

November 1988 List of Upcoming MDB Projects with Possible Environmental Concerns: Background and Purpose

Section 537(h) of P.L. 100-202 directs the Agency for International Development (AID) in consultation with the Secretaries of Treasury and State to compile "a list of proposed Multilateral Development Bank (MDB) loans likely to have adverse impacts on the environment, natural resources, public health, or indigenous peoples". The report is to be made available to the Committees on Appropriations by April 1 1988, and semiannually thereafter. This report is the second study required in 1988. The list was to be prepared and up-dated semi-annually "in consultation with interested members of the public". Development of the list is considered part of a larger effort to ensure that U.S. funded development assistance be used to promote sustainable use of natural resources, to protect the environment and the status of indigenous peoples.

The principal mechanism for early project identification is A.I.D.'s Early Project Notification System. In this system, A.I.D. notifies its field missions and selected embassies of upcoming projects as they are made public through publication in the Monthly or periodic operational summaries of each MDB. This is generally one to two years prior to consideration by the MDB Boards of Directors.

Mission comment is solicited on upcoming projects concerning a number of issues including the environment. A.I.D. missions respond if there is reason to anticipate environmental concerns. These responses are reviewed in Washington. Projects are then placed on the list which reflect the best judgement of the US Government, based on information at hand. Because not all project information is made available, particularly information tied to the early stages of loan development, the list should not be considered all inclusive. Inclusion on the list indicates that the project might have impacts which should be anticipated and reduced through careful site selection, redesign or adoption of specific mitigation measures.

Through early identification, we seek to develop a collaborative dialogue with the Banks to highlight environmental concerns during project planning and design.

NOVEMBER 1988

PROJECTS WITH POTENTIAL ENVIRONMENTAL IMPACTS UNDER
CONSIDERATION FOR FUNDING BY THE FOLLOWING MULTILATERAL
DEVELOPMENT BANKS:

IBRD - International Bank for Reconstructon and Development
IDA - International Development Association
ADB - Asian Development Bank
AfDB - African Development Bank
IDB - Inter-American Development Bank

PROJECTS LOCATED IN AFRICA

- 1) Burkina AfDB Bagre Dam*
- 2) Cameroon IBRD Third Livestock Project*
- 3) The Gambia AfDB River Basin Development
- 4) Kenya IDA Forestry IV Project
- 5) Lesotho IDA Highlands Water Construction I*
- 6) Madagascar IBRD Ilmenite Mine *
- 7) Mauritania AfDB Village Water Supply *
- 8) Rwanda IBRD Nyabarongo Development Project
- 9) Somalia IDA Bardhere Dam
- 10) Somalia IDA Farahaane Irrigation *

PROJECTS LOCATED IN ASIA AND THE NEAR EAST

- 11) People's Republic of China IBRD Three Gorges Dam
- 12) Egypt IBRD Northern Sinai Agricultural development*
- 13) India ADB Second North Madras Power Plant *
- 14) India IBRD/IDA Narmada (Madhya Pradesh) Dam and Power
- 15) India IBRD/IDA Narmada (Madhya Pradesh Resettlement and Rehabilitation).

* denotes projects appearing on the list for the first time

- 16) India IBRD/IDA Upper Krishna Irrigation II Project
- 17) India IDA Upper Krishna Irrigation II Resettlement
- 18) Indonesia ADB Power XX
- 19) Indonesia IBRD Industrial Restructuring Project
- 20) Indonesia IBRD Jabotabek Urban Development II Project
- 21) Indonesia IBRD Nucleus Estate Phase II Project
- 22) Indonesia IBRD Swamps III *
- 23) Indonesia IBRD Transmigration Second Stage Development
- 24) Indonesia IBRD Smallholder Estate Tree Crops Development
- 25) Jordan IBRD Transport III *
- 26) Malaysia ADB Second Compensatory Forestry *
- 27) Nepal ADB Secondary Crops *
- 28) Nepal IDA Arun Hydro-power *
- 29) Nepal IDA Arun III Access Road *
- 30) Pakistan ADB Swabi Salinity Control *
- 31) Pakistan IBRD Kalabagh Dam
- 32) Sri Lanka ADB Power Systems Expansion *
- 33) Sri Lanka IDA Forestry Sector Development *

PROJECTS LOCATED IN LATIN AMERICA AND THE CARIBBEAN

- 34) Bolivia IBRD/IDA Agricultural Lowlands Project
- 35) Brazil IBRD Electric Sector Transmission and Distribution
- 36) Brazil IBRD Electric Sector II Project
- 37) Brazil IDB Segredo Hydropower Project*
- 38) Ecuador IDB Daule Peripa Hydroelectric Project
- 39) Ecuador IDB Paute C Watershed Management Project

- 40) Jamaica IBRD Agricultural Sector Adjustment Project
- 41) Mexico IBRD Hydroelectric Development Project
- 42) Mexico IDB Forestry Development *

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PROJECTS WITH POTENTIAL ENVIRONMENTAL IMPACTS UNDER
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PROJECTS LOCATED IN AFRICA

1. Burkina AfDB Bagre Dam Project
Projected AfDB funding: unknown
Total project cost: unknown

Description: The project will finance the construction of an earthen dam 30 meters high to be located on the White Volta River. The dam will generate 11.5 MW of electricity and irrigate an estimated 2,100 ha of land. 25,000 ha of land will be inundated by the impoundment lake.

Issues: Major health related issues would include schistosomiasis and possible reintroduction of onchosariasis. Other issues would include the impacts of new settlement on the natural resource base. An estimated 20,000 people are expected to move into the area immediately after project completion with the eventual number of new residents anticipated to swell to as many as 100,000.

