13.

trade reforms, this new regime should be called the General Agreement on the Timber Trade.

Below is an outline for the proposed General Agreement on the Timber Trade (Forest GATT). This outline is not designed to serve as a rough draft of the agreement; rather, it would identify some basic principles and components that a Forest GATT should include. Discussion of the Forest GATT is arranged according to the agreement's envisioned components: (1) Basis and Intentions; (2) Authorizations and Requirements; (3) Procedure and Reporting; and (4) Conflict Resolution and Compliance.

The proposed Forest GATT deliberately avoids basing its principles and requirements on the definition of ecologically sustainable forestry. Although the development of internationally recognized criteria relating to ecologically sustainable forestry is an important task necessary to the adoption of a comprehensive forest protection convention, the process is not currently complete.<sup>283</sup> Because nations are still struggling to agree on its definition, it would be unwise to base the Forest GATT on the term "ecologically sustainable forestry." The use of unclear terms would only lead to ambiguity and ineffective implementation.

Instead, the Forest GATT would rely on accepted definitions. If a consensus on ecologically sustainable forestry emerges in the future, as it likely will, the concept could at that point be integrated into the Forest GATT.<sup>284</sup> Alternatively, the Forest GATT would be integrated into the agreement or convention that conveys such a consensus. These issues, however, must be left until a later date.

Similarly, the Forest GATT should avoid creating institutional or enforcement mechanisms that are legally or diplomati-

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<sup>283</sup> BIODIVERSITY ACTION NETWORK AND THE ENVIRONMENTAL LIAISON CENTER INTERNATIONAL, *supra* note 194, at 1-2.

<sup>284</sup> Dunleavy, *supra* note 156, at 219. In regard to the emergence of environmental norms, Dunleavy observes:

It is possible to argue now that there are minimum acceptable standards for environmental regulation that have grown out of binding and non-binding international agreements. Whether or not the parties to the trade dispute are signatories to these environmental agreements (and whether or not the agreements are binding), these agreements are increasingly considered to be a reflection of customary international law and, as such, could be deemed to have force of law by a judicial or trade enquiry.

*Id.*

cally unrealistic. The fields of public international law in general, and international environmental law in particular,<sup>285</sup> have not yet imported and secured the binding status of many other substantive areas of law (such as private business transactions).<sup>286</sup> In general, countries are reluctant to sign on to international environmental agreements if they believe that national sovereignty will be placed at risk.<sup>287</sup> An international regime that ignored these present limitations might be theoretically enticing, but it would be of little practical value.<sup>288</sup>

As a result, while the primary goal of the Forest GATT would be to protect forest ecosystems and move toward a more accurate ecological pricing of native forests, the regime would limit direct interference with national policies. The Forest GATT would not propose the creation of an international body with the police power to stop logging, nor would it propose the creation of a central international agency with the authority to set timber and paper prices on a worldwide scale. Such regimes, although perhaps eventually feasible, require a level of global federalism and a degree of recognition of public international law that do not presently exist.<sup>289</sup>

Instead of proposing unrealistic global regimes, the Forest GATT would confront the destructive components of the timber trade through concrete and realizable approaches. First, the Forest GATT would expressly recognize the impact of unregulated trade on the world's native forests, and recognize the international community's authority and obligation to reform trade rules to better protect forests. By expressly recognizing these princi-

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<sup>285</sup> See generally Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 GEO. L.J. 675 (1993) (noting the difficulty with implementation and monitoring of effective international environmental programs).

<sup>286</sup> See BIRNIE & BOYLE, *supra* note 254, at 27-31 (discussing the prevailing use of "soft-law" such as resolutions or guidelines which do not constitute binding agreements).

<sup>287</sup> *Id.* (noting preference of nations to use "soft-law" agreements to give freedom of action, especially when economic consequences are unclear).

<sup>288</sup> For an interesting discussion suggesting some models for an effective international forest agreement, see Michael B. Saunders, *Valuation and International Regulation of Forest Ecosystems: Prospects for a Global Forest Agreement*, 66 WASH. L. REV. 871 (1991).

