

**LIST OF UPCOMING MULTILATERAL DEVELOPMENT BANK (MDB)
PROJECTS WITH POSSIBLE ENVIRONMENTAL CONCERNS**

December 1993



**Office of Donor Coordination
Bureau of Policy and Program Coordination
U.S. Agency for International Development**

ABBREVIATIONS AND ACRONYMS USED

BANKS, LENDING INSTITUTIONS AND NGOs:

- ADB: Asian Development Bank
- AWB: Asian Wetlands Bureau
- AfDB: African Development Bank
- BIC: Bank Information Center
- EBRD: European Bank for Reconstruction and Development
- EEC: European Economic Commission
- EXIM: Export Import Bank (U.S.)
- GEF: Global Environmental Facility
- FAO: United Nations Food and Agriculture Organization
- IDB: Inter-American Development Bank
- IBRD: International Bank for Reconstruction and Development (WB)
- IDA: International Development Association (WB)
- IFC: International Finance Corporation (WB)
- IFAD: International Fund for Agricultural Development
- IUCN: World Conservation Union
- FINNIDA: Finnish International Development Agency
- KfW: Kreditanstalt für Wiederaufbau (German Bank for Reconstruction and Development)
- OECF: Overseas Economic Cooperation Fund (Japan)
- SIDA: Swedish International Development Agency
- WB: World Bank
- WWF: World Wildlife Fund

OTHER ABBREVIATIONS:

- EA: Environmental Assessment
- EIA: Environmental Impact Assessment (used interchangeably with EA)
- GIS: Geographic Information System
- ha: hectare(s); 1 ha = 2.47 acres, 1,000 ha (10 km²) = 3.87 miles²
- km: kilometer(s); 1 km = .62 miles
- kV: kilovolts
- MW: Megawatts
- NGO: Non-Governmental Organization
- TBD: To be determined

STAGE OF WORLD BANK PROCESSING OF A TYPICAL PROJECT:

1. Project identification
2. Project preparation
3. Preparation mission
4. Pre-appraisal mission
5. Pre-appraisal
6. Appraisal mission
7. Appraisal report preparation
8. Negotiations
9. Board date and approval

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INTRODUCTION

This report to Congress lists proposed multilateral development bank (MDB) projects that could cause environmental problems. This report is required by Section 537(h) of Public Law 100-202 and Section 1303(c) of Public Law 95-118. These direct the U.S. Agency for International Development (USAID), in consultation with the Secretaries of Treasury and State, to compile a list of proposed MDB loans likely to have adverse impacts on the environment, natural resources, public health, or indigenous peoples. The list is to be prepared and updated "in consultation with interested members of the public." This report does not prejudge the United States position on the final version of projects when they are considered by the MDB Executive Boards.

Since this legislation was passed in 1986, USAID has actively monitored environmental aspects of proposed MDB projects. We investigate and report on environmental problems identified by USAID missions and concerned NGOs. We meet with other U.S. agencies and NGOs at a regular monthly meeting held the first Tuesday of each month to discuss problem loans and associated environmental policy issues related to the MDBs.

We work with the U.S. Treasury, EPA, the State Department and the U.S. Executive Directors' offices at the MDBs to resolve environmental problems before loans are approved by the Executive Board. USAID also works with MDB staff and management while loans are in the design stage.

The projects in this report serve as a record of USAID monitoring of MDB projects. The report also serves as an indicator to judge the considerable progress made by the MDBs on environmental policies and procedures since 1986 when Congress first expressed concern over these issues.

Since this list was last produced in 1990, the MDBs have made significant progress toward integrating environmental concerns into their loan criteria and sector policies. The World Bank as well as the Inter-American Development Bank and the Asian Development Bank have been leaders in bringing about this improvement in MDB environmental performance. Especially important have been strengthened staff capacity for most MDBs, and new World Bank policies in forestry, energy and information access.

Most important at the project level, since 1989, the World Bank, the Inter-American Development Bank, the Asian Development Bank, and the African Development Bank have put in place internationally accepted comprehensive environmental assessment procedures. The procedures ensure that all proposed projects are screened for

possible environmental impacts, and that full environmental impact assessments (EIA) are conducted when impacts are likely to be significant. (The EIA classification systems differ by bank. A summary of each classification system follows this introduction.) In addition, the World Bank has adopted procedures whereby project related information is available electronically and through headquarters and field offices. The U.S. strongly supported this move, as it improves the process of dialogue and consultation.

Our report this year reflects the improvements at the MDBs. Although the number of problem projects on the list is roughly the same as in previous reports, the nature of the problems has shifted. The report no longer documents the need for environmental procedures and policies but serves as an indicator for how well these procedures are being implemented.

The principal mechanism for compiling the list is USAID's Early Project Notification (EPN) System. In this system, USAID notifies its field offices and selected embassies of upcoming projects as they are made public in the monthly operational summaries of each MDB. The EPN System solicits comments from the field offices on proposed projects concerning a number of issues including the environment. This happens one to two years prior to the project's consideration by the MDB Boards of Directors.

USAID field offices respond if there is reason to anticipate environmental concerns, and these responses are reviewed in Washington. Projects are then investigated further, and placed on the list based on the information at hand and the judgment of the U.S. Government. Comments from field staff are specifically noted in the list (USAID field offices are referred to as USAID/*country name*) and followed by the cable number and date in brackets "[]" from which the comments were obtained. Comments from other governmental agencies and NGOs are also discussed and incorporated into the list, mostly through the Tuesday Group meeting mentioned above. The MDBs have also been very helpful in providing additional information and answering questions raised on projects.

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. In this sense, the EPN System is only as good as the information provided by the MDBs. Inclusion on the list indicates that the project might have impacts which should be anticipated and reduced during project planning and design. This does not necessarily mean that a project will pose problems when it goes to the MDBs' executive boards or afterwards during implementation. Environmental assessment of the project may lead to project redesign and to the introduction of specific mitigation measures. Many of the concerns identified in the list are being addressed through the environmental assessment and project design process.

The list concentrates on the World Bank, African Development Bank, Asian

Development Bank, and the Inter-American Development Bank. Due to limited resources and lack of USAID presence in many countries, other regional and subregional MDBs have not been followed and are not reported on in this list.

This report is most complete with respect to the World Bank projects for which early information is relatively accessible. It is less complete for the African Development Bank, the International Finance Corporation and the European Bank for Reconstruction and Development for which good early project information is inadequate.

Inclusion of projects on this list does not indicate how the U.S. will officially respond to them. For example, the 1989 Pelosi amendment to the International Financial Institutions Act guides the voting decisions of U.S. Executive Directors on projects that come before MDB boards. According to the amendment, projects with potentially significant environmental impacts (regardless of the MDB environmental category) must make an environmental assessment summary available to the board, and an EIA summary available to affected groups and NGOs, 120 days before the board date. The amendment also requires that the EIA examine alternatives, and encourages public participation in the environmental assessment. If the project does not meet these criteria, the U.S. Executive Director must withhold support when the project comes before the board.