Status: The Bank has included a health expert and an environmentalist on the appraisal mission scheduled to begin in mid-October to address the issues raised above. These issues have been conveyed to Bank staff.

2. Cameroon IBRD Third Livestock Project
Projected IBRD funding: \$ 30
Total project costs: unknown

Description: The project is designed to expand livestock production in the northern provinces of Cameroon by (i) strengthening and privatizing input supply systems; (ii) introducing better resource management; and (i) strengthening the government's extension and planning capabilities.

Issues: The mission reports that the field appraisal team included environmental considerations in their analysis and are developing improved approaches for addressing traditional types of impacts associated with livestock projects in Africa. Since these types of projects have the potential for over-grazing and over utilization of the natural resource base, the project has been put on the list for continued monitoring.

Status: Negotiations were due to take place in late September. Concerns about the project have been conveyed to Bank staff.

3. The Gambia AfDB River Basin Development
Projected AfDB funding: unknown
Projected Project Cost: \$400 Million

Description: The proposed project involves two dams on the Gambia river, a hydropower station and irrigation blocks. The Balingho Dam would prevent saltwater intrusion in the downstream portion of the river. The upstream dam would be located in Kekreti, Senegal would generate power and control water for irrigation in the Gambia.

Issues: Issues have been raised concerning the impact of the project on river ecology, fisheries, estuaries mangroves and on the livelihoods of peoples engaged in swamp cultivation in the Gambia River Basin.

Status: An AfDB team discussed this project with the Government of The Gambia and with the Gambia River Authority in October, 1987. At that time the team also reviewed the A.I.D. financed environmental and socio-economic impact study carried out by the University of Michigan. The team concluded that it was unlikely that the Bank could support the project as currently conceived, noting environmental problems and doubtful economic viability. The Bank indicated a willingness to fund additional studies to address project environmental and economic implications as well as an analysis of alternative sites for the upper dam. The project is currently on hold but we will continue to monitor developments.

4. Kenya IDA Forestry IV Project

Projected IDA Funding: About \$30 Million

Total Project Cost: Approximately \$46.6 Million

Description: Support for integrated forestry development (fuelwood, timber, agroforestry). The executing agency is the Ministry of Environment and Natural Resources.

Issues: Concerns have been raised regarding potential implementation problems with the executing ministries including the Ministry of Environment and Natural Resources.

Status: Concerns were raised with Bank staff and the Bank's response indicated that a Forestry Sub Sector Review had been prepared which suggested a possible 5 year Forestry Program. This program could serve as the basis for a future Forestry IV project. A main thrust of the Forestry Sector Review calls for strengthening and improving "agro-forestry." The Bank response acknowledged bureaucratic problems with the project. The preparation of this project depends on progress of forestry policy dialogue.

5. Lesotho IDA Highlands Water Construction I
Projected IDA funding: unknown
Total project costs: unknown

Description: The project entails: (i) construction of concrete dam, water transfer tunnel and associated works for sale of water to South Africa and (ii) construction of 70 MW hydro-power plant and associated transmission lines.

Issues: Issues include resettlement, loss of fauna and flora resources from impoundment area and impacts on riverine ecosystem from construction of dam.

Status: These concerns have been forwarded to Bank staff.

6. Madagascar IDA Ilmenite mining
Projected IDA funding: \$ 36
Total project cost: unknown

Description: Project includes mining and export of mineral sands on the Malagasy East Coast for production of titanium dioxide.

Issues: The major impact will be the effects of mining operations on local flora and fauna, particularly as certain species of dune vegetation are rare and unique to project area.

Status: Issues have been conveyed to Bank staff.

7. Mauritania AfDB Village Water Supply (bore holes)
Projected AfDB funding: FUA 6.0 Million
Total project cost: Unknown

Description: The project objectives are to provide water for (i) the indigenous population and those expected to move into the project area, (ii) migrant and indigenous livestock, and (iii) irrigation agriculture.

Issues: While bore holes have been effective in providing water in arid zones, past experience has shown that without adequate pre-planning, many of these projects have resulted in over-grazing and over-utilization of the land resource. This is a particularly critical issue in Mauritania where the natural resource base and the carrying capacity of the land are in progressive decline.

Status: These concerns have been conveyed to Bank staff to underscore the need for adequate pre-planning to avoid the potential impacts noted above.

8. Rwanda IBRD Nyabarongo Development Project
Projected IBRD Funding: Unknown
Total Project Cost: Unknown

Description: The project involves a plan to develop the Nyabarongo valley, the largest watershed in Rwanda. The valley represents one of the few remaining areas in Rwanda which can absorb the country's population increase.

Issues: Concerns have been raised over potential adverse environmental impacts. The hydrology of the system is complex with long term fluctuations in water levels. The large marais or swamps act as reservoirs and regulators of water flow and have important ecological effects in areas distant from them. Poorly understood ecology could lead to misuse of marais land.

Status: The project is not yet listed in bank documents. During preparation of an earlier project, the Bank agreed with the government of Rwanda to undertake a study which would seek an equilibrium between the development potential of the valley and conservation of the ecosystem. The A.I.D. mission will be funding a natural resource management and planning project in Rwanda which may contribute to the design of the bank project. We have forwarded mission concerns to Bank staff and will continue to monitor the development of this project.

9. Somalia IDA Bardhere Dam
Projected IDA Funding: \$65 million
Projected Project Cost: Unavailable

Description: The project will finance a multi-purpose dam on the Juba River that will provide hydropower for Mogadishu and Kismayo, as well as irrigated agricultural development and flood protection. Executing agency is the Ministry of Juba Valley. Cofinancing expected with Kuwait Fund, Arab Fund, EEC and Italy.

