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# The Multilateral Development Banks, Environmental Policy, and the United States\*

Bruce M. Rich\*\*

## INTRODUCTION

Over the past decade and a half, the two-thirds of the planet's population and land area that lies in developing countries has suffered increasingly from two related crises: the crisis of underdevelopment and poverty, and an environmental crisis that threatens the resource base on which all development depends.<sup>1</sup> Massive deforestation, erosion, and desertification are devastating large areas of the developing world.<sup>2</sup> Attempts to solve the acute problems of underdevelopment are aggravating existing environmental problems and creating new ones. The four principal biological foundations of the global economy—forests, croplands, grasslands, and fisheries—are threatened both by unsustainable exploitation and by outright destruction from other economic activities.<sup>3</sup>

Since the early 1970's, environmental planning and natural resource considerations have played an increasingly prominent role in United States development assistance policy. During this period, a number of international conferences and policy declarations have officially recognized the growing global awareness of the inseparability of development in the less industrialized countries and the sustainable management of their natural resources. The most important international development

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1. See generally INDEP. COMM'N ON INT'L DEV. ISSUES, NORTH-SOUTH: A PROGRAMME FOR SURVIVAL (1980); U.S. COUNCIL ON ENVTL. QUALITY & U.S. DEP'T OF STATE, THE GLOBAL 2000 REPORT TO THE PRESIDENT (1980) [hereinafter cited as GLOBAL 2000 REPORT].

2. See generally GLOBAL 2000 REPORT, *supra* note 1; WORLDWATCH INST., STATE OF THE WORLD 1985 3-22 (1985).

3. R. GOODLAND, C. WATSON & G. LEDEC, ENVIRONMENTAL MANAGEMENT IN TROPICAL AGRICULTURE (1984).

agencies, the multilateral development banks,<sup>4</sup> have adopted formal environmental policies to guide their development planning, but substantial evidence suggests these policies are largely unimplemented.

This Article examines how the United States can encourage increased attention within the multilateral development banks to sound management of the environment and natural resources. Part I outlines the structure and operation of the banks and examines the environmental significance of their activities. Part II presents recent evidence of the adverse environmental impacts of projects planned and financed by the banks. Part III discusses the growing international consensus on the need to incorporate conservation and environmental planning into development assistance, and reviews the banks' official environmental policies and procedures in light of that perceived need. Part IV addresses the role of the United States in promoting environmental management and conservation through foreign assistance policy and government influence on the banks, and Part V reviews recent encouraging initiatives taken by the United States Congress and the Executive Branch. Finally, Part VI proposes specific improvements in bank policies regarding environmental planning in the developing world.

This Article focuses on the World Bank, the largest and most influential of the multilateral development banks.<sup>5</sup> Policy changes at the World Bank are often harbingers of change at the regional banks and at other national and international development agencies.<sup>6</sup> Thus, improvements in the environmental policies of many development organizations will most likely originate at the World Bank.

## I

### THE MULTILATERAL DEVELOPMENT BANKS

#### A. *The Structure and Operations of the Banks*

United States economic assistance to developing countries is administered bilaterally through federal agencies, primarily the United States Agency for International Development (AID), and through the multilateral development banks.<sup>7</sup> In 1985, Congress appropriated nearly eight billion dollars for foreign economic assistance programs; of this amount, \$5.45 billion were directed to AID for development assistance and \$1.31

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4. United States objectives for participation in the four development banks are described in J. SANFORD, U.S. FOREIGN POLICY AND MULTILATERAL DEVELOPMENT BANKS (1982) [hereinafter cited as J. SANFORD, FOREIGN POLICY].

5. J. Sanford, Multilateral Development Banks: Background Data and U.S. Policy 7-8 (Congressional Research Service Report No. 80-112, 1980) [hereinafter cited as J. Sanford, Background Data].

6. *Id.* at 8.

7. The State Department also administers bilateral assistance and United States contributions to the United Nations. The Treasury Department administers United States contributions to the multilateral development banks.

billion were contributed to the banks.<sup>8</sup> The financial significance of this contribution to the banks is much more important than its dollar amount suggests, because it results in the mobilization of much larger amounts through matching funds from other countries and cofinancing arrangements. According to one estimate by the United States Treasury Department, every dollar the United States appropriates to the banks is matched by a total investment by other countries, aid agencies, and commercial banks that ranges between 10 and 266 dollars, depending on the recipient bank.<sup>9</sup>

The United States participates in four multilateral development banks: the World Bank, founded in 1945; the Inter-American Development Bank (Inter-American Bank), founded in 1959; the Asian Development Bank (Asian Bank), founded in 1966; and the African Development Bank (African Bank), founded in 1964.<sup>10</sup> The Banks were established by Articles of Agreement that have the status of treaties,<sup>11</sup> and United States participation in each bank was authorized by Congress.<sup>12</sup> The authorizing acts have frequently been amended to provide for increased United States contributions and to promote certain policies

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8. Continuing Appropriations, 1985—Comprehensive Crime Control Act of 1984, Pub. L. No. 98-473, § 127, 98 Stat. 1837, 1884-93 (1984).

9. For example, for every dollar the United States pays into the International Bank for Reconstruction and Development (the principal component of the World Bank), other donors contribute \$3.55. This seed money enables the Bank to raise \$57.06 in international capital markets, and then the Bank can lend a total of \$61.61 to the recipient developing country. Bank financing of projects attracts cofinancing from international agencies and commercial banks, as well as from host governments, often at a ratio of approximately three dollars for every dollar lent by the Bank. Thus, a single dollar appropriated to the World Bank by the United States can generate a total investment of \$266.24 in a developing country. *U.S. Participation in the Multilateral Development Institutions: Hearings Before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs*, 98th Cong., 1st Sess. 28 (1983) (information submitted for the record by R. Tim McNamar, Deputy Secretary, U.S. Dep't of the Treasury).

10. See generally J. SANFORD, *FOREIGN POLICY*, *supra* note 4, at 3-9; J. Sanford, *Background Data*, *supra* note 5, at 3-15. The United States is not a member of the Caribbean Development Bank, but AID has supported that bank's projects.

11. Articles of Agreement of the International Bank for Reconstruction and Development, *opened for signature* Dec. 27, 1945, 60 Stat. 1440 (1946), T.I.A.S. No. 1503, 2 U.N.T.S. 134, *amended* Dec. 16, 1965, 16 U.S.T. 1942, T.I.A.S. No. 5929 [hereinafter cited as World Bank Articles of Agreement]; Agreement Establishing the Inter-American Development Bank, *opened for signature* Apr. 8, 1959, 10 U.S.T. 3029, T.I.A.S. No. 4397, *amended* Jan. 28, 1964, 21 U.S.T. 1570, T.I.A.S. No. 6529, *amended* Mar. 31, 1968, 19 U.S.T. 7381, T.I.A.S. 6591, *amended* Mar. 23, 1972, T.I.A.S. No. 7437 [hereinafter cited as IDB Articles of Agreement]; Articles of Agreement of the Asian Development Bank, *opened for signature* Jan. 31, 1966, 17 U.S.T. 1418, T.I.A.S. No. 6103, 571 U.N.T.S. 123 [hereinafter cited as ADB Articles of Agreement]; Agreement Establishing the African Development Bank, Aug. 4, 1963, 510 U.N.T.S. 3, 569.

12. Bretton Woods Agreement Act of 1945, Pub. L. No. 79-171, 59 Stat. 512 (1945) (current version at 22 U.S.C. § 286 (1982)); Inter-American Development Bank Act, Pub. L. No. 86-147, 73 Stat. 299 (1959) (current version at 22 U.S.C. § 283 (1982)); Asian Development Bank Act, Pub. L. No. 89-369, 80 Stat. 71 (1966) (current version at 22 U.S.C. § 285 (1982)); African Development Bank Act, Pub. L. No. 97-35, 95 Stat. 357, 741 (1981) (22

within the banks.<sup>13</sup>

The development banks are autonomous international institutions established to promote economic and social development in poorer nations by channeling financial resources, in the form of loans for specific projects, from the developed to the developing world.<sup>14</sup> Structurally, the banks resemble closely held multinational corporations: each is managed by a president and a large internationally recruited staff,<sup>15</sup> but authority is vested at the highest level in a board of governors.<sup>16</sup> Each governor is a representative from an individual member country and is usually the finance minister or head of the central bank of that country.<sup>17</sup> The voting power of each governor reflects the financial contribution made to the bank by the country represented.<sup>18</sup>

The power of each board of governors is largely delegated to a board of executive directors.<sup>19</sup> Each loan and all significant policy decisions must be approved by the executive directors or referred for the governors' approval.<sup>20</sup> The board of executive directors of each bank consists of directors who individually represent the bank's largest shareholders and other directors who each represent several countries. The World Bank, for example, has 146 governors, each representing a member country, and a board of twenty-one executive directors.<sup>21</sup> Each of the bank's five largest shareholders—the United States (19.3%), the United Kingdom (6.20%), the Federal Republic of Germany (6.02%), Japan (5.99%), and France (5.07%)<sup>22</sup>—appoints its own director. The other sixteen directors are elected by the governors to represent groups of countries.<sup>23</sup>

The banks lend money to governments of developing countries, usually for specific projects.<sup>24</sup> A project is "a discrete investment program

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U.S.C. § 290 (1982)) (the United States acceded to the African Development Fund, the Bank's soft loan window, in 1976).

13. Current amendments are codified at 22 U.S.C. §§ 283-290. See *supra* note 12.

14. See, e.g., THE WORLD BANK, THE WORLD BANK ANNUAL REPORT 1984 3 (1984) [hereinafter cited as WORLD BANK 1984]; INTER-AMERICAN DEV. BANK, ANNUAL REPORT 1983 ii (1984) [hereinafter cited as IDB 1983].

15. J. SANFORD, FOREIGN POLICY, *supra* note 4, at 8.

16. See, e.g., World Bank Articles of Agreement, *supra* note 11, art. V, § 2(a).

17. A. VAN DE LAAR, THE WORLD BANK AND THE POOR 13 (1980).

18. See, e.g., World Bank Articles of Agreement, *supra* note 11, art. V, § 3(a).

19. See, e.g., WORLD BANK 1984, *supra* note 14, at 10; IDB 1983, *supra* note 14, at ii.

20. Approval by consensus rather than by formal vote is common. J. SANFORD, FOREIGN POLICY, *supra* note 4, at 8; see, e.g., WORLD BANK 1984, *supra* note 14, at 10.

21. WORLD BANK 1984, *supra* note 14, at 3, 10.

22. These are the 1984 figures. *Id.* at 227.

23. *Id.* at 10.

24. See, e.g., World Bank Articles of Agreement, *supra* note 11, art. III, § 4(vii), which states that loans "shall, except in special circumstances, be made for the purpose of specific projects." The Articles of Agreement of the IDB also state that "loans made or guaranteed by the Bank shall be principally for financing specific projects." IDB Articles of Agreement, *supra* note 11, art. III, § 7(a)(vi).

specified as to character, location and time."<sup>25</sup> Each bank has a hard loan window, which provides loans for development projects at interest rates based on prevailing rates in international capital markets, and a soft loan window, which provides loans at reduced rates or no interest.<sup>26</sup> Soft loans generally go to the poorest and least creditworthy member countries, which cannot afford the interest rates of hard loans.

### B. *The Environmental Significance of the Banks*

No other international or bilateral institutions have more influence on development financing and policy in the developing world than do the banks, especially the World Bank.<sup>27</sup> In 1983, the four banks together lent over twenty billion dollars to fund projects in developing countries, nearly four times the amount committed for economic development assistance by AID, the largest bilateral aid agency.<sup>28</sup> In 1983, the World Bank alone committed over \$15.3 billion in loans to three hundred projects in over eighty countries<sup>29</sup> and disbursed \$4.5 billion for ongoing loans.<sup>30</sup> The net disbursements of the four banks accounted for more than twenty percent of all international development assistance in 1983.<sup>31</sup>

In recent years, the majority of bank loans have supported projects in the environmentally sensitive areas of agriculture, rural development, power and irrigation schemes, and roadbuilding.<sup>32</sup> In 1983, for example, 25.5% of World Bank lending was for agriculture and rural development, 15.5% for transportation projects, principally roads, and 12.2% for power projects.<sup>33</sup> In the same year, 16.1% of Inter-American Bank lending was for agriculture, 24% for mining and industry, 5.6% for transportation, and 31.8% for energy, mainly hydroelectric projects.<sup>34</sup>

The projects and policies of the banks have an impact on the ecolog-

25. Chadenet & King, *What is a World Bank Project?*, 9 FIN. & DEV. 4-5 (1972), cited in A. VAN DE LAAR, *supra* note 17, at 48.

26. The soft loan window at the World Bank is the International Development Association. The Inter-American Bank calls its soft loan window the Fund for Special Operations.

27. K. MURPHY, *MACROPROJECT DEVELOPMENT IN THE THIRD WORLD* 16 (1984).

28. THE WORLD BANK, *THE WORLD BANK ANNUAL REPORT 1983* 13 (1983) [hereinafter cited as *WORLD BANK 1983*]; IDB 1983, *supra* note 14, at 5; 4 *Foreign Assistance and Related Programs Appropriations for 1984: Hearings Before the Subcomm. on Foreign Operations and Related Agencies of the House Comm. on Appropriations*, 98th Cong., 1st Sess. 70 (1983) (statement of M. Peter McPherson, AID Administrator).

29. *WORLD BANK 1983*, *supra* note 28, at 13, 126-27.

30. *Id.* at 13.

31. *THE WORLD BANK, WORLD DEVELOPMENT REPORT 1984* 38-39 (1984).

32. *WORLD BANK 1983*, *supra* note 28, at 132; IDB 1983, *supra* note 14, at 33; *ASIAN DEV. BANK, ANNUAL REPORT 1983* 36-37 (1983); *AFRICAN DEV. BANK AFRICAN DEV. FUND BDS. OF GOVERNORS, REPORT BY THE BOARDS OF DIRECTORS OF THE AFRICAN DEVELOPMENT BANK AFRICAN DEVELOPMENT FUND COVERING THE PERIOD 1 JANUARY TO 31 DECEMBER, 1983* 54 (1983).

33. *WORLD BANK 1983*, *supra* note 28, at 132.

34. IDB 1983, *supra* note 14, at 33.

ical stability and environmental future of the developing world even greater than is indicated by the huge dollar amounts of their annual loan commitments. Funds lent by the banks are for the most part complemented by even greater sums provided by recipient countries, and the funding of many projects is further supplemented by cofinancing arrangements with other development agencies and with private banks.<sup>35</sup> Thus, for every dollar the World Bank lends for a project, more than two additional dollars are raised from other sources;<sup>36</sup> for the Inter-American Bank, this cofinancing ratio approaches three to one.<sup>37</sup>

The influence of bank lending on development policy is also magnified by the banks' funding of research, training, technology transfer, planning, and other forms of institutional support in host countries.<sup>38</sup> In addition, loan conditions and stipulations can be highly specific and often contain terms affecting more than just the implementation of a single project.<sup>39</sup> The country and sector documents prepared by the banks to identify lending priorities<sup>40</sup> often shape the planning discussions among

35. WORLD BANK 1983, *supra* note 28, at 18; Stern, *Prospects of Development Financing in the 1980's*, 32 AM. U.L. REV. 146, 147 (1982).

36. WORLD BANK 1983, *supra* note 28, at 13; WORLD BANK 1984, *supra* note 14, at 18.

37. IDB 1983, *supra* note 14, at 12-13.

38. The World Bank encourages some borrower nations to establish autonomous government authorities, such as national development finance banks, agricultural credit institutions, and energy and area development agencies, to implement the Bank's projects. Fatourous, *The World Bank*, in *THE IMPACT OF INTERNATIONAL ORGANIZATIONS ON LEGAL AND INSTITUTIONAL CHANGE IN THE DEVELOPING COUNTRIES* 12, 52-61 (J. Howard ed. 1977) [hereinafter cited as *IMPACT OF INTERNATIONAL ORGANIZATIONS*]. One case study of the World Bank's involvement in Colombia revealed that in the period 1949-72, 36 of the Bank's 51 loans went to autonomous agencies that the Bank had either established or was instrumental in strengthening. J. Howard, *Introduction*, in *IMPACT OF INTERNATIONAL ORGANIZATIONS*, *supra*, at 1, 2-3. See Ulloa, *Colombia and the World Bank*, in *IMPACT OF INTERNATIONAL ORGANIZATIONS*, *supra*, at 81. The Bank's institution building had profound impacts on the political and social evolution of the entire country; it weakened "the political party system and minimiz[ed] the roles of the legislature and the judiciary." Howard, *supra*, at 4. In the case of Colombia:

given the unequal power of the Bank and the borrowing government and the Bank's technical expertise and technocratic bias, an international decision making process evolved which, at the international level, gave the Bank some of the powers of a surrogate government and, at the national level, built up a powerful segment of the administrative arm of government but bypassed non-technocratic governmental decision making, including the legislative and the judiciary branches.

*Id.* Although this case study investigated the Bank's power more than ten years ago, recent evidence indicates that the role of the World Bank and other banks in institution-building and other forms of policy leverage has continued to increase in the past decade. See, e.g., R. AYRES, *BANKING ON THE POOR* 17-50 (1983); W. BELLO, D. KINLEY & E. ELINSON, *DEVELOPMENT DEBACLE: THE WORLD BANK IN THE PHILIPPINES* (1982) [hereinafter cited as *W. BELLO*]; C. PAYER, *THE WORLD BANK: A CRITICAL ANALYSIS* (1982).

39. See Fatourous, *supra* note 38, at 29-35. See generally W. BELLO, *supra* note 38; C. PAYER, *supra* note 38. For examples of World Bank loan stipulations in Kenya, see B. HÜRN, *THE LENDING POLICY OF THE WORLD BANK IN THE 1970's* 36-39 (1980).

40. U.S. DEP'T OF THE TREASURY, *UNITED STATES PARTICIPATION IN THE MULTILATERAL DEVELOPMENT BANKS IN THE 1980s* 130-32 (1982); C. PAYER, *supra* note 38, at 72-86; Fatourous, *supra* note 38, at 31-32; R. AYRES, *supra* note 38, at 31-41. The most

the development banks, aid agencies, commercial banks, and the host countries, and thus profoundly affect the development efforts of those countries.<sup>41</sup> Developing countries often modify their development policies and priorities for entire sectors of the economy in response to the suggestions and requirements of the banks.<sup>42</sup>

This direct policy leverage is especially strong in structural adjustment and sector loans.<sup>43</sup> Bank officials have commented on the superior policy leverage of structural adjustment lending, which is conditioned on structural reform of national economies.<sup>44</sup> Sector lending seeks to promote policy changes in whole areas of economic activity, such as agriculture. In fiscal years 1983 and 1984, the World Bank committed ten percent of its loans for structural adjustment programs.<sup>45</sup> This is the maximum amount of nonproject lending that, according to the Bank's

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important of these documents for the World Bank include Country Economic Memoranda (which analyze macroeconomic concerns for each borrower), Sector Policy Papers (publicly available documents which set out the Bank's policy and lending priorities in various aspects of economic activity), and Country Programming Papers (which give the Bank's long-term plans for lending in a particular country).

41. U.S. DEP'T OF THE TREASURY, *supra* note 40, at 130-32; C. PAYER, *supra* note 38, at 72-87; R. AYRES, *supra* note 38, at 31-41. In fact, the World Bank's 1983 ANNUAL REPORT explicitly maintains that

[the Bank's] role as a partner in the dialogue with governments on overall economic policy and sectoral strategies, and as a source of technical assistance and advice is as important as its role as a lender. The deterioration in the economic climate in many of the Bank's developing member countries has increased the importance, as well as the visibility, of this advisory function.

WORLD BANK 1983, *supra* note 28, at 10. For a skeptical view of the efficacy of the World Bank's Country Program Papers, see A. VAN DE LAAR, *supra* note 17, at 223-31.

42. For a case study of the policy influence of the World Bank in the Philippines, see W. BELLO, *supra* note 38; for a case study of the influence of the Inter-American Bank in Costa Rica, see DeWitt, *The Inter-American Development Bank and Policy Making in Costa Rica*, 15 J. DEVELOPING AREAS 67 (1980); see generally C. PAYER, *supra* note 38, J. Sanford, Background Data, *supra* note 5, at 3-15; U.S. DEP'T OF THE TREASURY, *supra* note 40.

43. Allen, *The Recent Shift in United States Policies Toward the International Monetary Fund and the World Bank*, 16 VAND. J. TRANSNAT'L L. 1, 19-21 (1983). The leverage that the World Bank can exercise through structural adjustment lending (SAL) strongly influences a country's development priorities:

SAL is defined as a series of discrete lending operations (possibly three or four) over a period of approximately five or six years, to provide quick disbursing balance-of-payments support to a country that is prepared both to formulate and to reach agreement with the Bank on a structural adjustment program. SAL is conceived as comprising three components: first, a statement of structural objectives to be achieved over an approximately five- to ten-year period—for instance, increasing non-traditional exports by a given percentage . . . second, a statement of the measures which will be taken over an approximately five-year period to achieve the objectives . . . [and] third, a monitorable set of actions to be taken by a government either before approval of the SAL operation by the Bank's Board, or during the . . . disbursement period of the SAL operation.

S. PLEASE, *THE HOBBOLED GIANT: ESSAYS ON THE WORLD BANK* 29 (1984).

44. Stern, *supra* note 35, at 153; S. PLEASE, *supra* note 43; Rowen, *World Bank at Crossroads*, Wash. Post, Sept. 23, 1984, at G1, G5-G6.

45. S. PLEASE, *supra* note 43, at 36.

board of directors, is allowed under its Articles of Agreement.<sup>46</sup> Both the World Bank and the United States wish to substantially increase structural adjustment lending in the future.<sup>47</sup>

## II

### THE ADVERSE ENVIRONMENTAL IMPACTS OF MULTILATERAL DEVELOPMENT BANK PROJECTS

For more than a decade, researchers have documented the environmental damage that bank-funded projects have caused in developing countries.<sup>48</sup> Environmental problems caused by development bank activities are particularly severe because many of the projects are large and capital-intensive. Although much of the published data on bank projects necessarily examines projects that were planned as long ago as a decade or more,<sup>49</sup> recent congressional oversight hearings exposed substantial evidence of serious ecological problems and damage associated with current bank projects.<sup>50</sup> The categories of projects having the most serious environmental impacts correspond to the most important lending sectors of the banks: agriculture and rural development, energy, and transportation. This Section focuses on recent evidence of adverse impacts associ-

46. *Id.*

47. See THE WORLD BANK, THE WORLD BANK ANNUAL REPORT 1985 15 (1985); Riding, *U.S. Policy Shift Seen as Key to Easing Latin Debt Crisis*, N.Y. Times, Oct. 3, 1985, at A1, col. 1; Kilborn, *Role of World Bank Seen as Enhanced*, N.Y. Times, Oct. 3, 1985, at D6, col. 1.

