

ARTICLES

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Debt-for-Nature Swaps: Extending the Frontiers of Innovative Financing in Support of the Global Environment

Tropical rain forests (TRFs) occupy approximately 3.6 million square miles, or about one-fourteenth of the earth's land surface.¹ These forests offer a wide variety of material goods and environmental services whose complexity and diversity have yet to be unravelled and tapped.² Despite the great potential TRFs possess, they have received little attention until recently. Indeed, they have been overused and mismanaged, resulting in a tremendous depletion of existing fauna and flora. The failure to recognize the misuse and overuse of TRFs has led to the characterization of the problem as "one of the great 'sleeping issues' of the late twentieth century."³ It is difficult to conceive of a challenge which is more profound in its implications, and yet ignored and unappreciated by the international community until now.

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The views expressed in this article are the personal views of the author and do not necessarily represent the views of the International Monetary Fund.

1. Myers, *Corporate Destruction of Tropical Forests*, BUS. & SOC'Y REV., Winter 1980-81, at 9.

2. For example, TRFs are a sanctuary for about half the earth's 5 to 10 million species of animals and plants. *Id.* These species contribute to our daily well-being, especially in support of industry, agriculture, and medicine. Tropical forests are also vital in reducing the effects of erosion, ensuring regular supply of water for agricultural use, regulating climate, and supporting valuable wildlife.

3. *Id.*

The recent appreciation of the TRF problem has resulted in calls on developed and developing countries to prevent further depletion of nonrenewable natural resources and forests and the degradation of their environment in general. These calls are significant, in that they are largely directed at developing countries saddled with huge external debts, which make redirection of their limited resources for environmental preservation unlikely.

The current rate of environmental degradation could lead to a schism in the food web and the destruction of the ozone layer of the earth's atmosphere, thereby threatening the sustenance of the earth's ecological balance. Given the serious consequences such disruptions could have on global climatic patterns, the preservation of our ecosystem depends on a more cautious exploitation of the forests. In this connection, this article examines how the pool of external debt has been used to finance conservation and environmental activities. The article assesses various debt-for-nature swap programs, problems associated with setting up such programs, and prospects for expanding the use of debt-for-nature swaps as a financing mechanism for protecting the global environment.

I. Man's Threat to His Environment

Factors responsible for rapid environmental degradation include commercial timber logging, pervasive cattle ranching (resulting in overgrazing), and tax credits for small and sometimes mechanized agriculture, hydroelectric power development, and mining. This article concentrates on deforestation of TRFs.

Of all the factors responsible for TRF depletion, logging is one of the most prominent. Logging and other factors account for TRF depletion in the low forests of the Philippines and Malaysia, the Amazon forest, much of the Zaire basin, and in Ghana, Nigeria, and Indonesia, where accessible forests have been leased through concession agreements to timber corporations.⁴ Hardwood trees account for approximately 90 percent of TRFs and are favored for construction, furniture, paneling, and veneer.⁵ Due to the depleted stocks of hardwood in the temperate zones and efforts toward conserving the remaining forests, tropical hardwood is currently in great demand. Use of hardwood from the tropics has translated into a steady growth in demand from the 1950s (when the total imports of industrial nations stood at a mere 4 million tons) to about 50 million tons by 1980,⁶ averaging \$7 billion per annum between 1978-80.⁷ Of this, the United

4. In Africa and Asia the need for firewood is also one of the major driving forces behind deforestation. According to statistics of the Food and Agricultural Organization (FAO), about 40 percent of all tropical forests had been destroyed by 1976; the most severe destruction has been in Africa. Wassermann, *UNCTAD: International Tropical Timber Agreement*, 18 J. WORLD TRADE L. 89, 89 (1984).

5. Myers, *supra* note 1, at 10.

6. *Id.*

7. Wassermann, *supra* note 4, at 90.

States accounted for about 6.5 million tons and Japan 24.5 million.⁸ According to World Bank projections, by the end of 1990 the total volume of hardwood timber from TRFs would amount to about 75 million tons and by the year 2000 could possibly reach 100 million tons.⁹ Environmental experts agree that logging causes severe damage to forest ecosystems. The extent of destruction depends on the type of logging method used and the limited pool of commercially attractive tree species.

Recent attention to tropical deforestation has largely focused on the Amazon forest, while very little attention has been drawn to the plight of other tropical forests. For example, in the Philippines, Borneo, and peninsular Malaysia the rate of deforestation is considered as critical as in the Amazon.¹⁰ The forest cover in the Philippines has dropped from 75 percent approximately twenty years ago to about 20 percent today.¹¹ The driving force behind this deforestation in the Philippines has been the nation's \$30 billion foreign debt.¹² To reverse the adverse effects of tropical deforestation in the Philippines, attempts have been made to develop consumer products from denuded tropical forest areas.¹³ Also, the Haribon Foundation is reportedly contemplating instituting legal proceedings in the World Court against major Japanese trading companies involved in illegal logging activities.¹⁴

8. Meyers, *supra* note 1, at 10. WWF Press Release, Feb. 11, 1983; *reprinted in* Wassermann, *supra* note 4, at 89.

9. Meyers, *supra* note 1, at 10. In this connection, the World Wildlife Fund has urged developed countries to use more temperate forest timber instead of tropical timber in the construction, furniture, and marine engineering industries. This call is significant because sometimes developed nations prefer to exploit inexpensive and easily obtainable tropical timber, at a considerable environmental cost to the producing country, rather than cut their own substantial timber reserves. WWF Press Release, Feb. 11, 1983, *reprinted in* Wassermann, *supra* note 4, at 89.

10. Beshar, *Increased Logging Threatens Philippine Forests*, San Francisco Chron., Oct. 9, 1989, at C7.

11. *Id.*

12. *Id.*

13. *Id.* For example, Maximo Kalaw, as President of the Haribon Foundation, has discussed developing a line of ecologically sound food products for export with San Miguel Corporation—one of the largest companies in the Philippines. The food products would include fresh juices using mango and guava from trees replanted in denuded forest areas. Plans are afoot to approach Coca Cola and other soft drink makers in the United States about marketing carbonated juices from the Philippines.

14. *Id.* The foundation wants Japan to pay compensation to the communities from which the resources were taken. The illegal logging activities impoverished about 18 million people while about 470 logging companies benefitted from the illegal activities. *Id.* Another rationale for the suit is that as purchaser of smuggled forest resources, forest products, coral reefs, and wildlife, Japan is guilty of plunder. This move is quite strange since only states and not private parties can institute proceedings before the International Court of Justice. Presently, the Government of the Philippines has given no indication that it will adopt the suit, making the likelihood of such an action questionable. The targeted companies include Mitsui and Mitsuishi. These companies are being sued for allegedly colluding with Philippine logging companies to buy or smuggle forest products. A recent Haribon

At the present rate of deforestation, experts estimate that in the next thirty years tropical forests will be completely decimated.¹⁵ For example, at the present rate of deforestation in Guatemala, the country is losing 222,000 acres of forest each year, that is, 2 percent of its total forest area. Costa Rica is also losing about 3.6 percent, or 160,000 acres, of forest per annum. To control the destruction of the forests, Guatemala has set aside 22 percent of its land area as protected zones. Similarly, Costa Rica has set aside 27 percent.¹⁶ While this effort is commendable, both countries lack the necessary equipment and personnel to police the designated zones. Consequently, both countries are collaborating with the United States and European governments and environmental groups to devise creative conservation and financing strategies.

Guatemala's protected zones include 3 million acres on the Peten Wilderness, a splendid rain forest in the north, which constitutes the largest undisturbed area of rain forest between Mexico and Panama.¹⁷ Like other developing countries burdened with huge external debts, Guatemala faces severe pressures from cattle ranchers seeking more range land, timber companies in search of mahogany and other hardwoods, anxious miners seeking to tap precious metals such as gold, and hunters busy pursuing easy game.¹⁸ These pressures are real because the government encourages such activities as a way of earning foreign exchange to pay off its huge external debt. Yet, the greatest threat to the forest is peasant farmers in search of food and fuel.¹⁹

Another prominent cause of TRF resource depletion is mechanized agriculture and cattle ranching.²⁰ For example, by 1983 about two-thirds of Central America's tropical forests had been destroyed, much of it due to large-scale cattle ranching geared toward producing cheap beef for North American markets. In one researcher's opinion, "this process turns forests into hamburgers."²¹

Besides the above causes of tropical deforestation, the lending activities of the multilateral development institutions also deserve mention. These institutions

Foundation study underscored the seriousness of this when it reported that more than one-third of all the Philippine logs entering Japan between 1976-1986 (more than 6 million cubic meters of wood) had not been registered for export. *Id.*

15. Tye, *As Stakes Rise Plans Emerge for Preserving the Forests*, Boston Globe, Apr. 10, 1989, at 1.

16. *Id.*

17. *Id.*

18. *Id.*

19. These farmers slash and burn their harvested fields. While this technique provides the soil with much needed nutrients in the short term, it also robs it of nutrients via erosion and overuse.

20. The contribution of governmental policies to environmental degradation is illustrated by numerous examples. In 1987 Brazil's policy to develop the Amazon region through promotion of small-scale agriculture, cattle ranching, logging, and hydroelectric power development in the region resulted in the destruction of about 200,000 square kilometers of tropical forests in Brazil. Another 300,000 kilometers of forest land is estimated to have been destroyed in 1988. See 12 ENV'T REP., Apr. 1989, at 181.