<sup>289</sup> See generally Emmanuel B. Kasimbazi, *An International Legal Framework for Forest Management and Sustainable Development*, 2 ANN. SURV. INT'L & COMP. L. 67 (1995) (stressing the need for universally recognized standards of forest sustainability for long-term policies to work).

ples, the Forest GATT would help construct a new and independent legal foundation for regulating the natural resources trade. Second, the proposed Forest GATT would protect and promote national efforts to reform the timber trade, such as product labeling, subsidizing ecologically-sustainable forestry and forest conservation, and banning products obtained through the destruction of endangered species' habitat. The Forest GATT would shield these national programs from challenge and retaliatory actions attempted under GATT.

Although the Forest GATT would not transform the timber trade overnight, it would play a major role in reconstructing the marketplace. By bringing ecological concerns to the forefront of the debate over international trade rules, placing international environmental law on the same legal playing field as GATT, and defending national trade-based programs to improve the timber trade, the Forest GATT would point the market in the right direction.

#### A. *The Forest GATT—Basis and Intentions*

This introductory section conveys the following five basic points: (1) native forests are critical to the economic and environmental welfare of future generations and the preservation of forest-based indigenous cultures; (2) industrially-managed forests do not provide the full range of the economic, environmental, and cultural benefits of native forests; (3) the world's native forests are being destroyed by human development; (4) the international export of and demand for forest-based products play a critical role in encouraging and facilitating the destruction of native forests; and (5) the goal of the Forest GATT would be to better protect native forests by expressly modifying existing international trade rules, such as those codified in GATT and in regional trade pacts, such as NAFTA and the European Union.

#### B. *The Forest GATT—Authorizations and Requirements*

This section sets forth the substantive provisions of the Forest GATT. The beginning of this section explains that these provisions represent *modifications*, rather than *violations*, of international trade rules. This distinction is critical because under GATT, a violation of international trade rules provides legal justification for countervailing or retaliatory trade restric-

tions.<sup>290</sup> Measures taken in compliance with the Forest GATT, however, would not constitute violations of international trade rules and therefore would not provide legal justification for countervailing or retaliatory measures.

The Forest GATT should expressly authorize: (1) national and international incentives, such as direct subsidies and tax breaks, to improve the economic competitiveness of hemp, kenaf, and other alternatives to wood-based paper; (2) national and international initiatives to improve the ecological standards of the forestry industry by providing subsidies and tax breaks to forestry operations that take significant measures to protect native forests; (3) national and international restrictions on the export of raw logs as well as regulations that encourage or require raw logs to be processed domestically; (4) national and international programs, such as labelling or certification, that evaluate and designate the ecological soundness of the practices used to obtain wood-based products. Such programs would have to be equally available and applied uniformly to domestic and foreign products to be effective; (5) national or regional forestry regulations that provide greater environmental protection than accepted international standards; and (6) national and international requirements applied equally to both domestic and foreign products, that paper be made from a certain percentage of recycled materials or other wood-based alternatives, such as kenaf and hemp.

The Forest GATT should expressly require that nations: (1) shall not purchase wood-products obtained as a result of the destruction of native forests that serve as critical habitat for species protected under CITES,<sup>291</sup> (2) neither promote, finance, nor facilitate the destructive logging of native forests located in foreign countries, including support for road-building, mining, oil and gas exploration, and agricultural land-clearing in native forest areas, (3) require domestic logging companies operating abroad to adhere to the same environmental standards (regarding wildlife protection, forest restoration, and water quality) required at home,<sup>292</sup> even where they exceed the environmental require-

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<sup>290</sup> See generally GATT, *supra* note 13.

<sup>291</sup> CITES, *supra* note 248. The habitat will be designated in a report developed by the Office of Forests and Trade. See *infra* part V.2.C.

<sup>292</sup> This provision should not be read to call for the extraterritorial application of national forestry laws. Most forestry laws require government agencies to develop land-use and logging restrictions on specific tracts of land. See *gener-*

ments of the nation where the company is operating, and (4) require domestic logging companies operating abroad to submit proposed logging plans to the local public for review and comment prior to commencing logging operations. Companies should have to make all relevant documents available to the public and provide appropriate forums for public discussion. Nations should require logging companies operating abroad to follow these procedures, even if the host country does not require public participation or citizen access to information.