48. See, e.g., THE CARELESS TECHNOLOGY (M. Farvar & J. Milton eds. 1972) (a collection of fifty case studies of ecologically destructive development projects, many funded by the banks); Comment, *Controlling the Environmental Hazards of International Development*, 5 ECOLOGY L.Q. 321, 321-37 (1976).

49. Many of the adverse environmental impacts of a project may take years to appear; by the time data have been collected, analyzed, and published in a scholarly format, more than twenty years may have elapsed from the initial planning phases. For example, a large World Bank hydroelectric scheme on Ghana's Volta River was planned in the late 1950's and implemented in the 1960's and 1970's. The project displaced one percent of the country's population, resulted in endemic onchocerciasis (river blindness), and caused the permanent disablement of at least 80,000 people through the spread of the parasitic water-borne disease schistosomiasis. D. HART, THE VOLTA RIVER PROJECT 76, 90-97 (1980).

50. *Environmental Impact of Multilateral Development Bank-Funded Projects: Hearings Before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs*, 98th Cong., 1st Sess. (1983) [hereinafter cited as 1983 *Environmental Hearings*]; *The Multilateral Development Banks and Health: Hearing Before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs*, 98th Cong., 2d Sess. (1984) [hereinafter cited as 1984 *Health Hearing*]; *Draft Recommendations on the Multilateral Development Banks and the Environment: Hearings Before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs*, 98th Cong., 2d Sess. (1984) [hereinafter cited as 1984 *Draft Environmental Recommendations Hearings*]; *Tropical Forest Development Projects—Status of Environmental and Agricultural Research: Hearing Before the Subcomm. on Natural Resources, Agricultural Research and Environment of the House Comm. on Science and Technology*, 98th Cong., 2d Sess. (1984) [hereinafter cited as 1984 *Tropical Development Hearing*].

ated with projects in the two lending sectors receiving the most bank support: agriculture and energy.

### A. Agriculture

The gravest environmental impact of bank projects may be the accelerated deforestation of the tropics.<sup>51</sup> The projects cause deforestation in two ways. First, the banks finance projects that directly entail deforestation, such as jungle colonization schemes.<sup>52</sup> Second, the banks help promote and implement general agricultural policies which are capital-intensive rather than labor-intensive; these programs displace great numbers of rural farmers and the poor from lands suitable for agriculture onto agriculturally marginal areas such as tropical moist forests.<sup>53</sup> Congress has recently scrutinized the relationships between the Green Revolution<sup>54</sup> agricultural policies promoted by the banks and deforestation. At a special House hearing held in September 1984, Brazilian agronomist José Lutzenberger summarized the consequences of the Green Revolution in Brazil:

[Agricultural] policies for the last 30 years have deliberately gone against the interests of the peasants. The government has promoted only cash crops, monoculture for export, especially soybean plantations. It also promoted "modern inputs": heavy and sophisticated machinery, synthetic mineral fertilizers, and pesticides. In many cases huge estates have bought up the small holdings and enormous soybean plantations were set up, some of them thousands of hectares.<sup>55</sup>

Lutzenberger criticized in particular the impact of the Polonoroeste project (a mammoth World Bank-financed Amazonian colonization scheme discussed later in this Article), which he said is designed as a "safety valve" for the political and social pressures caused by the pres-

51. 1983 *Environmental Hearings*, *supra* note 50, at 88-89, 102-07 (statement of Barbara J. Bramble, Director, International Programs, National Wildlife Federation); 1984 *Agricultural Development Hearings*, *supra* note 50 (statements of Bruce M. Rich, Staff Attorney, International Project, Natural Resources Defense Council; Barbara J. Bramble; Jorge E. Illueca; José Lutzenberger; and Brent Millikan). See Guppy, *Tropical Deforestation*, 62 FOREIGN AFF. 928 (1984).

52. For a criticism of the World Bank's funding of two gigantic jungle colonization schemes in Indonesia and Brazil, see Guppy, *supra* note 51, at 940-44.

53. See 1984 *Tropical Development Hearing*, *supra* note 50 (statements of Bruce M. Rich, Jorge E. Illueca, José Lutzenberger, and Brent Millikan); Guppy, *supra* note 51, at 937-47. See also W. BELLO, *supra* note 38, at 88-99; S. GEORGE, HOW THE OTHER HALF DIES 220-27 (1977). For a discussion of Green Revolution social impacts of World Bank projects in Mexico, including increased displacement of the rural population, see C. HEWITT DE ALCANTARA, MODERNIZING MEXICAN AGRICULTURE: SOCIOECONOMIC IMPLICATIONS OF TECHNOLOGICAL CHANGE 1940-1970 (1976).

54. The Green Revolution, a technological movement in agriculture, primarily involves the development of high-yielding strains of food crops. It originated with research conducted after World War II, and has since transformed agriculture worldwide.

55. 1984 *Tropical Development Hearing*, *supra* note 50, at 17-18 (statement of José Lutzenberger).

ence of an estimated 2.5 million landless poor in Brazil. The project, he concluded, removes rural poor from subtropical areas with rich soils and transplants them to the Amazon, where deforestation is the inevitable consequence of environmentally unsustainable agriculture.<sup>56</sup>

### B. Cattle Projects

Over the past twenty years, the banks have financed cattle projects on a large scale, especially in Central and South America.<sup>57</sup> These projects have contributed directly and indirectly to accelerated deforestation. Massive projects have converted pristine tropical forests to cattle pastures.<sup>58</sup> In other regions, large consolidated cattle ranches have displaced smaller-scale subsistence farms from soils suitable for annual agriculture, contributing greatly to the concentration of land ownership and the migration of uprooted rural people to tropical forest areas.<sup>59</sup> In addition, even small plots cleared for farming by migrants to the forests have often been converted to pasture after two or three years, due to declining yields on the poor soils that characterize such areas.<sup>60</sup>

Much scientific literature on livestock ranching concludes that it is an unsuitable and economically wasteful use of tropical forest regions.<sup>61</sup> In Latin America, huge pastures support few cattle per hectare: in tropical forest lands, the number is as low as one or two cattle per hectare, compared with fifteen head per hectare in ecologically suitable natural pasture lands.<sup>62</sup> The wastefulness of livestock ranching becomes painfully obvious when pastures in former tropical forest areas become wasteland after a few years of grazing: declining soil nutrients, invasions of toxic weeds, overgrazing, and soil compaction leave the areas devastated.<sup>63</sup> Finally, livestock projects are ill-suited for development programs because they generate little local employment compared with many investment alternatives.<sup>64</sup>

In Central America, bank-financed agricultural credit loans have di-

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56. *Id.*

57. See, e.g., Feder, *Agricultural Resources in Underdeveloped Countries: Competition Between Man and Animal*, 14 *ECON. & POL. WEEKLY* 1345 (1979).

58. See Parsons, *Forest to Pasture: Development or Destruction?*, 24 *REVISTA DE BIOLOGÍA TROPICAL* 121 (1976).

59. Feder, *supra* note 57; Nations & Komer, *Rainforests and the Hamburger Society*, 25 *ENV'T* 12, 14, 16 (1983).

60. Parsons, *supra* note 58; Nations & Komer, *supra* note 59, at 14.

61. See, e.g., Goodland, *Environmental Ranking of Development Projects in Brazil*, 7 *ENVTL. CONSERVATION* 9 (1980); Fearnside, *Cattle Yield Prediction for the Transamazon Highway*, 4 *INTERCIÊNCIA* 220 (1979); Fearnside, *Development Alternatives in the Brazilian Amazon: An Ecological Evaluation*, 8 *INTERCIÊNCIA* 65 (1983); Feder, *supra* note 57; Parsons, *supra* note 58.

62. Feder, *supra* note 57, at 1351, 1336 n.26.

63. See Nations & Komer, *Central America's Tropical Forests: Positive Steps for Survival*, 12 *AMBIO* 232, 236-37 (1984).

64. Goodland, *supra* note 61, at 18-19.

rectly furthered livestock development. In Costa Rica, for example, nearly half of all agricultural credits through the late 1970's financed livestock ranching.<sup>65</sup> According to one estimate, the total investments, including government matching funds, that World Bank and Inter-American Bank projects channeled into livestock projects in Latin America during the period 1970-77 was five to seven billion dollars, or about ten to fourteen billion 1984 dollars. No other single commodity in developing countries has ever received such extraordinary outside support as has livestock in Latin America,<sup>66</sup> and in spite of the demonstrated environmental unsoundness and economic wastefulness of cattle projects, the development banks continue to finance ranching with large loans.<sup>67</sup>

### C. *Agricultural Settlement and Colonization Projects*

There is also substantial evidence that the forest colonization projects financed by the banks are environmentally and economically unsound. A decade ago, a study of twenty-four colonization projects in Latin America noted that

few spheres of economic development have a history of, or a reputation for, failure to match that of government-sponsored colonization in humid tropical zones [in Latin America]. Horror stories abound about expensive ventures that resulted in colonies where few if any settlers remained

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65. Parsons, *supra* note 58, at 126.

66. Feder, *supra* note 57, at 1349.

67. A brief review of World Bank and Inter-American Bank lending in Latin America over the past three years, as documented in the banks' annual reports, shows that these institutions continue to approve large livestock loans. For example, in its past fiscal year, the World Bank approved a loan of \$9 million (total project cost was \$25.5 million) to Panama for the third in a series of Bank-financed livestock projects, and a loan of \$25 million (total project cost was \$121.1 million) to Paraguay for that country's seventh Bank-financed livestock project. In 1981 and 1983, the Bank approved loans to Paraguay for \$30 million and \$40 million, respectively (total project costs were \$60 million and \$72 million) to provide agricultural credit, extension, and technical assistance with a substantial emphasis on livestock development. In 1982 and 1983, the Bank approved loans to Peru of \$40.6 million (total project cost was \$83.9 million) and \$130 million (total project cost was \$239 million), respectively, for agricultural credit, research and extension, again with significant livestock components. Agricultural credit loans to Mexico in 1982 for \$175 million and in 1981 for \$325 million also contained significant livestock components. Total investment for these two Mexican projects alone was \$1.69 billion. WORLD BANK 1984, *supra* note 14, at 122, 123; WORLD BANK 1983, *supra* note 28, at 108; THE WORLD BANK, WORLD BANK ANNUAL REPORT 1982 100, 101 (1982); THE WORLD BANK, WORLD BANK ANNUAL REPORT 1981 103, 104 (1981).

In 1983, the Inter-American Bank approved loans of \$35.8 million and \$5.3 million to Costa Rica for livestock development and animal health projects, a \$130 million farm and livestock credit loan to Mexico, and a \$30 million agricultural research loan to Venezuela, all with substantial livestock components. Inter-American Bank loans in 1982 of \$32 million to Bolivia for agricultural credit, and in 1981 of \$24 million to Costa Rica, \$36.5 million to the Dominican Republic, and \$20 million to Guatemala (for livestock health programs), all had substantial or predominant livestock components. IDB 1983, *supra* note 14, at 60, 81, 96; INTER-AMERICAN DEVELOPMENT BANK, ANNUAL REPORT 1982 47 (1982) [hereinafter cited as IDB 1982]; INTER-AMERICAN DEVELOPMENT BANK, ANNUAL REPORT 1981 61, 64, 71 (1981).

after several years. The evidence is irrefutable, and failure can be attributed only to the institutions responsible for selecting the area and the colonists, planning and executing the development program, and subsequently maintaining or abandoning the infrastructure and services in the region.<sup>68</sup>

A later survey by AID of six settlement projects in the Peruvian Amazon revealed settler desertion and abandonment rates ranging from twenty-six to ninety-two percent; three of the six projects had been virtually abandoned by their intended beneficiaries.<sup>69</sup>

One of the largest tropical agricultural colonization projects in recent years is the Trans-Amazon highway project. The project involved the construction of a 5000-kilometer east-west road across the Brazilian Amazon basin and the resettlement of 560,000 families, or at least two million people.<sup>70</sup> Although construction of the highway began in 1970, large sections of it have been abandoned and attempts to promote agricultural production in the areas opened up by the road have failed.<sup>71</sup> The total cost of the Trans-Amazon highway and its associated resettlement projects has climbed to over two billion 1984 dollars.<sup>72</sup>

The major ecological factor responsible for the failure of these jungle settlements is the poor quality of soil in tropical moist forests. As much as ninety percent of tropical moist forest soils may be unsuitable for any kind of annual agriculture.<sup>73</sup> The only sustainable agro-ecosystems in these areas are those traditionally practiced by the indigenous peoples of the rainforests.<sup>74</sup> Regrettably, the banks have done little to investigate, preserve, and utilize the knowledge of these native peoples. Instead, ill-conceived agricultural projects have accelerated the destruction of sound traditional agricultural methods.<sup>75</sup>

With the extinction of each indigenous group, the world loses millennia of accumulated knowledge about life in, and adaptation to, tropical ecosystems. This priceless information is forfeited with hardly a blink of the

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68. M. NELSON, *THE DEVELOPMENT OF TROPICAL LANDS: POLICY ISSUES IN LATIN AMERICA* 265 (1973), quoted in A. VAN DE LAAR, *supra* note 17, at 178.

69. N. Bunin, *Colonization Systems Analysis: Review of Colonization Projects in the Peruvian Selva, Annex C, vol. I, Project Synthesis Paper, Central Selva Natural Resources Management Project, U.S. AID Project No. 527-0240* (1981).

70. See Castilho, *Highway to Nowhere: Brazil Loses Battle to Pave the Amazon*, *WORLD PAPER*, Nov. 1984, at 4; see generally R. GOODLAND & H. IRWIN, *AMAZON JUNGLE: GREEN HELL TO RED DESERT?* 28-36 (1975).

71. Castilho, *supra* note 70.

72. *Id.*

73. See, e.g., Guppy, *supra* note 51, at 932-37; R. GOODLAND & H. IRWIN, *supra* note 70, at 28-36.

74. See, e.g., R. GOODLAND & H. IRWIN, *supra* note 70, at 36-48; Nations & Komer, *supra* note 63.

75. For a discussion of adverse impacts of bank projects on indigenous peoples, see 1983 *Environmental Hearings*, *supra* note 50, at 440-644; 1984 *Health Hearing*, *supra* note 50, at 152-85.

eye: The march of development cannot wait long enough to find out what it is destroying.<sup>76</sup>

Since 1960, six percent of Inter-American Bank lending has funded agricultural settlement projects in tropical forest regions.<sup>77</sup> The World Bank and the Inter-American Bank are currently funding a number of recently approved settlement projects in tropical forest areas with poor soils. For example, in 1982, the World Bank approved a \$42.7 million loan to Brazil for rural development and agricultural settlement in the northeast Amazon.<sup>78</sup> This project threatens to exacerbate the deforestation and ecological destruction caused by the Alto Turi Settlement Project, a nearby unsuccessful project financed by the Bank.<sup>79</sup> In addition, the Inter-American Bank approved two loans totaling forty-six million dollars in 1982 for a jungle roadbuilding and agricultural development project in the Peruvian Amazon, despite the World Bank's refusal to fund any projects in the area because of poor soil quality.<sup>80</sup>

The World Bank is currently embroiled in controversy over two very large settlement programs in Indonesia and Brazil that many observers have characterized as ecological disasters.<sup>81</sup> The Bank is lending \$350 million to help finance the Indonesia transmigration program, which has also received support from the Asian Bank.<sup>82</sup> The effort is

76. Posey, *Indigenous Ecological Knowledge and Development of the Amazon*, in *THE DILEMMA OF AMAZONIAN DEVELOPMENT* 225, 226 (E. Moran ed. 1983).

77. Inter-American Development Bank, Response to Request of U.S. Executive Director for Comments on Statements Presented at Environmental Hearings of the House Banking Subcommittee on International Development Institutions and Finance 8 (Aug. 12, 1983) [hereinafter cited as IDB Response].

78. THE WORLD BANK, *THE WORLD BANK ANNUAL REPORT* 1982 98 (1982).

79. See The World Bank, Project Performance Audit Report: Brazil-Alto Turi Land Settlement Project (Loan 853-BR) 17-19 (Jan. 5, 1983) (internal document).

80. A team from the World Bank and the United Nations Food and Agriculture Organization (FAO) visited the Pichis Valley, site of the Inter-American Bank-funded project, and adjacent jungle areas in the spring of 1981 and concluded that the area had little potential for agricultural development. The mission informed the Peruvian government of this finding and predicted that an increased flow of spontaneous settlers would aggravate the conflict over land tenure with native communities and have a disastrous effect on the area's ecosystems. FAO/World Bank Cooperative Programme Investment Centre, Report of the Peru Selva Central Reconnaissance Mission: Summary 1, 10; Annex 2, 3-4 (June 16, 1981) (internal FAO/World Bank document).

In spite of this negative assessment of the development prospects for the Pichis Valley, the Inter-American Development Bank has cited its involvement there as a model for environmentally sound development. IDB Response, *supra* note 77, at 8. Only a small component of the loans, though, is for environmental purposes; of the total project costs, 65.3% is for jungle road construction, 14.9% for agricultural and forestry development, and only 0.3% for an "Environmental Dimension Program." Interview with Robert Banque, Office of Multilateral Development Banks, U.S. Dep't of the Treasury (Nov. 13, 1985).

81. See, e.g., Guppy, *supra* note 51, at 939-44.

82. Caufield, *Indonesia's Great Exodus*, *NEW SCIENTIST*, May 17, 1984, at 26. The Asian Development Bank has financed a project to transmigrate 4700 families to Southeast Sulawesi (Borneo) from Java and other densely populated inner islands. Asian Development Bank, Further Questions on Statements by Environmental Groups, in Response to Statements

moving millions of people from the densely populated inner islands, mainly Java, to forested outer islands such as Borneo, Sumatra, and Western New Guinea (Irianjaya).<sup>83</sup> However, Java is densely populated because it has extremely fertile volcanic soils, whereas the outer islands have infertile soils typical of tropical moist forests.<sup>84</sup> The adverse environmental impacts of resettlement onto such poor soils include large-scale deforestation, erosion, and flooding.<sup>85</sup> The World Bank justifies its role by claiming that it is trying to make transmigration more environmentally sound.<sup>86</sup> The program, however, is clearly ecologically disastrous in its very conception. "[T]he [transmigration] program, like the lesser schemes of other rain forest countries, could not exist or continue without outside funding."<sup>87</sup> The World Bank, therefore, bears at least partial responsibility for the resulting environmental destruction.

The most disastrous tropical forest colonization project to date is the Brazil Northwest Development Program (Polonoroeste) financed by the World Bank. Since 1981, the Bank has approved loans of \$434.4 million<sup>88</sup> for this large-scale Amazon colonization, settlement consolidation, and road construction scheme. The project's eventual cost is estimated to be \$1.6 billion.<sup>89</sup> Polonoroeste is one of the largest projects ever to receive World Bank funding, even though it embodies the uncertainties and failures of previous tropical forest colonization schemes in the Amazon.

Polonoroeste involves the improvement and paving of a 1500-kilometer highway through the heart of the southwestern Amazon basin, the construction of feeder and access roads, and the creation of thirty-nine rural settlement centers to attract and consolidate tens of thousands of

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Submitted by Environmental Groups to the U.S. Congressional Committee on MDB Environmental Policy 13-14 (Jan. 20, 1984) [hereinafter cited as ADB Response].

83. Critics contend that the government promoted the settlement scheme for political reasons. One of the government's main priorities in the transmigration program is "Javanization" of the ethnically diverse, less politically reliable outer islands. In addition, such settlement projects allow governments to avoid confronting potentially explosive social issues such as grossly unequal land tenure systems on the country's good agricultural land. See, e.g., Guppy, *supra* note 51, at 939-44; Caufield, *supra* note 82, at 27.

84. On the Island of Kalimantan—to which the government plans to transmigrate four million people—less than two percent of the soils are thought to be permanently cultivable. Guppy, *supra* note 51, at 942-43.

85. Caufield, *supra* note 82, at 25.

86. The World Bank, Response to Statements of Environmental Organizations Sent by the U.S. Executive Director 9-11 (Jan. 11, 1984) [hereinafter cited as World Bank Response].

87. Guppy, *supra* note 51, at 944.

88. Int'l Bank for Reconstruction & Dev., Statement of Loans 94, 101 (Dec. 31, 1984). The World Bank's Polonoroeste loan commitments represent nearly one-half of one percent Brazil's foreign debt, which is the world's largest.

89. Letter from Bruce Thompson, Assistant Secretary for Legislative Affairs, U.S. Dep't of the Treasury, to James Scheuer, Chair, House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment. (Oct. 22, 1984).

settlers in an area of Amazon forest three-quarters the size of France.<sup>90</sup> Over 8000 Amerindians belonging to approximately thirty-four tribal groups already live in the project area.<sup>91</sup> International concern for the fate of these Indians<sup>92</sup> prompted the World Bank to condition its participation in the program on adequate demarcation and protection of over fifteen Indian reserves and on implementation of health measures to protect the Indians. The Bank also required that land be reserved for two biological reserves, a national park, four ecological stations, and national forest areas. In addition, the Brazilian government pledged to the World Bank in the loan agreement that Polonoroeste settlements would be located on suitable soils and would not threaten the protected areas.<sup>93</sup>

Despite these provisions, Polonoroeste has become an ecological, human, and economic disaster of tremendous dimensions.<sup>94</sup> Brazil has implemented almost none of the environmental components and Amerindian protections in the loan agreements, and the rate of deforestation in the Polonoroeste area is the highest in the Brazilian Amazon.<sup>95</sup> If present trends continue, the entire Brazilian state of Rondônia, an area the size of Great Britain, will be deforested by 1990.<sup>96</sup> The public health effects are tragic as well. In some areas, the incidence of malaria is close to 100%.<sup>97</sup> Some Indian tribes fear extermination by measles and influenza epidemics as settlers introduce diseases new to the region. Infant mortality rates of fifty and twenty-five percent have recently been reported in two of the tribes.<sup>98</sup>

Rather than being consolidated by the project, as the Bank intended, settlers are abandoning their cleared land because it cannot support annual agriculture. In many instances they are selling their plots to large

90. THE WORLD BANK, *BRAZIL: INTEGRATED DEVELOPMENT OF THE NORTHWEST FRONTIER* i-vi, 1-3 (1981).

91. *Id.* at 31; telephone interview with Steven Schwartzman, anthropologist (Oct. 6, 1984). The exact number of Indians is unknown because some parts of the Polonoroeste region are very remote; for example, at least two tribes have no contact with the outside world.

92. See, e.g., D. MAYBURY-LEWIS, J. CLAY, D. PRICE, D. MOORE, B. MINDLAN LAFER & C. JUNQUEIRA, *IN THE PATH OF POLONOROESTE: ENDANGERED PEOPLES OF WESTERN BRAZIL* (1981).

93. Int'l Bank for Reconstruction & Dev., Loan Agreement No. 2060 BR, §§ 3.08, 3.09, 3.13, 4.05; sched. 2, pts. B(3), B(4) (Dec. 15, 1981).