21. WWF Press Release, Oct. 12, 1982; see also Wassermann, *supra* note 4, at 90.

have in the past financed several projects that impacted negatively on the environment. Indeed, their lending policies included little if any environmental impact assessment.²² However, with growing awareness of the need to protect the environment, these institutions have taken unprecedented steps in their lending policies to increase attention to environmental protection and natural resources management.²³

Environmental experts also agree that in the near future we will witness a gross depletion of several species and stocks in TRFs. It is estimated that "one million of the earth's five to ten million species may become extinct within two decades."²⁴ Such extermination of TRFs could have dire ecological repercussions in the host countries and subsequently influence global climatic patterns.²⁵ Equally, the burning of TRFs releases large amounts of carbon dioxide into the atmosphere, thereby contributing to a greenhouse effect on the earth's surface. This process is believed to have negative consequences on global climatic patterns of such magnitude as to negatively affect the north and south poles and the equator. One result of the disruption of climatic patterns is warmer weather in the northern temperate zones, including the great grain belt of the United States.

The destruction of forests in developing countries also affects the indigenous peoples who depend on them for their livelihood. As Kinniikenau, Shaman of the Kinniik people of Brazil, has observed, "[w]e are in a struggle against what some people call development, carried out under the Brazilian flag which says, 'Order and Progress' on the emblem. For us, the word for progress is decimation."²⁶ Presently, only 600 Kinniik live where there used to be about 3,000 inhabitants (their homeland for about 5,000 years). The threat of deforestation puts indigenous people under great pressure to protect their homelands, heritage, and culture. By forging alliances with other ethnic groups, indigenous peoples have been able to draw international attention to their plight. Such alliances have also enabled them to resist logging and other activities that threaten their livelihood.²⁷

22. On the role of Multilateral Development Banks, see Rich, *The Multilateral Development Banks, Environmental Policy, and the United States*, 12 *ECOLOGY L.Q.* 681 (1985); *The World Bank vs. The World's Poor*, CATO INST., POL'Y ANALYSIS, Sept. 28, 1987, at 21-24; see also Warford & Partow, *Evolution of the World Bank's Environmental Policy*, FIN. & DEV., Dec. 1989, at 5.

23. See Jeffrey & Leonard, *Local Action Needed to Match Banks Reform*, Conservation Found. Letter, No. 3, at 2 (1987); see also *Third Worlders Seek Action on Environment*, Conservation Found. Letter, No. 3, at 3, (1987).

24. Myers, *supra* note 1, at 9.

25. See generally Doolittle, *Underestimating Ozone Depletion: The Meandering Road to the Montreal Protocol and Beyond*, 16 *ECOLOGY L.Q.* 407 (1989). Depletion of TRFs could result in massive soil erosion, loss of soil nutrients, flash floods, drought, and other forms of environmental degradation.

26. See Stevens, *Resistance in the Fourth World*, New Haven Advocate, Oct. 16, 1989, at 16.

27. For example, the Kaiapo successfully resisted the building of a hydroelectric dam through the help of other indigenous groups. Such resistance is becoming increasingly common and has sometimes resulted in destruction and death. Recently, similar resistance against rubber tappers in

In Malaysia similar resistance movements are growing, the primary targets of which are commercial loggers. The Penau people and other indigenous groups have recently mounted campaigns to protest against logging activities in Malaysia. In the last two weeks of September 1988 alone, thirteen logging sites were blockaded, resulting in several arrests. In 1987, similar protests resulted in the closure of some logging sites for up to six months.²⁸

From the discussion so far, it is clear that different motivations exist for the destruction of TRFs. These include economic developments, trade expansion, and legitimate extractions for export of natural resources. Whatever the motivations, they do not sufficiently justify the rapacious destruction of the forests for either domestic use or export.

II. Environmental Protection

At a time when several countries with TRFs are saddled with huge external debts, the issue arises as to how these countries can effectively deal with the problems associated with management and conservation of the environment. This issue is important because these countries do not generally possess the necessary capital, know-how, and manpower to undertake such measures. Accordingly, the practice has been to look to foreign entrepreneurs for help. Foreign entrepreneurs have usually rendered assistance in the form of increased investments via joint ventures and debt-equity swap programs. The latter method of investment has become more popular in several debtor countries. Debt-equity swap programs attract new investments, create job opportunities, and reduce the debt burden of debtor countries. However, in virtually all existing legislation authorizing such programs, no reference is made to the environmental impact assessment of authorized projects or investments.

Thus, the liberalization of investment laws that has occurred since the proliferation of debt-equity swap programs has proceeded without much attention being paid to the environmental impact of investments under such programs.²⁹ Rather, the major consideration has been the ability to attract foreign investment and thereby contribute to the reduction of the external debt. Accordingly, the debt-equity swap programs currently in place do not have any specific provisions addressing environmental issues associated with proposed investments.

Brazil resulted in the death of Francisco Mendes, a leading Brazilian activist who led rubber tappers in the Amazon region to protest the destruction of the Amazon forest and also to draw attention to the struggle of the forest people to preserve their environment. *Brazil Indians Meet on Protecting the Amazon*, N.Y. Times, Feb. 26, 1989 at L5.

28. *Id.*

29. See generally Comment, *The Promised Land: Analysis of Environmental Factors of United States Investment in and the Development of the Amazon Region in Brazil*, 4 N.W. J. INT'L L. & BUS. 517 (1982).

Also, foreign investors do not always pay sufficient attention to environmental impact assessments of projects undertaken in debtor countries. In this context Japan has been criticized for providing funds that implement projects having an adverse environmental impact in developing countries. Further, Japan has been accused of doing little to curtail the activities of Japanese companies that have adverse environmental effects in developing countries. For example, a large Japanese trading company wanted to construct a road into the dense tropical forest of Sarawak, Malaysia (a tropical rain forest with much timber awaiting harvest), but abandoned the project because of resistance and protests from indigenous people. The Japanese Government, under its foreign aid program, was to have financed the project, but ensuing political embarrassment led to the government's withdrawal.³⁰

The Japanese Government's environmental policies, especially on tropical forests, indicate that logging by Japanese companies is contributing to the destruction of Southeast Asia's forests.³¹ This has culminated in greater scrutiny of both private Japanese companies' and the Japanese Government's environmental policies. Indeed, some critics have described Japanese attitudes toward global environmental issues as insensitive.³² Besides the issue of tropical forests, Japan has been increasingly criticized for being the largest consumer of protected wildlife and for continuing whaling activities despite international bans and quotas.³³

Following the adverse publicity resulting from its global environmental policy, the Japanese Government recently pledged to increase its Overseas Development Assistance (ODA) for pollution control and other environmental projects in developing countries.³⁴ This commitment to environmental improvement has, however, been seriously questioned. Masahito Yoshida of the Nature Conservation Society of Japan states, "[w]e doubt if they really want to conserve the whole earth, they [the government] only answer to the pressure from foreign countries."³⁵

30. Sneider, *Japan Assailed for Practices That Damage Global Environment*, Christian Science Monitor, July 11, 1989, at 1.

31. See generally Nectoux & Kuroda, *Timber from the South Seas*, WWF Report (Apr. 1989). This recent study examines Japan's tropical timber trade and proposes several steps, including substituting soft woods for lowest tropical woods which are mostly used for plywood.

32. Sneider, *supra* note 30, at 1.

33. According to Sneider's article, a recent study by the United Nations Environmental Program, which involved 6,000 citizens and 700 government officials from fourteen countries, indicated that the Japanese showed the least concern about the range of global environmental issues. According to a Japanese Environment Agency official, Hiroaki Takaga, "Japanese people are not necessarily concerned with what affects the environment in foreign countries." *Id.* Nonetheless, Japan has recently agreed to ban drift net fishing by its vessels worldwide in 1992. *Tokyo Is to Ban Fish Nets Early*, N.Y. Times, July 18, 1990, at A12.

34. Sneider, *supra* note 30, at 1.

35. *Id.*

Criticism of Japan's environmental policies largely stems from its heavy reliance on tropical hardwoods and its unwillingness to mandate environmental impact assessment studies for all ODA projects.³⁶ According to Yuta Harago, a member of the Japanese branch of the World Wildlife Fund (WWF), Japan's aid policy only suggests that engineering consultants may include such considerations on their own initiative. Responding to this growing criticism, last December the Japan International Cooperation Agency, one of two major aid agencies, announced its acceptance of the Organization for Economic Cooperation and Development's guidelines for environmental impact assessments. This move has been received with skepticism, in part because the entire Japanese aid apparatus has only four staff members responsible for environmental impact assessment.³⁷

III. Debt-for-Nature Swaps

The WWF pioneered the idea of using Less Developed Countries (LDC) debt for financing conservation activities and protecting the global environment at large. In a 1984 editorial the former WWF Executive Vice President, Thomas E. Lovejoy, described the financing mechanism as having great potential "for leveraging conservation dollars to preserve some of the world's most biologically valuable natural areas while helping nations reduce their external debt."³⁸ With this rationale in mind, the WWF³⁹ and other conservation organizations have successfully negotiated debt-for-nature swap programs with seven countries: Bolivia, Costa Rica, Ecuador, the Philippines, Madagascar, Poland, and Zambia.

A typical debt-for-nature swap transaction involves a purchase of commercial bank debt by a foreign nonprofit organization or a foreign government agency acting in conjunction with a local private conservation or environmental organization. The purchase may be made on the secondary market or directly from the selling bank. After purchasing the debt, the investor presents it to the debtor country's central bank in exchange for ecological bonds⁴⁰ or local currency at the prevailing exchange rate or at near face value.⁴¹ The investor then uses the converted funds for the management and the preservation of the environment,

36. For more on Japan's consumption of tropical timber and its effects, see generally Nectoux & Kuroda, *supra* note 31.

37. Sneider, *supra* note 30.

38. *World Wildlife Fund and Ecuador Sign Large Debt-for-Nature Swap*, WWF News Release, Dec. 14, 1987, at 2 [hereinafter *WWF & Ecuador Sign*]; see also Connors, *Recent IRS Ruling Focuses on LDC Debt Transactions*, 14 INT'L TAX J. 285 (1988). See generally Gibson & Curtis, *A Debt-for-Nature Blueprint*, 28 COLUM. J. TRANSNAT'L L. 331 (1990).