Issues: The most significant environmental issues are: (i) potential for major increases in water borne diseases, notably Bilharzia and Malaria if reservoir operations are not controlled to reduce vector proliferation; (ii) resettlement of as many as 200,000 individuals, (iii) potential soil salinization in irrigated downstream areas; (iv) interruption of nomadic pastoral movements; and (v) boom town conditions during construction.

Status: A.I.D. has financed an extensive, three year study of environmental and socio-economic issues associated with the project. A technical assistance component of the Bank project was approved in December 1987. The U.S. recommended including assistance for irrigated agriculture in addition to engineering considerations. Appraisal mission is tentatively scheduled for the end of 1988. We will continue to monitor.

10. Somalia IDA Farahaane
Projected IDA funding: \$ 27
Total projects cost: unknown

Description: The project entails (i) rehabilitation of an irrigation sub-project encompassing 4,700 ha., (ii) construction of two barrages, and (iii) provision of buildings and equipment.

Issues: Issues posed by the project include: salinization, malaria and schistosomiasis.

Status: Project concerns have been conveyed to Bank staff.

PROJECTS LOCATED IN ASIA AND THE NEAR EAST

11. People's Republic of China IBRD Three Gorges Dam
Projected IBRD Funding: Unavailable
Total Project Cost: Unavailable

Description: The project would finance a dam in the Three Gorges region of the Yangtze River basin which would provide flood control, electrical power and inland navigation. The executing agency would be China's Ministry for Water Resources and Electric Power.

Issues: Significant concerns have been raised regarding the required resettlement of roughly one million people to make room for the impoundment. Other issues would include effects on fisheries, rare and endangered species (the Chinese Alligator and a species of Sturgeon), and inland navigation. Concerns have also been raised regarding the hydrological and economic effects of altering sedimentation regimes as well as potential effects on Dongting and Poyang lakes located at a considerable distance downstream from the project.

Status: A Canadian financed feasibility study has been completed. We have been assured by Bank staff that environmental issues have been dealt with in the study. A review of the Canadian study is being undertaken by a panel of international experts which met six times during the life of the study and approved the final draft at its last meeting on June 27, 1988. The World Bank is funding this panel through one of its loans to China. At the request of the Chinese government, a World Bank team has been organized to act in an advisory capacity on the methodologies used in the feasibility study with careful attention to the work of the consultants on human settlements and environmental issues. According to discussions with Bank staff, the Chinese plan to devote a significant portion of project funds for resettlement and up-grading the absorptive capacity of local communities in surrounding areas.

12. Egypt IBRD Northern Sinai Agricultural Development
Projected IBRD funding: \$ 50
Total project cost: unknown

Description: The project constitutes the first phase of the agricultural development program for northern Sinai. It would include: (i) construction of irrigation and drainage works, and (ii) financial support to farmers for farm machinery and other agricultural inputs.

Issues: Environmental concerns include effects of the project on Lake Bardawil, which Egypt has listed as its first wetland of international significance as a waterfowl habitat. Additional issues include creation of new settlements, use of fertilizers and pesticides, and use of drainage water for irrigation.

Status: The mission is in close cooperation with the Bank and will be providing assistance to the Bank and the Ministry of Agriculture in developing the scope of work for an environmental assessment scheduled to be conducted in November, 1988.

13. India ADB Second North Madras Power Plant
Projected ADB funding: \$ 150
Total project cost: unknown

Description: The project consists of three components: (i) provision of the third 210 MW generating unit for North Madras Thermal Power Station ; (ii) the first half of a ten year development program for electrical transmission/distribution systems in Metropolitan Madras; and (iii) modernization of load dispatching centers.

Issues: Issues include air quality impacts (sulfur dioxide, nitrogen oxides and particulates) in Madras city and surrounding areas, coal ash disposal, cooling water intake and thermal pollution impacts from cooling water discharge on receiving waters.

Status: Concerns have been forwarded to Bank staff.

14. India IBRD/IDA Narmada (Madhya Pradesh) Dam and Power.

15. India IBRD/IDA Narmada (Madhya Pradesh) Resettlement and Rehabilitation

Projected IBRD Funding (Dam): \$350 million
Total Project Cost (Dam) \$1,150 million

Projected IDA Funding (Resettlement): \$70 million
Total Project Cost (Resettlement): \$300 million

Description: The Dam and Power project involves the construction of the Narmada Sagar dam and hydropower station to generate 1,000 MW of power and to evaluate future irrigation of about 300,000 ha. of land. The Narmada Resettlement and Rehabilitation project will finance the resettlement of about 120,000 people dislocated by flooding the reservoir. The project will also develop reservoir fisheries, reforest up to 90,000 ha of land, and install conservation measures in the upper watershed. Both projects are to be implemented by the Narmada Planning Agency.

Issues: Potential environmental impacts include: 1) relocation of the 130,000 people within the area to be flooded by the reservoir, 2) deforestation (clearing and submerging) of 40,000 hectares of forest, 3) destruction of wildlife habitat, 4) risk of earthquake damage to the dam structure, 5) siltation from deforestation of the watershed area above the dam, 6) waterlogging of irrigated soils, and 7) increased risk of water borne diseases including malaria and cholera. There are major concerns over the adequacy of resettlement programs based on the experience from the resettlement efforts associated with the Gujarat project. The Narmada Tribunal recommended a policy of "land for land" and relocation of villages in their entirety. However, questions remain concerning (1) effectiveness of the loan in making dam construction/funding contingent on resettlement planning and implementation (2) adequacy of environmental reviews and mitigation planning (3) inclusion of environmental and resettlement costs in overall cost/benefit analysis.