94. See Eckholm, *World Bank Urged to Halt Aid to Brazil for Amazon Development*, N.Y. Times, Oct. 17, 1984, at A9, col. 1. In October 1984, 30 environmental and indigenous peoples' rights groups in the United States, Brazil, and Europe sent a letter to the President of the World Bank protesting the threats to the environment and indigenous peoples created by Polonoroeste. *Id.* See also Guppy, *supra* note 51.

95. See 1984 *Tropical Development Hearing*, *supra* note 50 (statements of José Lutzenberger, Brent H. Millikan, and Bruce M. Rich).

96. Fearnside, *A Floresta Vai Acabar?*, 2 *CIÊNCIA HOJE* 43, 43-44 (1984).

97. J. Wilson, *Agricultural Development and Polonoroeste: Ariquemes, Rondônia* (1984) (unpublished paper).

98. Greenbaum, *The Failure to Protect Tribal Peoples: The Polonoroeste Case in Brazil*, 8 *CULTURAL SURVIVAL Q.*, Dec. 1984, at 76-77.

cattle ranchers, though past experience in the Amazon has shown ranching to be unsustainable.<sup>99</sup> The natural areas and Indian reserves originally promised protection in the loan agreement have been invaded by spontaneous settlement. On the Lourdes Indian Reserve, a tribe took a dozen settlers hostage in 1984 in a desperate attempt to force the government to protect its lands from such invasion.<sup>100</sup>

Experienced observers relate the scenes of massive ecological devastation in the Indonesia transmigration and Polonoroeste projects in emotional language:

Visiting such areas it is hard to view without emotion the miles of devastated trees, of felled, broken and burned trunks, of branches, mud, and bark crisscrossed with tractor trails—especially when one realizes that in most cases nothing of comparable value will grow again on the area. Such sights are reminiscent of photographs of Hiroshima, and Brazil and Indonesia might be regarded as waging the equivalent of thermonuclear war upon their territories.<sup>101</sup>

In March 1985, the Bank suspended disbursements for Polonoroeste because Brazil was not meeting the Bank's conditions for the protection of Indians and the environment. The Bank's action followed strong and widespread criticism of the project by environmentalists, anthropologists, Indian rights advocates, and members of the United States Congress. The suspension froze the remaining \$256.1 million in loan commitments and represented the first time the Bank had ever halted loan disbursements for environmental reasons.<sup>102</sup>

#### D. Pesticides

The banks finance pesticide production and use in developing countries through loans specifically for agricultural and agro-industrial devel-

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99. Millikan, *Relatório Final: Diagnóstico de dez Núcleos Urbanos de Apoio Rural (NUARs), Avaliação do PDRI-RO/Polonoroeste*, Fundação Instituto de Pesquisas Econômicas (FIPE) 68-72 (1984); *1984 Tropical Development Hearing*, *supra* note 50, at 177-78 (1984) (statement of Brent H. Millikan).

100. Interview with Steven Schwartzman, *supra* note 86.

101. Guppy, *supra* note 51, at 943. In addition to the extraordinarily risky nature of tropical settlement projects, the cost to resettle each family (the "beneficiary") is enormous. The average investment for eight World Bank settlement projects implemented during the 1970's was more than \$18,000 per "beneficiary family" in current dollars. *THE WORLD BANK, AGRICULTURAL LAND SETTLEMENT* 56 (1978). Investment per settler in the Bank-financed Brazil Polonoroeste Settlement Program is estimated to exceed \$12,000. Despite the expenditures, many settlers end up worse off than they were before. Guppy, *supra* note 51, at 942; see Cowell, "The Decade of Destruction," Parts II & III, U.K. Central Television (1984) (film in four parts). The intended beneficiaries of these schemes might have been better off if the World Bank had simply given them these thousands of dollars; they could have used the money to purchase the good agricultural land denied to them, and the tremendous ecological destruction caused by the projects would have been avoided.

102. Farnsworth, *Payments Stopped on Loan to Brazil*, N.Y. Times, Apr. 9, 1985, at D24, col. 1.

opment. In addition, many rural development projects have agricultural input components in which the banks finance both fertilizers and pesticides. The World Bank, which maintains the most detailed lending records of any of the banks, keeps no separate figures on its lending for pesticides;<sup>103</sup> however, such lending can be roughly estimated to be ten percent of total agricultural lending.<sup>104</sup> For fiscal year 1984, this would amount to \$346.4 million.

Over the past decade, the World Bank has lent \$955 million to India to create a pesticide and fertilizer industry.<sup>105</sup> This Bank-financed industry has concentrated on the production of pesticides, such as DDT and BHC, whose use is banned or restricted in developed countries.<sup>106</sup> Most of this production is for domestic use, often in agricultural projects financed by the banks.<sup>107</sup> As a consequence, farmers and health officials in India use 77% of all the DDT manufactured in the world, 94% of all the BHC, 21% of the other persistent organochlorines like lindane, and 64% of the world's malathion.<sup>108</sup>

The Green Revolution agriculture systems promoted by the World Bank and other banks require intensive use of pesticides whose cost is subsidized by bank agricultural credits.<sup>109</sup> The heavy promotion of pesticides undermines the incentive for governments to pursue alternative pest management systems and forces farmers and governments onto a pesticide "treadmill," as increasingly heavy doses of chemicals are applied in futile attempts to prevent declining crop yields caused by pesticide-resistant infestations.<sup>110</sup>

A classic example of environmental and economic collapse resulting from heavy use of pesticides promoted by aid agencies is now occurring in the Sudan's main cotton producing area, the Gezira. The World Bank has provided hundreds of millions of dollars over the past decade to promote increased agricultural production in the Sudan.<sup>111</sup> The conse-

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103. Interviews with World Bank advisors for irrigated crops, procurement, and tree crops, Operations Policy Staff, Agriculture and Rural Development Division (1983).

104. Author's estimate, based on interviews, *id.*, and on review of World Bank Annual Reports and Project Appraisal documents.

105. 1984 *Health Hearing*, *supra* note 50, at 84 (statement of Robert F. Wasserstrom, Senior Associate and Project Director, World Resources Institute).

106. *Id.*

107. *Id.* India is the single largest cumulative borrower from the Bank (\$19.8 billion, compared to second-place Brazil with \$9.94 billion), and was also the biggest borrower in 1984. Agriculture accounted for about 40% of Bank lending to India in 1984. WORLD BANK 1984, *supra* note 14, at 210-12, 214-15, 220 (1984).

108. 1984 *Health Hearing*, *supra* note 50, at 84-85 (statement of Robert F. Wasserstrom).

109. *Id.* at 85.

110. See, e.g., W. BELLO, *supra* note 38, at 80-84. See generally D. BULL, A GROWING PROBLEM: PESTICIDES AND THE THIRD WORLD POOR (1982). See also the Comment by Karen Goldberg in this issue of the ECOLOGY LAW QUARTERLY.

111. As of 1983, the Bank had made gross loan commitments to the Sudan of \$792.1 million, 54% of which was for the agriculture sector. See The World Bank, Report and Rec-

quences of the misuse and overuse of pesticides, however, now threaten the economy of the entire country. Many agricultural experts believe that the cotton industry in the Gezira may soon collapse. Existing pest control schemes require farmers to spend large amounts of money (twenty-five to thirty percent of the total production expenses) for insecticides and produce very poor results.<sup>112</sup> This expenditure of precious financial resources has not only proven to be a losing proposition, it is also an investment in environmental degradation.

The profit margin [on the sale of cotton] in 1979-1980 was . . . considerably less than the foreign currency required for purchase of the imported insecticides. Costs of cotton insect control in the Gezira increased at the alarming rate of six-fold between the seasons of 1972-1973 and 1980-1981. Yet, [average] cotton yields declined from . . . the period 1970-1975 to . . . the period 1975-1981 [by] 38 percent. . . . Unacceptable residues of DDT and other persistent, organochlorine insecticides now occur widely in water, mother's milk, livestock, fish, and wildlife.<sup>113</sup>

In an attempt to forestall the threatened collapse of the Sudan's most important single export, in 1983 the World Bank made yet another loan of eighty million dollars to the Gezira to increase cotton production levels and to improve agricultural services. The Bank also lent fifty million dollars solely to finance the purchase of agricultural inputs, mainly pesticides and herbicides.<sup>114</sup> The latter loan will finance still greater applications of pesticides for one growing season in an attempt to prevent the collapse of the cotton sector while research is conducted on an integrated pest management system for the area.<sup>115</sup>

Some scientists maintain that the banks' pesticide financing practices also contribute to the accumulation of dangerous levels of pesticide residues in developing countries. For example, "[among] Indian women, such residues in [breast milk] are now nearly the world's highest—for DDT, 11 times greater than in the U.S. or Sweden; for BHC, the figure is 9.2 times."<sup>116</sup>

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ommendations of the President of the International Development Association to the Executive Directors on a Proposed Credit of SDR 46.4 million to the Democratic Republic of the Sudan for the Agricultural Rehabilitation Program-II 6 (May 23, 1983) [hereinafter cited as World Bank Sudan Report].

112. 1983 *Environmental Hearings*, *supra* note 50, at 351-54 (Consortium for Int'l Crop Protection, Comments on Pest Control in Cotton in the Gezira Scheme of Sudan with Special Reference to the Proposed Use of Temik (Aldicarb)).

113. *Id.* at 353-54.

114. WORLD BANK 1983, *supra* note 28, at 108; World Bank Sudan Report, *supra* note 111, at 19.

115. Interviews with World Bank advisors, *supra* note 103. The report to the Executive Directors of the Bank deftly understates the pesticide treadmill that billions of dollars of agricultural assistance have encouraged in the Sudan: "Although extensive use of chemicals would continue to pose long-term risks, it would not be commercially feasible to produce cotton without chemical pest control." World Bank Sudan Report, *supra* note 111, at 19.

116. 1984 *Health Hearing*, *supra* note 50, at 85 (statement of Robert F. Wasserstrom). See

There is evidence as well that the banks and other aid agencies have inadvertently contributed to a global resurgence of malaria by extensively promoting the production of cotton and high-yielding Green Revolution food grains. Greatly increased pesticide use associated with such production has caused the emergence of pesticide-resistant mosquitoes and the consequent spread of malaria in India, Central America, and elsewhere during the past decade.<sup>117</sup> In the Gezira, for example, DDT and malathion applied to cotton fields by aircraft have drifted into mosquito breeding habitats, creating genetically resistant strains of malaria mosquitoes.<sup>118</sup>

### *E. Tobacco Projects*

Compared with other bank activities, tobacco projects present one of the strongest contrasts between quantifiable economic benefits and unquantified adverse environmental and public health consequences.<sup>119</sup> Between 1974 and 1982, the World Bank lent \$611 million for seventeen tobacco projects in eleven countries.<sup>120</sup> The Bank finances tobacco projects on a substantial scale because tobacco is the most profitable cash crop in many regions of the world, generates considerable employment, and provides dependable sources of government revenue and export earnings.<sup>121</sup> In the Philippines, for example, tobacco taxes alone account for forty-seven percent of government revenue.<sup>122</sup> In the late 1970's, leaf tobacco exports accounted for ten percent of export earnings in Turkey and over fifty-five percent in Malawi.<sup>123</sup>

Approximately three-quarters of all tobacco is consumed in the country where it is produced.<sup>124</sup> The prime growth market for tobacco exports is the developing world, where consumption is increasing at an average of four percent a year, compared with one percent in industrialized countries.<sup>125</sup> In Brazil, Pakistan, and Sri Lanka, consumption

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also Chapin & Wasserstrom, *Agricultural Production and Malaria Resurgence in Central America and India*, 293 NATURE 181 (1981).

117. Chapin & Wasserstrom, *supra* note 116.

118. 1983 *Environmental Hearings*, *supra* note 50, at 354 (comments of Consortium for International Crop Protection).

119. See Office of Env'tl. Affairs (now Office of Env'tl. & Scientific Affairs), The World Bank, World Bank Tobacco Financing: Background for Policy Formulation (Apr. 14, 1983) (unpublished document) [hereinafter cited as Tobacco Financing Report]; P. TAYLOR, THE SMOKE RING 242-72 (1984); S. George, *L'empire du tabac*, LE MONDE DIPLOMATIQUE, Dec. 1984, at 34.

120. Tobacco Financing Report, *supra* note 119, at 4. The figures are World Bank estimates.

121. *Id.* at 1-3.

122. *Id.* at 3 (citing M. MULLER, TOBACCO AND THE THIRD WORLD: TOMORROW'S EPIDEMIC? (1978)).

123. *Id.*

124. *Id.* at 1.

125. P. TAYLOR, *supra* note 119, at 245 (citing M. Bale & D. Nowicki, Tobacco: The

grows six to eight percent each year.<sup>126</sup>

Tobacco-caused mortality in the developing world may eventually exceed the estimated 800,000 tobacco-related premature deaths per year in the industrialized world.<sup>127</sup> The World Health Organization has already cited cigarette smoking as the leading avoidable cause of death in Brazil,<sup>128</sup> where recent substantial loans from the World Bank have helped increase tobacco production.<sup>129</sup> According to the World Health Organization and Brazilian researchers, smoking may be responsible for the deaths of 40,000 adults and 40,000 newborn babies each year in Brazil.<sup>130</sup> In Southeast Asia every year, ninety percent of the 100,000 new cases of oral cancer are caused by chewing tobacco.<sup>131</sup> In Pakistan, lung cancer is now the most common cause of malignant tumors in men.<sup>132</sup> In Thailand, twenty percent of the population over ten years of age are smokers, and even in the poorest countries, such as Swaziland, public health officials have expressed concern over emerging signs of tobacco-related public health problems.<sup>133</sup>

The adverse ecological impacts of tobacco production are less obvious, but equally grave. Few tropical crops deplete soil fertility as rapidly as tobacco; the annual harvest of one ton of tobacco per hectare depletes the soil of 22.4 kilograms of nitrogen, 14.4 kilograms of phosphorous, and 46.4 kilograms of potassium, compared to respective losses of 15.0, 2.5, and 19.5 kilograms for coffee, and 2.2, 0.4, and 1.9 kilograms for cassava (an edible tropical rootstock).<sup>134</sup> Because most tropical soils are relatively poor in nutrients, increasing tobacco production requires farmers to convert more of their limited good land to tobacco rather than food production, to purchase expensive—usually imported—fertilizer inputs, or to exhaust the soil in one or two years and move on to deforest a new plot.<sup>135</sup> The pressure on the individual farmer to choose the last alternative is great because the short-term benefits are obvious and the long-term ecological costs are borne by others.

Tobacco farming also requires heavy use of pesticides and herbicides. Most of these substances are toxic, and some are carcinogenic.

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World Situation, Prospects and Market Structuring (1980) (World Bank Division Working Paper No. 1980-4)).

126. *Id.* at 246, 256.

127. *Id.* at xvii.

128. *Brazil Tops Third World League for Deaths from Smoking*, NEW SCIENTIST, Feb. 14, 1985, at 8.

129. Tobacco Financing Report, *supra* note 119, at 5.

130. NEW SCIENTIST, *supra* note 128, at 8.

131. *Tobacco Suckers Risk Oral Cancer*, NEW SCIENTIST, Feb. 14, 1984, at 6 (World Health Organization estimate).

132. P. TAYLOR, *supra* note 119, at 256.

133. *Id.* at 256-58.

134. Tobacco Financing Report, *supra* note 119, at 11.

135. *Id.*

Heavy application of these chemicals can contaminate village water supplies.<sup>136</sup>

The most significant environmental impact of tobacco production, however, results from the flue-curing, or wood-curing, of the crop, a prevalent practice in the developing countries. Every acre of Virginia-type tobacco flue-cured in the developing world requires one acre's worth of wood for fuel.<sup>137</sup> Thus, in many parts of the developing world, where tobacco growing is promoted by development agencies and the banks, "[t]he relationship among tobacco curing, fuel-wood shortages, deforestation and other environmental degradation is becoming increasingly clear."<sup>138</sup> In Tanzania and Malawi, for example, deforestation for tobacco curing has destroyed forest reserves and exacerbated fuel-wood shortages, forcing villagers to compete with tobacco farms for their energy source.<sup>139</sup> According to one calculation, in a single Brazilian state, Rio Grande do Sul, tobacco farmers must deforest 1.5 million acres (sixty million trees) to cure one year's tobacco crop.<sup>140</sup> In Africa, regional deforestation for tobacco curing has accelerated the desertification of the entire continent.<sup>141</sup>

#### F. Water Projects

Most energy loans from the banks have supported large hydroelectric projects, and a significant portion of agriculture lending has financed irrigation systems.<sup>142</sup> The large-scale ecological changes caused by these water management programs often cause severe environmental and public health problems.<sup>143</sup> Such impacts include the forced displacement of large numbers of people, including vulnerable indigenous tribes, through flooding; the inundation of areas of great environmental and scientific

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136. *Id.* at 12.

137. *Id.* at 12-13.

138. *Id.* at 13. In Tanzania,

[t]obacco cultivation is concentrated in regions where the typical vegetation consists of open miombo woodlands, which, after clearing, take about 30 to 50 years to regenerate. Clear fellings, exposing the soils to the heavy rains and insolation, lead to loss of organic matter, destruction of soil structures and resulting erosion, if no counter measures are taken. About 600,000 [cubic meters] of fuelwood are consumed annually for curing tobacco in the miombo regions of Tanzania.

*Id.*

139. *Id.* "In Malawi, firewood for tobacco-curing on private farms was taken from communal tribal land; cutting and burning of all wooded areas is expected within eight years." *Id.*

140. P. TAYLOR, *supra* note 119, at 252-53 (World Health Organization estimate).

141. Tobacco Financing Report, *supra* note 119, at 13.

142. The World Bank financed nearly \$6 billion for hydro projects in 1980-82 and nearly \$1 billion for irrigation and drainage in 1982 alone. 1983 *Environmental Hearings*, *supra* note 50, at 100 (statement of Barbara J. Bramble).

143. See, e.g., Hunter, Rey & Scott, *Man-Made Lakes and Man-Made Diseases: Toward a Policy Resolution*, 16 SOC. SCI. MED. 1127 (1982); 1983 *Environmental Hearings*, *supra* note 50, at 35-50 (statement of Brent Blackwelder); Madeley, *Big Dam Schemes—Value for Money or Non-sustainable Development?*, 7 MAZINGIRA 16 (1983).

significance, such as tropical forests; the salinization and waterlogging of irrigated lands; the siltation and sedimentation of reservoirs and channels through deforestation of adjacent watersheds; and the spread of water-borne diseases, including malaria, schistosomiasis and onchocerciasis (river blindness).<sup>144</sup>

The forced resettlement of hundreds of thousands of people is a particularly harsh result of bank-funded water projects. Projects approved by the World Bank from 1979 through 1983 involved the involuntary resettlement of at least 400,000 people on four continents.<sup>145</sup> For example, the Subernarekha Irrigation Project in India, for which the Bank approved a credit of \$127 million in 1982, will displace some 64,000 people, about half of whom are members of minority tribes.<sup>146</sup> Irrigation projects planned by the Bank in the Pakistan-Kalabagh region may force resettlement of over 120,000 people.<sup>147</sup>

The Bank has official internal policies concerning the incorporation of adequate resettlement and compensation plans into its projects, as well as a provision on involuntary resettlement in its publicly available manual Environmental Policies and Procedures.<sup>148</sup> These policies have not, however, been satisfactorily implemented in most projects.<sup>149</sup> Congressional hearings in 1983 and 1984 on the banks and the environment revealed many examples of projects where grave impacts were not adequately considered in planning.<sup>150</sup> In some instances, the banks ac-

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144. 1983 *Environmental Hearings*, *supra* note 50, at 40-42 (statement of Brent Blackwelder).

145. The World Bank, Social Issues Associated with Involuntary Resettlement in Bank-Financed Projects 1, 9 (1984) (internal document) [hereinafter cited as World Bank, Social Issues]. Witnesses at the 1983 hearings on the environmental impact of multilateral development bank-funded projects, *supra* note 50, referred to a number of bank projects with grave resettlement impacts, the most controversial of which was the planned Chico River hydroelectric scheme in the Philippines. The original four-dam complex, for which the World Bank was helping to prepare feasibility studies, would have displaced some 100,000 Bontoc and Kalinga tribespeople from their ancestral homelands. The tribespeople erupted in armed revolt against the proposed projects, turning the region into a battleground and forcing the Bank to withdraw most of its planned participation. 1983 *Environmental Hearings*, *supra* note 50, at 507-10 (statement of Rudolph C. Ryser, Deputy Director and Counselor, International Relations, National Congress of American Indians); W. BELLO, *supra* note 38, at 56-57.

146. World Bank Social Issues, *supra* note 145, Annex 2, at 36.

147. *Id.* at 9.

148. In May 1984, the Bank published an update of its Environmental Policies and Procedures, in which it stated that the Bank "will not finance projects that displace people or seriously disadvantage certain vulnerable groups without undertaking mitigatory measures acceptable to the Bank as outlined in separate notes on involuntary resettlement, and on tribal peoples." Office of Envtl. & Scientific Affairs, The World Bank, Environmental Policies and Procedures of The World Bank 4 (May 1, 1984) [hereinafter cited as World Bank Environmental Policies and Procedures].

149. An internal review prepared by the Bank confirms this lack of implementation. World Bank, Social Issues, *supra* note 145, at 2.

150. 1983 *Environmental Hearings*, *supra* note 50, at 44-45, 96-98, 504-10 (statements of Brent Blackwelder, Barbara J. Bramble, and Rudolph C. Ryser).

knowledgeed inadequate planning of these projects.<sup>151</sup>

### III

#### INTERNATIONAL CONCERN FOR ENVIRONMENTALLY SOUND DEVELOPMENT AND THE BANKS' OFFICIAL POLICY COMMITMENTS TO ENVIRONMENTAL PLANNING

##### A. *The Evolving International Consensus*

In the past fifteen years, several key international conferences and studies have indicated a growing consensus on the need to incorporate environmental management into development programs.<sup>152</sup> The World Bank has been a leader in articulating positions that emphasize the importance of environmental considerations. In 1970, under the leadership of Robert McNamara, then Bank President, the World Bank established the post of Environmental Advisor with the mandate to "review every project for its consequences to the environment."<sup>153</sup> In a speech before the United Nations Economic and Social Council that same year, McNamara noted that the environmental costs of development could be enormous, and that investments in preventive measures would obviate the much greater costs of environmental rehabilitation.<sup>154</sup>

The World Bank also played a major role in a 1971 United Nations meeting in Founex, Switzerland, where representatives of international development agencies and governments issued the first comprehensive statement on the connection between environmental management and development policy.<sup>155</sup> The Founex Report reviewed the adverse environmental side effects of development projects<sup>156</sup> and set forth twenty-five recommendations for better incorporation of environmental policy into the development process. These included urging developing countries to promote environmental improvement as a specific goal of development, incorporating environmental guidelines into the appraisal of

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151. See, e.g., World Bank Response, *supra* note 86. In September 1984, at another hearing on the banks and the environment, a Treasury Department representative stated that the Department had found "substantial corroboration" of the testimony given in 1983 by environmental and indigenous peoples' groups. *1984 Draft Environmental Recommendations Hearings*, *supra* note 50, at 11 (statement of James B. Conrow).