39. See Sneider, *supra* note 30. The WWF has completed two debt-for-nature swap programs with Ecuador, and one each with Costa Rica, Madagascar, the Philippines, Poland, and Zambia. See WWF, *Officially Sanctioned and Funded Debt for Nature Swaps* (1991).

40. In Costa Rica and Ecuador the debt-for-nature swap program involved the exchange of foreign debt for bonds. See *infra* text section IV.A.2-3.

41. Connors, *supra* note 38, at 289-90.

usually with the support of the host country government and local environmental groups. The debtor country's rules govern the redemption of external debt claims. These rules may be foreign investment laws, exchange control laws, or special regulations promulgated to govern such transactions.

A. SELECTED COUNTRY SURVEY

1. *Bolivia*

Bolivia was the first country to implement a debt-for-nature swap program.⁴² The transaction was concluded in 1987 and covered some 4 million acres of forest and grassland in the Beni River Region. Under the arrangement, Conservation International (a U.S. conservation organization) purchased \$650,000 of substantially discounted Bolivian debt for about \$100,000 and swapped it for the shares of a new company set up to help preserve some 1.6 million hectares of forests and grasslands.⁴³ The debts used in this transaction were owed to private lenders. Citicorp Investment Bank (a subsidiary of Citibank) brokered the transaction and arranged the debt purchase from undisclosed foreign debt creditors.⁴⁴ Financing was provided by the San Francisco-based Frank Weeden Foundation.⁴⁵

The transaction sought to protect land adjoining the Beni Biosphere Reserve. This reserve was created in 1982 as a model for the preservation of flora and fauna, water resources, and the native peoples. Under the agreement, the Bolivian Government undertook to pass legislation to protect the parcels of land adjoining the 334,000-acre reserve. Part of the area covered by the agreement will be designated exclusively for research while the other part will be open to the nomadic Chimane Indians and to agriculture and forestry development. To ensure effective management of the project, an endowment fund of approximately \$250,000, in local currency, was created.

2. *Costa Rica*

Costa Rica is one of the most ecologically well-endowed countries in the world. Its habitats include several tropical forests, some 10,000 plant species, over 200 species of mammals, and more species of birds than can be found in the United States and Canada combined.

On March 4, 1988, the Costa Rican Government and the WWF-US entered into an agreement to establish a debt-for-nature swap program. Eligible Costa Rican foreign debt was converted into colones, the proceeds to be used to protect the country's diverse natural resources. Pursuant to this objective, the Costa

42. See Chandler, *A Debt Swap of a Different Nature for Bolivia*, Wash. Post, July 14, 1987, at E3.

43. *From the Flames a New Market*, EUROMONEY, Sept. 1987, at 70, 112.

44. Walsh, *Bolivia Swaps Debt for Conservation*, 237 SCIENCE 596 (1987).

45. *Id.* According to the foundation's director, Donald Weeden, the foundation has allocated a total of \$300,000 for such projects.

Rican Government requested that the Central Bank allow the establishment of the National Conservation Fund using the existing debt conversion mechanism.⁴⁶

On October 27, 1987, the Central Bank, the Fundacion de Parques Nacionales (the Foundation),⁴⁷ the Ministerio de Recursos Naturales, the Energia y Minas, and the Banco Cooperativa Costarricense, R.L. entered into an agreement to allow up to a total of U.S. \$5.4 million of Costa Rican external debt to be exchanged for monetary stabilization bonds denominated in colones. The proceeds of the conversion will be used to establish the National Resources Conservation Fund, a fund to finance conservation of Costa Rica's natural resources. The initial ceiling of \$5.4 million was fully subscribed to in early 1988 by several organizations including Conservation International, the Nature Conservancy, the WWF, Asociación Ecologica La Pacifica, Pew Charitable Trust, the John D. and Catherine T. MacArthur Foundation, the Jessie Smith Noyes Foundation, the Swedish Society for Conservation of Nature, the W. Alton Jones Foundation, and the Organization for Tropical Studies.⁴⁸

Under the 1987 agreement, the WWF will arrange for the acquisition of a total of about \$3 million of Costa Rica's eligible debt over a period of three years. The debt will then be converted, in accordance with the applicable domestic laws, into monetary stabilization bonds issued by Costa Rica's Central Bank. These bonds will be issued in colones and will be equivalent to not less than 75 percent of the total principal amount of the debt exchanged. The foundation will hold the issued bonds and will be entitled to receive all payments of principal and interest on the bonds.

The proceeds payable on the bonds will be used to finance conservation activities. Some of the activities include planning, administration, protection of reserve areas and their buffer zones, environmental education, acquisition of property for the purpose of protecting wetlands, and the training of a cadre of Costa Rican conservationists. The training program is expected to take the form of in-country workshops, university training programs and activities geared toward the improvement and management of Costa Rica's natural resources, especially its parks. Of these conservation activities, priority will be given to national parks and reserves because they contain Costa Rica's most diverse tropical habitats, which include cloud forests, lowland rain forests, and dry forests. The priority areas are the Corcovado National Park, the Guanacaste National Park, the Tortuguero National Park, the Monteverde Cloud Forest, and the La Amistad International Park.

46. This was approved by the Central Bank in Junta Directiva No. 4234-87, art. 7 (Aug. 12, 1987) and in Acuerdo No. 4235-87, art. 16 (Aug. 19, 1987).

47. The Fundacion de Parques Nacionales is a private, nonprofit organization engaged in conservation activities.

48. *The Debt-for-Nature Exchange: A Tool for International Conservation*, CONSERVATION INT'L, Sept. 1989, at 15 [hereinafter *Debt-for-Nature Exchange*].

Pursuant to the agreement, Costa Rica issued local currency bonds equivalent to 30 percent of the principal amount to be converted.⁴⁹ The funds used in purchasing the debts were provided by several conservation groups including the Nature Conservancy, the Stroud Foundation, the Noyes Foundation, the WWF, the Dutch Government, the National Parks Foundation of Costa Rica, the Swedish Society for the Conservation of Nature, and the People's Trust for Endangered Species in the United Kingdom.⁵⁰

3. Ecuador

Following the Bolivian initiative, Ecuador entered into an agreement with the WWF on December 14, 1987. The WWF purchased \$1 million of Ecuador's foreign debts at face value from commercial lenders at a substantial discount.⁵¹ The debt was converted via Ecuador's Central Bank into local currency bonds and held by Fundación Natura, a local and leading private conservation organization. The bond proceeds are to be used for the maintenance and conservation of Ecuador's national parks and forest reserves.⁵² As observed by an official of the WWF, "[f]or every one dollar of debt WWF buys, bonds worth more than \$3—plus future interest income—will be issued to protect vital parks and reserves throughout Ecuador."⁵³

The initial financing of \$300,000 was donated by U.S. foundations, individuals, and other WWF organizations worldwide. The proceeds from the interest-bearing fund (created to ensure the ongoing conservation and preservation of the Ecuadorean environment) are expected to be used to implement a national conservation strategy that will benefit Sangay National Park, Cuyabeno Wildlife Reserve, Podocarpus National Park, and Cotacachi-Cayapas Ecological Reserve.⁵⁴ In April 1989 a second installment of \$5 million was swapped to continue current conservation efforts and to develop new projects. Of this amount, \$3 million was dedicated to conservation work in the Galapagos where since 1961 the WWF has been actively involved in conserving the islands' unique species and ecosystems. The remainder will be used to support other parks and reserves and to establish new buffer zones and training programs.

The Ecuadorean program is significant because Ecuador is one of the most biologically rich countries in the world. Its richness is typified by a variety of landscapes, including

habitats ranging from the Galapagos Islands to Amazon Rain forest, coastal savannah and mangrove forests, and Andean highlands. These habitats support more than 1,400

49. *Id.* at 16.

50. *Id.*

51. *WWF & Ecuador Sign*, *supra* note 38, at 1.

52. *Id.*

53. *Id.* at 2.

54. *Id.* at 3–4. The parks and reserve areas constitute over two million acres. Citicorp Investment Bank and Sherman & Sterling provided financial and legal assistance for this transaction.

species of birds (including two species—combed duck and horned screamer—which until last week's discovery were considered extinct in Ecuador), and perhaps as many as 20,000 species of plants. The Ecuadorean Andes provide one of the last strongholds for the highly endangered spectacled bear—South America's only native bear.⁵⁵

Also, Ecuador's debt-for-nature swap program is by far the largest implemented to date.

4. *Philippines*

The Philippines, comprising 7,100 ecologically rich and diverse islands, provide home to about 8,000 species of plants, 557 species of birds, and 165 species of mammals.⁵⁶ Many of these, such as the Tamaraw, the Philippine Eagle, the Philippine Crocodile, and the Philippine Tarsier, are on the verge of extinction. To reverse this trend, the Philippine Government, the Haribon Foundation, and the WWF signed an agreement to implement a joint program of debt-for-nature swap on June 24, 1988.⁵⁷

This agreement, the first of its kind in Asia, marks the start of an important development: the regulation of commercial logging (one of the primary causes of environmental degradation and an indirect cause of deforestation) in insular Southeast Asia.⁵⁸ The agreement's significance is further underscored by the Philippine Government's willingness to spend such an amount of money on environmental conservation in the face of its staggering economic burdens and its external debt of approximately \$29 billion.