Status: The project has been delayed and is now scheduled for Board consideration in FY92. A.I.D. conducted a site visit to India in January to investigate the status of environmental planning for this project. The investigation emphasized that environmental studies were initiated comparatively late in the planning process, precluding consideration of alternatives with less severe social and environmental impacts.

The Government of India Department of Environment held up clearance on the Narmada Sagar Dam Project until 1987, because of inadequate data and mitigation plans. The Department of Environment was also concerned because no overall environmental analysis of the development of the basin as a whole had been conducted.

In 1987, the issue was taken up by the Prime Minister's office and a decision made to grant provisional environmental clearance. The environmental studies and the physical works would proceed simultaneously. The Narmada Control Authority (NCA) in New Delhi was made responsible for ensuring that environmental and resettlement studies and action plans were developed and implemented and was expanded to include the Ministry of Environment and Forests and the Ministry of Welfare.. The NCA was given the authority to stop construction if there was not enough progress on environmental issues, and the Department of Environment was given veto power.

The U.S. Government forwarded a memorandum to the Bank drafted by A.I.D. stating concerns in four areas: (1) the capability of the Narmada Valley Authority to implement its progressive policies on resettlement, (2) lack of safeguards to ensure that the environmental studies and mitigation plans are carried out, (3) the need to study the impacts of development of the river basin as a whole, (4) adequacy of the economic analysis to incorporate environmental costs and benefits. We also expressed concern about bank environmental procedures, particularly the scheduling of environmental studies too late in the project cycle to allow for consideration of less damaging alternatives.

The Bank responded by assuring the U.S. Government that negotiations would not take place until mechanisms for land acquisition and resettlement were tested on a pilot basis, and that the Bank was investigating the possibility of a basin-wide environmental planning program. The US and Executive Directors from other donor countries will continue to monitor this project.

16. India IBRD/IDA Upper Krishna Irrigation II Project
Projected IBRD/IDA Funding: \$250 Million
Total Project Cost: \$500 Million
17. India IDA Upper Krishna Irrigation II (Resettlement)
Projected IDA Funding : \$50 Million
Total Project Cost: \$60 Million

Description: The irrigation project will: (1) develop 150,000 hectares out of an irrigation command area of 425,000 hectares, and (2) provide technical assistance in irrigated agriculture. The resettlement project will relocate people displaced by the initial reservoir and those to be displaced by raising the Almatli Dam (part of the irrigation project). The executing agency is the Department of Irrigation in the Government of Karnataka. The project funding will be provided by both the IBRD (\$125 Million) and IDA (\$165 Million).

Issues: Concerns have been raised regarding resettlement. Problems include failure to compensate for lost land, inability of displaced people to purchase new agricultural land and failure to design and implement a satisfactory resettlement plan.

Status: The U.S. Government led by A.I.D. held a meeting with Bank staff on this project in November 1987 to investigate resettlement issues. The Bank has delayed appraisal until adequate resettlement planning was demonstrated. Bank documents indicate that a separate loan will now finance the resettlement aspects of the project and that NGOs will participate. The appraisal report is under preparation. We are soliciting additional information from the mission if available.

18. Indonesia ADB Power XX Project
Projected Bank Funding: \$120 Million
Total Project Cost: unknown

Description: The project will finance construction of the 200 MW Singkarak hydropower scheme in West Sumatra and construction of 10 mini hydropower schemes in North Sumatra, Sulawesi and Nusa Tenggara. The implementing agency is the National Electricity Corporation.

Issues: Concerns have been raised about mitigation of environmental impacts associated with hydropower projects.

Status: Bank documentation indicates that various aspects of the project are under review. We have requested further information from Bank staff regarding this project.

19. Indonesia IBRD Industrial Restructuring Project
Projected IBRD Funding: \$200 million
Total Project Cost: Unknown

Description: Industrial restructuring will include: (1) policy changes and institution building; (2) specific restructuring or development programs in key areas; and (3) technical assistance to engineering, pulp and paper and textiles enterprises. The executing agency is the Ministry of Industry.

Issues: Concerns have been raised about the need to monitor and control industrial pollution resulting from the textile industry and secondary impacts of deforestation associated with expanded pulp production.

Status: Project preparation is under way. We have discussed concerns with bank staff and they assured us they would address the issue of monitoring and control of industrial pollution. The issue of reforestation to support expanded pulp production will be dealt with during preparation of the subsector component dealing with the pulp and paper industry. We will continue to monitor the project, but it appears that project design will address environmental issues.

20. Indonesia IBRD Jabotabek Urban Development II Project
Projected Bank Funding: \$200 Million
Total Project Cost: \$ 400 Million

Description: The project includes investments and rehabilitation of raw water and treated water supply facilities, distribution and sanitation, and technical assistance for institutional development, water resources management and pollution control. The implementing agency is the Directorate General for Human Settlements.

Issues: This project would divert water from other watersheds to improve the quality of the water supply to the Jakarta area. While this action would improve the quality of the water supply for drinking water, water supplies may still be contaminated because of an inadequate and poorly maintained distribution system. A secondary effect might be to delay Government efforts to reduce primary pollution. The project may also have major adverse effects on multiple watersheds. Also, increased water supplies automatically increase the volume of waste; no corresponding improvements in the sewerage systems seem to be contemplated. These issues should be addressed as part of an impact assessment.

Status: Bank staff responded to AID mission concerns by indicating that the project purpose is to develop and implement an integrated program of policy and physical investments for water quality and resource management. We are conveying these comments to the mission. This project will be dropped.

21. Indonesia IBRD Nucleus Estate Phase II Project
Projected IBRD Funding: \$100 million
Total Project Cost: Unknown

Description: The project will finance inputs to maintain the quality of trees planted in previous NES projects through the mature phase and expand existing smallholder areas in the vicinity of existing nucleus estates. Technical assistance may also be included. The executing agency is the Ministry of Agriculture.