### C. *The Forest GATT—Procedure and Reporting*

A new institution, the Office of Forests and Trade (OFT), would be responsible for collecting and disseminating information concerning the implementation of and compliance with the General Agreement on the Timber Trade. Within two years of its establishment, the OFT would publish a report detailing which native forests serve as critical habitat for the species listed under CITES. This report would describe the logging operations found in these forests and identify the wood-based products obtained therefrom. It would then be distributed to all signatories and updated every year.

Governments or international bodies that enact provisions authorized or required under the agreement would have the burden of notifying the OFT. The OFT would also be provided with quarterly reports of how, and in regard to whom, such provisions are being applied. The OFT would designate representatives to all of the major international organizations and initiatives involved in global forest protection and the timber trade. These organizations and initiatives would include, but would not be limited to, International Tropical Timber Organization, United Na-

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*ally* CELIA CAMPBELL-MOHN ET AL., ENVIRONMENTAL LAW: FROM RESOURCES TO RECOVERY 399-435 (1993) (illustrating various instances of public and private regulation over the extraction, management, and processing of timber). Because a national government does not have jurisdiction over real property on foreign soil, these provisions could not be applied extraterritorially. Rather, this provision would simply require that national companies operating abroad submit logging plans to national forest management agencies for approval and for a determination of whether the environmental standards are comparable to domestic standards. For instance, if Weyerhaeuser (a U.S. timber company) wanted to log in China, it would have to submit its logging plan to the U.S. Forest Service for prior review and approval. A special division within the U.S. Forest Service (and within forest management agencies in other countries) could be developed to address the requirements under the Forest GATT.

tions Commission on Sustainable Development, United Nations Statement of Forest Principles, CITES, Tropical Forest Action Plan, World Bank, GATT's Working Group on Environmental Measures and International Trade, and GATT's Committee on Trade and Environment. The OFT would seek to further the primary goal of the General Agreement on the Timber Trade—to reform international trade rules to better protect native forests—within the context of these organizations and initiatives.

#### D. *The Forest GATT—Conflict Resolution and Compliance*

Parties who believe that a signatory had exceeded or violated the terms of this agreement would have the option of filing a complaint with the OFT. The OFT would provide the accused party with an opportunity to respond, and would also invite *amicus* submissions from other interested parties, including non-governmental organizations and indigenous groups. The OFT would then issue a formal opinion and compliance order regarding the conflicts. If a party refused to abide by an OFT compliance order, an action could be brought before the International Court of Justice (ICJ).<sup>293</sup> All signatories would agree in advance to accept and seek the implementation of the ICJ's ruling. The ICJ's scope of review would be limited to two questions: (1) was the OFT's interpretation of the agreement's provision reasonable in light of the facts presented?; and (2) did the parties violate the terms of the OFT's compliance order?

The OFT and ICJ would be identified as the exclusive international forums for resolving disputes arising under this agreement. Other international tribunals, including dispute panels authorized under GATT and other regional trade agreements, therefore, would be precluded from ruling on disputes involving this agreement's provisions. If the provisions of this agreement were invoked during a dispute before another international forum, jurisdiction over the controversy would be transferred from the initial forum to the OFT or ICJ.

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<sup>293</sup> See U.N. CHARTER art. 92-93 (establishing the International Court of Justice). For discussion of the ICJ's role in the environmental field, see Sir Robert Jennings, *Need for Environmental Court?*, 22 ENVTL. POL. & L. 312 (1992), and Jeffrey L. Dunoff, *Institutional Misfits: GATT, ICJ and Trade-Environment Disputes*, 15 MICH. J. INT'L L. 1043 (1994).

## VI

RECONCILING THE FOREST GATT WITH  
INTERNATIONAL TRADE RULES

As the introductory *Basis and Intentions* section of the Forest GATT would plainly state, the purpose of the Forest GATT would be to modify the existing international trade rules to better protect native forests. To modify, however, is not to nullify. The legal effect of the Forest GATT, therefore, would not be to invalidate any of the provisions of GATT. Rather, the Forest GATT would carve out certain exceptions to those basic trade rules.