Under the agreement, the WWF will purchase up to \$2 million face value of the Philippines' external debt and exchange it at 100 percent of its principal amount for local currency. Before this occurs, the transaction must be approved by the Monetary Board of the Philippines and must meet the requirements of Philippine law, including the Revised Circular No. 1111 of October 20, 1987, of the Central Bank of the Philippines.⁵⁹ The local currency proceeds of the exchange, held in an account managed by the Haribon Foundation, will be used primarily for conservation training support for conservation groups and management of protected natural resources.⁶⁰ Undertakings will include the planning, administration, and protection of buffer zones, along with environmental edu-

55. *Id.* at 2; see also WWF News Release, Apr. 5, 1989, at 2-3.

56. *World Wildlife Fund Commits Up to \$2 Million to Philippines for Conservation*, WWF News Release, June 23, 1988, at 3.

57. *Id.* at 1.

58. Nectoux & Kuroda, *supra* note 31, at 24.

59. This is the principal legislation regulating the conversion of Philippine external debt-to-equity investments. For a discussion of the legislation, see Asiedu-Akrofi, *A Comparative Analysis of Debt Equity Swap Programs In Five Major Debtor Countries*, 12 HASTINGS INT'L & COMP. L. REV. 537, 560-65 (1989).

60. WWF's initial investment of US \$390,000 came from concerned donors in the United States. The first stage of the program will benefit the St. Paul's National Park on Palawan Island and El Nido National Marine Park. See WWF News Release, June 23, 1988, at 1.

cation and sustainable use of natural resources. Also, some of the funds will be used for training a cadre of conservationists, organizing in-country workshops, training in universities, providing institutional support for both governmental and nongovernmental organizations, and conducting research. The Haribon Foundation and the WWF will cooperate in the selection, development, and implementation of specific projects. Such activities must be consistent with the Philippines Conservation Strategy and the objectives of both the Haribon Foundation and the WWF.

5. Madagascar

Madagascar's debt-for-nature swap program was signed on August 3, 1989, between the WWF and the Central Bank of Madagascar.⁶¹ The program was the first of its kind in Africa.

The program involves a total commitment of \$3 million. Pursuant to a *protocole d'accord* signed on July 17, 1989, the WWF will acquire up to \$3 million face value of Madagascar's eligible debt over a period of three years. This eligible debt includes debts of which Banque Centrale de la République Malgache is the obligor and promissory notes organized under the October 25, 1984 Refinancing Agreement as amended on December 10, 1985, and June 15, 1987. The debts will then be converted into local currency (at the official exchange rate calculated on the date of redemption) and the conversion's proceeds used to conserve Madagascar's threatened natural resources.

The United States Agency for International Development (USAID) intends to extend a grant to the WWF in support of the program. When executed, the grant would provide \$1 million over a three-year period to support the debt-for-nature swap program. This contribution is part of the USAID's financial assistance program to Madagascar.⁶² The contribution has been justified as "part of a continuing initiative to assist developing countries to preserve and enhance their environment and natural resources. This debt swap is an example of synergism at its best."⁶³

The Madagascar program is significant in many respects. First, many of the species of this ecologically rich country are still peculiar to the island. The uniqueness of the species makes the need to preserve them pressing. Recent

61. The WWF and the Government of Madagascar have a relationship dating back twenty-four years. During this period the WWF has undertaken a variety of conservation activities in that country. These include the establishment of protected areas, technical assistance, biological inventory, and the training of local conservationists. See WWF News Release, Aug. 3, 1989, at 1 and Commemorative Certificate.

62. Since 1985, USAID has provided \$113 million to Madagascar by way of financial assistance for economic development and also for the conservation and development of renewable resources. See WWF News Release, *supra* note 61, at 2.

63. WWF & Madagascar Announce First Debt-for-Nature Swap in Africa, WWF News Release, Aug. 3, 1989, at 2 [hereinafter WWF & Madagascar] (statement of Mark L. Edelman, USAID's Acting Administrator).

studies on the island have also shown that many of the island's protected areas are threatened by fire, illegal logging, poaching, drainage of wetlands, destructive slash-and-burn cultivation, and uncontrolled grazing by livestock. Due to the seriousness of this problem, the WWF, the World Bank and other international agencies acting in conjunction with Madagascar's Government have developed a new environmental action plan to ensure the preservation of the natural heritage.⁶⁴

Second, the Madagascar debt-for-nature program marks a new commitment by the United States Government toward the protection and preservation of the global environment. Indeed, this program is the first in which the United States Government has participated.

Third, this program is one of the few in which several major banks have been involved. Bankers Trust found the debts used in the transaction and organized the syndicate of European banks which participated in the program. Altogether, seven banks participated in the transaction.⁶⁵

On a related matter, in April 1989 Deutsche Bank, acting through the WWF, donated U.S. \$1.6 million of debt to Madagascar.⁶⁶ Additionally, USAID contributed \$300,000 to be used in underwriting the costs incurred in putting together the transaction. Under the terms of the *protocole d'accord*, the WWF would use \$950,000 to redeem about \$2.1 million of Madagascar's eligible debt at a price of 45 cents on a dollar. The remainder of the funds will be converted over a two-year period. The proceeds from the conversion will be used for the protection of wildlife, large tracts of undisturbed rain forests, and watersheds, and for training, equipping, and supporting 400 park rangers.⁶⁷ Special emphasis will be placed on the Andringitra and Marojejy Reserves.

6. Zambia

Following the Madagascar initiative, Zambia concluded a debt-for-nature swap agreement with the WWF in August 1989. The transaction, arranged through NMB Bank of the Netherlands, involved \$2.27 million of Zambia's \$4.5 billion external debt. The WWF purchased the \$2.27 million debt for \$470,000 at an 80 percent discount (20 cents on the dollar).⁶⁸ This is the first debt-for-nature transaction brokered by a European bank.⁶⁹

64. This plan will include the creation of new natural reserves, sound rural development plans, and bolstering the protection for the natural parks and reserves. See WWF, Madagascar Fact Sheet, at 2.

65. They are Bankers Trust Company, National Westminster Bank PLC, Dresdner Bank, Amro Bank, Banque de l'Union Européenne, Credit Commercial de France, and Société Générale. See WWF and Madagascar, *supra* note 63.

66. WWF In U.S. \$2.27 Million Debt-for-Nature Swap with Zambia, WWF Press Release, Aug. 15, 1989, at 2 n.2 [hereinafter *Swap with Zambia*].

67. WWF & Madagascar, *supra* 63, at 3.

68. Regin, *Debt-for-Nature Swaps Foster Conservation in Some Developing Countries*, L.A. Times, Oct. 15, 1989, at A8, col. 1.

69. *Swap With Zambia*, *supra* note 66.

Unlike the Ecuador transaction, this transaction involved cash and not bonds. Some of the proceeds of the transaction are earmarked for conservation activities in the Kafue Flats and the Bangweulu Basin. These are Zambia's and Africa's most important wetlands.⁷⁰ The remainder of the proceeds will be used in conservation activities such as education on conservation, alleviation of environmental problems such as soil erosion and habitat degradation, protection of Zambia's remaining rhino and elephant populations, and strengthening of local conservation institutions.⁷¹

B. PROJECTED AGREEMENTS

Negotiations are also going on between the WWF and Tanzania, Peru, and Mexico over the prospects of concluding debt-for-nature swap agreements.⁷² In Mexico City officials are negotiating a loan with the Inter-American Development Bank to buy a portion of Mexico's external debts now trading at 50 percent discount on the secondary market.⁷³ The money generated from the financial transaction will be used to finance the planting of trees in the city. This transaction has been dubbed a debt-for-trees swap and not a debt-for-nature swap.

IV. Comparison

In all the country programs described above, external debt is converted into local currency or ecological bonds and the proceeds are then used for conservation activities. Despite this, variations exist in the treatment of the principal and interest of the amount exchanged. For example, in the Ecuador program the principal and interest will be used for financing conservation activities. The same is true for the Costa Rican debt-for-nature exchange.

In most of the transactions, foreign conservation organizations purchased the debt on the secondary market. However, unlike the Bolivian and Ecuador programs, many of the conservation groups involved in the Costa Rican program made cash donations and permitted the Costa Rican body to purchase the secondary market debt on their behalf. Another difference between the Costa Rican program and the others is that participants in the former received local currency bonds equivalent to 75 percent of the principal amount of the debt exchanged. Also, the National Resources Conservation Fund, which is the program administrator, is being paid an annual fee totaling some 2 percent of the principal amount of the bonds.

The Mexican program in particular differs from most debt-for-nature swap transactions implemented thus far. Whereas in some of the earlier debt-for-nature

70. *Id.*

71. *Id.*

72. *Id.*

73. See *Mexico to Turn Debt into Trees through Innovative Swap Deal*, J. COM., Sept. 7, 1990.

swap programs a portion of the country's debt obligations are purchased, converted into local currency, and the proceeds used to purchase land area in the debtor country to further conservation activities, in the Mexican program, there is no purchase of land. Further, the Mexican program is at the initiative of the Mexico City authorities.

V. Direct Governmental Initiatives for Swap Programs

To date, developed country involvement has largely been limited to participation by a few governmental agencies. These agencies are limited aid programming institutions and other organizations concerned with rehabilitation, protection, and preservation of the global environment.