Issues: If the project will expand existing smallholder areas in secondary jungles and estuaries, an environmental assessment should be carried out.

Status: Project preparation is under way. Concerns were discussed with Bank staff and an agreement was reached that expansion of project into secondary jungles and estuaries would justify an environmental assessment. Currently, no expansion is contemplated, but we will continue to monitor.

22. Indonesia IBRD Swamps III
Projected IBRD funding: \$ 120
Total project cost: unknown

Description: The project will strengthen institutions responsible for swamp reclamation, prepare an investment program for second stage development of existing swamps sites, rehabilitate infrastructure and support environmental protection.

Issues: Concerns have been raised about the loss of waterfowl and other wildlife habitat and potential adverse impacts on fisheries which may result from swamp reclamation. Although drainage of swamps may be appropriate in some cases, site selection and development should be preceded by analysis of the agricultural and environmental potential.

Status: Concerns have been forwarded to bank staff along with a request for further information on the project's rationale and scope.

23. Indonesia IBRD Transmigration Second Stage Development
Projected IBRD Funding: \$120 million
Total Project Cost: Unavailable

Description: The project will increase income and agricultural production in 9 existing transmigration settlements; strengthen Ministry of Transmigration's (MOT) coordination and implementation capacities for second stage development; and improve overall economic, social and environmental soundness of the transmigration program. The executing agency will be the Ministry of Transmigration. The World Bank has already assisted this program via several loans, the most recent being \$160 million for the Fifth Transmigration Project, approved in June 1985. The project was reformulated in 1986, as a result \$63 million was cancelled.

Issues: Concerns have been raised about the environmental effects of the overall transmigration program of which this project is a part. Overall concerns include destruction of tropical forests, insufficient support for resettled peoples to ensure self sufficiency, displacement of indigenous peoples, effects of spontaneous transmigrants to new sites, impacts on rare and endangered wildlife and effects on water quality. There is concern that the project not proceed before completion of a site specific socio-economic/environmental impact study.

Status: The pre-appraisal mission has been completed and appraisal is being conducted this fall (1988). US Government agencies have indicated serious concerns about transmigration projects. The Bank has emphasized IBRD's role in improved planning and implementation and stated that the current project is limited to improvement of existing sites. Bank staff stated that support was provided to the directorate of environment within the Ministry of Transmigration under Transmigration V and that environmental impact statements will be prepared on all nine sites proposed in the new project. Mission indicated support for the project assuming extensive monitoring and Bank involvement to improve the quality and sustainability of the transmigration program. We will continue to monitor the project.

24. Indonesia IBRD Smallholder Estate Tree Crops Development
Projected IBRD funding: \$45 million
Total Project Cost: Unknown

Description: The project supports the Government's efforts to improve smallholder coconut and rubber production. The executing agency is the Directorate General of Estate.

Issues: While this project targets existing settlements, there could be a small area of new land development. Also the project may result in attracting new settlers to project sites creating secondary impacts. An environmental assessment should be carried out.

Status: A.I.D. concerns were discussed with Bank staff who indicated that an environmental analysis has been conducted and selection criteria have been established for guiding extension into new areas. These criteria address environmental concerns and include a prohibition on extension into areas with primary forests. Appraisal is scheduled for fall 1988. The pre-appraisal mission is completed.

25. Jordan IBRD Transport III
Projected IRBD funding: \$ 35
Total project cost: unknown

Description: The project includes a wide range of activities which have yet to be defined, but which may include: (i) construction of a 25 km rail line, (ii) new road construction and upgrading of existing roads, and (iii) training and institution building.

Issues: The primary issue concerns the impacts on antiquities posed by the construction of the rail line and roads. Other issues would typically be the impacts associated with land clearing for construction of transportation corridors.

Status: The AID mission has recommended that the antiquities issues should be analyzed and that environmental reviews should be conducted on a sub-project basis. These reviews would include corridor archeological studies. These comments have been conveyed to Bank staff. The project is scheduled for appraisal beginning November 30, 1988.

26. Malaysia ADB Secondary Compensatory Forestry

Projected ADB funding: \$ 29.5

Total project cost: \$ 69

Description: The proposed project is a sequel to the first Compensatory Forestry Sector Project and would cover the seven states in Peninsular Malaysia. Project elements include: (i) land clearing and planting 42,000 ha. of cut-over, degraded forest land; (ii) construction of access roads; (iii) institutional support; (iv) procurement of local consultant services for environmental impact assessment; and (v) training.

Issues: Issues include soil erosion from land clearing and construction of new roads, resultant downstream sediment loading and impacts on wildlife habitats.

Status: Concerns have been forwarded to Bank staff.

27. Nepal ADB Secondary Crops Development

Projected ADB funding: \$ 10

Total project cost: unknown

Description: The project will identify current constraints to subsidiary crop development and formulate approaches to realize the full potential of the subsector. Project will include improved cropping practices, support services, marketing and institutional arrangements for selected subsidiary crops such as oil seeds, tobacco, jute, sugercane and tea.

Issues: The major potential issue is the possible increased use of pesticides.

Status: Project issues have been forwarded to Bank staff for their consideration.