In this respect, the Forest GATT's legal relationship to international trade rules would parallel that of CITES.<sup>294</sup> CITES seeks to ban the international import and export of certain products (e.g., endangered species' body parts) that often can be bought and sold domestically.<sup>295</sup> This discrepancy between domestic and international rules would appear to violate article III(4) of GATT.<sup>296</sup> Article III(4) expressly forbids environmental regulations to discriminate between domestic and foreign products.<sup>297</sup>

Despite this inconsistency, however, no international tribunal has ever found the validity of CITES to be weakened or restrained in any way by international trade rules.<sup>298</sup> Moreover, as one commentator points out, "[N]o GATT Contracting Party has challenged an action taken under CITES, and such a direct challenge to CITES is unlikely."<sup>299</sup> The international community's

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<sup>294</sup> See *supra* notes 249-58 and accompanying text.

<sup>295</sup> See *supra* notes 249-58 and accompanying text.

<sup>296</sup> Douglas J. Caldwell, *International Environmental Agreements and the GATT: An Analysis of the Potential Conflict and the Role of a GATT "Waiver" Resolution*, 18 MD. J. INT'L L. & TRADE 173, 179-84 (1994). Caldwell states:

The variety of import restrictions the [international environmental agreements] impose on parties and non-parties alike may also be subject to challenge as violations of the GATT's Article III national treatment principle. National treatment requires that imported goods not be discriminated against in favor of domestic goods through economic policies that regulate terms of sale, use, internal taxes, etc.

*Id.* at 183.

<sup>297</sup> GATT, *supra* note 13, art. III(4), 61 Stat. A19, 55 U.N.T.S. at 206.

<sup>298</sup> See generally James Cameron & Jonathan Robinson, *The Use of Trade Provisions in International Environmental Agreements and Their Compatibility with the GATT*, 2 Y.B. INT'L ENVTL. L. 3 (1991).

<sup>299</sup> Crawford, *supra* note 253, at 578.

response to potential CITES-GATT conflicts has been consistent with accepted principles regarding the interpretation of treaties.

International principles regarding the interpretation of treaties were codified in the 1969 Vienna Convention.<sup>300</sup> Article 30 of the Vienna Convention states, "When all the parties to the earlier treaty are parties also to the later treaty but the earlier treaty is not terminated or suspended in operation under article 59, the earlier treaty applies only to the extent that its provisions are compatible with those of the later treaty."<sup>301</sup> Put in less legalistic terms, where there are inconsistencies between a new and an old treaty and the parties to both treaties are the same, the new treaty generally modifies the old treaty.<sup>302</sup>

In the case of the Forest GATT, this would mean that certain trade rules, and certain trade panel rulings, would not apply (or would have limited application) to the international wood-products trade. For example, Articles XX(b) and XX(g) of GATT state that environmental trade regulations are only permissible when they are "necessary to protect human, animal or plant life or health"<sup>303</sup> or when they relate "to the conservation of exhaustible natural resources . . . ."<sup>304</sup> In terms of the international wood products trade, these provisions would be interpreted to include the Forest GATT's exceptions or else the applicability of Articles XX(b) and XX(g) would be limited.

The same is true of trade panel decisions. For example, a 1991 trade panel found that national environmental laws could not seek to regulate natural resource development outside national borders.<sup>305</sup> A 1990 trade panel found that national law would not require that natural resources be processed domestically.<sup>306</sup> In terms of forestry practices and the timber trade, these rulings would be modified by the provisions of the Forest GATT. To the extent that these rulings were inconsistent with the trade

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<sup>300</sup> Vienna Convention on the Law of Treaties, *opened for signature* May 23, 1969. U.N. Doc. A/CONF. 39/27, 8 I.L.M. 679 (entered into force Jan. 27, 1980).

<sup>301</sup> *Id.*, art. 30.3, 8 I.L.M. at 691.

<sup>302</sup> Caldwell, *supra* note 296, at 187. ("Article 30 of the Vienna Convention provides that when the provisions of two treaties concerning the same subject matter conflict as between parties to both treaties, the later-in-time prevails, unless one treaty explicitly notes otherwise.")

<sup>303</sup> GATT, *supra* note 13, art. XX(b), 61 Stat. at A61, 55 U.N.T.S. at 262.