The Swedish Government has also participated in debt-for-nature swaps, specifically, for the completion of the endowment of the Guanacaste National Park. The Swedish Government is purchasing about \$25 million of commercial bank debt, which will be exchanged for conservation bonds. The bonds are expected to be exchanged for local currency bonds at a rate equal to 70 percent of the principal amount of the total debt exchanged.⁷⁴ Similarly, the Dutch Government has arranged a debt-for-nature swap transaction with Costa Rica as part of its bilateral aid program. Germany has also recently offered to forgive the debts of twelve African countries and Burma based on principles of fighting poverty, promoting structural adjustment, developing arable lands, and protecting the environment.⁷⁵

Following the Bolivian and Ecuadorean programs, U.S. environmental and conservation groups actively lobbied the United States Congress. Their objective was to get Congress to pass legislation encouraging multilateral development banks such as the World Bank to explore the prospects of implementing debt-for-nature swap programs. These efforts culminated in passage of the Tropical Forest Protection Act of 1989⁷⁶ and favorable tax treatment of banks and charitable institutions involved with nature conservation and preservation.

The general purpose of the 1989 act is "[t]o enable and encourage developing nations with external debt and tropical forests to preserve, restore, enhance, and manage such forests by reducing their debt to private lenders if such nations demonstrate actions to protect tropical forests or other endangered ecosystems or species."⁷⁷ This legislation is timely and important for several reasons. First, it acknowledges that the world's tropical forests and the global environment at

74. *Debt-for-Nature Exchange*, *supra* note 48, at 16.

75. It has been reported that Germany has decided to forgive more than 3 billion deutsche marks worth of debt to 13 LDCs. See *Frankfurter Allgemeine Zeitung*, July 21, 1988, at 1; see also AFP Press Report (July 25, 1988) which reported that Germany had decided to urge the linking of debt relief to environmental action at the 1988 IMF/IBRD Annual Meeting.

76. H.R. 1704, 101st Cong. 1st Sess. (1989) was the original House bill which provided the legislative purpose to the act.

77. *Id.*

large are greatly threatened by human activities. Second, the act underscores the feasibility of preserving and protecting tropical forests and other endangered ecosystems or species through debt-for-nature swaps. Last, it supports the suspension of debt servicing on environmental protection grounds,⁷⁸ underlying a change in attitude toward debt relief.

Section 3 of the bill provides in part as follows:

The Secretary of the Treasury shall instruct the United States Executive Directors of the International Bank for Reconstruction and Development, the International Development Association, the Inter-American Development Bank, the African Development Bank, and the Asian Development Bank to vigorously promote the adoption of policies which preserve and protect tropical forests and other endangered ecosystems or species in debtor countries in reducing and restructuring private debt through the use of loans in ways which will enable developing countries to buy back private debt at the rate of discount available for such debt, at auction, in the secondary market if—

(1) the debtor developing country, in collaboration with local and international non-governmental or private voluntary organizations for protection of the environment, converts an agreed upon amount of its debt to local currency for use in “debt-for-nature swap” programs which provide for the protection and preservation of tropical forests or other critical ecosystems or species that are renewable natural resources, including funding for at least one of the following programs—

(b) to establish tree nurseries and other facilities for the reforestation of land which has already been deforested . . .

In addition to the above, programs focusing on public education, land management, and environmental policy, coupled with research, data collection systems, and incentives for protecting parks may be implemented. The legislation also encourages the use of debt buybacks for environmental purposes. These buybacks allow debtor countries to purchase part or all of their external debts at a discount using their international currency reserves or money borrowed from official or private sources. The objective is to reduce debt servicing obligations while improving the debtor’s credit rating in the market. Such buyback transactions may be executed either by direct purchase from the bank or the secondary market. Bolivia, Chile, Mexico, and the Philippines have used this form of financing.

Apart from the Tropical Forest Protection Act, environmental groups have lobbied Congress to consider granting preferential tax status to private lenders (that is, banks) that donate discounted loans to environmental groups interested in creating environmental easements in debtor countries.⁷⁹ A bank may consider donating discounted debts if the bank is overly exposed in a particular debtor country when its overall country portfolio is considered. The legislation also

78. This provision for the first time contemplates the suspension of debt servicing for environmental reasons. It also marks a positive step toward resolving the debt crisis since it encourages, among other things, buybacks or discounted repurchases. *See* The Tropical Forest Protection Act § 4.

79. *See* H.R. 3466, 100th Cong., 1st Sess. (1987); *see also* 133 CONG. REC. Z7163–64 (1987).

allows commercial creditors to deduct the full face value of debt donated to nonprofit organizations.

To give the 1989 legislation full effect, the Internal Revenue Service (IRS) extended this preferential treatment in a recent ruling to include all charitable organizations and their contributors.⁸⁰ The Treasury's declared objective is to promote debt-for-nature swaps. Therefore, the ruling was meant to encourage donation by U.S. international banks of their LDC debts for charitable purposes in foreign countries. This objective has not caught on with the banks because of concerns over the tax implications of such transactions. Consequently, donations to date have been made mainly by private philanthropic organizations and individuals. The donations comprise cash contributions or property. Thus far, only two U.S. banks, Fleet National Bank of Rhode Island (an affiliate of Fleet North Star Financial Group) and Chase Manhattan Bank, have made charitable contribution of LDC debts.⁸¹

Prior to the IRS ruling, the principal concerns over charitable deductions related to whether the charitable contribution would run through the loan loss account (of the donor bank) at its secondary market value for financial and reporting purposes or whether it would be treated solely as a charitable contribution expense. Another issue was whether the expense, as a charitable contribution, could be applied against the contribution on a gross-to-gross basis under Treasury Regulation 1.861-8(e)(9), which results in more favorable tax treatment than a loss. The motivation for adopting this method is that if the loss is directly attributed to foreign source income then the foreign tax credit limitation may be reduced by the full amount of the loss.⁸²

Under Treasury Regulation 1.170(A)-1(C) the amount allowed for charitable deductions is limited to the fair market value of the donated property. In the case of LDC debt, however, there may be a few valuation problems, particularly in relation to direct donations. The valuation difficulty relates to the fact that LDC debts are heavily discounted from their adjusted basis. Under IRS Revenue Ruling 87-124, the fair market value of the donated debt was \$60; consequently,

80. This includes all agencies which have obtained § 501(C)(3) status. In 1987, the IRS issued Rev. Rul. 87-124. The ruling addressed three disposition transactions: debt-to-equity conversions, charitable contributions of LDC debt, and bank sales of debts. See Rev. Rul. 87-124, 1987-47 I.R.B. 5.

81. See Dionne, *Treasury Agrees to Construe Revenue Ruling on Debt-for-Nature Swaps Liberally*, 39 TAX NOTES 307, 308 (1988). The donation by the Fleet National Bank of Rhode Island was made to Costa Rica. It was motivated by the "longstanding relationship of Fleetstar with Nature Conservancy (a U.S. conservation group engaged in conservation activities in Costa Rica). In December 1988 Chase Manhattan Bank also donated about U.S. \$400,000 face value of Bolivian debt to Conservation International. Like the Fleet National Bank donation, this donation was also not motivated by potential tax advantages. See *Debt-for-Nature Exchange*, *supra* note 48, at 26. In December 1988, Midland Bank P.L.C., a British Bank, donated U.S. \$800,000 face amount of Sudanese debt to UNICEF. UNICEF is exchanging it for an undisclosed amount of local currency to fund a rural purification project. See *Thirst Quencher*, *ECONOMIST*, Dec. 24, 1988, at B7.

82. Connors, *supra* note 38, at 289.

a charitable deduction of \$60 was allowed. The ruling allows for a full write-off of the debt. In the Fleet National Bank transaction the bank made a deduction as a normal charge-off to the profit and loss reserve; the company's financial position was such that a charitable deduction was not required for its financial statements.

According to Revenue Ruling 87-124, a U.S. company wishing to make a charitable contribution may present foreign debt to a country's central bank in exchange for local currency. As described in Internal Revenue Code (IRC) section 170(c)(2), the central bank then credits an account of a U.S. charitable organization (the donee) with the proceeds of the converted currency. In turn, the local currency is limited for use in the debtor country. The IRS has held that U.S. banks sustain a loss in such transactions to the extent that the adjusted basis of the debt exchanged exceeds the local currency obtained by virtue of the transaction. For example, if Bank A converts \$200 into local currency in Country A and receives 1000LCs (local currency) for purposes of financial reporting, Bank A sustains a loss to the extent to which the adjusted basis of the \$200 debt exceeded the 1000LCs. Also, Bank A has a charitable contribution deduction to the extent of the fair market value of the 1000LCs.⁸³

Section 170(c)(2)(A) of the IRC provides that the only deductible donations are those made either to a U.S. subdivision or to a trust, corporation, community chest, foundation, or fund created in the United States, including possessions and the District of Columbia. This provision presents some difficulties in structuring debt-for-nature swaps because, in practice, most governments engaged in debt-for-nature swaps require funds to be controlled by either their central banks or a local charity or organization. Thus, where section 170(c)(2)(A) applies, no charitable deductions may be allowed to donating banks.

This disincentive prompted wildlife and other environmental organizations to lobby the Treasury for a liberal interpretation of the section to facilitate their conservation activities in foreign countries. Subsequently, a bill was introduced in Congress to amend section 170. The amendment's objective was to allow a bank that donated directly to a charity to claim LDC debt as a deduction equal to the adjusted basis of the debt.⁸⁴

During Senate hearings on S. 1781, the Treasury was requested to clarify three issues relating to Revenue Ruling 87-124. First, whether the ruling covered only sovereign debt or whether it also included private and governmental agency debts. Second, whether local bonds could be substituted for foreign currency. And third, whether the donor would be entitled to take a charitable deduction for currency or bonds credited to a foreign country's account or an entity organized under its laws.