REVIEW OF ENVIRONMENTAL ASSESSMENT CATEGORIES AT MDBs

In recent years most of the MDBs have come a long way toward integrating environmental concerns into their loan criteria and sector policies. Most have developed environmental assessment categories based on the nature, magnitude and sensitivity of environmental issues. Since this list was last produced in December 1990, several of the banks have developed or changed their environmental assessment procedures and classification systems. They are not all the same, so a summary of classification systems follows.

World Bank {International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), & International Finance Corporation (IFC)}:

- Category A: Environmental Assessment is normally required as the project may have adverse and significant environmental impacts.
- Category B: More limited environmental analysis is appropriate, as the project may have specific environmental impacts.
- Category C: Environmental analysis is normally unnecessary.
- Category FI: IFC only -- relates to financial intermediaries whose subprojects may result in environmental impacts, thus requiring an environmental review by the intermediary, in accordance with IFC procedures.

African Development Bank (AfDB)

- Category I: Projects which may have significant environmental impacts, requiring detailed field review and an Environmental Impact Assessment (EIA) study.
- Category II: Projects with limited environmental impacts that can be mitigated by applying specific measures in the project design.
- Category III: Projects not anticipated to result in adverse environmental impacts, for which environmental analysis is normally unnecessary.

Asian Development Bank (ADB)

- Category A: An EIA is undertaken for those projects for which significant adverse environmental impacts have been forecast in the initial environmental examination (IEE).
- Category B: An IEE confirms that there are no significant adverse environmental impacts requiring a detailed EIA, the IEE represents the complete environmental assessment report. Projects in this category may have adverse environmental impact that are of a lesser degree than Category A impact; mitigation measures for these impacts are more easily prescribed.

Category C: An environmental assessment is normally not required for Category C because the project is unlikely to have adverse environmental impact.

Inter-American Development Bank (IDB)

Category 1: Operations designed specifically to improve environmental quality.

Category 2: Operations that have no direct or indirect environmental impact.

Category 3: Operations that may have a moderate impact on the environment but for which there are recognized and well defined solutions.

Category 4: Operations which may have significant negative impacts on the environment and which will require a detailed environmental assessment.

The Asian Development Bank gives illustrative examples of each environmental category of project. These are generally representative of all three basic categories used by the MDBs. They are:

Category A (WB A, AfDB I, and IDB 4):

- Forest industries (large scale)
- Irrigation (large scale with new source development)
- River basin development
- Large scale power plants
- Large scale industries
- Surface and underground mining
- Large water impoundments
- New railways/mass transit/roads (near or through sensitive areas)
- Ports and harbors
- Water supply (with impoundments and/or river intakes)

Category B (WB B, AfDB II, and IDB 3):

- Agro-industries (small scale or no wet processing)
- Renewable energy
- Aquaculture and mariculture
- Rehabilitation, maintenance and upgrading projects (small-scale)
- Industries (small-scale and without toxic/harmful pollution discharges)
- Water supply without impoundments or new river intakes

Category C (WB C, AfDB III, and IDB 1 & 2):

- Forestry research and extension
- Protected area establishment and management
- Marine sciences education

- Geological or mineral surveys
- Education
- Family planning
- Capital market development study
- Securities Ltd.

**LIST OF UPCOMING
MULTILATERAL DEVELOPMENT BANK (MDB) PROJECTS
WITH POSSIBLE ENVIRONMENTAL CONCERNS**

PROJECTS LOCATED IN AFRICA

1. Benin/Togo: IDA/AfDB - Adjaralla Hydroelectric

Projected IDA Funding: \$ 30.0 million

Projected AfDB Funding: \$ 35.0 million

Projected Total Cost: \$237.0 million

Tentative AfDB Board Date: Unknown

Stage: Undergoing appraisal at AfDB

Reserve program at IDA

AfDB Environmental Assessment Category: I

World Bank Environmental Assessment Category: A

Description: The proposed 80-MW project on the Mono River, 97 km downstream of Nangbeto on the boundary between Togo and Benin, will include construction of a dam, associated equipment and transmission lines. It will also involve the resettlement and compensation of 10,000 people, and environmental and health programs. Power sector studies, technical assistance and training for host country agencies are planned.

Issues: USAID/Togo reports that it is not clear where the population will be resettled, or what the effects of resettlement will be on land, agriculture, deforestation and social customs. The downstream effects of the dam must also be analyzed. Impacts on fisheries and deforestation of the reservoir area are also issues.

In addition to these environmental concerns, USAID/Togo reports that there are unaddressed policy questions which affect energy planning in Togo. The government, one of the largest consumers of electricity in the country, is in arrears on energy payments. This means that there is no incentive for energy conservation by the government. In addition, it raises costs for private sector consumers. [#03626 20Jul92]. This indicates that the project should develop components on formulating a comprehensive governmental energy policy and on energy conservation.

Status: The World Bank has placed the project into its Reserve Program because of the political situation in Togo. However, the World Bank remains interested in pursuing the project. These comments have been conveyed to the World Bank and

the African Development Bank. AfDB responded that it has reviewed the [draft] EA report of this project and has raised issues similar to those mentioned above by USAID/Togo. Therefore, AfDB has requested the consultants to re-examine these issues and propose effective mitigating measures. The EA report of this project has not yet been finalized. The project is still undergoing appraisal as well. The World Bank reported that the EA has been completed, but that it has not yet officially received the final report.

2. Côte d'Ivoire: IDA - Road Maintenance and Rehabilitation

Projected IDA Funding: \$ 30.0 million
Projected Total Cost: \$180.0 million
Tentative Board Date: Second semester 1994
Stage: Post appraisal mission scheduled for February 1994.
World Bank Environmental Assessment Category: B

Description: The proposed project is designed to:

- a) halt deterioration of existing roads;
- b) reform the organizational structure of road maintenance, partly by privatizing specified activities; and
- c) reduce rural transport costs by upgrading the maintenance of farm-to-market roads.

Issues: USAID/Côte d'Ivoire is concerned that the project would contribute to a rapid process of deforestation, through induced development and secondary impacts. [#02779 18Feb92]. USAID believes that a complete EA should be conducted given the above concerns. Also, a mitigation program should be developed as part of the project.

Status: The above concerns have been forwarded to the World Bank, which reported the following: At the time of appraisal, the roads to be rehabilitated have not been completely identified, so that segment-specific EAs or mitigation plans cannot be done. This is true with similar WB projects throughout Africa. WB is attempting to establish small environmental units in the ministries of transport and provide training for the staff for environmentally sound road maintenance. None of the projects are far along enough to have any feedback on success or failure of these small units (they have been established in Ghana and in some Nigerian states). WB agrees that a mitigation plan should be developed and incorporated into the project.

3. Côte d'Ivoire: AfDB - Projet Gaz Foxtrot

Projected AfDB Funding: \$15.0 million
Projected Total Cost: Unknown
Tentative Board Date: First semester of 1994
Stage: Final
AfDB Environmental Assessment Category: I

Description: The proposed project will bring natural gas from an offshore well to an onshore area to be used principally to fire electricity generation plants which are now burning oil. IFC has recently approved the \$45-million CI-11 Hydro Carbon Development Project on an adjacent block (the Foxtrot Block is on CI-10, about five miles away.)