28. Nepal IDA Arun Hydro-power
Projected IDA funding: \$ 90
Total project cost: \$ 600

29. Nepal IDA Arun III Access Road
Projected IDA funding: \$ 22
total project cost: \$ 40

Description: Nepal is endowed with vast hydro potential, theoretically some 83,000 Mw, of which less than 200 Mw have been tapped. The current projects are designed to take advantage of that potential and include: (i) construction of a 170 km road to provide access to a potential power plant site and to provide a north-south transportation corridor in the Eastern Hills of Nepal, and (ii) construction of a 402 MW run-of-river hydro-power plant with associated transmission facilities. The hydro plant is planned to be commissioned during 1995 - 2003. However, this time-table could be accelerated to accommodate bulk export sales of electricity to India.

Issues: Issues include erosion from road construction, the need for continued road maintenance to avoid future erosion and possible land slides, accelerated development pressures on the Arun valley as a result of the access road and impacts associated with the construction and operation of the power plant on the river ecosystem. Nepal's deforestation problems and high sediment loadings, favor the design of run-of-river hydro plants as opposed to plants with storage reservoirs.

Status: Issues arising from these two projects have been conveyed to Bank staff. The Bank also stressed the need for an environmental management plan for the Arun valley.

30. Pakistan ADB Swabi Salinity Control
Projected ADB funding \$ 122
Total project cost: unknown

Description: The project will include (i) surface drainage improvement; (ii) subsurface drainage; (iii) flood control; and (iv) agricultural development.

Issues: Issues include lining of watercourses as dictated by underlying soil conditions and dumping of saline wastes.

Status: Concerns related to this project have been forwarded to Bank staff.

31. Pakistan IBRD Kalabagh Dam
Projected IBRD Funding: \$150 Million
Total Project Cost: \$3,463 Million

Description: This project, if designed at its contemplated scale, would finance dam construction and the installation of a 2,400 megawatt hydroelectric capacity. It is a multipurpose project for power generation, irrigation and flood control. The estimated total cost of the project, based on 1987 price levels, includes physical and price contingencies. The executing agency is Pakistan's Water and Power Development Authority.

Issues: Concerns have been raised regarding the anticipated resettlement of up to 83,000 persons as a result of flooding in the Northwest Frontier Province and the possible exacerbation of waterlogging and salinity problems. Concerns have also been raised regarding economic and financial issues. The Bank has urged the Government of Pakistan to address these issues. A.I.D. estimates the cost of an environmental assessment at \$1 million.

Status: The Government of Pakistan has not yet made a decision with respect to Kalabagh. Additional hydropower projects are being investigated by the Government and prefeasibility studies are being conducted for a hydropower facility at Basha. Another proposed project under consideration involves a diversionary canal from Tarbela and construction of a 1,000 MW power facility at Gaza Gariela. This project may involve fewer resettlement and environmental problems. The total cost for this project is about \$1 billion.

32. Sri Lanka ADB Power Systems Expansion Project
Projected ADB Funding: \$62
Total Project Cost: Unknown

Description: The project consists of three components: (i) two 20 MW diesel generators; (ii) Rural Electrification Phase II; and (iii) detailed feasibility studies of new power generation projects

Issues: The major issue is whether or not this project is intended to be the vehicle for construction of the first stage of the Trincomalee Thermal Power Generation Plant proposed by the Ceylon Electricity Board to be located at China Bay. Issues associated with the Trincomalee plant include impact of air pollution emissions on tea growing areas, thermal pollution effects on marine life, and impairment of scenic value in surrounding tourist area.

Status: Concerns related to this project have been forwarded to Bank staff. A determination needs to be made concerning the connection between this project and the Trincomalee project.

33. Sri Lanka IDA Forestry Sector Development
Projected IDA funding: \$ 25
Total project cost: unknown

Description: The project will implement a five year time slice of the country's Forestry Master Plan. Project elements include: (i) establishment of forestry plantations, (ii) management and protection of forest resources; (iii) rehabilitation and expansion of wood industries; and (iv) institution building, education and training.

Issues: The primary issue is the impact that the project may have on the sustainability of Sri Lanka's forest resources. The project may result in accelerated exploitation of the country's forests with potential impacts on critical areas (particularly the high altitude montane forests which serve as the source of the country's major rivers), watershed management and biological diversity. Effects of the project on the country's endangered elephant population is also of serious concern.

Status: The Bank has advised the U.S. Government that it recognizes these concerns and that the International Union for the Conservation of Nature (IUCN) has been asked to develop terms of reference for a study on the implications of the Forestry Master Plan. An agreement has been made with the government of Sri Lanka that no logging will be undertaken until the study has been completed. The Bank's representative in Columbo has been advised to make a special effort to keep A.I.D. appraised of the project and to consult with A.I.D.'s resident technical experts. Appraisal mission is tentatively scheduled for November, 1988.

PROJECTS LOCATED IN LATIN AMERICA AND THE CARIBBEAN

34. Bolivia IBRD/IDA Agricultural Lowlands Project
Projected Bank Funding: \$35 million
Total Project Cost: Unknown

Description: The project will provide support for a regional development program for the eastern lowlands, focussing on crop and livestock production; support of agriculture extension, research and training; strengthening marketing arrangements and the feeder road system. The executing agency is the Ministry of Agriculture.

Issues: Concerns were raised over the potential adverse environmental impacts associated with altering land use in the lowlands. Introduction of roads may lead to in-migration and deforestation. Lowland soils are acidic and prone to compaction with agricultural machinery. They lack nutrients and are characterized by poor drainage. As such they are easily degraded, and require appropriate agricultural and agroforestry techniques. Questions were raised about the capability of current institutions to carry out a project of this complexity.

Status: In preparing the project, the focus has shifted from a narrowly conceived agricultural production project to a regional development project promoting sustainable development. Agricultural production is now limited to those areas where either land has already been cleared or areas deemed suitable for agricultural production as established by land use studies to be conducted as part of the project. The project would also include region-wide studies to provide a planning framework for the long-term development of the region. An Environmental Impact Assessment is currently being conducted as part of project preparation.