83. It must be noted that the IRS did not give any indication as to the method of valuing the local currency.

84. S. 1781, 100th Cong., 1st Sess. (1987) (sponsored by Sen. Chafee).

On the first two issues, the Treasury, in a letter dated March 29, 1988 replied: "[W]e do not regard an exchange of a debt obligation of an entity other than the central bank of the foreign country . . . as inconsistent with the principle underlying Rev. Rul. 87-124. Similarly, we do not regard the issuance of bonds rather than local currency . . . as inconsistent with this principle."⁸⁵ The Treasury replied on the third issue:

[T]he Internal Revenue Code permits a charitable deduction only if the contribution is made "to or for the use" of charities created or organized in the United States. A U.S. charity may work in cooperation with an entity organized under the laws of the foreign country and may solicit contributions for grants to the foreign entity without jeopardizing the charitable deduction, provided that the U.S. charity has such control and discretion regarding contributions as to ensure that the contributions will be used to carry out the U.S. charity's charitable functions and purposes. See Rev. Rul. 63-252, 1963-2 C.B. 101; Rev. Rul. 66-79, 1966-1 C.B. 48; Rev. Rul. 75-65, 1975-1 C.B. 79. There is also authority indicating that, in some circumstances, it may be possible for funds to be credited to the account of a foreign charity if use of funds in that account is limited to a specific charitable purpose and the U.S. charity had exercised discretion in selecting that charitable purpose. See *Brinley v. Commissioner*, 782 F.2d 1326, 1335 (5th Cir. 1986).⁸⁶

From the various revenue rulings, the implications of section 170(c)(2)(A), and the fact that foreign central banks do not generally credit a U.S. account with cash or securities, conservation objectives may be better realized by U.S. charities and foreign conservation groups organizing joint ventures. Funds may be held in joint accounts into which all converted local currency would be deposited in compliance with U.S. tax laws. United States charities acting in conjunction with foreign conservation partners will have input in determining the projects for which the funds may be used. This procedure satisfies the requirement that the U.S. charity have control and discretion regarding the use of its contributions when fulfilling its charitable functions and purposes. Such a liberal interpretation of the ruling serves as an incentive for banks to donate (write off) some of their debts while making charitable contributions and earning deductible allowances. This, in turn, enables conversion of nonperforming assets (bad debts) into viable investment assets for environmental protection.

Whether commercial banks will be willing to donate entire debt portfolios and take advantage of the tax allowances is still uncertain. The banks' response may depend on the pressure they encounter from the Federal Reserve Board and the Treasury. Presently, both the Treasury and the Federal Reserve Board are moving toward requiring commercial lenders to absorb losses on their bad LDC loans.⁸⁷

85. Letter from C. Eugene Steuerle, Treasury Deputy Assistant Secretary for Tax Analysis, to Senate Finance Committee member John Chafee (R-R.I.), reprinted in *Current and Quotable: Treasury Takes Favorable Position on Debt-for-Nature Swaps*, 39 TAX NOTES 402 (1988).

86. *Id.*

87. See Bradley, *Urgent Relief for Mexico*, N.Y. Times, Mar. 10, 1989, at A33, col. 3; Kilborn, *Shift Is Seen in U.S. Policy to Ease Repayment Costs of Third World*, N.Y. Times, Mar. 9, 1989, at

VI. The Impact of Debt-for-Nature Swaps

Today, the heavily indebted countries are also those with the most diverse biological endowments. Together, Brazil, Colombia, Mexico, Zaire, Madagascar, and Indonesia, account for about 50 percent of the world's biological diversity and owe about 25 percent of the developing world's debts.⁸⁸ Brazil alone has about 30 percent of the world's tropical forests. The importance of tropical forests includes not only their diversity of flora and fauna, but also their contribution to human welfare. For example, rural populations in tropical developing countries depend on the forests for food, fodder, and fuel. Moreover, industrialized countries rely on the forests for medicinal and industrial products.

In recent years, huge external debts and slow economic growth in developing countries have greatly impacted biological endowments and the environment. The effect is typified by an increase in export-oriented programs. Such programs are designed to enhance growth by increasing the capacity to pay for imports, as well as debt service, through the establishment of foreign exchange generating industries.⁸⁹ Despite the positive impact of export-oriented programs, establishing such programs sometimes directly results in the clearing of forests for farmlands, pasture lands, or timber for export, and the mining of industrial and strategic minerals.

The impact of debt-for-nature conversions differs from country to country and scheme to scheme. Like debt-equity swap schemes, discounts may be obtained from debt-for-nature swap transactions by imposing conversion fees, selling or auctioning conversion rights, or establishing different exchange rates⁹⁰ for the conversion of foreign debt to local currency. Through debt-for-nature swaps, debtor countries may be able to capture discounts on debts sold on the secondary market and convert such debts into conservation-related investments. Indeed, most of the countries engaged in debt-for-nature swaps have established formal procedures by which they benefit from discounts in the secondary market.

Debt-for-nature swaps promote increased domestic awareness of the need to protect the domestic environment from further degradation. Even though the

A1, col. 5; *Shuffling Towards Debt Reduction*, N.Y. Times, Mar. 22, 1989, at D2, col. 1. While the IRS ruling liberalizes the regulatory regime governing LDC debts, it fails to address some pertinent questions affecting potential bank donors. Such questions relate to the valuation of bad debts and allowable charitable deductions. In April 1989, the IRS addressed a related question (whether the donations could be deducted against the foreign or domestic source income of the donor). See I.R.S. Notice 89-58, 1989-1 C.B. 699. Charitable deductions are generally deducted against domestic source income while loan loss deductions are usually apportioned between domestic source and foreign source income. As several donors would prefer to be able to make charitable deductions against domestic source income, most donors value charitable transactions more because they do not affect their foreign source income.

88. *Debt-for-Nature Swaps: A New Conservation Tool*, WWF Letter, No. 1, at 4 (1988).

89. Lovejoy, *Third World Could Profit from Its Debt*, Conservation Found. Letter, Jan.-Feb. 1986, at 2.

90. For a discussion of the function and multidimensional role of exchange rates, see J. GOLD, EXCHANGE RATES IN INTERNATIONAL LAW AND ORGANIZATION 1 (1988).

existence of the swap mechanism per se has not given a boost to debt-for-nature swaps, it has drawn attention to the plight of the global environment and the world's tropical forests. Thus, the existence of the swap mechanism can be seen as an opportunity to encourage greater use of debt-for-nature swaps. In addition, debt-for-nature swaps provide debtor countries an opportunity to reevaluate their environmental and development policies and foster the emergence or growth of private conservation and environmental groups.

Debt-for-nature swaps may also help to reduce debtor countries' external debts because they eliminate payment of interest and restructuring on outstanding debt obligations fees. Furthermore, these swap arrangements arguably do not have as severe an impact on these countries' economies as does debt servicing since they do not entail remittance and repatriation of profits and are free from most of the restrictions encountered in debt-equity swaps.⁹¹ Because converted debts are usually excluded from the calculation of bank base exposure, it also may be more beneficial for banks to engage in debt-for-nature swaps rather than frequent rescheduling and refinancing of debt, which may involve provision of new money to debtor countries. For bank creditors, debt-for-nature swaps offer an opportunity to eliminate problems associated with loan defaults, to increase liquidity, and to rationalize their portfolios.

While debt-for-nature swaps offer debtor countries a good opportunity to retire their debts, they also raise serious problems, such as the fear of domination of the economy by foreign conservation groups, inflation, and increased domestic debts. Issuance of domestic currency to pay for foreign debt conversion might also have an adverse impact on the monetary and fiscal policies pursued by the beneficiary countries. The impact may be felt in inflation, exchange rates, and the level of debtor countries' international reserves. To illustrate, debt conversions involving bonds could cause a rise in interest rates. Also, the potential inflationary impact of debt conversions could make it difficult to meet set inflationary targets. On the other hand, issuing bonds instead of cash may minimize the inflationary impact of the conversion program. Joint venture arrangements between local environmental groups and foreign conservation groups and the issuance of long-term debt instruments are useful ways of controlling the consequences of increased domestic liquidity. Another effective method of control is the institution of volume restrictions on exchanges.

The use of bonds provides a reliable source of finance for conservation activities. It also permits the establishment of endowments (using bond proceeds). Such endowments provide a steady source of finance for future conservation activities, which is particularly important in developing countries that are now witnessing the growth of private environmental organizations.

91. The restrictions relate to remittance of dividends and profits and the requirement of matching funds by some debt equity swap programs.

VII. Concerns in Structuring Debt-for-Nature Swaps

Despite the desire and anxiety that debtor countries show in their debt reduction efforts, they are not easily persuaded to deviate from traditional methods of financing. This anxiety is demonstrated by concerns about sovereignty, inflation, and the cost effectiveness of the transaction.

The sovereignty issue often raises much nationalistic ferment. One major concern underlying this issue is fear that conservation activities could result in a transfer of valuable national assets to foreign organizations.⁹² Allegedly, a growing feeling has developed among some debtor countries with tropical forests that rich nations are envious of their natural resources. This feeling has grown to a point where some debtor countries believe that industrialized countries are conducting an insidious and untruthful campaign against the debtor countries' use of their forests.⁹³ This issue has been prominent in discussions relating to the Brazilian Government's policies on development of the Amazon forest.⁹⁴

Brazil is currently considering the construction of a 500-mile road across the Amazon rain forest to link the Peruvian Andes to the Pacific coast, financed by the Japanese Government at a cost of \$300 million. The project has drawn considerable criticism from environmentalists in the United States, Europe, and Japan who believe the road will accelerate the deforestation of the Amazon forest as it provides a shorter supply route for Japan, the world's largest consumer of tropical goods.⁹⁵ Construction would equally open up vast areas of the forests now accessible only through a huge grid of rivers draining the western corner of the Amazon.