Issues: USAID/Côte d'Ivoire reports that the EA has been written, but does not adequately address certain important environmental concerns. The EA recommends that liquid wastes be collected and discharged to the municipal sewers. This solution is questioned because the sewer system of Abidjan has no treatment facility, not even primary treatment. The Foxtrot project should be required to include, at gas processing plant locations, appropriate on-site treatment for all liquid, gaseous and solid wastes.

The project requires resettlement, which the EA has downplayed, claiming the people are illegal squatters. The impacts on the environment of the resettled villagers on lands given to them in compensation has not been adequately considered, monitored or mitigated.

The EA does not quantify the waste waters proposed for discharge, nor does it adequately address SO₂ or NO_x gas emissions, acceptable discharge limits, or mitigation methods. A program for air and water quality control is needed, supported by a quality assurance program. No mention was made of either program; no accident/disaster planning process appears to have been established. The project should also be considered in the context of energy development in the region, including the IFC project mentioned above. Accordingly, the cumulative impacts of gas flaring and transport facilities need to be considered. Other concerns have also been raised about the EA by USAID/Côte d'Ivoire. [#06023 22Apr93]

Status: The above comments have been conveyed to the African Development Bank and the World Bank. AfDB responded that it has reviewed the [draft] EA report of this project and raised similar questions related to the environment. AfDB also reported that it will make sure that all of the above issues are considered in the appraisal stage of the project.

The World Bank recently reported that the project site has been changed to avoid

resettlement of a population that did not want to be resettled. Now there is no resettlement associated with the project. Waste treatment will be on site and will not tie into the municipal system. Also, the recent EA draft suggested that discharge of platform wastes would meet or exceed industry-wide standards. WB is also a possible cofinancier of the project.

In conclusion, USAID is expecting the above concerns, aside from resettlement, to be addressed in the appraisal stage of the project. USAID will continue to monitor the project.

**4. Guinea-Bissau: IDA - Agricultural Land and Environmental Management
(formerly Natural Resources Management)**

Projected IDA Funding: \$ 8.0 million
Projected Total Cost: \$ 9.0 million
Tentative Board Date: Second semester 1994
Stage: Appraisal completed, negotiations scheduled for April 1994.

World Bank Environmental Assessment Category: **A**

Description: The proposed project would lay the foundation for improved management of natural resources to promote sustainable agriculture. Components would be:

- a) land use and land capability studies;
- b) a pilot program of community-based resource management;
- c) preparation of forest inventories and management plans;
- d) establishment of a National Cadastre Institute; and
- e) strengthening a National Environmental Council.

Issues: USAID/Guinea-Bissau is concerned that negative environmental impacts, such as logging in natural forests, may arise from the source of the Guinea-Bissau government's \$200,000 counterpart contribution to the project. The government's contribution originates from fees collected from forestry concession-holders, and, in theory, this money is to be used for reforestation purposes. In fact, it is said that it has not been so used. Instead of fixing the problem, the project may only delay a solution.

USAID/Guinea-Bissau also recommends that the Bank (non-project) staff periodically review the environmental aspects of the project. USAID/Guinea-Bissau initially cited a lack of coordination with other development projects involving land demarcation, and the importance of including coordinating mechanisms in project design. Otherwise, the USAID/Guinea-Bissau supports the project. [Fax 28Jul93, #02786 27Oct92].

Status: The above comments have been conveyed to the World Bank. In reply, the World Bank reported that the project, originally a "B," has now been changed to an "A." Also, the World Bank reassures that the project would not support logging in primary forests. Rather, it would (a) strengthen the institutional framework for managing forest resources, and (b) provide technical assistance to undertake a nationwide forest inventory, and prepare management plans for them.

Additionally, the World Bank reaffirms that donor coordination is an important aspect of the project, and it has coordinated at every stage of project processing.

Consultants used by USAID in its work on land tenure in Guinea-Bissau were also used by the World Bank to prepare and appraise the project's components dealing with land demarcation. The EEC, which has the most donor experience with land demarcation in the country, has endorsed the World Bank's approach and would collaborate with the World Bank in the implementation of this component. All main documents on the project were shared with other donors.

In conclusion, USAID looks forward to the above concerns being addressed in the full EA.

5. Mozambique: IDA - Second Road and Coastal Shipping (ROCS II)

Projected IDA Funding: \$155.0 million
Projected Total Cost: \$790.0 million
Tentative Board Date: 7/94
Stage: Negotiations tentatively scheduled for January 1994
1994.

World Bank Environmental Assessment Category: **B**

Description: The proposed project will provide for the:

- a) rehabilitation and maintenance of selected sections of the feeder and primary road networks connecting to coastal shipping ports;
- b) continuation of transport institution building introduced under ROCS I; and
- c) road transport improvement and the second phase of small port rehabilitation and efficiency improvements.

Issues: USAID/Mozambique reports that a substantial amount of reconstruction and rehabilitation will take place. The secondary impacts of the project are of concern. Road reconstruction will open up areas that have been isolated for a long time. The Zambezi River valley is especially susceptible to a great influx of returning refugees and displaced people who will re-clear or clear land for cultivation. Negative impacts might include soil depletion and groundwater contamination due to fertilizer runoff. There is no mechanism to monitor and mitigate the effects of such population settlements. [#02102 16Apr93].

Status: The above comments have been conveyed to the World Bank. The World Bank has worked closely with USAID/Mozambique on the project, and both are waiting for the return of the environmental specialist to discuss the above concerns. The World Bank has hired a long-term environmental consultant to work on project preparation from the beginning. She has been instrumental in integrating environmental concerns and protection throughout project preparation.

WB reported that it has been concerned about the project's impacts on coastal areas and mangrove ecosystems. However, because the large amount of staff time allotted to the project, WB did not feel it was necessary to conduct a complete EA.

Cofinancing of about \$280 million is being sought from AfDB, BADEA, EEC, ORAD, SIDA and USAID (with another \$150 million being sought for later project stages) and \$205.0 million from the government. USAID/ Mozambique commitment to the project is still pending; support will probably be in the form of parallel financing of certain parts of the project if environmental issues are settled satisfactorily.

6. Nigeria: IBRD- Escravos Flared Gas Reduction

Projected IBRD Funding: \$ 82.0 million

Requested GEF funding: \$ 25.0 million

Approved IFC Funding: \$140.0 million

Projected Total Cost: \$450.0 million

Tentative IBRD Board Date: 3/24/94

Stage: Appraisal mission completed; negotiations tentatively scheduled for December 1993.

World Bank Environmental Assessment Category: A

Description: The proposed project involves the production of methane gas, liquid petroleum gas and condensates from 167 million ft³/day of natural gas (associated with crude oil production) which is currently being flared into the atmosphere. Incremental crude production from this project would be blended into the sponsors' existing operations and exported. The project offers major environmental benefits as it will reduce carbon emissions from Nigeria, and has therefore attracted GEF consideration. The project sponsors are Chevron Nigeria Limited (40%) and the Nigerian National Petroleum Corporation (60%), who are associated in the form of an unincorporated joint venture. A full environmental assessment has been completed (7/8/93).