35. Brazil IBRD Electric Sector Transmission and Distribution

Projected IBRD Funding: \$300 Million
Total Project Cost: Unavailable

Description: The loan would continue assistance for financial rehabilitation of selected utilities. The executing agency is Brazil's ELECTROBRAS.

Issues: Concerns have been raised regarding the effective design and implementation of the sector's environmental review process.

Status: Concerns have been discussed with Bank staff. Bank documentation indicates that project preparation is underway. We will continue to pursue our concerns with Bank staff.

36. Brazil IBRD Electric Sector II Project
Projected IBRD Funding: \$500 Million
Total Project Funding: Unavailable

Description: The loan would continue support for the Government's efforts to rehabilitate the Electric Power Sector, which were initiated in 1986, under the First Power Sector Loan. It is a quick disbursing adjustment loan that will provide balance of payments relief and disburse against general country imports. Based on the 1988-91 Power Sector Rehabilitation Plan, it will help the Federal Government and the state Governments to undertake financial policy measures (including tariff increases) required by the Sector to achieve the investment and financial targets of the 1988-91 PSRP. The proposed loan will also strengthen the Sector's ability to address environmental and sociological aspects of its investment program. It will support federal and state agencies responsible for environmental licensing of power projects, and for supervising/implementing the Power Sector's Environmental Master Plan. The executing agency for the loan is Brazil's ELECTROBRAS (Centrais Electricas Brasileiras).

Issues: Although the Sector Loan is not attached to any specific project, it will support numerous power projects contained in Brazil's Plan 2010 each of which may have adverse environmental and socio-cultural impacts. The fact that most of these projects fall outside the loan period (1988-91) and that other projects during the loan period are only in the feasibility stage, prohibits application of project by project environmental safeguards. However, the project can impose sector wide environmental conditions which can effect the majority of dams currently under consideration.

Brazil's Plan 2010, made public in 1987, calls for construction of 125 new dams by the year 2010. A number of the projects in the Amazon will have significant impacts on the tropical forests, wildlife and Amerindian populations. For the period of 1988-91 the Plan now includes the following projects for the Amazon region:

1. Balbina. Construction and filling of the reservoir have been completed, but the generating units and transmission lines have yet to be installed. The project continues to pose a number of environmental and Amerindian problems resulting from the project's poor location and original design (predating Bank involvement).

2. Samuel (Rondonia): Construction of this project has been completed and its reservoir will be filled in the 1988/89 rainy season. This project does not directly interfere with any Indian area. Some 238 families have been resettled by the land agency (MIRAD).

3. Manso (Mato Grosso): This project is not located in tropical rainforest environment. It is judged to have manageable environmental impacts.

4. Three small dams: Avila (Rondonia), Paredao (Roraima), Caiabis (Mato Grosso).

5. Studies for the Kararao Project on the Xingu River. The project may flood 1,225 square kilometers.

6. Studies of alternative sites for hydro-power development on the Xingu river, following abandonment of original plans for the Babaquara project. The Babaquara site was found to have major environmental problems and high financial costs. American NGOs report that a dam similar to the Babaquara will be necessary to regulate the volume of the Kararao.

7. Studies of the Cachoeira Porteira Project (Trombetas River)

8. Studies of the Ji-Parana project (Ji-Parana/Machado River). The project reportedly would flood part of a forest reserve and two villages in the Lourdes Indian Reserve.

5. Continued environmental studies on the operative Tucuruí Project on the Tocantins River.

Although all of the projects require Environmental Impact Statements under Brazilian law, and all must be subject to the guidelines of the Environmental Master Plan, there is concern about the effectiveness of these mechanisms. The government appears to have ignored the Master Plan and did not clear the Balbina area of forests and wildlife prior to flooding. Furthermore, the Master Plan relies on the institutions such as the federal Indian Agency FUNAI to defend the rights and welfare of Indians impacted by the projects. There is general lack of confidence in the institutional capacity of FUNAI to accomplish its mandate. The fact that the loan is quick disbursing means that implementation of environmental safeguards depends on the strength of the institutions responsible for carrying out the Master Plan.

New concerns were raised in September, when the Government of Brazil transferred responsibility for nuclear power production and development under ELECTROBRAS. This will include operation and maintenance of an already existing nuclear plant and plans for at least two additional plants. The Bank does not provide loans for nuclear power plants. However, there is currently no policy guidance on loans to sectors which include nuclear power facilities.

An environmental concern more directly related to the sector as a whole is the question of energy conservation and efficiency in Brazil. Concerns have been raised about continued loans to finance more electricity, when the sector is not addressing needs to conserve energy.

Status: Concerns have been raised repeatedly both by the U.S. Government and other donor governments. Three sets of multi-donor meetings have been held to discuss these concerns with Bank staff.

The Bank is well aware of environmental concerns and has sought to further the implementation of the Environmental Master Plan.

The U.S. Government has also raised the issue of energy conservation with the Bank. The raising of tariffs which will be a part of this loan will also contribute to this goal.

The Bank has informed us that appraisal has been delayed due to the need to look at technical and safety considerations raised by the nuclear power issue. The project is expected to go to the board in December, 1988.

37. Brazil IDB Segredo Hyropower project

Projected IDB funding: \$ 125

Total project cost: \$ 756

Description: Project involves construction of 1,260 MW hydropower plant to meet projected increase in electric energy demand in the state of Parana and in the South and South-East regions. Segredo is the fourth hydro-electric dam to be built on the Iguacu river with two additional dams in the planning stages.