As a result of concerns expressed by the international community, scientists, indigenous people, local and foreign conservationists, and environmental groups about the rapid depletion of the Amazon forest and its potential impact on global climatic patterns,⁹⁶ the United States Government sent a team of U.S. senators to Brazil on a fact-finding mission. The World Bank also responded by withholding further development loans on the ground that such funds would be used to finance further depletion of the forest.⁹⁷ One concern expressed is that the rich

92. Some critics expressed concern that debt-equity swap programs are simply a ruse designed to exchange valuable national assets for worthless debts. Similar concerns have been expressed by critics and opposition parties in some countries that have established debt-for-nature swap programs. For example, in Bolivia such criticisms led to the erroneous belief that the government had sold the land involved in the transaction to foreign conservation groups.

93. See Simons, *Brazil, Smarting from the Outcry over the Amazon Charges Foreign Plot*, N.Y. Times, Mar. 23, 1989, at A14, col. 1.

94. The development policies include the construction of new hydroelectric dams, roads, granting of tax credits for agriculture, and cattle ranching.

95. See Nectoux & Kuroda, *supra* note 31, at 25.

96. See Begloy, Margois, Contrerns, & Hager, *The World's Largest Lab*, NEWSWEEK, Feb. 20, 1989, at 46; see also *Brazil Indians Meet on Protecting Amazon*, *supra* note 27, at L5.

97. See Cohen, *U.S. Complaints on Amazon Destruction Spur Brazil's Resentment and Defiance*, Wall St. J., Feb. 17, 1989, at A10, col. 1.

natural resources of the Amazon forest are being destroyed due to lack of carefully planned development. Already, logging and burning have destroyed large tracts of the forest. Further, the use of agricultural subsidies to attract farmers to the region has been carried out without regard for the soil's ability to sustain such activity.

Brazil has viewed all this attention on the Amazon as an interference with its sovereignty. In the words of President Sarney: "Brazil is being threatened in its sovereign right to use, exploit and administer its territory Every day brings new forms of intervention, with veiled or explicit threats aimed to force us to take decisions that are not in our interest."⁹⁸ The intervention alluded to refers to recent postponement and conditioning of foreign credits to Brazil on environmental measures and also to proposals from the United States, the Netherlands, and France to the effect that Brazil exchange discounted portions of its debts for conservation projects.⁹⁹

Brazil is currently doing all it can to resist pressure to force it to hold back the development of the Amazon and is poised to proceed with its plans. At a recent environmental conference held in the Netherlands, it successfully fought off attempts to establish a new international environmental agency, which it feared could intervene in the development of the Amazon.¹⁰⁰ Brazil has characterized the current international effort to hold back the development of the Amazon as signifying "a true danger of foreign occupation of the Amazon."¹⁰¹ This danger has been explained by various conspiracy theories. According to one theory, the rich countries do not want Brazil to develop its vast mineral deposits, which include gold, tin, bauxite, and uranium, because this would affect their industrial interests and depress world prices. Another theory posits "that the big multinational corporations are using the environmental concerns to postpone exploitation of the Amazon's wealth until they themselves can gain control over it."¹⁰²

Whatever the merits of these theories, two issues come to mind: first, the need to proceed with sustained economic growth and development with greater attention to environmental concerns, and second, the need to provide more effective debt relief for debtor countries with tropical forests. Absent these considerations, we are likely to witness a continuous destruction of tropical forests to support debtor countries' economies. In addition, struggles between the governments of creditor and debtor countries over who has the right to decide the fate of the tropical forests will continue. These issues lie at the heart of any efforts toward providing adequate safeguards for tropical forests in debtor countries.

Commercial banks must consider the cost effectiveness of the transaction. This entails a balancing of the benefits to be derived from disposal of their debts

98. Simons, *supra* note 93.

99. *Id.*

100. *Id.*

101. *Id.*

102. *Id.*

and the impact of such disposal on their balance sheets against the nondisposal of the debts and the prospects of obtaining accrued payments on such debts. Another important consideration includes the conversion's impact on the long-term business relationship between the debtor and the creditor bank. Furthermore, the proper use of converted debt is a concern. Consequently, debtor countries are usually required to assure that the converted funds will be put to good use. All these factors make the structuring of debt-for-nature swaps a complex process, and this complexity is underscored by the need to balance the varying interests of the parties.

Other factors that contribute to the complexity include country-to-country variations in financial regulation and the structure of a country's debts. Indeed, the particular value and structure of a country's debts may preclude debt-for-nature swaps from taking place, thereby requiring alternative financing techniques. For example, the debts of some countries have not depreciated to the level at which environmental and conservation groups would consider them cost effective and suitable for debt-for-nature swaps.¹⁰³ In this context it is noteworthy that the debts of several comparatively smaller debtor countries with rain forests are owed primarily to foreign governments and multilateral financial institutions and are not eligible for swap transactions.¹⁰⁴ In particular, multilateral creditors (multilateral financial institutions) are not in a legal position to redeem such debts at a discount (a factor that has been the catalyst for debt-for-nature swaps),¹⁰⁵ because their charters do not permit them to do so.

VIII. Future of Debt-for-Nature Swaps

When the debt crisis first broke out in 1982, the financial community did not expect to be inundated by financing modalities for managing the crisis. The situation was chaotic and characterized by prophecies of doom. At the same time, the global environment was inching its way along an irreversible path of degradation and destruction.

From the pessimism and the desperate efforts to avert a collapse of the international financial system there emerged a new market—the secondary market for LDC debt. In this market the trading of sovereign debts began and eventually took on new dimensions. This marked the genesis of the “greening” of international finance—the use of external debt to finance the prevention of environmental degradation. Out of the market grew a wide variety of swap transactions.

Since the debt-for-nature swap concept was first conceived, it has been slow to develop; however, this should be expected. Debt-equity swap and debt

103. Venezuela and the debts of many African countries illustrate this dilemma.

104. In this context, the Tropical Forests Deforestation Act §§ 3–4 acquire greater significance, in that they encourage the multilateral development banks to allow debtor countries to buy back their debts for use in conservation activities.

105. *Id.*

rescheduling were equally slow to grow in popularity. Yet, with the growing concern for the global environment, the availability of a large source of non-traditional funding, and the interest shown by the governments of creditor and debtor countries, bilateral credit agencies, foreign and local conservation groups, and bank regulatory authorities, a useful tool in international finance has emerged. Expansion of this new financing tool will depend on several factors: structural developments; greater participation by commercial banks, official creditors, and their multilateral development bank counterparts; the volume and price of loan trading on the secondary market for LDC debt; and the receptiveness of host countries to debt-for-nature swaps.

Since 1982 a secondary market for trading developing country debts has emerged. The debts are sold at discounts ranging from 20 to 90 percent, depending on the extent of the country's indebtedness.¹⁰⁶ Trading in the secondary market has been slow, however. This is due to a myriad of factors, including the increase in loan loss provisions¹⁰⁷ and the uncertainty regarding the impact that such transactions could have on the participating bank's valuation of the remaining debts in a bank portfolio. The number and total value of transactions are directly related to: the economic developments in debtor countries; the debt management policies of debtor countries (for example, whether to impose a moratorium on debt servicing); and the effect of these developments and policies on the creditor banks' expectations and portfolio management strategies; and the attitude of bank regulators toward the balance sheet treatment of their outstanding claims.

The uncertainty inherent in the above variables has made the larger banks reluctant to engage in active trading in the market. Smaller European banks and U.S. regional banks have, however, taken a keen interest in trading in the market and have attempted to reduce their debt exposure by selling their debts. Nevertheless, the total volume of trading, estimated at between \$13 and \$18 billion, is a small amount compared to the approximately \$300 billion worth of debt restructured since 1982.¹⁰⁸

Trading activities in the secondary market for LDC debts have acquired a new impetus following Citicorp's announcement on May 19, 1987, that it would

106. See M. WATSON, D. MATHIESON, R. KINCAID, D. FOLKERTS-LANDAU, K. REGLING & C. ATKINSON, *INTERNATIONAL CAPITAL MARKETS: DEVELOPMENTS AND PROSPECTS* 58 (1988). In late September 1987 the discount rate of the fifteen countries averaged about 55 percent. The fifteen heavily indebted countries are Argentina, Brazil, Colombia, Ecuador, Morocco, Peru, Uruguay, Yugoslavia, Bolivia, Chile, Ivory Coast, Mexico, Nigeria, the Philippines, and Venezuela. *Id.* at 65. The debts of the fifteen most heavily indebted countries are sold at steep discounts in the secondary market.

107. Loan loss provisions refer to the practice of banks setting aside a certain portion of their earnings as reserves against their bad LDC debts. *Id.* at 63-64.

108. *Id.* at 58-59. Between June 30, 1987, and June 30, 1988, the ten largest U.S. banks cut their LDC debt exposure by 7.8 percent. Several regional banks have also reduced their debt exposure by a greater percentage. The total 1988 trading volume of LDC debt is estimated to be from \$55-60 billion, a substantial increase of more than tenfold over the preceding three years.

increase its loan loss reserves (approximating LDC debts) to approximately \$3 billion. This move prompted similar action by the other money center banks and regional banks engaged in sovereign lending. These loan loss provisions against LDC debt increased the debt instruments available for conversion. Consequently, the prices of LDC debts on the secondary market declined. The increased provisions also meant an increase in the banks' primary capital and a decrease in the size of their debt portfolios.