Project will include:

- a) an offshore gathering system;
- b) an onshore compression station;
- c) a gas pipeline;
- d) a processing plant; and
- e) a liquified petroleum gas floating storage vessel.

In addition, support will be provided for institutional and technical development within Nigerian National Petroleum Corporation and the Ministry.

Issues: Concerns include siting of onshore facilities in a mangrove swamp (approximately 100 ha permanently altered), and associated deforestation and filling, notwithstanding the project plans to keep disturbance to minimum. Potential expansion of the site is also a possibility.

IBRD (and IFC) has financed other similar gas projects as commercial operations. Therefore, the use of Global Environmental Facility grant funds has been criticized by NGOs, the Independent Evaluation of the GEF, and the US government because, in the right policy framework, this project should be entirely financed as a commercial venture. Appropriate policies would help assure that these facilities are permanently used. The GEF contribution of about five percent of the total project cost is probably

not significant in completing the project financing, but is a significant amount of scarce GEF resources.

Status: The EA report is complete and is being reviewed by USAID. A consultation on the project organized by the GEF was held with NGOs on June 25, to exchange information on the project, concept and schedule. In addition, in consultations with the U.S. private sector partner (Chevron), the World Bank has issued an advance copy of the appraisal report which is being reviewed.

In response to the above concerns, the World Bank noted that its mission to the project site included a socio-anthropologist to carry out an independent review of the sociological impact of the project on the local population, and work with the project sponsors on an appropriate Impact Mitigation Strategy. The Bank also responded that the GEF financing compensates Nigeria not for an inadequate policy framework, but for the implementation of a Gas Sector Policy that includes a fiscal incentives framework promoting investment in projects that use flared associated gas. Associated gas is more costly to produce than non-associated gas, of which Nigeria has very considerable reserves. The promotion of capturing previously flared associated-gas therefore entails foregone benefits for Nigeria, offset in part by the GEF grant.

On the issue of whether IBRD is being sufficiently firm in pressing for critical policy reforms, the World Bank responded that it has recently completed a report on the energy sector in Nigeria. This has been discussed at length during its preparation with the government of Nigeria, and the final document lays out the policy agenda in the sector for the coming years. The projects under preparation fit within this policy framework.

In conclusion, siting of the facilities in a mangrove swamp and possible expansion of them remain as concerns. Also, the issue of \$25 million in GEF funding for the project still needs to be resolved. The criticism that the project should be financed completely as a commercial venture in appropriate policy environment is still of concern.

PROJECTS LOCATED IN ASIA AND PACIFIC

7. Bangladesh: IDA - River Bank Protection

Projected IDA Funding: \$106.0 million
Projected Total Cost: \$128.0 million
Tentative Board Date: 5/17/94
Stage: Appraisal report under preparation
World Bank Environmental Assessment Category: B

Description: The proposed project would improve protection against damage caused by normal bank erosion hazards at two sites (primarily towns and major infrastructure), along the Jamuna (Brahmaputra) River's west bank by construction of sustainable bank protection and river training works. One of the major subprojects will protect the town of Sirajganj (population greater than 100,000) from destruction. The Jamuna River naturally advances westward at an average rate of 50 meters per year (localized rates can average 300-800 m/yr). Cofinancing support is being sought.

The Sirajganj subproject is upstream from the Jamuna Bridge (see project number 9) and would help protect it, though this project is economically justifiable on its own merits. The proposed measures may also temporarily help avoid a catastrophic natural realignment of the Jamuna River along the channel of the Bangali River, a small river located less than one km due west at its closest point. This imminent realignment would flood tens of thousands of hectares of farmland and necessitate the total redesign of the Jamuna Bridge, and greatly decrease its value if it were already built.

Issues: The relationship of the project to the overall Flood Action Plan (FAP) and to the FAP environmental guidelines was unclear. The FAP is a multi-donor series of studies designed to investigate the best way to prevent or mitigate severe flooding in Bangladesh. USAID has funded environmental and socioeconomic studies as part of the FAP. The World Bank serves as coordinator among the many donors participating in these studies. It is unclear how the results of the environmental studies are being applied to the overall studies and to the projects which are being designed.

Resettlement will be involved in the project. NGOs were concerned the resettlement issues would not have been adequately addressed by the level of environmental analysis afforded the project.

Additional concerns were raised in discussions with technical consultants to USAID, and in conversation between USAID/Bangladesh and the Bangladesh Department of the Environment. One of the most serious concerns is that the proposed project may have a "domino effect," creating the need to construct similar works (at, for example, five-year intervals) upstream and downstream from the site to protect the original

installations. Also, there is controversy over the proposed training works. Although a proven technology, they are experimental in scale in the Bangladesh context because of the enormous force of these rivers. The feasibility of strengthening the erosion-prone banks of a very large shifting river is an issue of extreme complexity. [Fax 3/Nov93].

Status: The U.S. Government had several meetings with World Bank staff to obtain clarification and resolution of the issues raised. The U.S. Government also obtained a full briefing from USAID FAP consultants concerning the proposed project and its likely environmental impacts. As a result of these meetings, a number of concerns were clarified or resolved. First, the project was scaled back to limited and defined sites. Two subproject bank protection sites were dropped because of cost and economic justification concerns (and no other reason). There is general agreement that the proposed sites are critical and need to be protected.

The World Bank clarified that the project itself predated the FAP and is largely independent of the FAP.

As a result of the meetings with the U.S. Government and with NGOs, the Bank requested that the full EA be released to the public. The Government of Bangladesh agreed, and the report is now available. In addition, the World Bank has insisted on the receipt of a satisfactory resettlement plan as a condition of negotiations.

A resettlement plan framework has been developed. Its clearance by the World Bank depends on the agreement of satisfactory land acquisition principles for all IDA-supported projects.

The U.S. Government will continue to monitor this loan. It is important that an adequate resettlement plan be approved prior to loan approval. Also, the U.S. continues to believe that projects of this kind should be guided by an environmentally sound FAP. The U.S. urges the World Bank to continue its coordination role and to increase its environmental leadership as part of the FAP process. This project was included in the December 1990 List of Upcoming Projects with Possible Environmental Concerns.

8. Bangladesh: IDA - Coastal Embankment Rehabilitation

Projected IDA Funding: \$46.0 million
Projected Total Cost: \$81.3 million
Tentative Board Date: Dependent upon reaching agreement on an appropriate resettlement plan, probably 5/17/94.
Stage: Appraisal report under preparation, awaiting receipt of resettlement plan.
World Bank Environmental Assessment Category: B

Description: The proposed project will seek to improve protection of reclaimed agricultural lands against tidal inundation and seasonal to medium tidal surges. The project's major purpose is to provide significant protection against cyclonic surges, reducing loss of life, damage to houses and infrastructure, and loss of crops and livestock. It will accomplish this through repair and upgrading of sea embankments and associated structures, and by appropriate structural and biological protection measures. The project emphasizes afforestation of the embankment and slopes and foreshore and improved operations and maintenance. The project will use a community participation approach, using NGO services for afforestation, routine embankment maintenance, and resettlement of families displaced by project works. The project formerly included a component to improve evacuation and relief access by construction of several hundred kilometers of all-weather, economically justifiable, feeder roads. This component has been dropped (and will be taken up, apparently, by ADB). Cofinancing interest has been expressed by the European Community for afforestation, resettlement, technical assistance and training.