152. See generally *Review of the Global Environment 10 Years After Stockholm: Hearings Before the Subcomm. on Human Rights and International Organizations of the House Comm. on Foreign Affairs*, 97th Cong., 2d Sess. (1982) [hereinafter cited as *10 Years After Stockholm Hearings*].

153. World Bank Response, *supra* note 86, at 1.

154. THE WORLD BANK, *ENVIRONMENT & DEVELOPMENT* 3-4 (1979).

155. L. BASSETT, *THE GROWTH OF ENVIRONMENT IN THE WORLD BANK* 7 (1982) (published by the World Environment Center, New York).

156. Development and Environment: The Founex Report, in *IN DEFENCE OF THE EARTH: THE BASIC TEXTS ON ENVIRONMENT—FOUNEX, STOCKHOLM, COCOYOC 1* (1981) (UNEP Executive Series 1).

proposed projects, increasing environmental research and institution building, and improving public information about the environmental implications of development.<sup>157</sup> These recommendations were formulated, however, as exhortations to developing countries, rather than as guidelines for the development agencies.<sup>158</sup>

The United Nations Stockholm Conference on the Human Environment in 1972 was a turning point in the international recognition of the environmental needs of developing countries.<sup>159</sup> An Action Plan and the recommendations of the Conference were ratified by the United Nations General Assembly and led to the founding of the United Nations Environment Programme.<sup>160</sup> The Stockholm Declaration and Declaration of Principles emphasized two primary themes stressed at the Conference: (1) most environmental problems in developing countries are caused by, or related to, poverty and underdevelopment, and (2) development will better achieve its goals if it adequately takes into account environmental and natural resource concerns.<sup>161</sup> World Bank President McNamara made a strong statement at the Conference on the urgent need to recognize that concerns for development and for conservation of the environment are inextricably interrelated and interdependent:

The question is not whether there should be continued economic growth. There must be. Nor is the question whether the impact on the environment must be respected. It has to be. Nor—least of all—is it a question of whether these two considerations are interlocked. They are. The solution of the dilemma revolves clearly not about whether, but about

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157. *Id.* at 35-38.

158. The recommendations state, for example, that "[i]t would be undesirable that rigid guidelines for project appraisal from an environmental viewpoint be laid down by multilateral or bilateral donors at this stage without adequate consultations with the developing countries through various appropriate forums." *Id.* at 36.

159. Holdgate, Kassas & White, *World Environmental Trends Between 1972 and 1982*, 9 ENVTL. CONSERVATION 11 (1982).

160. *Id.* The lengthy Action Plan contained 109 separate recommendations emphasizing three major components: environmental assessment, environmental management, and supporting measures. Many of the recommendations dealt with the need for more information and research. *The Stockholm Declaration*, in IN DEFENCE OF THE EARTH: THE BASIC TEXTS ON ENVIRONMENT—FOUNEX, STOCKHOLM, COCOYOC 41, 49-85 (1981) (UNEP Executive Series 1). The banks were not named in the Action Plan, although numerous recommendations referred to them in a general sense, using such terms as "appropriate international and regional organizations" and "other international bodies."

The United Nations Environment Programme (UNEP) was established in 1972 by the U.N. General Assembly to facilitate implementation of the Stockholm Action Plan by United Nations organizations and national governments. UNEP acts as a catalyst and coordinator of environmental activities, but does not implement such activities on its own. See, e.g., *10 Years After Stockholm Hearings*, *supra* note 152, at 21-28 (testimony of James Buckley, U.S. Under Secretary of State for Security Assistance, Science and Technology). UNEP's annual budget in recent years has been about \$30 million. Scharlin, *The United Nations and the Environment: After Three Decades of Concern, Progress is Still Slow*, 11 AMBIO 26 (1982), reprinted in *10 Years After Stockholm Hearings*, *supra* note 152, at 378.

161. *The Stockholm Declaration*, *supra* note 160.

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In 1974, the United Nations sponsored the Cocoyoc Symposium on Patterns of Resource Use, Environment and Development Strategies. The Symposium focused on the ways in which international trade patterns pressure resource use and exacerbate environmental problems in developing countries.<sup>163</sup> The Cocoyoc Declaration recognized that low prices for resource and commodities produced by developing countries encourage unsustainable consumption in the developed world and overburden the already strained resource base of developing countries.<sup>164</sup>

In the late 1970's, the United Nations Environment Programme and the Canadian International Development Agency funded an in-depth study of the environmental policies and procedures of the banks and five other multilateral development agencies.<sup>165</sup> The study, published in 1979 as *Banking on the Biosphere?*, focused on the World Bank, both because of the Bank's preeminence as a lender and because, compared with other multilateral institutions, it had "shown, since the early 1970s, a unique practical concern over the environmental impact of its lending" as well as "undoubtedly exert[ing] intellectual leadership in environmental matters in the entire international development community."<sup>166</sup> The study concluded that "[a] wide gap remains between the increasingly alert concern of [some] individuals and the official response of most institutions," although "the World Bank and the Inter-American Development Bank have developed a greater environmental awareness and sophistication than other development organizations studied."<sup>167</sup> The study recommended that the multilateral aid agencies more strongly encourage environmental analysis, improve environmental assessment techniques, increase environmental staffing, and train their other staff in environmental policy analysis.<sup>168</sup>

In February 1980, the presidents and chief executives of the banks and of the other organizations studied in *Banking on the Biosphere?* signed the New York Declaration of Environmental Policies and Proce-

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162. Address by Robert S. McNamara, President of the World Bank, U.N. Conference on the Human Environment, Stockholm (June 8, 1972) (reprinted in part in Note, *Providing for Environmental Safeguards in the Development Loans Given by the World Bank Group to the Developing Countries*, 5 GA. J. INT'L & COMP. L. 540 (1975)).

163. Comm. of Int'l Dev. Insts. on the Env't, Mechanisms for Cooperation with Development Aid Agencies 4-5 (Nov. 9, 1984) (Paper for Technical Meeting F of the 16th General Assembly of the International Union for Conservation of Nature and Natural Resources, Madrid, Spain Nov. 5-13, 1984).

164. *The Cocoyoc Declaration*, in IN DEFENCE OF THE EARTH: THE BASIC TEXTS ON ENVIRONMENT—FOUNEX, STOCKHOLM, COCOYOC 109-19 (1981) (UNEP Executive Series 1).

165. R. STEIN & B. JOHNSON, *BANKING ON THE BIOSPHERE?: ENVIRONMENTAL PROCEDURES AND PRACTICES OF NINE MULTILATERAL DEVELOPMENT AGENCIES* xv (1979).

166. *Id.* at xiv, 11.

167. *Id.* at 133.

168. *Id.* at 137-40.

dures Relating to Economic Development, pledging their institutions to creating systematic environmental assessment and evaluation procedures for all development activities, and to supporting projects that protect and enhance environmental and natural resources. They also promised to initiate research aimed at improving the environmental aspects of their project planning, implementation, and evaluation; to support environmental training for their operations staffs; and to disseminate information on the environmental impact of their development activities.<sup>169</sup> In addition, the signatories of the 1980 New York Declaration formed the Committee of International Development Institutions on the Environment (CIDIE) to exchange information about the environmental progress and plans of its member agencies.<sup>170</sup>

The World Conservation Strategy, an influential global resource strategy for conservationists and development planners, was also released in 1980.<sup>171</sup> Commissioned by the United Nations Environment Programme, the Strategy has three goals: to maintain essential ecological processes and life-support systems, to preserve genetic diversity, and to ensure the sustainable utilization of species and ecosystems.<sup>172</sup> To achieve these objectives, the Strategy proposed a framework for regional, national, and subnational conservation strategies. It proposed ways to integrate conservation both into development planning, especially through increased use of environmental assessments and inventories of natural resources, and into the management and implementation of development projects.<sup>173</sup> Unfortunately, although the World Bank endorsed the Strategy,<sup>174</sup> there is little evidence that Bank projects have

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169. Comm. of Int'l Dev. Insts. on the Env't, *supra* note 163, at 4-6. The final signatories, besides the four banks in which the United States participates and UNEP, were the Caribbean Development Bank, the Arab Bank for Economic Development in Africa (known by its French acronym as BADEA), the Commission of the European Communities, the Organization of American States, and the United Nations Development Programme. The European Investment Bank became the eleventh signatory in 1982.

170. *Id.* at 4. The CIDIE has met five times since 1980. Non-member representatives have participated in the meetings as well. See UNEP, Summary Record, The Fifth Session of the Committee on International Development Institutions on the Environment Held at the Headquarters of the European Investment Bank, Luxembourg, 13-15 June 1984 (unpublished document available from UNEP).

171. INT'L UNION FOR CONSERVATION OF NATURE & NAT. RESOURCES, WORLD CONSERVATION STRATEGY (1980) [hereinafter cited as IUCN 1980]. The Strategy's stated aim is to help advance the achievement of sustainable development through the conservation of living resources. The Strategy: 1. explains the contribution of living resource conservation to human survival and to sustainable development; 2. identifies the priority conservation issues and the main requirements for dealing with them; 3. proposes effective ways for achieving the Strategy's aim.

*Id.* at IV.

172. *Id.* at VI.

173. *Id.* at VII.

174. Personal communication, Office of Environmental and Scientific Affairs, World Bank (Oct. 31, 1984).

implemented it.<sup>175</sup>

Finally, two other events in the early 1980's reinforced the growing international consensus on the need to incorporate environmental planning into development policy to assure sustainable economic growth. First, in December 1980, the United Nations General Assembly adopted the International Development Strategy for the Third United Nations Development Decade, which emphasized that development must be environmentally sustainable and must assure a long-term ecological balance.<sup>176</sup> Second, in May 1982, the United Nations Environment Programme adopted the Nairobi Declaration. The Declaration supported the International Development Strategy and the New International Economic Order, an effort by developing countries to encourage international commodity trade agreements, as major steps toward addressing global environmental problems.<sup>177</sup>

### *B. The Banks' Environmental Policies and Procedures*

The World Bank has been a leader among multilateral organizations in its public commitment to environmental concerns, and in a 1981 speech, the Bank's President, A.W. Clausen, reaffirmed its commitment to the environment.<sup>178</sup> The Bank created the post of Environmental Advisor in 1970 and the Office of Environmental Affairs, now the Office of Environmental and Scientific Affairs (OESA), in 1973.<sup>179</sup> The purpose of OESA is "to review every project for its consequences to the environment."<sup>180</sup> OESA currently comprises six staff members out of the Bank's approximately 6,000 employees. Three are concerned with science and training, and the other three are responsible for reviewing the environmental impacts of most of the Bank's more than 300 annual new projects, as well as hundreds of ongoing projects. One staff member alone is available to review projects in the environmentally sensitive areas of agriculture, energy, and transportation, which account for more than half of the Bank's annual lending.<sup>181</sup>

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175. See, e.g., Hughes, *Helping the world conservation strategy? Aid agencies in Kenya*, 15 AREA 177 (1983).

176. Comm. of Int'l Dev. Insts. on the Env't, *supra* note 163, at 4.

177. *Id.* at 4-5.

178. Clausen stated that "in order to be sustainable, development must include rigorous and studied attention to resources management. . . . For sustainable development and wise conservation are, in the end, mutually reinforcing—and absolutely inseparable—goals." A.W. Clausen, *Sustainable Development: The Global Imperative* (1981) (The Fairfield Osborn Memorial Lecture, Nov. 12, 1981) (text available from World Bank Office of Environmental and Scientific Affairs; reprinted in 2 THE ENVIRONMENTALIST 25 (1982)).

179. Lee, *Environment in the World Bank—Policies and Practices*, 16 WATER SCI. TECH. 337, 338 (1984).

180. World Bank Response, *supra* note 86, at 1.

181. The Director of OESA has administrative duties and manages external relations. One staff member is on loan to the Bank's Economic Development Institute (which prepares

The World Bank has prepared environmental guidelines,<sup>182</sup> but existing regulations and staffing are insufficient to ensure their systematic use and early integration into project design. Moreover, the existing guidelines focus almost exclusively on the impacts of industrial and processing activities, while most of the Bank's lending is for agricultural development, dams, irrigation systems, and roads.

The Bank has claimed for more than ten years that the possible environmental impacts of proposed projects are systematically reviewed by OESA early in the project cycle.<sup>183</sup> Most recently, in response to inquiries by the United States Treasury Department and the House Banking Subcommittee on International Development Institutions and Finance, OESA stated that "[e]very project proposed for financing comes to the attention of [OESA] early in the project cycle . . . [and] by the time that a proposed project loan reaches the stage of being negotiated with the borrower, the environmental assessment will have been largely completed."<sup>184</sup>

Clearly, though, it is impossible for OESA's small staff to adequately review all projects with significant environmental impacts,<sup>185</sup> especially when three of the six staff members are assigned to tasks that are peripheral to the main body of Bank lending. The Bank does not perform thorough environmental assessments as a matter of course, even for projects with important environmental impacts.<sup>186</sup> In fact, before May 1984, the Bank's only mandatory environmental procedure was a review by OESA at the end of the appraisal stage, before loan negotiations, but long after projects had been chosen and prepared.<sup>187</sup> This review was too late to influence significantly the plans for environmentally destructive projects.

In May 1984, the Bank incorporated a new set of environmental

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training courses for administrators from developing countries), one oversees training, another focuses on science and technology issues, and two others deal with industrial pollution and Bank-financed Development Finance Corporations. These latter two categories of projects have accounted for less than 10% of Bank lending in recent years.

182. The World Bank, *Environmental Guidelines* (1983).

183. See, e.g., *THE WORLD BANK*, *supra* note 154, at 8-9.

184. World Bank Response, *supra* note 86, at 1-2.

185. A special report prepared by the House Banking Subcommittee on International Development Institutions and Finance stated: "Given the magnitude of the World Bank's operation, an environmental office with a staff of five cannot possibly be expected to adequately provide for all aspects of environmental issues facing the Bank." *1984 Draft Environmental Recommendations Hearings*, *supra* note 50, at 6.

186. *1983 Environmental Hearings*, *supra* note 50, at 68 (statement of Bruce M. Rich, Consultant, International Program, Sierra Club; also representing World Wildlife Fund-U.S., Friends of the Earth, Izaak Walton League of America, Natural Resources Defense Council, and National Audubon Society).

187. *Id.* The project cycle has three main phases prior to loan negotiation: identification, preparation, and appraisal. After the loan agreement is signed, the project enters the implementation phase. See W. Baum, *The Project Cycle* (1982) (published by the World Bank).

policies and procedures into the Bank's Operations Manual, a collection of internal regulations given to every staff member.<sup>188</sup> The procedures set forth several broad principles concerning project evaluation:

[The Bank] (a) endeavors to ensure that each project affecting renewable natural resources . . . does not exceed the regenerative capacities of the environment; (b) will not finance projects that cause severe or irreversible environmental deterioration, including species extinctions without mitigatory measures acceptable to the Bank; . . . [and] (d) will not finance projects that displace people or seriously disadvantage certain vulnerable groups without undertaking mitigatory measures acceptable to the Bank as outlined in separate notes on involuntary resettlement, and on tribal peoples.<sup>189</sup>

The real significance of the new policy statement is that it marks the first incorporation of environmental concerns into the Bank's operating procedures.<sup>190</sup> Whether the Bank can realistically implement these procedures without a larger environmental staff remains an open question.

The Bank's development of country economic and sector policies can have even greater environmental implications than do single projects.<sup>191</sup> At this policy-making stage, many of the basic decisions about the nature of projects the Bank will finance are developed and embodied in strategy documents such as Country Program Papers and Country Economic Memoranda. The Bank's new environmental procedures in its Operations Manual state that "[w]here appropriate, country economic and sector work should assess the ability of environmental systems and the natural resource base to sustain present and proposed patterns of economic development."<sup>192</sup> Again, whether the Bank will be able to implement its official policy by incorporating environmental concerns into country and sector work is unclear. A similar commitment was stated in weaker language in the Bank's previous environmental policies and procedures,<sup>193</sup> and yet among all the Bank's Sector Policy Papers produced under those guidelines, only the Forestry Paper attempted to address environmental and resource management concerns.<sup>194</sup> Environmental groups have criticized the Bank's Fishery Sector Policy Paper, in particular, for failing to address essential resource management concerns, and Bank officials have acknowledged that the paper was inade-

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188. See *supra* note 148.

189. World Bank Environmental Policies and Procedures, *supra* note 148, at 4.

190. *Id.* at inside cover.

191. See *supra* notes 40-42 and accompanying text.

192. World Bank Environmental Policies and Procedures, *supra* note 148, at 5.

193. Lee, *supra* note 179, at 339.

194. Compare THE WORLD BANK, FORESTRY SECTOR POLICY PAPER (1978) with THE WORLD BANK, FISHERY SECTOR POLICY PAPER (1982), THE WORLD BANK, AGRICULTURAL LAND SETTLEMENT ISSUES PAPER (1978), and THE WORLD BANK, RURAL DEVELOPMENT SECTOR POLICY PAPER (1975).

quate in that regard.<sup>195</sup> Moreover, Country Economic Memoranda focus on macroeconomics and do not address sustainable stewardship of natural resources. For example, the Bank's Country Economic Memorandum on Belize fails to mention the country's outstanding natural resource, the earth's second largest coral barrier reef.<sup>196</sup>

The final phase of the Bank's project cycle involves project performance audits. The Bank currently audits approximately fifty-seven percent of all completed projects.<sup>197</sup> The Bank department that performs these audits, however, does not include anyone trained in environmental sciences.<sup>198</sup> Instead, drafts of the audits are sent to the already overburdened OESA for environmental review.<sup>199</sup>

Unlike the World Bank, the Inter-American Development Bank has no internal focus of environmental responsibility, apart from an Environmental Management Committee formed in 1984 to discuss implementation of the 1980 New York Declaration.<sup>200</sup> Nor has it employed any professionally trained environmental staff, other than a geographer hired in 1983 to work as a soils specialist.<sup>201</sup> Like the World Bank, the Inter-American Bank has prepared environmental checklists for certain sectors,<sup>202</sup> but no procedures or requirements ensure that the staff integrates, or even considers, the checklists when designing and appraising

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195. See 1 *Foreign Assistance and Related Programs Appropriations for Fiscal Year 1985: Hearings Before the Subcomm. on Foreign Assistance and Related Programs of the Senate Comm. on Appropriations*, 98th Cong., 2d Sess. 923 (1984) (statement of Bruce M. Rich).

196. See 1983 *Environmental Hearings*, *supra* note 50, at 69-70.

197. WORLD BANK 1983, *supra* note 28, at 56.

198. 1983 *Environmental Hearings*, *supra* note 50, at 72 (statement of Bruce M. Rich).

199. World Bank Response, *supra* note 86, at 4-5.

200. See 1983 *Environmental Hearings*, *supra* note 50, at 63-64 (statement of Bruce M. Rich); 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 5; (Draft Recommendations Regarding Environmental Concerns Associated with Multilateral Bank Activity); UNEP, *supra* note 170, at 1.

201. 1983 *Environmental Hearings*, *supra* note 50, at 64 (statement of Bruce M. Rich). In its response to the House Subcommittee on International Development Institutions and Finance, the Bank asserted that it employed 63 professionals and specialists in "environment related areas" such as "water supply and sanitation; integrated urban development; education; electric energy; science and technology; forestation; fisheries; irrigation; watershed management; erosion sedimentation control; livestock activities and pasture management; agricultural and integrated rural development." IDB Response, *supra* note 77, at 2. At issue, however, was not the number of staff working in environmentally sensitive fields, but the number of environmentally trained staff with specific responsibilities for ensuring the ecological soundness of projects in these environmentally sensitive areas. The Bank's position is that "staff members are directed by the Bank to take a 'holistic' approach and to introduce the environmental dimension into each project activity." *Id.*

202. These checklists concern the sectors of transportation, mining, industry, agriculture, and sociocultural impacts, and are available from the Bank's Office of External Relations. The Inter-American Bank's checklists address the prospective adverse impacts of project lending more completely than do the checklists of the World Bank; the World Bank's checklists, for example, ignore the impacts associated with agriculture projects. A discussion of their relative merits is purely theoretical, however, because neither set of checklists appears to be used. See *infra* note 216 and accompanying text.

projects.<sup>203</sup> In 1979, the Inter-American Bank's board of directors approved an Operating Policy for Environmental Management.<sup>204</sup> The Policy states that the Bank will finance general environmental projects, technical assistance, and institution-building activities in the environmental and natural resources area, and will "seek to determine" whether proposed projects meet criteria of environmental soundness and minimize adverse environmental impacts.<sup>205</sup> The lack of any procedures to ensure environmental planning and assessment, and the lack of an environmentally trained professional staff, render this general policy commitment ineffective.<sup>206</sup>

The Asian Bank, by comparison, has made a more substantive commitment of resources and staff to implementing the 1980 New York Declaration. In May 1981, the Asian Bank established an Environmental Unit staffed by two environmentally trained professionals.<sup>207</sup> The Asian Bank recently prepared a series of checklists for various lending sectors, which the Environmental Unit distributed to the Bank staff.<sup>208</sup> The Unit is also drafting a series of natural resource profiles of its member countries.<sup>209</sup> The Asian Bank's staff commitment to environmental planning is small compared with the size of the institution and the scope of its activities; the Bank funds \$1.9 billion worth of projects a year and has a

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203. 1983 *Environmental Hearings*, *supra* note 50, at 64 (statement of Bruce M. Rich); J. Horberry, *Environmental Guidelines Survey 26-27* (1983), *reprinted in 1983 Environmental Hearings*, *supra* note 50, at 244-45.

204. IDB Response, *supra* note 77, at 1; Inter-American Dev. Bank, *Operating Policy on Environmental Management* (1979) (internal memorandum).

205. Inter-American Dev. Bank, *supra* note 204. In 1983, the IDB published a booklet entitled *Natural Resources in Latin America* which noted that "the critical issue for the region is becoming resource management," but made no mention of the Bank's 1979 policy on environmental management, or of any of the various international conferences and declarations that have marked thinking within the United Nations and in other international spheres on resources management and sustainable development over the past 13 years, including the 1980 New York Declaration, to which the Bank is a signatory. INTER-AMERICAN DEV. BANK, *NATURAL RESOURCES IN LATIN AMERICA* 3 (1983). See discussion in Section IV.A. *supra*.

206. 1983 *Environmental Hearings*, *supra* note 50, at 63-66 (statement of Bruce M. Rich). See also J. Horberry, *supra* note 203. For the Bank's position, see IDB Response, *supra* note 77, at 2-5; Inter-American Dev. Bank, *The Inter-American Development Bank and the Environment*, U.N. Doc. UNEP/CIDIE 3 (1983). The latter two documents make a number of unsubstantiated blanket assertions about the Bank's environmental planning and performance that contradict the conclusions of other commentaries on the Inter-American Bank's environmental performance.