Issues: Issues include the land clearing of roughly 84 km² to be inundated by the impoundment (24 km² is forested all of which will be cleared to avoid eutrification impacts, the rest is farmland), potential pollution from a planned pulp and paper mill which will use the wood from the forest clearing, relocation of some 550 families, and limited siltation of the impoundment lake from land use practices in the upper watershed.

Status: A meeting was held between Treasury, State, AID and IDB staff to raise environmental issues and discuss mitigation. The IDB indicated that \$ 1 million had already been spent on analysis of social and environmental issues and that an estimated \$18 million has been planned for environmental impact mitigation and resettlement. Annual reporting requirements have been imposed to ensure monitoring and oversight.

38. Ecuador IDB Electric Investment Program
Projected IDB Funding: \$110 Million
Total Project Cost: \$160 Million

Description: This project will finance the hydroelectric activities associated with the Daule Peripa dam including one transmission to Guyaquil and a power substation. The executing agency is the Ministry for the Study of Development of the Guayas River Basin, CEDEGE.

Issues: A number of general concerns have been raised concerning the environmental impacts of the Daule Peripa dam itself which was financed by previous loans. Continuing concerns include the need for watershed management and aquatic weed control. Also the presence of the dam will alter the seasonal flow of the Guayas River. Evaporation from the reservoir will concentrate pesticides and minerals, changing the water balance in the rest of the estuary. This may have an adverse effect on salt water shrimp ponds located along the coast and into the estuary. Specific concerns were raised with respect to the hydroelectric project because it was believed that it included funding for selective forest clearing and animal relocation.

Status: Discussions have been held with IDB staff, emphasizing the need for more rapid completion of environmental studies being done in the context of the previous loans for the Daule Peripa Dam. IDB staff indicated that the three studies on water quality, water management and conservation, and use of agrochemicals would be completed in 1988. They stated that no funds in the present project would be used for animal relocation or forest clearing. We will continue to monitor the project which is currently on hold.

39. Ecuador IDB Paute C Watershed Management Project
Projected IDB Funding: \$15 Million
Total Projected Cost: Unknown

Description: The project would control and manage natural resources in the upper part of the Paute watershed through four components: agricultural and forestry production, through extension reaching small-holder communities to persuade them to adopt sustainable natural resources management practices in their lands; management and conservation of renewable natural resources, through natural resource conservation and management activities carried out directly by the project's Executive Unit; sediment management; supervision, follow-up and evaluation.

Issues: The U.S. Government led by A.I.D. raised concerns regarding soil conservation measures to be used in the project and the capability of INECEL to undertake the soil conservation activities.

Status: Concerns were raised with Bank staff. The Bank replied that soil conservation would be carried out by CREA and the Ministry of Agriculture. IDB would provide technical assistance, equipment and cost-sharing schemes.

A.I.D. supports this project. It is one of the first major projects in which comprehensive natural resources management is being seriously addressed in Ecuador. While it is unfortunate that this was not done before the Paute dam was built, it is to the credit of INECEL that it is being addressed in this project.

We will make supportive comments when the project comes up for Board approval. This project will be dropped from future lists.

40. Jamaica IBRD Agricultural Sector Adjustment Project
Projected IBRD Funding: \$25 Million
Total Project Costs: Unavailable

Description: The project will support the development of export agriculture, crop diversification and food self-sufficiency. The executing agency is the Bank of Jamaica.

Issues: A possible concern has been raised regarding use of pesticides.

Status: The U.S. Executive Director's office has raised concerns with Bank staff. Current Bank documentation indicates that the project preparation is under way. The government of Jamaica has set up a team to prepare an operational working paper on environment and deforestation as part of the agriculture adjustment project preparation efforts. Recent indications are that the project will include an Integrated Pest Management element to address the pesticides issue. We will continue to monitor this project.

41. Mexico IBRD Hydroelectric Development Project

Projected IBRD Funding: \$ 460

Total Project Cost: Unknown

Description: The project would finance the Aguamilpa (960 MW) and Zimapan (280 MW) Hydroelectric Projects, plus execution of energy-related studies and an environmental and resettlement program.

Issues: Questions were raised about how the environmental analysis and review were to be carried out for the proposed Electric Power sector I.

Status: Bank documentation indicates that an appraisal report is being prepared. We will seek further information about the environmental analysis of Aguamilpa and Zimapan.

42. Mexico IDB Forestry Development
Projected IDB Funding: \$44 Million
Projected Total Cost: Unknown

Description: The loan will support forestry development in Mexico.

Issues: Local NGOs have expressed concern about potential misuse of forest resources and effects on indigenous peoples.

Status: The Project has not yet appeared in the bank's monthly operational summary so that very little information is available yet.

PROJECTS WHICH WERE DROPPED FROM THE PREVIOUS LIST

Niger AfDB Kandadji Dam

Project was dropped because it was put on hold indefinitely due to high costs and unresolved technical issues

Kenya AfDB Nyando Irrigation Project

Project was dropped because it has been put on indefinite hold and is no longer in the pipeline

Lesotho IDA Land Management and Conservation Project

approved by Bank

Sri Lanka IDA Second Smallholder Rubber Rehabilitation

approved by Bank

Yugoslavia IBRD Lonjsko Polje Drainage Project

Project was dropped from the list because it is no longer in the pipeline

Lesotho IDA Urban Development II project

approved by Bank

Pakistan IDA Punjab Urban Development Project

Project was dropped because mission indicated that its concerns had been addressed

Philippines IBRD Bacon Manito Geothermal Project

Project was dropped because it has been approved

Senegal IDA Transport Sector Rehabilitation

Project was dropped because clarification on issues and further information indicated that the environmental implications were minimal.

Thailand IBRD Energy IV Project

Project was dropped because government of Thailand is no longer seeking support for it.