Issues: USAID/Bangladesh emphasizes the need for local participation in the implementation of project. Bangladesh's Water Development Board and the Forestry Department, which will implement the project, have limited experience with participatory approaches in project implementation. Therefore, it is absolutely critical that these project components be fully monitored and tightly conditioned to achieve project success.

Resettlement and compensation are issues of major importance. Prior to loan disbursement, it is critical that a realistic and workable plan be drawn up to minimize the negative impact of resettlement and to provide compensation for both squatters and land owners.

Adequate maintenance of both embankments and drainage facilities is the most critical factor in determining the long term success of the project. Therefore, project beneficiaries must not only be involved in the development of an operation and maintenance plan, but they must understand and accept their role in its implementation.

USAID/Bangladesh also suggests that trees should be planted as quickly as possible on embankments that are to be rebuilt or repaired. Tree seedlings should be planted as each section of embankment is completed, rather than waiting for the whole project to be done. Indigenous, multi-purpose species of trees should be considered over exotic species. Also, [#06263 3Aug92].

Status: Notwithstanding the "B" classification of the project, a complete EA was performed given the nature of many of the environmental concerns of this project. The project's EA was released some time ago by the Bank and is being reviewed by USAID. Cofinancing has been confirmed by the European Community.

The above comments have been conveyed to the World Bank. WB replied that improvements in project design introduced in Spring 1992 include the use of NGOs to organize community participation and emphasize operations and maintenance. These address some of the issues mentioned. The WB is in agreement that the essential features of the resettlement plan must be in place before a loan can be approved. Also, community participants cannot be given access to the embankments for tree planting until contractors' works are approved as having fulfilled the contract specifications. Within these limits, the World Bank is aiming to start planting tree seedlings as soon as possible.

The World Bank is essentially in agreement with the issues outlined above, and is effecting the changes to the project, which is encouraging. USAID will continue to monitor this project.

9. Bangladesh: IDA/ADB Jamuna Multipurpose Bridge

Projected IDA Funding: \$200.0 million

Projected ADB Funding: \$205.0 million

Projected Total Cost: \$684.0-\$730.0 million

Tentative WB Board Date: 2/15/94

Tentative ADB Board Date: 3/08/94

Stage: WB appraisal mission completed. ADB appraisal completed.

World Bank Environmental Assessment Category: **A**

ADB Environmental Assessment Category: **A**

Description: The proposed project will construct a major multi-purpose bridge (road, railway, power connector, telecommunications) across the Jamuna (Brahmaputra) River to reduce transport costs and support the Northwest's economic integration with the rest of the country. The railway will not go on the bridge initially. The bridge foundations will be capable of carrying the railway so it may be added later. Project components include: the main bridge, river training works (embankment protection works, bank erosion protection works, stormwater drainage), east road approach, west road approach, sanitation and solid waste management, and slum improvement. Cofinancing is planned with ADB, and is also possible with Japan.

Issues: There are several issues:

- a) the high recurrent costs of the Jamuna Bridge and the upstream protection;
- b) the extent of people's participation in the design of this project;
- c) the omission of people living on sand islands (chars) within the active flood plain considered in the EA conducted in 1988;
- d) the dynamic nature of the Jamuna River at the proposed site and the effects of upstream river training and embankment works on the bridge design;
- e) the change in flow affecting flooding patterns by closing off a distributary of the river above the bridge; and
- f) induced development.

Status: An EA has been carried out and a summary report has been made available to the World Bank (IDA) and ADB Boards of Directors in September 1993. An overall environmental action plan, which includes mitigation plans for fisheries and navigation impacts, has also been prepared. Some involuntary resettlement is required for this large scale construction project and the ADB reports that a comprehensive Resettlement Action plan has been prepared by the Government and submitted to IDA. An EA summary has been made publically available. The EA summary and Environmental Action Plan will be in the World Bank appraisal report. USAID and WB

staffs met regarding the concerns about this project.

The World Bank reported that the project will reinforce "hard points" which already exist. The hard points will not change downstream flow. But closure of the northern intake of a distributary river (necessary to protect the eastern approach road), will impact on agriculture, fisheries, and navigation. The impact on agriculture will be positive. Bridge costs are not expected to change significantly because they are based upon actual bids. An overall environmental action plan, which includes mitigation plans for fisheries and navigation impacts, has been prepared. (This project was included in the December 1990 List of Upcoming Projects with Possible Environmental Concerns.)

The following concerns should be taken into account in the approval process of this project:

- a) The fiscal impact of the planned bridge on the development budget of Bangladesh should be studied. The costs associated with the bridge should be carefully assessed in light of the annual development budget and commitments to other ongoing or planned development projects. The Jamuna Bridge project will require about \$828 million over a period of about four years, representing 14% of the Annual Development Program. Despite the long-term financial benefits, the annual cash requirements for recurrent operations and maintenance costs, as well as demands on management capacity merit careful analysis. A firm commitment by the Bangladesh Government for the operations and maintenance is also necessary. It is unclear that alternatives to the all-in-one approach to carrying communication, freight and passengers across the river have been thoroughly reviewed. The Bank reported that operations and maintenance costs will be included in the construction contract for five years, with a five-year renewal possible.
- b) The project should ensure full, complete, and transparent participation by the local people in decisions related to the project. Measures should be taken to assure that those who will be immediately affected by bridge construction and the permanent works have the opportunity to participate in the decisions, and wherever possible, the project should seek to include the inputs of an informed public. The project has involved the participation of people that will be directly affected by the bridge. However, full participation is still needed from those likely to be indirectly affected (see c below). The FAP has initiated a system for presenting and discussing its projects in public fora.
- c) The earlier EA, conducted in August 1988, estimated that 3,636 persons in 606 households would be displaced by the permanent structures and construction works. On the positive side, the creation of about 275 ha of land from earthmoving will add some additional area for resettlement. However, a

recent (1993) study shows that at least 50,000 people are living within the riverbanks which may be directly affected by the bridge construction. The hydrologic impact of the bridge, which is likely to extend at least 10 km upstream and scour the riverbed for almost 12 km downstream, could result in some permanent displacement of this charland population. Therefore, as the project proceeds, measures should be taken to assure that resettlement issues are thoroughly and fairly considered, and that they include the charland inhabitants.

- d) Recent data reveal that the proposed bridge site is very dynamic and, that within its embankments, the river is constantly shifting and becoming increasingly wider. Since 1989, it has widened by 3246 meters at the proposed site, 900 meters during the last year alone. These figures are corroborated by satellite imagery and accurate GIS information only very recently analyzed by USAID consultants working with the Irrigation Support Project for Asia and the Near East (ISPAN). According the World Bank, the river channel movement is well within the embankments of the project. Full access to the latest information available through the FAP would enable more information to be used in the detailed engineering design, thus giving more precise cost estimates.
- e) The current plans for the project call for closure of the northern intake of the Dhaleswari (a left bank distributary river) in order to protect the eastern approach road. This closure will favorably impact agriculture by reducing flooding in the distributary, but will adversely impact fisheries and navigation. The closure will also increase flows in the Jamuna. These factors should be adequately addressed in the EA and the environmental action plan.
- f) The road and bridge construction is expected to induce extensive development along the approaches to the bridge. This presents land use planning, infrastructure, and impact assessment questions.