207. ADB Response, *supra* note 82, at 2.

208. *Id.* at 6, 129. The Asian Bank had prepared 22 checklists as of January 1984, which, unlike the World Bank checklists, addressed in some detail the sectors of agriculture, rural development, and energy. *Id.* at 129.

209. *Id.* at 2, 8. The Unit hopes to prepare two or three profiles a year. As of January 1984, profiles had been produced for Burma and Thailand, and profiles on the Philippines and Papua New Guinea were partially complete. *Id.* at 8. AID was the first development agency to undertake country environmental profiles, as required by an amendment to the Foreign Assistance Act in 1978. See *infra* notes 240-42 and accompanying text.

professional staff of over 1260 people.<sup>210</sup> In reply to questions raised by the Treasury Department in 1983, the Asian Bank claimed that "all development projects are screened for potentially significant [environmental] impacts at all phases of the project cycle,"<sup>211</sup> even though it has no formal procedures for incorporating environmental concerns into the project cycle.<sup>212</sup> In reality, the Environmental Unit attempts to influence projects on an *ad hoc* basis.<sup>213</sup>

The African Bank is by far the smallest of the banks, and does not have an environmental office, let alone any systematized procedures to address environmental concerns.<sup>214</sup> One sign of progress, however, is that the Swedish government provided the African Bank with special funds and assistance to hire one environmental specialist, who joined the Bank in 1984.<sup>215</sup>

In summary, the four banks supported by the United States have done little to implement systematically their pledge in the 1980 New York Declaration or their existing environmental guidelines. A recent study concluded that

[t]he fact that we found so little evidence of the application of existing guidelines suggests that either they have been tried and found useless or that agencies have not made sufficient resources and incentives available to sustain their use. We suggest that some agencies never put some guidelines into operation because their function is to improve public relations . . . . In many cases staff do not use guidelines because agencies do not require their use, nor provide appropriate training and resources nor establish any institutional penalties for failing to use them. . . . [W]e think that if agencies established more forceful procedures, allocated more resources and deployed a larger number of appropriately trained and experienced staff who understood how to make the most out of the consulting community, guidelines would be largely redundant.<sup>216</sup>

Such criticism of the banks' failure to implement their environmental policies has been accompanied by pressure within the United States to encourage the banks to take stronger action.

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210. Rafferty, *A Small Bank with Big Ambitions*, INSTITUTIONAL INVESTOR 135 (Apr. 1984). See 1983 *Environmental Hearings*, *supra* note 50, at 66-67 (statement of Bruce M. Rich).

211. ADB Response, *supra* note 82, at 6.

212. *Id.* at 6-9; J. Horberry, *supra* note 203, at 242-43.

213. 1983 *Environmental Hearings*, *supra* note 50, at 66-67 (statement of Bruce M. Rich).

214. *Id.* at 66; Comm. of Int'l Dev. Insts. on the Env't, *supra* note 163, at 10.

215. UNEP, *supra* note 170, at 1.

216. J. Horberry, *supra* note 203, at 217-18.

## IV

## THE ROLE OF THE UNITED STATES

*A. Recent Developments in United States Foreign Assistance Policy Concerning Natural Resources and the Environment*

In the last ten years, both Congress and the Executive Branch have promoted initiatives emphasizing the United States commitment to making protection of the environment and natural resources an element of foreign assistance policy. Executive Branch initiatives gathered momentum during the Carter Administration. Legislative attention to the environment in foreign assistance activities has also expanded steadily. Initially, Congress focused its attention primarily, but not exclusively, on AID. In 1983, however, Congress concentrated on environmental issues arising from United States participation in multilateral institutions.<sup>217</sup>

AID currently has the most stringent and comprehensive environmental planning procedures of any development agency.<sup>218</sup> AID adopted these procedures as the result of debate in the late 1970's concerning the applicability of federal environmental laws to the impacts of United States government activities abroad.<sup>219</sup> In 1975, four United States environmental organizations initiated a lawsuit in the Federal District Court for the District of Columbia asserting that the National Environmental Policy Act of 1970 required AID to prepare an Environmental Impact Statement for its financing of pesticide sales to developing countries.<sup>220</sup> A settlement reached in December 1975 required AID to prepare an Environmental Impact Statement for its pesticide sales and to institute pesticide regulations.<sup>221</sup> In 1976, AID issued general environmental regulations.<sup>222</sup>

In 1979, President Carter issued Executive Order Number 12,114, Environmental Effects Abroad of Major Federal Actions.<sup>223</sup> The Order's

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217. For an overview of congressional initiatives in the area of international environmental policy, see M. Grimes, *Congress and International Environmental Policy: An Introduction* (Sept. 13, 1984) (unpublished study prepared by the Congressional Research Service, Library of Congress). For a review of the congressional environmental mandate of AID, see R. BLAKE, B. LAUSCHE, S. SCHERR, T. STOEL & G. THOMAS, *AIDING THE ENVIRONMENT: A STUDY OF THE ENVIRONMENTAL POLICIES, PROCEDURES, AND PERFORMANCE OF THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT* (1980) (study conducted by the Natural Resources Defense Council, Inc., Washington, D.C.) [hereinafter cited as R. BLAKE].

218. See Int'l Inst. for Env't & Dev., *The Environment and Bilateral Development Aid* (1980). AID's environmental procedures are codified at 22 C.F.R. § 216 (1985).

219. See Gaines, *The Extraterritorial Reach of U.S. Environmental Legislation and Regulations*, in *ENVIRONMENT & TRADE* 102 (S. Rubin & T. Graham eds. 1983).

220. *Envtl. Defense Fund, Inc. v. Agency for Int'l Dev.*, 6 ENVTL. L. REP. (ENVTL. L. INST.) 20,121 (D.D.C. 1975).

221. R. BLAKE, *supra* note 217, at 38, 168.

222. *Id.* at 38-39.

223. Exec. Order No. 12,114, 3 C.F.R. 356 (1979) [hereinafter cited as Carter Exec. Order].

stated intent was to establish internal procedures for environmental review in federal agencies.<sup>224</sup> To this end, it set forth general provisions and requirements for federal agencies concerning the environmental effects of their activities abroad, and it required affected agencies to issue regulations within eight months to implement its directives.<sup>225</sup> These stipulations, which were reflected in AID's environmental regulations,<sup>226</sup> as well as in those of other agencies, included two key requirements. First, federal agencies were to prepare Environmental Impact Statements for "major federal actions" that would result in "significant environmental effects" on the global commons, including the atmosphere, oceans, and Antarctica. Second, agencies were to prepare "environmental reviews" of the impacts of major actions having significant environmental effects in foreign countries when such actions (a) involved toxic substances strictly regulated under United States law (e.g., pesticides), or facilities producing such substances, including nuclear facilities; (b) affected a third, "innocent bystander" nation; or (c) affected natural resources of global importance designated as such by the President or by international agreement.<sup>227</sup>

AID responded to Executive Order Number 12,114 with environmental review regulations that are the most stringent of any agency affected by the Order. AID's regulations call for mandatory environmental assessment of eleven categories of projects, including river basin, irrigation, and dam projects; large-scale agricultural mechanization schemes, new lands development, and resettlement projects; penetration roadbuilding or road improvement; and power and industrial plants.<sup>228</sup>

Executive Order Number 12,114 did not cover United States participation in the banks; it specifically exempted United States "votes and other actions in international conferences and organizations" from its requirements.<sup>229</sup> The rationale for this exemption was that "the myriad political facts of diplomatic negotiations render prior detailed written as-

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224. *Id.* See Gaines, *supra* note 219, at 108.

225. See Gaines, *supra* note 219. The Order required fourteen agencies, including AID, the Export-Import Bank, the Overseas Private Investment Corporation, and the Departments of State and Defense, to prepare environmental regulations. *Id.* at 115.

226. 40 Fed. Reg. 45,679 (Oct. 2, 1975) as amended by 45 Fed. Reg. 20,790 (Mar. 31, 1980), codified at 22 C.F.R. § 216 (1985).

227. Carter Exec. Order, *supra* note 223; see Gaines, *supra* note 219, at 108-13. Gaines notes that although the Executive Order had no legal connection to NEPA, it refers directly and indirectly to NEPA language to indicate the kinds of procedures that agencies are to implement. Its use of "Environmental Impact Statement," for example, evokes a more stringent and thorough procedure, based on administrative experience in implementing NEPA domestically, than does the much vaguer term "environmental review." *Id.*

228. 22 C.F.R. § 216.2(d) (1985).

229. Carter Exec. Order, *supra* note 223, paras. 2-5(a)(vi).

assessment of environmental effects impossible.”<sup>230</sup> Apparently, there was concern that effective United States participation in such organizations would be crippled by a requirement that each of the hundreds of annual loan and policy decisions made by the United States bank directors be subjected to an environmental assessment.<sup>231</sup> The Order did not, however, preclude the United States bank directors from promoting stronger environmental review procedures and policies within the international institutions themselves. Indeed, the Order’s stated purpose of furthering “environmental objectives consistent with the foreign policy and national security of the United States”<sup>232</sup> would seem to support the promotion of environmental concerns within the banks as long as these concerns are compatible with other United States foreign policy objectives.

In 1978, the State Department and AID held a Strategy Conference on Tropical Deforestation.<sup>233</sup> As a result, the Interagency Task Force on Tropical Forests was formed. In 1980, the Task Force released a detailed strategy for tropical forest management to be incorporated into United States foreign assistance and research activities.<sup>234</sup> Except for some actions taken by AID in its forestry and environmental efforts, however, the current Administration has made no progress in implementing the Task Force’s recommendations.<sup>235</sup>

In the late 1970’s and early 1980’s, Congress amended the Foreign Assistance Act of 1961 to direct AID to institute policies regarding natural resources and the environment.<sup>236</sup> In 1977, section 102 of the Act was amended to add “environment and natural resources” to the devel-

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230. Gaines, *supra* note 219, at 114.

231. *Id.*

232. Carter Exec. Order, *supra* note 223, preamble.

233. U.S. DEP’T OF STATE & U.S. AID, PROCEEDINGS OF THE U.S. STRATEGY CONFERENCE ON TROPICAL DEFORESTATION 9 (Oct. 1978); U.S. DEP’T OF STATE, THE WORLD’S TROPICAL FORESTS: A POLICY, STRATEGY, AND PROGRAM FOR THE UNITED STATES 1 (May 1980) [hereinafter cited as TROPICAL FORESTS].

234. TROPICAL FORESTS, *supra* note 233. The Task Force still exists and is composed of representatives from the Departments of State, Agriculture, Interior, and Commerce as well as representatives of the National Aeronautics and Space Administration, National Science Foundation, Peace Corps, Smithsonian Institution, and AID.

235. The Task Force Report set a number of specific short-, middle-, and long-term goals for United States policy. Short-term goals (1 to 5 years) included obtaining policy commitments from tropical forest countries and international organizations for pursuing long-term forest management practices and programs, and for launching an international program to introduce low-cost energy and alternative food production systems into rural areas.

The most significant middle-term goal (6 to 15 years) was United States promotion and support for implementation of individual country programs to preserve and study representative and unique forest ecosystems and the indigenous tribal cultures often associated with them.

The Task Force report recognized that its long-term goal of a stabilized global ecological situation would ultimately depend on the international community’s success in slowing population growth and in producing food, shelter, and energy for the planet’s poor. *Id.* at 39-40.

236. See R. BLAKE, *supra* note 217, at 23-26, 37-39, 167-69. See also Rich, *Saving Tropical Forests Still an Uphill Battle*, ENV’T, May 1982, at 40, 42.

opment problems AID should address.<sup>237</sup> Section 118, concerning "Environment and Natural Resources" was also inserted into the Act.<sup>238</sup> These amendments authorized AID to sponsor programs to strengthen "the capacity of less developed countries to protect and manage their environment and natural resources" and to "maintain and where possible restore the land, vegetation, water, wildlife, and other resources upon which depend economic growth and human well-being, especially that of the poor."<sup>239</sup> Section 118 was amended in 1978 to require that AID perform country-specific studies to "identify the major environmental and natural resource problems, and the institutional capabilities to solve these problems, which exist in developing countries."<sup>240</sup> AID submitted these studies to Congress, as the amendment required, on March 1, 1979.<sup>241</sup> AID efforts to gather environmental data for specific countries have continued under a joint venture with the United States component of the United Nations Educational, Scientific, and Cultural Organization's Man and the Biosphere Program, which prepares a series of environmental profiles of AID countries.<sup>242</sup>

In 1978 and 1979, Congress amended section 103(c) of the Foreign Assistance Act to give AID a stronger mandate to address problems of soil conservation and forestry.<sup>243</sup> Congress further strengthened section 118 in 1981 by requiring both an Environmental Impact Statement for projects affecting the global commons or the territory of the United States, and Environmental Assessments for projects "significantly affecting the environment of any foreign country."<sup>244</sup> The 1981 amendment also added subsection 118(d), which expresses concern "about the continuing and accelerating alteration, destruction, and loss of tropical forests in developing countries."<sup>245</sup> This new subsection directed the United States government to encourage greater attention to the environmental problems associated with tropical deforestation through its participation in AID and in multilateral assistance organizations, such as the develop-

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237. The amendment is codified at 22 U.S.C. § 2151-1 (1982).

238. Pub. L. No. 95-88, 91 Stat. 538 (codified as amended at 22 U.S.C. § 2151p (1982)).

239. Pub. L. No. 95-88, 91 Stat. 538 (codified as amended at 22 U.S.C. § 2151p(b) (1982)).

240. Pub. L. No. 95-424, § 110(c), 92 Stat. 948 (1978) (repealed by Pub. L. No. 96-53, § 122, 96 Stat. 366 (1979), current version at 22 U.S.C. § 2151p (1982)).

241. R. BLAKE, *supra* note 217, at 78-79.

242. *See id.* at 83-85. The profiling process has two phases. In Phase I a library study is prepared, using references in the United States; Phase II involves sending a special team to conduct an on-site field study. As of early 1985, AID had prepared complete (Phase II) profiles for eight countries, and six were in preparation. Letter from John D. Sullivan, Director, Office of Forestry, Environment, and Natural Resources, Bureau for Science and Technology, AID, to Robert O. Blake (Jan. 2, 1985).

243. R. BLAKE, *supra* note 217, at 25.

244. Pub. L. No. 97-113, § 307, 95 Stat. 1533 (codified as amended at 22 U.S.C. § 2151p(c)(1)(A), (B) (1982)).

245. Pub. L. No. 97-113, § 307, 95 Stat. 1533 (codified as amended at 22 U.S.C. § 2151p(d)(1) (1982)).

ment banks. The amendment also directed the President to instruct United States representatives to international organizations to urge "that higher priority be given in the programs of these organizations to the problems of tropical forest alteration and loss."<sup>246</sup> The amendment called upon the President to consider the recommendations of the Inter-agency Task Force on Tropical Forests in formulating and carrying out programs and policies with respect to developing countries, "including those relating to bilateral and multilateral assistance."<sup>247</sup>

The environmental amendments to the Foreign Assistance Act resulted in greatly increased financing by AID for environmental activities. AID's expenditures for projects affecting forestry, natural resources, and the environment increased more than tenfold from 1978 to 1982, from \$13 million to \$150 million.<sup>248</sup> A number of innovations at AID, such as the use of country-specific environmental profiles, have already been the model for analogous programs at the banks.<sup>249</sup> United States foreign assistance policy would be more consistent if the increased attention to the environment at AID were matched by the promotion of a similar heightened interest at the banks by their United States directors.

Following special hearings in 1980, the House Foreign Affairs Committee commissioned a study by the United States Congress Office of Technology Assessment on ways to sustain tropical forests. The study, released in March 1984, recommended that Congress hold oversight hearings to investigate the extent to which both AID and United States representatives to multilateral assistance organizations implement the environmental objectives of the Foreign Assistance Act.<sup>250</sup>

246. Pub. L. No. 97-113, § 307, 95 Stat. 1533 (codified as amended at 22 U.S.C. § 2151p(d)(3)(A) (1982)).

247. Pub. L. No. 97-113, § 307, 95 Stat. 1533 (codified as amended at 22 U.S.C. § 2151p(d)(2) (1982)).

248. 4 *Foreign Assistance Legislation for Fiscal Years 1984-85: Hearings and Markup Before the Subcomm. on Human Rights and International Organizations of the House Comm. on Foreign Affairs*, 98th Cong., 1st Sess. 137 (1983) (statement of Thomas B. Stoel). Since 1982, AID expenditures in this area appear to have decreased slightly. *Id.*

249. The Asian Development Bank is undertaking a program to prepare Environmental and Natural Resource Profiles, which the Bank states "are a logical extension of the [profiling] work produced by AID." Further Questions on Statements by Environmental Groups, in ADB Response, *supra* note 82, at 8.

250. OFFICE OF TECHNOLOGY ASSESSMENT, TECHNOLOGIES TO SUSTAIN TROPICAL FOREST RESOURCES 306 (1984). The study also suggested that

Congress could direct the Department of State to report on whether various tropical nations are able and politically ready to develop long-term action plans for sustained development of renewable natural resources. AID and the multilateral organizations could use these assessments as a basis for assisting tropical nations in planning and coordination.

...

Congress could direct the Department of State and U.S. representatives to multilateral development assistance organizations to promote international ad hoc committees formed to assist tropical nations in planning long-term forest development.

*Id.* at 307-08.

Despite the absence of a direct statement in the banks' authorization legislation concerning promotion of environmental concerns, Congress and the Executive Branch have indicated elsewhere that United States representatives to these institutions should focus on environmental issues. As noted above, the Foreign Assistance Act explicitly directs the President to promote conservation of tropical forests within multilateral agencies as well as within AID.<sup>251</sup> The Tropical Forest Strategy Conference Proceedings, the Report of the Interagency Task Force on Tropical Forests, and the Office of Technology Assessment tropical forest evaluation all emphasize the need to promote conservation of tropical forest resources by multilateral institutions such as the banks. Moreover, as this Article will discuss, in a number of other areas, such as the promotion of appropriate technology and human rights, legislation has explicitly set forth the same United States foreign assistance policy for both bilateral and multilateral assistance. The Foreign Assistance Act states at the outset that "[p]articipation of the United States in multilateral institutions shall also place appropriate emphasis on [the] principles" that the Act lists as governing bilateral assistance.<sup>252</sup> These principles include focusing attention on critical problems relating to natural resources.<sup>253</sup> The legislation focusing on AID can thus be read to imply parallel intentions to guide participation in the multilateral banks on issues affecting the environment of developing countries.

*B. United States Policy Influence on the  
Multilateral Development Banks*

The United States has traditionally exerted strong influence on the banks, particularly on the World Bank, which it helped found. The influence of the United States reflects both the official weight of its vote on each bank's board of directors and its role as the leading world economic and financial power. Although, with one exception, the United States vote in the banks is insufficient to veto any loan or proposal,<sup>254</sup> its influence is often great enough to constitute effective control. The voting power of the United States on each bank's board is proportional to its financial contribution to that institution. On the boards of the World Bank and the Inter-American Bank, the voting power of the United

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251. 22 U.S.C. § 2151p(d)(3) (1982).

252. 22 U.S.C. § 2151-1(a) (1982).

253. 22 U.S.C. § 2151-1(b)(5) (1982).

254. See J. Sanford, Background Data, *supra* note 5, at 28-30. Board votes are decided by a simple majority, except in the Inter-American Bank's Fund for Special Operations, where a two-thirds vote is required, giving the United States an effective veto. *Id.* at 4; IDB Articles of Agreement, *supra* note 11, art. IV, § 9b. Most actions by the boards are decided on a consensual basis, though, instead of by formal votes. J. Sanford, Background Data, *supra* note 5, at 4.

States is 19.5%<sup>255</sup> and 35%<sup>256</sup> respectively. This constitutes by far the most powerful vote in both institutions; at the World Bank, it outweighs the combined voting power of the three next most influential countries.<sup>257</sup>

A Treasury Department report released in February 1982 confirmed that the United States has "viewed the [banks] as an important multilateral foreign policy vehicle to enhance our security, economic, and humanitarian interests."<sup>258</sup> The report noted that

[t]he sources of U.S. power, from which our influence in the [banks] derives, originate in the advantages inherent in our predominant position in the banks; the expectation of others as to our ability and will to use these advantages; and our position as a world leader . . . . The United States has been perceived as strongly supportive of the banks and of their efficient cost effective operation and administration . . . other significant actors—management, major donors, and major recipients—have recognized the United States as a major voice in the banks. They know from past experience that we are capable and willing to pursue important policy objectives in the banks by exercising the . . . leverage at our disposal.<sup>259</sup>

The study reported on seventy different instances between 1970 and 1980 in which the United States had sought changes in bank policy, practice, or procedure.<sup>260</sup> In about eighty percent of these instances, the United States was at least partially successful in effecting the changes it desired.<sup>261</sup> The Treasury report identified some significant issues on which United States influence caused changes at the banks: increased lending to the poor; improved evaluation and auditing systems; containment of administrative expenses; and initiation, and then termination, of the World Bank energy affiliate.<sup>262</sup>

The Treasury Department has always been responsible for coordinating United States policy with respect to the banks.<sup>263</sup> Since 1966,

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255. WORLD BANK 1984, *supra* note 14, at 227. The United States vote in 1984 was 19.36% in the IBRD and 19.63% in the IDA.

256. IDB 1983, *supra* note 14, at 165.

257. The vote of the United Kingdom in the World Bank is second in importance, representing 6.20% of the total, followed by the Federal Republic of Germany with 6.02%, and Japan with 5.99%. WORLD BANK 1984, *supra* note 14, at 227. In the Inter-American Bank, the vote of Brazil, which also represents Ecuador and Surinam, is second in importance, with 12.87% of the total. IDB 1983, *supra* note 14, at 165.

At the Asian Bank, the voting power of the United States is 13.6%, equal to Japan's and more than twice that of any other country. ASIAN DEV. BANK, *supra* note 32, at 115. At the African Bank, the United States vote is 5.9%, greater than that of any other country except Nigeria. AFRICAN DEV. BANK, *supra* note 32, at 107.

258. DEP'T OF THE TREASURY, *supra* note 40, at 47.

259. *Id.* at 58-59.

260. *Id.* at 60.

261. *Id.*

262. *Id.* at 60-61.

263. J. Sanford, Background Data, *supra* note 5, at 28. See J. SANFORD, FOREIGN POL-

Treasury has had authority to instruct the United States bank directors in voting and other matters.<sup>264</sup> Its key role also reflects the convention that the bank governors are usually the minister of finance, or the equivalent, of their respective countries.<sup>265</sup>

The Treasury Department consults with other government agencies about bank policy through the Working Group on Multilateral Assistance, formed in 1978.<sup>266</sup> The Working Group is chaired by the Assistant Secretary of the Treasury for International Affairs or that person's delegate. It includes representatives from the Departments of State, Agriculture, Interior, and Commerce, as well as from AID and the Export-Import Bank, the Federal Reserve, the Office of Management and Budget, and the National Security Council.<sup>267</sup> The Group meets weekly to discuss the United States position on upcoming loan proposals and policy issues. The Treasury Department transmits voting instructions to the United States bank directors through its Office of Multilateral Development Banks, also under the direction of the Assistant Secretary of the Treasury for International Affairs.<sup>268</sup> Interagency coordination with respect to the purely financial aspects of bank activities is vested in the National Advisory Council on International Monetary Policy,<sup>269</sup> also chaired by a Treasury Department representative.