<sup>304</sup> *Id.*, art. XX(g), 61 Stat. at A61, 55 U.N.T.S. at 262.

<sup>305</sup> See generally Tuna Panel Report, *supra* note 14.

<sup>306</sup> See Canadian Fish Exports, *supra* note 153.

regulations authorized or required under the Forest GATT, the rulings would be deemed inapplicable.

GATT could choose to either formally recognize the exceptions created by the Forest GATT or to waive formally the application of certain trade rules to the Forest GATT. This was the approach adopted by the 1993 NAFTA.<sup>307</sup> NAFTA expressly recognized that when NAFTA conflicts with certain specified international environmental agreements, such as CITES and the Montreal Protocol, the international environmental agreements take precedence.<sup>308</sup> To achieve the effect of waiver or exemption, the Forest GATT simply could be added to the list of the international environmental agreements that supersede free trade obligations.

Although recognition of the Forest GATT by GATT and NAFTA would result in greater legal clarity, this recognition would not be required for the new treaty to go into effect. Under international law, the Forest GATT would likely remain valid and enforceable even where its provisions were found to directly conflict with existing international trade rules.

#### CONCLUSION—A NEW PARADIGM

In the United States, national laws regulating forestry were enacted, in part, because the domestic economy had failed to ensure responsible forest practices.<sup>309</sup> The full value of forest conservation, and the full cost of forest destruction, were not being reflected in the national marketplace.<sup>310</sup> National forestry laws sought to correct these market failures by setting minimum environmental standards, protecting wilderness areas, and forcing the timber and paper industries to internalize the costs of logging.<sup>311</sup>

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<sup>307</sup> NAFTA, *supra* note 123, art. 103-04, 33 I.L.M. at 297.

<sup>308</sup> *Id.*, art. 104, 33 I.L.M. at 297.

<sup>309</sup> See generally STEVEN L. YAFFEE, *THE WISDOM OF THE SPOTTED OWL: POLICY LESSONS FOR A NEW CENTURY* (1994) (analyzing the spotted owl controversy as an example of the importance of incentives in encouraging environmental reforms).

<sup>310</sup> See CAMPBELL-MOHN ET AL., *supra* note 292, at 392-98 (discussing the legal transition from laws promoting land-clearing and the wood-products industry to regimes that also protect wildlife, the environment, and recreation).

<sup>311</sup> See WILLIAM DIETRICH, *THE FINAL FORESTS: THE BATTLE FOR THE LAST GREAT TREES OF THE PACIFIC NORTHWEST* 168-69 (1992). Dietrich argues:

Private exploitation of timber in New England, the South, and the Great Lakes had been brutal and shortsighted . . . . As a result the federal gov-

To prevent native forest destruction at a global level, similar market reforms currently are needed at the international level.<sup>312</sup> National governments and companies should be actively discouraged, and in some cases prohibited, from obtaining profits and cheap wood-based products through the unsustainable logging of natural forests. The proposed General Agreement on the Timber Trade would be a step in this direction.

Although the proposal would not solve all of the problems contributing to global deforestation, the Forest GATT would result in several important improvements. The agreement would provide national and international initiatives with the teeth to effectively implement forest protection programs. The Forest GATT would strengthen programs to reduce consumption and logging and to upgrade the environmental performance of timber companies operating abroad.

Most importantly, however, the Forest GATT would recognize that unregulated trade is not the foundation, the international constitution, upon which all other initiatives must be based. The Forest GATT would demonstrate that, under international law, the protection of species, ecosystems, indigenous cultures, and future generations are not secondary principles. The Forest GATT would help establish these principles as independent and adequate grounds for regulating the international marketplace.

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ernment [now] has national parks and wilderness areas, where logging is prohibited, and national forests, where it can occur. To complicate things further, portions of the national forests that are particularly fragile, remote, scenic, or used for recreation can also be protected from logging under forest plans.

*Id.*

<sup>312</sup> Saunders, *supra* note 288, at 876-77 ("Although nations have developed legislative and economic tools to discourage deforestation, participation in a global market undermines the effectiveness of national measures. . . . Because of the international nature of the problem, forest protection must occur on a global, rather than a national, scale.").