10. China: IBRD - Xiaolangdi Multipurpose; IDA - Xiaolangdi Resettlement

Projected IBRD Funding: \$ 475.0 million
Projected IDA Funding: \$ 110.0 million
Projected Total Cost: \$3,145.0 million
Tentative Board Date: 3/15/94
Stage: Appraisal mission completed and report is being prepared.

World Bank Environmental Assessment Category: A

Description: The proposed Xiaolangdi Multipurpose Dam project will fund the construction of a major dam (171 m high rockfill) on the Yellow River to provide protection for 100 million people from catastrophic floods on the North China Plain, alleviate siltation and aggradation of the river channel, provide irrigation water to over 1 million ha of farmland, provide municipal and industrial water throughout the region, and to generate 1,800 MW of electric power. The maximum water level will reach a 275-meter elevation. The resettlement of about 170,000 (up to 190,000) people over a 20-year period is being addressed by the Xiaolangdi Resettlement Project. The separate IDA resettlement project is described in the next paragraph. Detailed resettlement plans have been prepared for the first 44 m rise in water level (elevation 185 m). A pilot resettlement site is being completed, and resettlement of the first 3,000 people has begun. Potential environmental impact has been reviewed and the EA was submitted to the Board on April 15, 1993.

The proposed Xiaolangdi Resettlement Project involves resettlement of 171,000 people, and will have four main components:

- a) construction of about 44,000 houses and infrastructure for 276 villages and 11 towns;
- b) transfer of resettled people from their present locations to new locations;
- c) development of about 15,000 ha of land for agriculture with irrigation, about 100 industries for jobs for resettlers; and
- d) a planning and design component. In addition, there will be vocational training for resettled people, monitoring and social adjustment programs.

Issues: This project is one of the largest dam projects currently planned for construction with MDB financial assistance. When completed, it should play a major role in flood control, providing a significant environmental benefit. The project also has potential negative environmental impacts, especially with resettlement. In general, decisions in China are taken without broad public debate, which has led to significant problems in past and current dam projects.

Siltation is expected to reduce the initial storage capacity of the dam (12.6 cubic km) by more than 50% in the first decade of operation. After this initial period, silt will

again be discharged into the river. The adequacy of mechanisms and plans for dealing with siltation after the dam is completed remains a concern. The Yellow River has the highest silt load of any river in the world. The IDA Loess Plateau project is designed to help reduce some of this sedimentation but will provide only a small measure of relief. Concerns have been raised about problems with the Chinese Government counterpart funding for these essential activities. The downstream effects of changes of silt loads in the river, including effects on the Yellow River Delta and riverine marshes, are difficult to assess.

Resettlement is clearly the biggest area of concern. The areas set aside for resettlement are already heavily populated and intensively used. The resettlement plan appears to depend on several assumptions:

- a) Part of the population will shift from farming to new productive activities (in factories, etc. which are being prepared). At present people are already being moved to the new areas, but these productive activities are not yet on line. Bank officials estimate that approximately 1,000 families will not receive land.
- b) The remaining farmers and the recipient communities will have less land than they had before. The assumption is that income will be maintained by increased farm yields based on irrigation. The adequacy of these predictions is not clear.
- c) The resettlement plan has identified areas in the vicinity of Xiaolangdi as suitable areas for resettlement. Detailed resettlement plans have not been completed for the majority of the 190,000 people to be eventually resettled. It is critical that resettlement not be encouraged in inappropriate areas. This is of particular concern given China's continuing promotion of resettlement in Tibet as well as Chinese provinces with large populations of different ethnic groups. The experience from resettlement of people upstream on the Sanmenxia Reservoir is particularly worrisome with large numbers of people moved to outlying provinces, resettlement in different farming environments, disruption of recipient ethnic communities, and reduced support for resettlement after the project was started. Problems from the Sanmenxia resettlement activities in the 1950's are still unresolved today.

Status: A USAID environmental analyst participated in a delegation of U.S. government officials and NGO representatives that visited the project site in May 1993. The above comments have been conveyed to the World Bank and follow-up consultations have been held.

11. China: IFC - Ningbo Zhonghua Paper Company

Projected IFC Funding: \$ 50.0 million
Projected Total Cost: \$240.7 million
Tentative Board Date: FY95
Stage: Appraisal underway, project scope recently revised.
IFC Environmental Assessment Category: B

Description: IFC has been requested to help finance a 205,000 metric-tons-per-year (mty) plant to produce coated cardboard packaging paper that will result in a major expansion of the existing 36,000 mty facility of NZPC. NZPC is a joint venture resulting from the privatization of the Ningbo paper factory which was established in 1988. The joint venture is owned 55% by China Strategic Investment Limited (CSI), 40% by the Ningbo municipal government, and 5% by the China Pulp and Paper Import-Export Company. CSI, the main project sponsor, is a Hong Kong publicly listed company affiliated with the Sinar Mas Group of Indonesia. The project will use modern technology, be a world-class, internationally competitive mill and be one of the largest paper plants in China. The project will use 75% waste paper and 25% pulp as main raw materials. The entire mill production will be sold to the domestic market.

Issues: Paper mills have one of the greatest potentials for pollution of any large industry, and the capacity of this plant is being increased over five times. Therefore, adverse environmental impacts could be significant. Concerns include environmental and occupational health and safety issues, treatment and disposal of liquid effluent, and air emissions from the proposed power plant. The source of the pulp is also of some concern; the environmental analysis on the project should determine if the mill could be an indirect cause of tropical deforestation. Upgrading of the old mill may be necessary to meet modern environmental standards. An adequate environmental analysis clearly should be conducted on this proposed project.

Status: The above comments have been conveyed to the World Bank. IFC responded that a limited environmental assessment was appropriate because the project is an expansion of an existing paper plant in a relatively urban area designated for heavy industry expansion. Sensitive issues such as involuntary resettlement, indigenous peoples, or loss of ecologically valuable habitat were not associated with site selection. There are expected to be a limited number of specific impacts related to liquid effluent and air emissions, for which there are "predetermined performance standards, guidelines, or design criteria to mitigate impacts."

Fibers for the paper mill are expected from the following sources:

- 75% from recycled paper;
- 17% pulp purchased on the open market; and
- 8% pulp purchased from the Sinar Mas Group, an Indonesian partner in the

paper mill.

P.T. Indah Kiat, a subsidiary of the Sinar Mas Group, which is located in Sumatra, was to provide some of the pulp. According to IFC's independent studies on this company, it was found to be in compliance with relevant World Bank environmental guidelines and forest sector policy. Any other subsidiaries that are proposed as sources of pulp during the appraisal period will be investigated in a similar manner.

IFC also reports that although it is not clear what sources of pulp would be represented by that portion purchased on the open market, it seems unlikely that the project represents a significant indirect cause of deforestation. IFC also noted that a significant share of the open market for pulp is from temperate forests and tree plantations.