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ICY, *supra* note 4, at 85-108, for a detailed account of Treasury's role and the interagency process in formulating United States policy towards the banks. Until 1978, the main interagency body coordinating policy was the National Advisory Council on International Monetary Policy, established by the original Bretton Woods Agreement Act of 1945. 22 U.S.C. § 286b (1982, Supp. I 1983); J. SANFORD, *FOREIGN POLICY*, *supra* note 4, at 85. The National Advisory Council is chaired by a Treasury representative.

264. In 1966, the President issued Executive Order No. 11,269, still in force, which delegated to the Secretary of the Treasury direct authority to instruct the United States representatives to international financial institutions, including the banks and the International Monetary Fund. Exec. Order No. 11,269, 3 C.F.R. 1966-70 (1985), *reprinted in* 22 U.S.C. § 286b (1982).

265. A. VAN DE LAAR, *supra* note 17, at 13.

266. The Working Group is a subcommittee of the Development Coordination Committee (DCC). The DCC was created by the Foreign Assistance Act of 1973 to establish "a system for coordination of United States policies and programs which affect United States interests in the development of low income countries." 22 U.S.C. § 2399c(a) (1973). The DCC is chaired by the Administrator of AID and was intended to reduce the Treasury Department role in development matters, especially relations with the banks. J. SANFORD, *FOREIGN POLICY*, *supra* note 4, at 96. The DCC "never really functioned as a coordinating mechanism" mainly "because its base was AID, which was not powerful enough in bureaucratic struggles against the State and Treasury Departments." *Id.* (summarizing interview with Sidney Weintraub, chairperson of the DCC from 1975 to 1976).

In 1979, Executive Order No. 12,163 strengthened the DCC and directed the Chair to establish subcommittees, one of which was the Working Group. The Order shifted the National Advisory Council on International Monetary Policy's coordinating function with respect to the banks to the newly formed Working Group, also chaired by Treasury. Exec. Order No. 12,163, 44 Fed. Reg. 56,673 (1979), *reprinted in* 22 U.S.C. § 2381 (1982).

267. J. Sanford, *Background Data*, *supra* note 5, at 28-29.

268. J. SANFORD, *FOREIGN POLICY*, *supra* note 4, at 93.

269. *See supra* note 263.

Next to Treasury, which has maintained its lead role<sup>270</sup> because it alone directs the vote of the U.S. bank directors, the State Department and AID have the most significant advisory roles in the formulation of United States bank policy. The State Department and AID can influence bank policy by promoting environmental objectives through contact with the banks' staffs and by advising Treasury. The current responsibilities of these two agencies overlap with those of Treasury in some areas, especially with respect to international development and economic policies.<sup>271</sup> For example, the Director of the International Development Cooperation Agency, who is currently also the Administrator of AID, advises Treasury and the United States bank directors "on the development aspects of matters relating to these institutions and their activities."<sup>272</sup> The important environmental initiatives that the State Department and AID have undertaken in foreign assistance policy over the past decade are potentially a basis for these agencies to increase their promotion of environmental objectives at the banks. This potential, however, has not as yet been fully realized.

Congress also plays an essential role in overseeing and formulating United States bank policy. The original enabling legislation authorizing United States participation in the banks requires congressional approval of increased contributions and subscriptions to the banks.<sup>273</sup> In addition, Congress must annually authorize and appropriate funds for bank contributions and subscriptions that the Administration has already negotiated. Four congressional subcommittees are directly responsible for bank oversight and legislation: the House Banking Subcommittee on International Development Institutions and Finance, the Senate Foreign Relations Subcommittee on International Economic Policy, the House Appropriations Foreign Operations Subcommittee, and the Senate Appropriations Foreign Operations Subcommittee.<sup>274</sup> In addition, the House Foreign Affairs Committee has general oversight authority over the banks and can influence bilateral and multilateral foreign assistance

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270. J. SANFORD, *FOREIGN POLICY*, *supra* note 4, at 99.

271. *Id.* at 91-94. The interests of the State and Treasury Departments may be complementary. One official, recalling a 1971 State Department review of the division of responsibility for United States participation in the banks, suggested that the Treasury Department has had more success in obtaining financial support from Congress and can better support the banks' efforts to borrow in private capital markets. Interview with Robert Banque, Office of Multilateral Development Banks, Department of the Treasury (Jan. 11, 1985).

272. Exec. Order No. 11,269, *supra* note 264.

273. Bretton Woods Agreement Act of 1945, 22 U.S.C. § 286c (1982, Supp. I 1983); Inter-American Development Bank Act of 1959, 22 U.S.C. § 283c (1982); Asian Development Bank Act of 1966, 22 U.S.C. § 285c (1982); African Development Bank Act of 1981, 22 U.S.C. § 290i-4 (1982). The legislation concerning United States participation in the banks' soft loan windows contains analogous provisions.

274. J. Sanford, *Background Data*, *supra* note 5, at 28.

policy through its direct jurisdiction over the Foreign Assistance Act.<sup>275</sup>

Over the past twenty years, many of the significant policy goals guiding United States participation in the banks have been the result of Executive Branch initiatives, but Congress has also directed the Executive to instruct United States bank directors to promote specific policies and measures. Although Congress has most often enacted such directives by amending the acts authorizing participation in the banks,<sup>276</sup> it has also used the Foreign Assistance Act as a vehicle for directives on bank policy.<sup>277</sup> Often, Congress has simultaneously amended the Foreign Assistance Act and legislation affecting the banks to promote parallel policies at bilateral and multilateral institutions. For example, the Foreign Assistance Act and the bank authorization legislation were both amended in the late 1970's and early 1980's to direct development assistance to the basic human needs of the poor in developing countries.<sup>278</sup> These amendments reflected the reformulation of foreign assistance policy to address the needs of the poor that was embodied in the Foreign Assistance Act of 1973.<sup>279</sup> The Carter Administration's 1977 human

275. *Id.* Other congressional committees can also exercise oversight of bank activities. See, e.g., 1984 *Tropical Development Hearing*, *supra* note 50.

276. See *supra* note 273.

277. See *infra* note 284.

278. In 1978, the Foreign Assistance Act was amended to state that "[b]ilateral assistance and United States participation in multilateral institutions shall emphasize programs in support of countries which pursue development strategies designed to meet basic human needs and achieve self-sustaining growth with equity." 22 U.S.C. § 2151-1(a) (1982). The objectives of U.S. development policy were reformulated into four major goals, the first of which was "the alleviation of the worst physical manifestations of poverty among the world's poor majority." *Id.* § 2151(a)(1). In 1982, the Foreign Assistance Act was amended to direct the President in fiscal year 1983 to attempt to use "not less than 40 percent" of bilateral economic assistance funds "to finance productive facilities, goods, and services which will expeditiously and directly benefit those living in absolute poverty (as determined by the standards for absolute poverty adopted by the International Bank for Reconstruction and Development and the International Development Association)." *Id.* § 2151z.

The International Financial Institutions Act of 1977 directs the United States, through its voice and vote in the banks, to "seek to channel assistance to projects which address basic human needs of the people in the recipient country." International Financial Institutions Act of 1977, § 701(d), 22 U.S.C. § 262d(d) (1982). In 1979, the International Financial Institutions Act was amended to direct the Secretary of the Treasury to consult with the representatives of other member countries of the multilateral development banks

for the purpose of establishing guidelines within each of these institutions which specify that, in a manner consistent with the purposes and charters of these institutions, a specified proportion of annual lending by each institution shall be designed to benefit needy people, primarily by financing sound, efficient, productive, self-sustaining projects designed to benefit needy people in developing countries, thus helping poor people improve their conditions of life.

*Id.* § 262g-2(a). According to the amended act, "needy people" are those living in "absolute" or "relative" poverty as determined by the International Development Association and the World Bank. *Id.* § 262g-2(b).

279. Foreign Assistance Act of 1973, Pub. L. No. 93-189, 87 Stat. 114 (1973); see H.R. REP. NO. 388, 93d Cong., 1st Sess. 2-4, 12-13, 20-21 (1973). See also *Targeting Assistance to the Needy: Hearings Before the Subcomm. on International Development Institutions and Fi-*

rights amendments represented another coordinated policy change in bilateral and multilateral assistance programs.<sup>280</sup> The human rights amendments focused on AID and the State and Defense Departments, but they also directed the United States bank directors to vote against loans to countries with "a pattern of gross violations of internationally recognized human rights" and required the Departments of Treasury and State to submit to Congress annual progress reports concerning bank loans, United States bank voting, and human rights.<sup>281</sup>

Congress has in recent years enacted amendments related to improved environmental management that similarly coordinate bilateral and multilateral assistance policies. The Foreign Assistance Act and the bank authorization legislation were both amended in the late 1970's to encourage greater emphasis on small-scale, "light capital" technologies.<sup>282</sup> The Foreign Assistance Act and bank legislation were also amended in the same period to promote energy conservation and the development of indigenous and renewable energy resources in bilateral and multilateral aid programs.<sup>283</sup>

These examples and others demonstrate that, in recent years, United States bilateral and multilateral development assistance policies have often been changed in tandem to address major development issues.<sup>284</sup>

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*nance of the House Comm. on Banking, Finance and Urban Affairs, 97th Cong., 1st Sess. 38-39 (1981) (statement of Thomas E. Dawson, Deputy Assistant Secretary for Developing Nations, U.S. Department of the Treasury). At this hearing, Deputy Assistant Secretary Dawson noted that amendments in the International Financial Institutions Act of 1977 and "provisions in the bilateral foreign assistance legislation . . . deal with [the banks] and emphasize that assistance should be targeted to help the poor majority of people in developing countries." Id. at 39. For a discussion of the changes in World Bank lending policies that occurred shortly after the shift of focus in United States bilateral assistance policy in 1973, see R. AYRES, supra note 38, at 7-11, 76-91.*

280. For a description of the creation and implementation of the Carter human rights policy focusing on international financial institutions, see C. Rossiter, *Human Rights: The Carter Record, the Reagan Reaction* (Sept. 1984) (published by the Center for International Policy, Washington, D.C.).

281. International Financial Institutions Act of 1977, § 701, 22 U.S.C. § 262d (1982). The United States Executive Directors are instructed to vote against loans for gross violators of human rights unless "such assistance is directed specifically to programs which serve the basic human needs of such country." *Id.*

282. International Development and Food Assistance Act of 1978, § 107 (amending the Foreign Assistance Act of 1961), 22 U.S.C. § 2151e (1982); International Financial Institutions Act of 1977, § 801, 22 U.S.C. § 262f (1982). According to several accounts, the United States succeeded in promoting greater emphasis on light capital and appropriate technologies at the banks. See J. SANFORD, *FOREIGN POLICY*, supra note 4, at 206-07.

283. International Development Cooperation Act of 1979, § 104 (amending Foreign Assistance Act of 1961), 22 U.S.C. § 2151d (1982); Act of June 3, 1980, Pub. L. No. 96-259, 94 Stat. 429 (amending International Financial Institutions Act of 1977), 22 U.S.C. § 262j (1982).

284. For example, the Foreign Assistance Act was amended in 1973 and 1974 to direct the President to promote the integration of women into the national economies of developing nations in the programs of both AID and the banks. Foreign Assistance Act of 1961, § 113, as amended by Foreign Assistance Act of 1973, § 2(3) and International Development and Food

By 1983, however, a major policy anomaly had emerged: since 1976, major amendments to the Foreign Assistance Act had directed AID to place greater emphasis on environmental concerns, and the State Department had promoted several international environmental policy initiatives in cooperation with AID—yet United States policy in the banks continued to ignore important environmental questions.<sup>285</sup>

## V

### THE FORMULATION OF A UNITED STATES ENVIRONMENTAL POLICY FOR THE MULTILATERAL DEVELOPMENT BANKS

In 1983 and 1984, the environmental performance of the banks was an issue in ten congressional hearings held by six different subcommittees.<sup>286</sup> Several of these hearings focused specifically on environmental aspects of bank activities<sup>287</sup> and led to both an extended review by the Treasury Department of environmental aspects of bank activities and the formulation of environmental policy recommendations by the House Banking Subcommittee on International Development Institutions and Finance concerning United States participation in the banks.<sup>288</sup> In September 1984, in special hearings to review these subcommittee recom-

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Assistance Act of 1977, § 108, 22 U.S.C. § 2151k (1982); Foreign Assistance Act of 1961, § 305, as amended by Foreign Assistance Act of 1974 § 54, 22 U.S.C. § 2225 (1982). There is a direct connection between the effect on women of development policies and environmental quality. In India, "women are often the first victims of environmental decay. In the Chipko areas, for example, it is women who have to tend their households in the absence of their migrant husbands, and collect firewood for up to two hours every day. Lack of sanitation and toilet facilities also plague women far more than men, as do smoky wood or coal cooking fires." D'Monte, *India's Environment: Pollution and Poverty*, 13 *AMBIO* 272, 273 (1984).

285. See generally DEP'T OF THE TREASURY, *supra* note 40, at 47-52, 66-75.

286. 1983 *Environmental Hearings*, *supra* note 50; 1984 *Health Hearing*, *supra* note 50; 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50; 1984 *Tropical Development Hearing*, *supra* note 50; 3 *Foreign Assistance and Related Programs Appropriations for 1984: Hearings Before the Subcomm. on Foreign Operations and Related Agencies of the House Comm. on Appropriations*, 98th Cong., 1st Sess. 469-93, 562-77 (1983) (statements of Bruce M. Rich and Brent Blackwelder); 1 *Foreign Assistance and Related Programs Appropriations for Fiscal Year 1985: Hearings Before the Subcomm. on Foreign Assistance and Related Programs of the Senate Comm. on Appropriations*, 98th Cong., 2d Sess. 889-951, 1121-24 (1984) (statements of Bruce M. Rich and Brent Blackwelder) [hereinafter cited as 1985 *Appropriations Hearings*]; *Security and Development Assistance: Hearings Before the Senate Comm. on Foreign Relations on S. 2346, S. 2347, S. 2321, S. 2416*, 98th Cong., 2d Sess. 1427-68 (1984) (statement of Bruce M. Rich) [hereinafter cited as 1984 *Senate Development Assistance Hearings*]; *U.S. International Environmental Policy: Hearings Before the Subcomm. on Human Rights and International Organizations of the House Comm. on Foreign Affairs*, 98th Cong., 2d Sess. 105-13 (1984) (statement of Jerry Patterson, Chair, House Banking Subcommittee on International Development Institutions and Finance).

287. 1983 *Environmental Hearings*, *supra* note 50; 1984 *Health Hearing*, *supra* note 50; 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50; 1984 *Tropical Development Hearing*, *supra* note 50.

288. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 4-9. See also *infra* note 296.

mendations, a Treasury Department representative stated that the Administration agreed with the substance of the recommendations and stood ready to implement them.<sup>289</sup>

The advocacy and lobbying of a number of national environmental organizations was a key factor in prompting the congressional and Treasury Department initiatives.<sup>290</sup> At hearings held in June 1983 by the House Banking Subcommittee on International Development Institutions and Finance, representatives of environmental and human rights groups testified about the adverse impacts of bank projects on the environment and on tribal peoples.<sup>291</sup> Representatives of the Environmental Policy Institute and the National Wildlife Federation reviewed many bank projects, mainly in the energy and agriculture sectors, that have had serious adverse effects.<sup>292</sup> The author, representing the Natural Resources Defense Council and five other national environmental organizations, emphasized that the banks have gravely inadequate environmental staffing and review procedures.<sup>293</sup> An anthropologist who had been hired by the World Bank as a consultant on the Polonoroeste project denounced the Bank's involvement in Polonoroeste, telling the Subcommittee that "[my] experience as a consultant to The World Bank has led me to question the sincerity of that institution's commitment to safeguard the welfare of people affected by the projects it supports."<sup>294</sup>

289. *1984 Draft Environmental Recommendations Hearings*, *supra* note 50, at 11, 14 (statement of James W. Conrow, Deputy Assistant Secretary for Developing Nations, Department of the Treasury).

290. See, e.g., *NRDC Spurs World Bank to Action on Environment*, NRDC Newslines (Spring 1984); *New Environmental Goals for World Bank*, NRDC Newslines (Winter 1984).

The initiatives began in April 1983, when the Natural Resources Defense Council and six other national environmental organizations submitted to several members of Congress a proposed amendment to the banks' authorization legislation which would have directed the United States bank directors to promote better environmental procedures and increased environmental staffing within the banks, and to vote against certain kinds of ecologically destructive projects. Letter from Bruce M. Rich, Thomas Stoel, Jr., Brent Blackwelder, Jay Hair, James Tripp, Pat Scharlin, Liz Raisbeck, and Brock Evans, to Rep. Mike Lowry (Apr. 15, 1983). Many of the recommendations in this original letter and proposed amendment, drafted by the Natural Resources Defense Council, with assistance from the Environmental Policy Institute and National Wildlife Federation, were eventually incorporated in the environmental recommendations concerning bank activities of the Subcommittee on International Development Institutions and Finance. See *1984 Draft Environmental Recommendations Hearings*, *supra* note 50, at 4-9.

Representative Mike Lowry moved to introduce the amendment in hearings before the House Banking Subcommittee on International Development Institutions and Finance, and, in exchange for Rep. Lowry's withdrawing the amendment, the Subcommittee's Chair, Rep. Jerry Patterson, promised to hold hearings. Interview with Mark Constantine, Staff Member, Subcommittee on International Development Institutions and Finance (Apr. 1984); letter from Rep. Mike Lowry to Robert Barnes (Apr. 17, 1984).

291. *1983 Environmental Hearings*, *supra* note 50. See Section II of this article for a detailed review of some of the impacts discussed at the hearings.

292. *Id.* at 35-51, 86-114 (statements of Brent Blackwelder and Barbara J. Bramble).

293. *Id.* at 51-85 (statement of Bruce M. Rich).

294. *1983 Environmental Hearings*, *supra* note 50, at 480 (statement of David Price, Cul-

After one day of hearings, the Subcommittee resolved to forward the witnesses' testimony to the banks through the Treasury Department and the United States bank directors for responses to the questions raised by the hearings.<sup>295</sup> Treasury undertook an investigation into the environmental policies and procedures of three of the banks, sending staff from the Office of Multilateral Development Banks to conduct oral inquiries at the World Bank and the Inter-American Bank, and transmitting an extensive questionnaire to the Manila-based Asian Bank.<sup>296</sup>

In January 1984, Treasury forwarded the banks' responses to the House Banking Subcommittee on International Development Institutions and Finance.<sup>297</sup> The responses totaled over 1000 pages and were the most extensive documentation ever produced by the banks on the ways in which they incorporate environmental concerns into their projects.<sup>298</sup> The banks' official responses, however, often failed to address the issues central to the Subcommittee testimony. For example, several witnesses had contended that the World Bank's Office of Environmental Affairs,<sup>299</sup> which in 1983 had five professional employees including only one professionally trained ecologist, could not possibly perform the environmental tasks assigned to it.<sup>300</sup> The Bank responded only that "the World Bank, with its Office of Environmental Affairs, is the oldest, largest, and most experienced institution dealing with these

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tural Survival, Inc.; anthropologist, Cornell University; former project consultant, World Bank). Price vigorously denounced the Bank for funding Polonoroeste "even though it was a high risk, even though there was insufficient information, and even though it would appear that the agencies that are to implement it have not demonstrated competence." *Id.* at 478. He accused the Bank of systematically distorting his findings in project planning documents to filter out conclusions that cast negative aspersions on the project. Among the examples he cited is the following: "I included in my report an allegation that one of the top men in FUNAI [the Brazilian Indian protection agency] had been positively identified as a former political torturer. In response, the World Bank suggests that the FUNAI needs to improve its image." *Id.* at 486-87.

295. *Id.* at 118.

296. Interview with Robert Banque, Office of Multilateral Development Banks, Department of the Treasury (Dec. 1984). The Treasury Department did not investigate the African Development Bank's policies and procedures because Treasury staff believed it would not be fruitful to pose detailed questions at that time to the African bank, the smallest and most recently formed bank. *Id.* The Treasury Department inquiry was the basis of a March 10, 1984 response to a letter sent by Rep. Mike Lowry to the Department requesting detailed information on the environmental procedures, staffing, and policies of the banks. Letter from Rep. Mike Lowry to Hon. Marc Leland, Assistant Secretary of the Treasury for International Affairs (July 14, 1983).

297. World Bank Response, *supra* note 86; IDB Response, *supra* note 77; ADB Response, *supra* note 82.

298. World Bank Response, *supra* note 86; IDB Response, *supra* note 77; ADB Response, *supra* note 82.

299. Now known as the Office of Environmental and Scientific Affairs.

300. 1983 *Environmental Hearings*, *supra* note 50, at 29, 50, 62-74 (statements of John Horberry, Bruce M. Rich, and Brent Blackwelder).

issues . . . ."<sup>301</sup>

In response to allegations that the Bank had no procedures or regulations to ensure adherence to the environmental guidelines prepared by its Office of Environmental Affairs,<sup>302</sup> the Bank asserted:

The World Bank has prepared the largest and most comprehensive series of guidelines of any of the development assistance agencies. These guidelines are regularly reviewed, and are updated and expanded as warranted. Many of them are available in French, Spanish, and English. They are widely used by other development organizations throughout the world. Their systematic use and rigorous enforcement *would* be adequate to ensure that most development projects would not incur serious environmental, health, or sociocultural consequences.<sup>303</sup>

The response of the Inter-American Bank included unsubstantiated, broad statements. For example, the Bank asserted that it "systematically integrates environmental considerations into the various stages of a project cycle, beginning with the Bank's expert missions to its borrowing member countries"<sup>304</sup> and that "[t]here is no evidence that the incidence of water-borne diseases such as schistosomiasis, river blindness or malaria has increased as a result of any project financed by the [Bank]."<sup>305</sup>

While Treasury and the House Banking Subcommittee on International Development Institutions and Finance were reviewing the banks' responses, representatives of environmental organizations testified before two Senate subcommittees concerning United States funding of the World Bank's soft loan window, the International Development Association.<sup>306</sup> The environmental groups supported increased funding for soft loans, but cautioned that inadequate attention to environmental planning and conservation was undermining the development goals of the World Bank.<sup>307</sup> The Senate Appropriations Committee agreed with the environmental groups in a strongly worded report accompanying the 1985 Foreign Assistance and Related Programs Appropriation Bill.<sup>308</sup>

During its fiscal year budgetary hearings, the Committee received testi-

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301. World Bank Response, *supra* note 86, at 2.

302. 1983 *Environmental Hearings*, *supra* note 50, at 33-34, 62-72 (statements of John Horberry and Bruce M. Rich).