The secondary market's operation has been enhanced by the active participation of several banks and investment firms that have developed expertise in handling transactions involving loan claims. The growth of the secondary market has also provided an outlet for both smaller and regional banks no longer interested in lending to debtor countries. These banks welcome the growth of the secondary market for LDC debt because it offers them a way out of the restructuring bind in which they find themselves;¹⁰⁹ it allows them to sell off their loans and exit from syndicates.

Thus far, multilateral development banks (MDBs), regional development banks, and bilateral credit agencies have not played an active role in propagating debt-for-nature swaps other than by changing their lending policies to take account of the environmental impact assessment of projects they finance. Such organizations have a vital role in advancing the use of debt-for-nature swaps for conservation programs. Some suggest that these organizations could permit debtor countries to meet their debt servicing obligations using local currency.¹¹⁰ Thus, instead of making such payments directly to MDBs, the local currency could be used in the obligor country to finance other local conservation programs. Opponents usually criticize this approach on the ground that it will affect the credit rating of such banks on the international capital markets. This criticism overlooks the fact that several developing countries owe so much to the MDBs that they cannot afford to pay, and that after a time such debts are usually written off. Rather than write off the debts, repayment of the loan obligations could be required in local currency in furtherance of conservation and social activities in such countries.¹¹¹ This approach would extend the use of onlending and relending as financing modalities.¹¹² MDBs could also provide technical assistance in

109. The restructuring bind refers to the frequent cycles of debt restructuring involving debtor countries and their creditors.

110. *Debt-for-Nature Exchange*, *supra* note 48, at 36.

111. This view is not oblivious of the fact that MDBs do not as a rule reschedule the debts owed to them.

112. These options first emerged in the Brazilian debt rescheduling of 1982-1983. Its *raison d'être* is to prevent lending banks from exceeding the legal lending limits of particular borrowers. These options permit creditor banks to transfer credits to different debtors in the same country without necessarily increasing their debt exposure. Onlending occurs when the lender and the borrower mutually agree to transfer the proceeds of a new financial package to another borrower in the same country. The new borrower or obligor then assumes the responsibility to pay the loan. The credit risk involved in the transfer is born by the lender.

structuring such transactions and provide funds for repurchasing some of the outstanding debt obligations.

With USAID's participation the way has been paved for greater participation by other bilateral aid institutions. The MDBs and other regional development banks may take a cue from this development, to facilitate the use of debt-for-nature swaps. Although these institutions have played nominal roles in these swaps so far, they are encouraged to consider them, in keeping with the spirit and intent of section 3 of the Tropical Forest Protection Act and as part of their new awareness and concern for environmental degradation in debtor countries.

Following USAID's participation in Madagascar's debt-for-nature swap program, it has monitored the development of those swaps.¹¹³ USAID has also emphasized education and financing for debt-for-nature swaps. Education has taken the form of seminars for USAID staff and nonprofit organizations. Further, USAID has given financial support to a coalition of nonprofit organizations, the "Debt for Development Coalition."¹¹⁴ USAID's financial support for debt exchanges has been limited. This is partly because current regulations prevent interest on USAID grants from accruing to the grantee's benefit and because USAID funds cannot be used to establish endowments.¹¹⁵ Another reason is that

Relending involves the repayment of an outstanding debt obligation by a borrower or obligor so that the lender may relend the proceeds of the payment to a new obligor in the same country. Both options enable creditor banks to spread their credit risks among different borrowers rather than concentrating the risk among a few borrowers in the same country. Furthermore, both onlending and relending enable creditor banks to assume expanded roles in the economies of borrowing countries and to develop a broader client base. Onlending and relending allow borrowers to postpone the outflow of foreign exchange because the loans are disbursed in the local currency of the country. Also, such loans may be linked with the prevailing exchange rate of the currency in which the original loan was designated in the agreement. The linkage exposes the country to the risk of foreign exchange rate fluctuations. Several agreements concluded between 1986 and 1987 contain provisions permitting onlending and relending.

Despite the advantages these options possess, onlending and relending are nonetheless capable of inducing a rapid and uncertain expansion of domestic credit to the private sector of borrowing countries. Such rapid and uncertain expansion of domestic credit is capable of adversely affecting monetary controls and structural adjustment programs. In the long-term such developments may hamper the efforts at debt reduction in many indebted developing countries. Accordingly, many of the agreements containing onlending and relending options impose considerable restrictions on their use. For example, Argentina's 1987 restructuring agreement increased the ceiling of the amount of onlending permitted under the 1983 agreement by \$500 million. Also, Argentina's 1983-85 agreements permitted a \$600 million onlending over a five-year period. Moreover, monthly ceilings were set on the rate at which onlending transactions could take place. In 1986, onlending transactions totalled \$422 million. This increased by \$75 million during the first four months of 1987. Similarly, Brazil's 1983 and 1984 restructuring agreements also provide for relending to both public and private sector entities. Venezuela's 1987 MYRA also makes provision for onlending.

113. *Debt-for-Nature Exchange*, *supra* note 48, at 34.

114. This is a coalition of nonprofit organizations and other groups willing to contribute U.S. \$10,000. The object of this coalition is to engage in activities which promote the conversion of LDC debt into local currency in support of educational and charitable programs.

115. *See, e.g.*, 42 Comp. Gen. 289 (1962). In this opinion the Comptroller General stated that in the absence of express authorization, funds provided by the Department of State for American-sponsored schools and libraries overseas may not be used to set up permanent endowment funds.

USAID funds are supposed to complement available financial resources rather than replace already earmarked grants.

Restrictions imposed by the regulations, as well as repayment of interest of USAID funds used for debt-for-nature exchanges, could limit the success of debt-for-nature swaps, especially those swaps that would otherwise be inflationary due to lack of funds from external sources.¹¹⁶ The regulatory problem has been resolved with the passing of the Global Environmental Protection Assistance Act of 1989 as contained in the Foreign Relations Authorization Act of 1990, passed by the Senate on July 20, 1989. The act permits recipients of USAID grants that will be used for debt-for-nature swaps to keep the interest accruing from the proceeds of the exchange.¹¹⁷ It also permits the use of such funds in establishing endowments for approved conservation programs.¹¹⁸ The enactment of this statute opens an invaluable window of opportunity for conservation organizations in both the United States and the host countries because it provides a significant amount of nontraditional finance.

IX. Conclusion

In the wake of debt-servicing difficulties, many debtor countries have cut back considerably on funding for conservation and natural resources management and other environmental programs.¹¹⁹ Therefore, they rely on foreign aid to maintain and support their natural resources. Since such aid is usually channeled to support export-oriented activities with a view toward reducing external debt burdens, this reliance on development aid has not solved the problem.

Debt-for-nature swaps have been successfully arranged in a few countries through the collaboration of host countries, international and local conservation organizations, private conservation organizations, and bilateral aid agencies. The funds used in financing these transactions are mainly provided by private con-

Also, the interest from such funds may not be used to support such schools. Rather, they have to be paid to the United States.

116. Funds for debt exchanges could be obtained from three primary sources: the reserves of the country, local bank loans, or new local currency minted or printed to facilitate the debt exchange. The last method is not advisable as it has the tendency to increase the local currency in circulation and induce inflation. Thus far the inflationary impact of debt-for-nature swaps has been contained by the use of local currency bonds and sometimes assurances by host governments to provide the debt-for-nature swap transactions with the maximum legal protection available under the domestic laws of the host countries. Such nonfinancial components coupled with the use of bonds demonetize the swap transactions and thereby reduce the cash flow that could be generated by such debt exchanges. This was the case in the first Bolivian debt-for-nature swap.

117. See 31 U.S.C. § 6503(a) (1988); see also 59 Comp. Gen. 215, which allows nongovernmental subgrantees of federal grants provided to state instrumentalities to keep interest earned on any advances of such grants.

118. See 135 CONG. REC. S8218 (daily ed. July 19, 1989); see also 135 CONG. REC. S8335-36, 58340-43 (daily ed. July 20, 1989) (floor amendments to S. 1160 relating to debt-for-nature swaps).

119. Fuller & Williamson, *Debt-for-Nature Swaps: A New Means of Funding Conservation in Developing Nations*, 11 Int'l Env't Rep. (BNA) 301 (May 11, 1988).

servation groups, commercial banks, bilateral aid agencies, and donor countries. Although the funds provided by these groups have gone a long way in improving natural resources management within individual countries, the impact of debt-for-nature swaps on debt reduction has been minimal. Notwithstanding, debt-for-nature swaps have created an awareness for natural resources enhancement and increased conservation activities in debtor countries.

The environmental costs arising from external debts have been heavy for debtor countries, yet they continue along their path of destruction for only short-term benefits. If the international efforts are to yield any meaningful results, then it may be necessary to encourage the implementation and enforcement of environmental impact assessments for various projects, and to revise the tax laws to enable commercial banks to write off their debts or sell them at discounts on the secondary markets. Presently, the rules regarding debt write-offs are cumbersome, resulting in little incentive for commercial banks to sell their debts at discounts. Furthermore, the fostering of closer ties between bank regulators, commercial banks, foreign and local environmental and conservation groups, and MDBs, acting in cooperation with governments of debtor countries having tropical forests, could go a long way to ensure a more expansive use of debt-for-nature swaps. This increased use could create a greater awareness of the possible consequences of unchecked environmental degradation, especially as it relates to tropical forests and the impact of external debts on the environment. Together, all these factors could contribute to converting unviable Third World debts into a useful source of revenue to protect deteriorating environments in developing countries with tropical forests. Such cooperation could also help in tempering the strong nationalistic ferment usually characteristic of discussions involving tropical forests in debtor countries.