According to IFC, the project design includes wastewater treatment systems and venturi scrubbers for stack emissions that are expected to meet local environmental standards. The local standards are generally consistent with World Bank environmental guidelines. Although design specifications are still underway, the recent feasibility study conducted by Simons concluded that World Bank environmental guidelines will be complied with by the paper mill.

In light of the above issues and IFC response, USAID still holds that the project should have an adequate environmental analysis because the overall capacity of the existing plant will be increased over five times. Complete EAs are typically conducted on paper mills since they are large industries and potential sources of serious contamination. Upgrading of the existing facility to meet current Bank or national standards (whichever is more stringent) should also be considered. Information from the IFC independent studies on the P.T. Indahkiat pulp supply and its environmental impact should be included in the EA. These issues are being taken up with IFC staff.

12. Indonesia: IBRD - Forestry III

Projected IBRD Funding: \$ 70.0 million

Projected Total Cost: \$120.0 million

Tentative Board Date: 6/94

Stage: Pre-appraisal mission delayed, likely to take place during the first quarter 1994.

World Bank Environmental Assessment Category: B

Description: The proposed project will:

- a) assist in strengthening of management of human resources and institutions in the forestry sector (including some specific research and inventory inputs);
- b) investment in independent inspection of forest operations in pursuit of sustainability and green labeling;
- c) improvement of participation of forest communities in management; and
- d) establishment of a community development fund or some other suitable independent mechanism to support social and economic development of forest communities.

Issues: USAID/Indonesia supports the objectives of this project, and has worked closely with World Bank staff in developing the loan. USAID/Indonesia emphasizes a number of key issues that need to be addressed. USAID/Indonesia is coordinating with the World Bank to promote improved policies in natural forest management. This includes, testing of pilot activities for allocating extractive rights adjacent to protected areas and establishing traditional forest areas with production forest for local communities, and developing policies for the independent certification that wood products are harvested from forests managed for sustained yield. Given the sensitive nature of the issues involved, USAID believes that a complete environmental impact analysis needs to be completed for this forestry project.

Provided the history of unsustainable logging practices in Indonesia, as well as replacement of natural forest with timber plantations, assistance of this sort is badly needed. At the same time, however, care must be taken that the resources from this loan do not inadvertently contribute to further deforestation and inappropriate forestry and plantation practices.

Status: The above comments have been conveyed to the World Bank. In reply, the World Bank has stated that it originally decided a limited environmental analysis was appropriate because of the project's focus on human resource development and training, and improvement of field supervision and enforcement of environmental conditions in forest operations. However, taking a broader view of environmental assessment, one which aims at the policy objectives of Bank intervention in the

forestry sector in Indonesia, the World Bank has agreed that a complete EA could be conducted on the project. In this case the EA would concentrate on the policy and institutional conditionalities to be considered in the preparation process.

The World Bank has already initiated consultations with community groups and NGOs regarding the Forestry III project. The World Bank is also preparing a discussion paper on community participation in forestry for the next meeting of NGO-Donor forum in Indonesia, which is on the subject. The consultation process for the preparation phase of the project will culminate with a meeting which will bring together the government of Indonesia, NGO and private sector representatives to discuss pertinent issues.

The major themes the World Bank is pursuing in preparation of the project include:

- a) Agreement from the government that forest operations will follow an internationally acceptable standard of sustainability guidelines. This will include the creation of an independent (WB emphasis) field performance assessment service, which will examine both private sector and forestry agency activities.
- b) Seeking government agreements to change existing policies and practices in the plantation sector, such as prohibiting plantations on land which is effectively regenerating by elimination of the practice of allocating such areas to plantation concessionaires.
- c) Supporting the establishment of an independent foundation or other suitable vehicles which would be responsible for investing some significant proportion of forest revenues in community participation and development activities. This would include a government commitment to a level of funding for this activity in the long term.
- d) Seeking the government's agreement to draft and implement regulations which will allow indigenous forest communities to be given title and/or usage rights to forest land they have traditionally occupied. This would include a monitored, timebound schedule requiring participation of NGOs and communities in the drafting process.
- e) The World Bank will also continue to involve NGOs and community groups in the preparation and implementation process.

In conclusion, USAID supports this project provided that the above issues are addressed and that an adequate environmental analysis be performed in advance.

13. Indonesia: IBRD - Integrated Swamps Development

Projected IBRD Funding: \$ 60.0 million

Projected Total Cost: \$110.0 million

Tentative Board Date: 2/22/94

Stage: Negotiations tentatively scheduled for January 1994.

World Bank Environmental Assessment Category: A

Description: The proposed project will assist in strengthening the institutional framework for the second stage development of about 20 existing swamp schemes in Jambi, Riau and West Kalimantan, including:

- a) development and rehabilitation of drainage and irrigation infrastructure;
- b) operation and maintenance of irrigation and drainage infrastructure;
- c) food, cash and tree crop development through provision of agricultural inputs and support services;
- d) rural infrastructure improvement through construction and rehabilitation of roads and navigation networks, and improving drinking water supply;
- e) land titling and certification; and
- f) support for coastal zone land use management

Issues: The project raises many wetlands concerns including fragmentation of wildlife habitat, localized overdrainage, and change in tidal patterns. These are all serious environmental impacts. The increased use of agro-chemicals in the area could cause negative human health and environmental effects. Additional planned and unplanned settlement could exacerbate off-site impacts.

Secondary impacts on surrounding swamp forests and reserves, such as the 171,635-ha Berbak National Park, could be significant. Although the EA recommends expanding its environmental component significantly to allow for a more integrated and regional approach to environmental management, there are no environmental management and monitoring organizations in the project areas. Careful and sound oversight will be necessary for successful environmental management, training, and monitoring. The final project design should reflect a stronger environmental component to handle the appropriate level of institutional strengthening and environmental management.

Status: According to the World Bank's Environmental Data Sheet on the project, the original project scope has been significantly reduced. "Schemes with excessive investments in hydraulic infrastructure have been deleted and project investments have been focussed more on schemes which combine least environmental impact potential with highest economic and social benefits." The Environmental Assessment has been completed (January 1993). The above comments were conveyed to the World Bank.

The World Bank responded that there will be no further elimination of wetlands caused by the project, and therefore no fragmentation of wildlife habitat. Increases in agrochemicals will not be such as to cause significant or even measurable changes in ambient water quality. There will be no additional resettlement of people.

A complete EA was undertaken by the Asian Wetlands Bureau at the request of the Bank. AWB made a variety of practical environmental management and monitoring suggestions which have been incorporated into project design. The report concluded that the investments would not exacerbate environmental conditions in the areas concerned and that increased production from the areas could be environmentally beneficial to the extent that it reduces uncontrolled intrusion into the surrounding forests.

In conclusion, planned mitigation of direct environmental impacts appears adequate. However, secondary impacts on surrounding forests and protected areas remain of some concern. The final project design should reflect a stronger environmental component addressing secondary impacts, institutional strengthening and monitoring. This project appeared in the December 1990 List of Upcoming Projects of Possible Environmental Concerns.