303. World Bank Response, *supra* note 86, at 3 (emphasis added).

304. IDB Response, *supra* note 77, at 2.

305. *Id.* at 6. *But see* Hunter, Rey & Scott, *supra* note 143.

306. 1985 *Appropriations Hearings*, *supra* note 286; 1984 *Senate Development Assistance Hearings*, *supra* note 286, at 1427-68 (statement of Bruce M. Rich). Because several national environmental groups were supporting congressional funding of the World Bank, Bank President A.W. Clausen met with representatives of the groups and population planning advocates before the hearings. The Bank requested a series of follow-up meetings between environmental representatives and the Bank's Vice-Presidents to allow environmental groups to hear the Bank's explanation of the ways in which it incorporated environmental concerns in its projects.

307. 1985 *Appropriations Hearings*, *supra* note 286, at 902-05, 905-27, 1121-23 (statements of Bruce M. Rich and National Wildlife Federation).

308. S. 2793, 98th Cong., 2d Sess. (1984).

mony from representatives of . . . [eight environmental organizations] expressing concern over the lack of environmental consideration given by the World Bank in the formulation of its projects. The Committee agrees with that testimony, and directs the Treasury to press the issue of the environment by encouraging more environmental professionals to be employed by the Bank so that its projects are adequately reviewed with the environment in mind. The Committee directs the Department of the Treasury to provide it with a report on this matter, detailing the action it has taken complying with this directive, no later than March 1, 1985.<sup>309</sup>

In March 1984, the Subcommittee on International Development Institutions and Finance held a third hearing on banks and the environment, focusing on the public health impacts of bank-financed projects.<sup>310</sup> The Treasury Department's representative commented that

[t]he subcommittee is contributing measurably to strengthening the [bank] lending programs through this series of oversight hearings. As a result of your hearings last June and the subcommittee's subsequent request for comments from the [banks], a large number of staff members in the banks have had their attention drawn to the public scrutiny that the environmental aspects of [bank] lending programs are receiving in this country.<sup>311</sup>

The Treasury Department concluded with this statement: "For all projects, the [banks] have policies to review proposals for environmental effects, including health matters. However, the documentation of such reviews which is available to the Treasury Department is spotty."<sup>312</sup>

In September 1984, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment turned its attention to the environmental aspects of bank activities. The Subcommittee held a hearing to review the status of development projects in tropical forests, especially those in Latin America.<sup>313</sup> Witnesses from Brazil, Panama, the United States Congress Office of Technology Assessment,<sup>314</sup> and a variety of environmental groups testified about the environmentally disastrous consequences of the Polonoroeste project.<sup>315</sup> As a result, the chair of the Subcommittee sent a detailed letter to the Secretary of the Treasury, requesting that the Treasury Department obtain a response from the World Bank concerning a number

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309. S. REP. NO. 2, 98th Cong., 2d Sess. 30 (1984).

310. 1984 *Health Hearing*, *supra* note 50, at 72-98 (statement of Robert F. Wasserstrom).

311. *Id.* at 2 (statement of James C. Conrow).

312. *Id.* at 26 (Information Submitted for the Record of the Subcommittee by the Department of the Treasury).

313. 1984 *Tropical Development Hearing*, *supra* note 50.

314. The witness from the Office of Technology Assessment (OTA) reviewed the findings of the 1984 OTA study *Technologies to Sustain Tropical Forest Resources*, including recommendations urging that multilateral institutions pay greater attention to environmental issues associated with tropical forests. 1984 *Tropical Development Hearing*, *supra* note 50, at 57-72 (statement of Walter Parham). *See supra* note 250.

315. *See supra* notes 88-102 and accompanying text.

of specific urgent actions that witnesses at the hearings suggested the Bank could take to mitigate Polonoroeste's ill effects.<sup>316</sup>

Also in September 1984, the House Banking Subcommittee on International Development Institutions and Finance held hearings<sup>317</sup> to review a series of draft recommendations regarding environmental concerns associated with multilateral bank activity prepared by Subcommittee staff in consultation with national environmental groups.<sup>318</sup> The Subcommittee chair made clear at the outset that the purpose of the hearing was to receive further suggestions from the eight witnesses, that the Subcommittee's final recommendations would be sent to the Treasury and each of the multilateral development banks for which Congress authorizes funding, and that "if we see recommendations that appear sound, but have not been followed, we will consider writing them into law and will frown on funding requests from institutions which seem not to be trying to move forward in this area."<sup>319</sup> Some of the recommendations were directed to the Treasury Department, and others to the banks themselves.<sup>320</sup> Although the Subcommittee has no direct legal authority over the banks, the Subcommittee chair recognized that "[o]ne advantage of making recommendations rather than laws is that we can [also] take our case directly to the bank bureaucracies."<sup>321</sup>

The sixteen draft recommendations were divided into seven topic areas: the role of the Treasury Department, bank staffing, training programs, encouragement of recipient country action, implementation of appropriate technology, guidance for the United States bank directors, and the Treasury Department's accountability to Congress.<sup>322</sup>

The first two draft recommendations called upon the Treasury De-

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316. Letter from James Scheuer, Chair, House Science and Technology Committee Subcommittee on Natural Resources, Agriculture Research and Environment, to Donald T. Regan, Secretary of the Treasury (Oct. 15, 1984). The letter stated:

As a result of testimony received at that hearing, I am writing to express my deep concern over the progress and impact of Brazil's Integrated Development Program for the Northwest Region (the "Polonoroeste" project), for which the World Bank has loaned the government of Brazil nearly \$500 million. While the World Bank's participation in this agricultural development project was intended to help control and consolidate spontaneous migration into the rain forest regions of Rondônia and Mato Grosso in northwest Brazil, testimony at the hearing indicated that the project is in fact contributing to increased uncontrolled migration and accompanying deforestation.

*Id.* at 1.

317. 1984 Draft Environmental Recommendations Hearings, *supra* note 50.

318. See letter from Jerry Patterson, Chair, House Banking Subcommittee on International Development Institutions and Finance, to Bruce M. Rich (Sept. 4, 1984); letter from Jan Shinpoch, Staff Director, Subcommittee on International Development Institutions and Finance, to Bruce M. Rich (June 6, 1984).

319. 1984 Draft Environmental Recommendations Hearings, *supra* note 50, at 1-2.

320. *Id.* at 2.

321. *Id.*

322. *Id.* at 4-9 (Draft Recommendations Regarding Environmental Concerns Associated with Multilateral Development Bank Activity).

partment to add an environmentally oriented member to the Working Group on Multilateral Assistance and to establish a permanent environmental staff position in the Office of Multilateral Development Banks.<sup>323</sup> The new Working Group member was to be chosen from either the Council on Environmental Quality or the State Department's Bureau of Oceans and International Environmental and Scientific Affairs. Both recommendations sought to institutionalize consideration of environmental issues in the review of bank policies and loan proposals.<sup>324</sup>

Recommendations three and four called upon the Inter-American and African Banks to each establish the position of environmental coordinator. Recommendation five called upon the World Bank to establish a staff position with environmental responsibilities in each of its six regional offices.<sup>325</sup> Implementing these three recommendations would be a first step toward remedying the environmental understaffing documented by several witnesses during the June 1983 environmental hearings of the House Banking Subcommittee on International Development Institutions and Finance. In particular, creation of environmental staff positions in the World Bank's regional offices<sup>326</sup> would install a liaison in each region through which the Bank could review projects at an earlier stage and generate environmentally oriented projects.

Recommendation six suggested that the World Bank's Economic Development Institute be expanded to include training in environmental and natural resource planning and program development. Recommendation seven urged the Committee of International Development Institutions on the Environment<sup>327</sup> to obtain support from its member multilateral institutions, including the banks, for an environmental component of the Economic Development Institute, whose services would then be available to the Committee members.<sup>328</sup> Recommendations eight and nine urged the banks to support nongovernmental conservation organizations in host countries, to involve them actively in the policy and planning activities of the banks, and to obtain their services early in the project cycle in increasing local participation in bank-funded projects.<sup>329</sup> These recommendations noted that "[l]ocal and home country organiza-

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323. *Id.* at 4-5.

324. *Id.*

325. *Id.* at 5-6.

326. The Bank's six regions are: Eastern Africa; Western Africa; East Asia and Pacific; South Asia; Europe, the Middle East, and North Africa; and Latin America and the Caribbean.

327. *See supra* note 170 and accompanying text.

328. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 6. The Economic Development Institute is an entity within the bank that conducts seminars and training courses for senior officials of developing countries, including officials of ministries of finance and planning, agencies dealing with various sectors of development, and central banks and development finance institutions. WORLD BANK 1983, *supra* note 28, at 44.

329. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 6-7.

tions are usually much more effective than outside international entities in accomplishing substantive correction of environmental problems. They are often in a [better] position to provide training and information suited to the local situations than are development institutions."<sup>330</sup> Recommendation ten urged the banks to involve environmental and public health ministries at an early stage of the policy dialogue and planning missions that the banks regularly send to many of their member countries.<sup>331</sup>

Recommendation eleven urged the United States bank directors to promote the development and utilization of appropriate "light capital" technologies.<sup>332</sup> Recommendation twelve urged the banks to incorporate the World Conservation Strategy into their programs and suggested that when programs deviate from the Strategy's principles, "documentation should be provided justifying the need for deviation."<sup>333</sup> Recommendation thirteen urged the banks to implement the provisions of the 1980 New York Declaration,<sup>334</sup> noting that "there is no clear evidence that the Declaration is actually being used by any of the banks."<sup>335</sup>

Recommendation fourteen urged the United States bank directors to vote against any projects that would result in unacceptable environmental damage, such as those involving unsustainable resource exploitation, species extinction, pesticide misuse, or degradation of protected natural areas or the resource base of indigenous peoples.<sup>336</sup> Recommendation fifteen exhorted the United States directors to "exert a leadership role in each of the multilateral lending institutions to promote a strong and effective environmental program."<sup>337</sup> Recommendation sixteen called upon the Treasury Department to provide annual reports on the banks' progress in implementing the recommendations, starting in March 1985.<sup>338</sup>

These sixteen recommendations represented a policy milestone in United States participation in the banks because they addressed environmental issues in a comprehensive fashion and reflected the criticisms and suggestions offered by environmental groups.<sup>339</sup> More importantly, they

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330. *Id.* at 7.

331. *Id.*

332. 22 U.S.C. § 262f (1982). *See supra* note 282 and accompanying text.

333. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 8.

334. *See supra* note 169 and accompanying text.

335. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 8.

336. *Id.* at 9.

337. *Id.*

338. *Id.*

339. *See, e.g.,* 1983 *Environmental Hearings*, *supra* note 50, at 50, 79-84, 109-14 (statements of Bruce M. Rich and Barbara J. Bramble); 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 144-45, 147, 152, 158, 204-05, 215 (statements of Bruce M. Rich, Brent Blackwelder, and Barbara J. Bramble). *See also* letter from Jan Shinpoch to Bruce M. Rich, *supra* note 318, and letter from Jerry Patterson to Bruce M. Rich, *supra* note 318.

marked the beginning of a bipartisan policy in Congress and the Administration toward the banks and the environment.

In reviewing the events that led to Treasury's substantive endorsement of the recommendations, James Conrow, Deputy Assistant Secretary of the Treasury for Developing Nations, told the Subcommittee:

In appearing before you in June, 1983, I could honestly say that I was unaware of particular problems in these [environmental] aspects of the MDB programs.

The presentations of the other witnesses at the hearings were, frankly, surprising and distressing. When we had an opportunity afterward to cross-check the information presented to the committee, we found substantial corroboration of the information presented by most of the witnesses. However, much of the information—but not all—concerned projects designed and implemented in the 1960's and early 1970's

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With some additional elaborations . . . the Treasury Department finds the recommendations acceptable. I believe they can be the basis for an ongoing U.S. policy approach to this [environmental] aspect of the [bank] programs . . . .

....

What struck me in listening to the hearings and going over the testimony from the various witnesses that we received is [that] there is a strong economic argument to be made, not only environmentally but an economic argument to take into account environmental concerns early in project development.<sup>340</sup>

The Treasury Department did, however, express reservations about recommendation sixteen, the reporting requirement. Deputy Assistant Secretary Conrow stated that reporting would be an unnecessary drain on staff time and resources because he had "demonstrated the Treasury Department's readiness to be held accountable to the Committee with regard to environmental concerns."<sup>341</sup>

Following the hearings to review the draft recommendations, the House Banking Subcommittee on International Development Institutions and Finance prepared final recommendations, incorporating several more suggestions made by witnesses.<sup>342</sup> Deadlines were established for the implementation of recommendations one through six; the latest deadline is the end of 1985.<sup>343</sup> Draft recommendations eight and nine were changed to expand the definition of nongovernmental groups with which the banks should work more closely to include indigenous peoples' orga-

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340. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 11, 23.

341. *Id.* at 19 (statement of James W. Conrow).

342. HOUSE BANKING SUBCOMM. ON INT'L DEV. INSTS. & FINANCE OF THE COMM. ON BANKING, FINANCE, AND URBAN AFFAIRS, 98TH CONG., 2D SESS., RECOMMENDATIONS: MULTILATERAL DEVELOPMENT BANK ACTIVITY AND THE ENVIRONMENT (Comm. Print 1984) [hereinafter cited as FINAL RECOMMENDATIONS].

343. *Id.* at 2-5.

nizations.<sup>344</sup> A new recommendation was added stating that "[t]he development banks should increase their commitment to environmentally beneficial projects and resource rehabilitation projects and, where useful, assure [that] a percentage of banks' budgets be identified specifically for such projects."<sup>345</sup> Another new recommendation was added calling for the Office of Technology Assessment to undertake a six-month study of the environmental policies of the multilateral development banks to be available by June 1985.<sup>346</sup>

The Subcommittee members signed the final recommendations in December 1984.<sup>347</sup> It is too early to predict the ultimate success of the recommendations, but several factors suggest that the banks will eventually implement them in some form. First, the recommendations require no official policy shift by the banks; they are instead measures for carrying out policies to which the banks are already publicly committed. Second, the various actors in the United States that influence bank policy—the Treasury and State Departments, AID, and Congress—agree with the recommendations and are committed to their promotion. Third, conservation and indigenous peoples' rights groups will continue as advocates to ensure that the environmental aspects of bank activities remain in the public eye.

The 1982 Treasury Department study of United States participation in the banks identified three requisite factors that contributed to the success of previous United States bank policy initiatives. They were (1) high-level and unambiguous United States commitment to well-defined objectives, (2) congressional support, and (3) support for the United States effort either from the banks' management or from other major donors.<sup>348</sup> The final recommendations of the House Banking Subcommittee on International Development Institutions and Finance meet the first two of these criteria for success. The extent of the support from bank

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344. *Id.* at 6-7. The representative of the Treasury Department endorsed the recommendation wholeheartedly:

What strikes me about that point, Mr. Chairman, is that this gets to the heart of not only the environmental issues but broader economic development issues in the banks, as well. When projects are put together, initially they come from the Bank staff itself or they come from a ministry within governments themselves.

More times than not, the local indigenous populations in the particular regions affected are the last to find out that a project is being proposed for their locale. . . .

I think any effort we can do to encourage wider involvement of populations within countries to the development efforts that are occurring in their country is to everyone's advantage and everyone's betterment. . . . I have seen historically the drawbacks that have occurred not only in terms of environmental issues but in terms of basic economic development.

1984 *Draft Environmental Recommendations Hearings*, *supra* note 50, at 20-21.

345. FINAL RECOMMENDATIONS, *supra* note 342, at 8.

346. *Id.* at 11.

347. Interview with Mark Constantine, staff member, House Banking Subcommittee on International Development Institutions and Finance (Jan. 1984).

348. DEP'T OF THE TREASURY, *supra* note 40, at 62-63.

management or other major donors, however, is questionable. Bank management's commitment to the implementation of environmental policies has been suspect in the past, and environmental concerns have not been a major policy issue for any other major bank donor.<sup>349</sup> On the other hand, neither bank management nor other major donors appear to object to increased attention to environmental issues.

By January 1985, there were indications that the Executive Branch had begun implementing the Subcommittee's recommendations. The Treasury Department already had a staff member working more than half-time on reviewing the environmental aspects of bank activities.<sup>350</sup> The State Department had assigned a staff member of its Bureau of Oceans and International Environmental and Scientific Affairs to assist Treasury in this task.<sup>351</sup> Representatives of the Departments of Treasury and State and conservation and indigenous peoples' rights groups had met several times to discuss specific bank loan proposals.<sup>352</sup>

In January 1985, a proposed Inter-American Bank loan of seventy-three million dollars to pave a road in the Northwest Brazilian Amazon<sup>353</sup> became the subject of extensive consultations among nongovernmental groups, Treasury's Office of Multilateral Development Banks, the Bureau of Oceans and International Environmental and Scientific Affairs, and the senior management of the Inter-American Bank.<sup>354</sup> The road was to be an extension of the highway that was the main component of the controversial World Bank Polonoroeste project.<sup>355</sup> After consultation with Treasury, the United States director of the Inter-American Bank expressed serious concern about the project's possible impacts on the environment and on the region's indigenous inhabitants.<sup>356</sup> His position won the support of two other directors.<sup>357</sup>

During the next two weeks, consideration of the loan by the Bank's board was delayed while the Treasury and State Departments negotiated directly with their Brazilian counterparts in an attempt to redesign the project to include more stringent protection of the environment and In-

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349. Interview with Robert Banque, Office of Multilateral Development Banks, U.S. Dep't of the Treasury (Dec. 1984).

350. *1984 Draft Environmental Recommendations Hearings*, *supra* note 50, at 16 (statement of James W. Conrow).

351. Interview with Bill Long, Bureau of Oceans and International Environment and Scientific Affairs, Department of State (Jan. 4, 1985).

352. *Id.*

353. Interview with Norman M. Jones, Manager, Operations Department, and Jerome I. Levinson, General Counsel, Inter-American Development Bank (Jan. 2, 1985).

354. *Id.* On January 2, 1985, the Inter-American Bank sponsored a special briefing on the project for representatives of environmental and indigenous peoples' rights groups.

355. *Id.*

356. Interview with Robert Banque, Office of Multilateral Development Banks, U.S. Dep't of the Treasury (Jan. 14, 1985).

357. *Id.*

dian lands.<sup>358</sup> These efforts failed, and the loan went before the board for a vote in late January 1985. The United States director abstained on environmental grounds, vetoing the use of \$14.5 million that were to have come from the Bank's soft loan window.<sup>359</sup> This was the first time that the United States had opposed a loan on environmental grounds. It was also the first time in the twenty-six year history of the Inter-American Bank that the United States had not voted in support of a loan to Brazil.<sup>360</sup> The Secretary of the Treasury personally decided how the United States director would vote.<sup>361</sup> The unprecedented high-level consideration of the loan and the abstention itself are both promising indications of the Executive Branch's commitment to following the congressional recommendations.

## VI

### CONCLUSION: THE NEED FOR A FREER FLOW OF INFORMATION AND FOR A NEW DEVELOPMENT MODEL

The congressional recommendations concerning bank activity and the environment were the response of the banks' most powerful donor nation to evidence that inattention to environmental concerns has undermined development projects. The recommendations are a critical first step towards improving the banks' environmental performance. More profound change clearly is needed, however, both in the operation of the banks and in the model of development they promote. Otherwise, the future generations of the developing world are likely to inherit a decimated resource base.

The disparity between official bank pronouncements on environmental policy and the environmental effects of specific projects raises questions about not only the sincerity of the banks' commitment to the environment, but also their ability to learn from errors, to disseminate new information to their staffs, and to incorporate innovations into project planning. The banks are centralized, hierarchical institutions; over ninety percent of each bank's staff works at its central headquarters, and contact with developing countries is generally limited to brief visits.<sup>362</sup> As a result, the banks tend to be reactive, rather than innovative. In the past fifteen years, the World Bank has responded to most new develop-

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358. *Id.*

359. *Id.*; letter from James W. Conrow, Deputy Assistant Secretary of the Treasury for Developing Nations, to Bruce M. Rich (Feb. 21, 1985). This letter states that "[t]he basis for our abstention was that the negative economic consequences associated with the environmental dimensions of the project were just too adverse to justify the loan proposal." *Id.*

360. Interview with Robert Banque, *supra* note 356.

361. *Id.*

362. For a discussion of the centralized organization of the World Bank, see A. VAN DE LAAR, *supra* note 17, at 215, 237, 241-42; R. AYRES, *supra* note 38, at 64-67.

ment issues only in response to strong and sustained outside pressure, mainly from the United States.<sup>363</sup>

The present structure of the banks inhibits the generation and flow of information. The internal inhibitions are compounded when the banks withhold guidelines and detailed information on specific projects from the public and national legislatures in member countries. Public discussion of projects prompts the banks to defend their specific plans. Such criticism should be seen instead as an opportunity for dialogue and the development of useful ideas.<sup>364</sup> A less centralized and hierarchical structure that would allow greater public access to information would improve the banks' ability to respond to ecological concerns.<sup>365</sup> A former World Bank staff member maintains that organizational theory provides a better model for institutions such as the banks, a model which would stimulate innovation and increase access to information. This model

is decentralized, with superior-subordinate demarcations blurred, access to superiors easy, and considerable responsibility assumed by subordinates.

Whether an organization is flexible and in fact can learn from its collective experience depends not so much on the quality of the individuals who staff it as on the organization itself. The individual will not be good at development, no matter what his training, unless the organization is set up in a way that requires learning as an output.<sup>366</sup>

Review of the environmental aspects of bank activities also calls into question the ecological soundness and sustainability of the development model promoted by the banks.<sup>367</sup> Bank projects are designed and appraised largely according to modified neoclassical economic theory.<sup>368</sup> To be approved, a project must have a favorable rate of return based on calculations supported by quantitative data.<sup>369</sup> Bank economists evaluate projects through cost-benefit analysis and by discounting future economic returns to present value.<sup>370</sup> Within this framework, development

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363. A. VAN DE LAAR, *supra* note 17, at 213.

364. *Id.* at x.

365. The multilateral bank environmental recommendations do address some aspects of the generation and free flow of information, especially those recommendations calling for the participation of conservation and indigenous peoples' organizations and environmental and public health ministries in project design and implementation. Final Recommendations, *supra* note 342, at 6-8 (recommendations 8-11).

366. A. VAN DE LAAR, *supra* note 17, at 215 (footnotes omitted).

367. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 50 at 63-64 (statement of Robert Repetto, Senior Associate and Project Engineer, World Resources Institute).

368. For a discussion of the project appraisal criteria of the World Bank, see B. HURNI, *supra* note 39, at 39, 45, 67-79.

369. In theory, World Bank projects, as well as those of the other banks, must yield a rate of return of over 10%. *Id.* at 39.

370. Traditional financial cost-benefit analysis has been supplemented in recent years by social cost-benefit analysis which attempts to assess the overall value of a project to society:

is seen as the process of increasing a country's gross national product by promoting the export of commodities that can be produced at a comparative advantage due to natural or historical conditions.<sup>371</sup>

Economists themselves have acknowledged the inability of economics to quantify environmental "externalities" into this formula for planning. They have also acknowledged the inadequacy of discounting future returns to present value when management of nonrenewable natural resources is at issue.<sup>372</sup> And yet, even though the World Bank pioneered the development and use of economic analysis in education and public health projects, whose effects are also difficult to quantify, it retains the conventional, flawed model of analysis for natural and environmental resources.<sup>373</sup>

At the September 1984 hearings on the Draft Recommendations on the Multilateral Banks and the Environment, a former World Bank economist observed that

[c]urrent analyses of projects, sectoral strategies and country programs [in the banks] omit significant costs and benefits that are not reflected in market transactions. The costs of such activities as forest clearing, intensive pesticide use, industrial pollution and fossil energy conversion are significantly understated. Therefore, alternatives and opportunities to mitigate these costs are undervalued. The benefits of watersheds and wetlands, forests and biological diversity are not included in economic calculations, and so the economic returns from protecting them are underestimated.<sup>374</sup>

The dramatic underestimation of the true environmental and social costs of a development project compared with its economic benefit is well illustrated in the case of bank-financed tobacco projects.<sup>375</sup> If the enor-

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This can be done in two ways: by assessing the value of a project on the basis of "efficiency prices" (mostly corresponding to market prices), or by applying distributive weights and using "shadow prices." Both methods measure the economic rate of return of a project, i.e., its rate of return to the society as a whole and not only its purely financial "profits" to the creditor. The rationale for shadow pricing assumes that, in less developed countries (LDCs), price distortions are such that the usual cost benefit analysis cannot take into account the true social costs and benefits of a project or its income distribution effects.

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It must be understood that a sound basis for investment through a positive financial rate of return is a *conditio sine qua non* of the yes/no decision [to approve a project] and the social cost-benefit analysis mainly influences the choice of components [in project design].

B. HÜRN, *supra* note 39 at 68, 71.

371. For example, of the 13 agriculture projects approved by the World Bank for Sub-Saharan Africa in 1984, at least 9 promoted the production of export cash crops such as cotton, cocoa, and coffee. WORLD BANK 1984, *supra* note 14, at 119-30.

372. See, e.g., Clark, *The Economics of Overexploitation*, 181 SCI. 634 (1974).

373. 1984 Draft Environmental Recommendations Hearings, *supra* note 50, at 63-64 (statement of Robert Repetto).

374. *Id.* at 63-65.

375. See Tobacco Financing Report, *supra* note 119; P. TAYLOR, *supra* note 119, at 243, 246.

mous long-term public health and environmental costs of tobacco use were to be quantified and factored into investment analysis, the banks would no longer find tobacco projects an attractive investment. The World Health Organization has reported that the developing world is on the brink of an epidemic of smoking-related illness and death.<sup>376</sup> A decade ago, it had already concluded that "the control of cigarette smoking could do more to improve health and prolong life in these countries than any single action in the whole field of preventive medicine."<sup>377</sup> The energy costs and deforestation required for wood-curing alone make bank tobacco investments hard to justify. Moreover, tobacco, more than most other commercial crops, depletes soil nutrients rapidly and requires significant applications of pesticides and herbicides.<sup>378</sup>

The opportunity costs of tobacco production should also be calculated in evaluating bank investments in tobacco projects. Land and labor that could be used for domestic food production are diverted to tobacco farming. The nutritional condition of the poor will likely decline if re-orienting agriculture to cash crop production increases prices for food staples.<sup>379</sup> In addition, when poor people in developing countries purchase cigarettes, they consequently spend less for vital purchases such as food, clothing, and shelter.<sup>380</sup>

Efforts by the banks to redefine and expand their economic analysis to include environmental benefits and costs will not alone be sufficient to ensure ecologically sound projects. The difficulties of quantifying environmental costs are considerable because data for the calculation of certain costs do not exist, particularly for developing countries.<sup>381</sup> Moreover, the practice of discounting all future economic benefits to present value results in the systematic undervaluation of environmental benefits because these benefits, unlike immediate economic gains, are typically recognized over the long run.<sup>382</sup> The further inability of cost-benefit analysis to evaluate properly the cost of foreclosing future options and the irreversibility of certain ecological changes is, perhaps, the most significant failure of traditional economic analysis:

Many complex natural habitats (such as tropical rain forests, and coral reefs) and their ecological services are now thought to be basically non-renewable, at least within the life span of human civilizations. Even if no

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376. Tobacco Financing Report, *supra* note 119, at 9-10.

377. *Id.* at 6 (citing World Health Organization, Smoking and Its Effects on Health (1975) (Technical Report No. 568)).

378. *Id.* at 11-12.

379. *Id.* at 10.

380. *Id.*

381. Office of Env'tl. Affairs (now Office of Env'tl. & Sci. Affairs), The World Bank, Development Projects 40 (1983) (draft of forthcoming book by W. Baum & S. Tolbert) [hereinafter cited as Development Projects].

382. *Id.* at 40-41.

known human use or benefit is currently known for the millions of as yet unstudied species and the associated evolutionary processes that exist in the world's wildlands, it is impossible to estimate the value of maintaining representative samples of these systems to preserve the scientific and economic options they guard for the future. This concern is particularly urgent in the tropics where species diversity is greatest, and scientific knowledge is poorest.<sup>383</sup>

Economic analysis also ignores the cumulative impact of gradual environmental changes that can result in discontinuous, catastrophic changes in multispecies ecosystems.<sup>384</sup> A World Bank report notes that "there exists considerable scientific speculation about the more complex biological and economic discontinuities which large-scale habitat alteration and species extinction may entail, but the long-run economic costs are likely to be enormous."<sup>385</sup>

Although economic analysis may someday be able to evaluate such long-term factors, the recognition that current models do not explain even contemporary economic events indicates a need for a major revision of economic theory.<sup>386</sup> Qualitative, descriptive analysis coupled with minimum safe ecological standards in project design would allow the banks to address more adequately the pressing ecological concerns associated with development projects.<sup>387</sup>

Evidence of ecological and economic collapse in Africa<sup>388</sup> and elsewhere underscores the urgency of this need to reevaluate the model of

383. *Id.* at 42.

384. *Id.* Well-documented examples of fisheries collapses already exist. See, e.g., May, Beddington, Clark, Holt & Laws, *Management of Multispecies Fisheries*, 205 SCI. 267 (1977); May, *Thresholds and Breakpoints in Ecosystems with a Multiplicity of Stable States*, 269 NATURE 471 (1977).

385. Development Projects, *supra* note 381, at 42-43 (footnote omitted).

386. See, e.g., Kuttner, *The Poverty of Economics*, THE ATLANTIC, Feb. 1985, at 74; L. THURLOW, DANGEROUS CURRENTS: THE STATE OF ECONOMICS (1983).

387. Development Projects, *supra* note 381, at 46-47. For an indication of how such criteria and standards can be formulated, see World Bank Environmental Policies and Procedures, *supra* note 148.

388. See, e.g., WORLDWATCH INST., *supra* note 2, at 3-6, 21-22; Cowell, *African Famine Battle: Aid Has Been a Villain*, N.Y. Times, Nov. 29, 1984, at A1, col. 1; K. BORGIN & K. CORBETT, THE DESTRUCTION OF A CONTINENT: AFRICA AND INTERNATIONAL AID (1982). A recent study noted that:

[in Africa] what has emerged is a complex situation in which a number of major environmental problems have tended to constrict, and in other ways narrowly define, economic development and at the same time the limited advance in economic growth has exacerbated the residual legacy of environmental problems.

The environmental problems currently faced by the African countries are truly daunting. These include severe climatic conditions, vulnerability to natural disasters whose severity is intensified by present agricultural, pastoral and other practices, . . . persistence of water-borne and environment-related diseases, deteriorating quality of the environment in human settlements, rapid deforestation and absence of environmental management of forest ecosystems, soil degradation and erosion, as well as desertification.

Y. AHMAD, THE STATE OF THE ENVIRONMENT IN AFRICA 3 (1985) (published by ANEN, Environmental Liaison Center, Nairobi, Kenya).

the development that the banks promote. The agriculture sector offers a compelling example of the need for change. Much large-scale ecological deterioration in the developing countries is linked to the wide diffusion of capital-intensive, export-oriented Green Revolution agricultural systems.<sup>389</sup> These systems, promoted by the banks, have caused the dissolution of small-farmer subsistence agriculture and the concentration of land in the hands of fewer owners. As a consequence, farming of ecologically marginal lands, such as tropical forests and fragile, semi-desert areas, has increased. Simultaneously, the productivity of the lands where poorer small farmers remain steadily declines, as "increasing numbers of families try to extract a livelihood from land that is diminishing in area and deteriorating in quality because of the over-use and improper husbandry they are obliged to practice for immediate survival."<sup>390</sup>

In its latest public report on Sub-Saharan Africa, the World Bank identifies the "proliferation of non-viable projects" funded by aid agencies as one of the roots of the region's current crisis, compounding the region's problems of soil erosion, deforestation, and fuel-wood shortages.<sup>391</sup> All the nonviable projects the Bank points to, however, are "white elephants" in the service and industrial sectors, such as hotels, conference centers, cement plants, and oil and sugar refineries.<sup>392</sup> The report is silent on agricultural projects funded by the Bank and other lenders, although agriculture has been the most important sector for Bank lending in the region over the past decade.<sup>393</sup> The report emphasizes that future development assistance in Sub-Saharan Africa must promote greatly increased agricultural exports and the policy reforms to facilitate these exports.<sup>394</sup> It fails to discuss, however, the possible connections between export-oriented agricultural development, ecological deterioration, and decreasing per-capita food production.

Only three months after the Bank's report was released, the Planning Minister of Tanzania stated that a disproportionate amount of Tanzania's financial and human resources had been spent on the production of export crops, when it would have been better used for food production during the first decade after independence.<sup>395</sup> Another recent report on Sub-Saharan Africa, citing a study of the Food and Agriculture Organization of the United Nations, notes that emphasis on cash crops such as coffee, cocoa, cotton, and groundnuts is causing a decrease in the

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389. See S. GEORGE, *ILL FARES THE LAND* 28-41, 50-52, 66-67 (1984).

390. *Id.* at 51.

391. THE WORLD BANK, *TOWARD SUSTAINED DEVELOPMENT IN SUB-SAHARAN AFRICA* 22-24, 32 (1984).

392. *Id.* at 24.

393. WORLD BANK 1984, *supra* note 14, at 80, 86.

394. THE WORLD BANK, *supra* note 391, at 34-36.

395. Kanu & Kamuhanda, *Troubled outlook for African producers*, SOUTH, Jan. 1985, at 43.

percentage of land under cultivation for domestic food production.<sup>396</sup> In fiscal year 1984, the World Bank funded thirteen agricultural projects in Sub-Saharan Africa, nine of which were principally oriented to increasing production of cash crops, rather than food.<sup>397</sup>

Alternatives to the Green Revolution offer farming methods that are labor-intensive, high-yielding in food crops, and beneficial to the soil.<sup>398</sup> Indigenous peoples have developed such systems over hundreds of years of collective experience.<sup>399</sup> These methods include varied uses of plant species, as well as highly complex, labor-intensive indigenous planting patterns and rotations, such as Mayan *chinampas* (raised fields built of organic material and mud and separated by irrigation channels) and other traditional agro-forestry systems around the world which have successfully inter-cropped local trees and plant species.<sup>400</sup> Such systems are several times more productive per hectare than larger, mechanized holdings.<sup>401</sup>

Modest research and pilot projects for using such alternatives are being supported by local governmental research institutions in some developing countries<sup>402</sup> and by some international agencies and nongovernmental agencies.<sup>403</sup> The banks, however, are conspicuous in their lack of attention to more environmentally sustainable agricultural methods. The final congressional recommendations concerning bank activities and the environment encourage the use of alternative technologies, involvement of nongovernmental indigenous peoples' and environmental groups in

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396. Mansah, *Poor yields from new cash crops*, SOUTH, Jan. 1985, at 46.

397. WORLD BANK 1984, *supra* note 14, at 119-30.

398. See, e.g., S. GEORGE, *supra* note 389, at 38, 67; E. MAIER, *LA CHINAMPA TROPICAL: UNA PRIMERA EVALUACION* (1979); Nations & Komer, *supra* note 63; Gómez-Pompa, *An old answer to the future*, 5 MAZINGIRA 50 (1978).

399. See, e.g., Posey, *supra* note 76.

400. For a discussion of chinampas, see, e.g., Gómez-Pompa, *supra* note 397. For a discussion of agro-forestry systems and their possible role in enhancing agricultural productivity and conserving tropical forests, see OFFICE OF TECHNOLOGY ASSESSMENT, *supra* note 250, at 219-20.

401. See, e.g., S. GEORGE, *supra* note 389, at 38.

402. See, e.g., Gómez-Pompa, *supra* note 398; Nations & Komer, *supra* note 63.

403. A model of an alternative development program combining conservation and involvement of indigenous peoples is being supported in Panama by AID, the Inter-American Foundation, the Smithsonian Institution, and the United States World Wildlife Fund. See Breslin & Chapin, *Conservation Kuna-Style*, in 8:2 GRASSROOTS DEV. 26 (1984). The project involves the establishment and management of a forest park and reserve by the Kuna Indian tribe in an area unsuitable for sustained agriculture:

To prevent the destruction of their rainforest territory the San Blas Kuna have begun a series of projects designed to utilize the forest *as forest*, thus demonstrating "use" of the land to outsiders while simultaneously creating jobs, producing income, and protecting both rainforest and Kuna cultural identity. The projects include a forest resource inventory, an agroforestry station, a botanical park . . . and a program of scientific tourism that will allow photographers and researchers to study and enjoy one of Central America's most pristine rainforest areas.

Nations & Komer, *supra* note 63, at 234.

host countries, and support for more environmentally beneficial projects.<sup>404</sup> Nevertheless, much more research and many pilot projects are needed before alternative systems can be widely promoted. The massive financial and intellectual resources of the banks could greatly further such efforts.

One major constraint on bank promotion of alternative technologies is a bias towards large-scale, capital-intensive projects that is built into the banks' operations: the banks do not consider smaller-scale, less expensive projects because doing so does not use their staff time economically.<sup>405</sup> The consequences for borrower countries are economically perverse:

Even conclusive evidence that certain development projects would cost less and have a much greater positive impact on poor local people will not prevent the adoption of their exact opposites. Comparative cost/income calculations showed in 1974, for example, that for oil palm development schemes in Nigeria, if "based on village processing units, growers' family incomes would be approximately 50 per cent higher and over-all investment in transport and facilities 75 per cent lower than in a large scale industrial scheme." The World Bank nonetheless made loans in 1975 and 1978 totaling \$95 million—for large scale, centralized industrial oil-palm development in Nigeria.<sup>406</sup>

The current pattern of multilateral bank operations and lending bodes particularly ill for Sub-Saharan Africa. A recent study by the Office of Technology Assessment concluded that foreign assistance will result in major failures if it continues its "high-technology, capital-intensive, profit maximizing orientation."<sup>407</sup> The report, commissioned by the House Select Committee on Hunger, notes an emerging consensus that future development efforts in Sub-Saharan Africa should be small-scale, labor- rather than capital-intensive, resource-conserving, and better adapted to traditional agricultural methods.<sup>408</sup>

The banks can feasibly promote smaller-scale development projects, despite their reluctance to do so. The Inter-American Development Bank has successfully funded several smaller projects for a number of years. In 1982 and 1983, the Bank approved forty-two small scale

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404. FINAL RECOMMENDATIONS, *supra* note 342, at 6-9 (recommendations 8, 9, 12, and 13).

405. Interview with W. David Hopper, Regional Vice-President, South Asia, The World Bank, in Washington, D.C. (Apr. 1984).

406. S. GEORGE, *supra* note 389, at 36 (footnotes omitted).

407. OFFICE OF TECHNOLOGY ASSESSMENT, CONGRESS OF THE UNITED STATES, AFRICA TOMORROW: ISSUES IN TECHNOLOGY, AGRICULTURE, AND U.S. FOREIGN AID 4, 6 (1984) (technical memorandum).

408. *Id.* at 6. The Office of Technology Assessment's technical memorandum emphasizes that United States foreign assistance legislation in recent years has included substantial directives to reorient United States development aid toward the small-scale, less capital-intensive, environmentally oriented direction recommended in the study.

projects totaling \$18.78 million channeled through private, nonprofit organizations such as cooperatives, foundations, and producers' associations.<sup>409</sup>

A substantial part of the increasing ecological stress in developing nations is ultimately linked to their growing international debt, which can be repaid only with export earnings. Increased pressure to expand exports often falls on the agricultural sector. As a result, uprooted subsistence farmers are displaced onto ecologically marginal and fragile areas that become part of an accelerating global process of deforestation and desertification as pressures increase to harvest more natural resources.<sup>410</sup> The multilateral banks are important contributors to this vicious circle when developing countries assume still more debt to the banks to finance export-oriented projects that exacerbate ecological deterioration and undermine the countries' long-term productive bases. In 1982, Brazil allotted 42.1% of its export earnings to service its debt, Peru 36.9%, and a number of Sub-Saharan countries over 20%.<sup>411</sup> In all of these countries, this percentage was more than triple the proportion of export earnings needed for debt service in 1970.<sup>412</sup> One renowned scientist concerned with deforestation in the Amazon has suggested that multilateral and private international banks should give developing countries credits against their international debt for making domestic investments in conservation and natural resources management.<sup>413</sup> The implementation of this proposal would effectively create stronger incentives for countries to protect the environment.

Finally, underlying the notion of development in both the industrial-

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409. IDB 1983, *supra* note 14, at 14-15; IDB 1982, *supra* note 67, at 5-6.

410. Lovejoy, *Aid Debtor Nations' Ecology*, N.Y. Times, Oct. 4, 1984, at A31, col. 1. Brazil is attempting to ease its need for foreign exchange—more than 42% is currently used for debt service—by growing soybeans for export and sugar cane to produce alcohol to replace imported oil. In 1984, 1.3 million hectares of prime Brazilian cropland were planted with sugar cane plantations, creating additional pressures on soil and food resources and displacing small farmers. WORLDWATCH INST., *supra* note 2, at 5.

The Worldwatch Institute report observes that this increasing ecological stress brought on by the mounting foreign debt of developing countries also undermines the capacity of these countries to pay the debt:

The interactions between the global economy and the earth's natural systems, cycles, and resources are legion . . .

Of these linkages, one that seems destined to attract attention soon is that between soil erosion and Third World debt. Soil erosion can undermine not only a country's food production capacity, but its debt servicing capacity as well, for it leads to widening food deficits, mounting debt, and eventually to food shortages. A nation whose people face starvation can hardly be blamed for failing to make debt payments. Indeed, at a meeting of the Organization of African Unity in November 1984, Conference Chair Julius Nyerere urged African governments to withhold payment on their \$152-billion foreign debt, owed mostly to European and U.S. banks.

*Id.* at 6 (footnote omitted).

411. THE WORLD BANK, *supra* note 31, at 248-49.

412. *Id.*

413. Lovejoy, *supra* note 410.

ized and developing world, and in the banks, is an economic modeling assumption that may prove increasingly untenable as ecological externalities become more evident. As one economist has noted, "[t]he whole thrust of microeconomics is to compare costs and benefits at the margin so as to be able to limit the activity under consideration to its optimum extent. But the macroeconomic activity of national economic growth is not conceived of [in neoclassical economics] as having an optimum extent beyond which further growth should cease."<sup>414</sup> This model will be flawed until the natural resource base and services of the ecosystem are included in the calculations of costs and benefits.<sup>415</sup>

The economic cost-benefit analysis and discounted rates of return that banks use in evaluating prospective projects may be a classic instance of micro-rationality leading to macro-irrationality.<sup>416</sup> Large-scale, long-term ecological externalities ignored during the planning stage will eventually manifest themselves at the macro level. Already, scientists speculate that deforestation in the Amazon and elsewhere may be leading to climatic changes whose ultimate adverse economic impacts will be beyond the scale of present comprehension.<sup>417</sup> Amazon deforestation, for example, may lead to desiccation and increased extremes of heat and cold in south-central Brazil, the country's agricultural heartland, thus undermining a substantial part of Brazil's entire export economy.<sup>418</sup>

414. H. Daly, *The Circular Flow of Exchange Value and the Linear Throughput of Matter-Energy* 66 (1983) (presented to seminar at the World Bank, Apr. 25, 1983).

415. See, e.g., S. BUNKER, *UNDERDEVELOPING THE AMAZON: EXTRACTION, UNEQUAL EXCHANGE, AND THE FAILURE OF THE MODERN STATE* (1985). Bunker notes that

[t]he persistence of the Amazon as frontier and the paradox of development which destroys the environment on which it depends demand explanations which existing paradigms of development and underdevelopment cannot provide. . . . [The] differences between extractive and productive economics were more fully accounted for by the laws of thermodynamics than by theories of politically enforced unequal exchange. Production involves the transformation of matter and energy, neither of which can be humanly created. They must therefore be extracted from a physical environment. All such transformations involve [as an end result] the conversion of energy to humanly useless forms.

*Id.* at 12. He concludes that

[t]he problem then is to devise ways in which extractive economies can function in a world system of exchange without destroying the physical and human environments in which they occur. In order to do so, we must first revalue, theoretically and practically, the natural resources and processes on which economic activity ultimately depends. . . . I believe this is essential for the longterm reproduction of human society in both extractive and productive modes.

*Id.* at 31.

416. H. Daly, *supra* note 414, at 67.

417. Salati & Vose, *Amazon Basin: A System in Equilibrium*, 225 SCI. 129 (1984). See also WORLDWATCH INST., *supra* note 2, at 12-14.

418. Salati and Vose observed that

[f]or example, the cerrado region of the altiplano [of South-central Brazil] already suffers from too little precipitation, and the current state of agriculture of São Paulo state is precariously balanced in terms of frost. During the winter of 1981, in the interior of São Paulo near Pricacaba, all bananas were killed by frost, sugarcane leaf tips were frost-burned, and a substantial part of the orange crop of the Limeira region was lost. Any shift toward continentality [brought by Amazon deforestation]

Many current multilateral bank development programs are a form of biological deficit financing<sup>419</sup> that the developing world, and ultimately the donor nations and banks themselves, can ill afford.

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that either extended the winter period or induced lower winter temperatures could completely change the agriculture of the region. This would mean the loss of the valuable export production of sugar, oranges, and coffee, grown on some of Brazil's best soils, and a major setback to the import-saving alcohol fuel program.

Salati & Vose, *supra* note 417, at 137.

419. The Executive Director of the United Nations Environment Programme stated in 1982 that mismanagement or "no management at all" is destroying the natural resource base of Africa. He concluded that

[u]nless and until an environmental audit system is universally applied, we will continue to abuse our resources—a process now described as biological deficit financing. . . . We know that for every hectare of land going under new irrigation in the Sahel, one hectare of already irrigated land is going out of production due to mismanagement.

Y. AHMAD, *supra* note 388, at 5.