14. Indonesia: IBRD - Outer Islands Power

Projected IBRD Funding: \$190.0 million

Projected Total Cost: \$655.7 million

Tentative Board Date: 3/29/94

Stage: Pre-appraisal mission completed 11/93; pre-appraisal review underway.

World Bank Environmental Assessment Category: A

Description: The proposed project will support the expansion of generation and transmission facilities in the Outer Islands, including a 90 MW hydro plant in South Sumatra and 130 MW mine-mouth coal-fired thermal plant at Banjarmasin in South Kalimantan. The project scope includes the procurement of two barge-mounted power plants of 10MW and 30MW respectively to meet periodic power shortages in the outer islands. Project technical assistance includes helping:

- a) the government in establishing environmental management capability in the coal mining sector;
- b) the government power agency, Perusahaan Umum Listrik Negara (PLN), in developing demand-side management and a corresponding action plan; and
- c) PLN in enhancing its environmental management capability.

Drainage and restoration issues associated with coal mining will be developed by private contractors.

Issues: For the hydroelectric power plant, the environmental issues are:

- a) Land loss and inundation of natural habitat, public health, loss of plant and animal life, water quality, soil erosion of catchment area, effects on downstream hydrology, and impacts on aquatic life.
- b) Inundation and construction of an access road to the dam site would entail the involuntary resettlement of 129 families. The resettlement includes land for land compensation to those who opt for it and cash compensation to others who desire to engage in business ventures or other activities.

For the thermal power plant, the issues are:

- c) coal mining (and related such as deforestation and restoration), coal storage, air and water pollutant discharges, and ash disposal. Altogether 36 families would need to be relocated and resettled in an adjacent area under this project component, although they live on government land.

Other issues include:

- d) According to the World Bank, issues associated with power line right-of-way are insignificant; however, the location of lines may cause indirect negative environmental effects (such as forest clearance and access).
- e) Coordination with IBRD Rural Electrification II project should be assured as it has a component for alternative energy in South Sumatra. Alternatives, such as biomass energy production from existing sugar cane wastes in S. Sumatra, should be investigated and analyzed in the EA.
- f) PLN will be implementing the project; this needs to be discussed in light of the Bank's policy on pressing for private development of new energy capacity in Indonesia.

Status: The above comments have been conveyed to the World Bank. The World Bank reported that the agenda for power sector reform --focussing on the regulatory framework, decentralization, corporatization and commercialization-- is being pursued through the project (point f above). It is also stated that it is more appropriate to analyze the biomass alternative (mentioned above) in the Rural Electrification Project, as it includes an alternative energy component (point e). The above draft reflects recent correspondence with the World Bank on these issues.

USAID/Indonesia reported its understanding that the project will improve the environmental policies, regulatory framework and enforcement capability of the Ministry of Mines and Energy for coal mining. Also, USAID/Indonesia understood that the project will assist PLN to establish an environmental office to formulate corporate environmental policies, evaluate environmental assessments of its development projects, and monitor environmental impacts and compliance with environmental guidelines.

In summary, it appears that the World Bank is addressing the issues mentioned above. USAID will review the environmental assessment when it is completed and available.

15. Lao PDR: IDA - Forestry Management and Conservation

Projected IDA Funding: \$ 8.7 million
Projected Total Cost: \$20.3 million
Tentative Board Date: 3/24/94
Stage: Negotiations completed
World Bank Environmental Assessment Category: B

Description: The proposed project will support recommendations of the FAO Tropical Forestry Action Plan, including development of improved legislative and institutional frameworks for the forestry sector; strengthening of forestry management; and implementation of forest resource conservation management programs. An associated \$5.5 million Global Environmental Facility (GEF) grant proposal for wildlife and protected areas management was approved by the GEF Participants in November 1991. The project is being cofinanced by FINNIDA.

Issues: Although the objectives of this project are to promote forest conservation, NGOs have raised a number of issues since early 1992. Since early 1993, the World Bank has made a concerted effort to address these concerns. The ensuing list describes major NGO concerns, each one of which is followed by a summary of the World Bank's response to them.

- a) The loan was conditioned on the passing of an "Interim Forestry Land Use Management Decree," and there was NGO concern that this would annul rights to shifting cultivation which is the basis of livelihood for 55% of the people in Laos. There was also concern that more consultation is necessary for the decree to be effective.

The World Bank believes that the current draft Interim Decree will strengthen land-use rights and does not annul rights to shifting cultivation. Local and international NGOs have been consulted on several occasions throughout 1993 regarding the draft decree. After a two-year trial period and revision, the interim decree will be replaced by an updated law.

- b) According to NGOs, the GEF component needed a greater focus on integration of conservation measures into community development, instead of focusing on protected area management. There also appeared to be significant overlap with a SIDA/IUCN financed conservation program.

The project actually focuses on both community development and protected area management. The World Bank has cooperated fully with SIDA/IUCN and the project is integrated with SIDA/IUCN activities.

- c) A condition of the loan is to lift a log exportation tariff. Whether this

would result in acceleration of logging by foreign companies and thus contribute to increased deforestation, should be carefully analyzed prior to its enactment.

A thorough pricing study will be conducted under the project. Plans are in effect to equalize domestic and export tariffs (through border parity pricing). The future level of domestic and export tariffs under the new system is expected to be about the same as the current export tariffs. In effect, there will not be low export tariffs which will cause increased exports of logs.

- d) There was NGO concern that the project is too large and will overwhelm the existing capacity of the Lao Forestry Department. NGOs proposed that the project be scaled back.

The World Bank is prepared to extend, if necessary, project implementation beyond the planned period according to progress made on attaining objectives. This will effectively pace project implementation according to the capacity of implementation agencies. The level of support is necessary given the low level of existing capacity and the comprehensive nature of the project.

- e) NGOs suggested further consultations with NGOs and community representatives in Laos on the development of the project.

World Bank project staff met with local NGOs in April, August and October 1993. Meetings were also held with international NGOs in Washington. A community development approach, village by village, is planned for the project. The environmental analysis of the project is being prepared and will be made available soon to the public in English and in Lao.

- f) Because of the sensitive issues of forestry policy and indigenous people's rights, a complete environmental assessment is appropriate for this project.

The World Bank has conducted a full environmental analysis on the project. The World Bank had argued that the project will not support forestry production and has no resettlement components, and therefore did not require a full EA.

- g) Control of illegal logging is central to the project; without effective control conservation management cannot be implemented. A main objective of the project is to establish an effective control mechanism, but governmental regulatory and enforcement capacity is very weak. Therefore, independent monitoring needs to be built into the project.

The World Bank agreed that independent monitoring of logging activities is necessary. Thus, it established a consultative group appointed by the Lao PDR government, including representatives of the central and provincial governments, bilateral and multilateral organizations, and NGOs operating in Lao PDR. The Bank has also made a commitment to carry out a "mid-term review" of the project after one year.

Status: USAID participated in a March 1993 meeting sponsored by the World Bank staff on the project and has met subsequently with Bank staff. The above comments were conveyed to the World Bank, and WB's response is noted above.

USAID appreciates WB's responsiveness to the issues raised by U.S. agencies and by international and local NGOs and its willingness to reformulate the project accordingly. It appears that many, if not all, of the concerns have been addressed. USAID welcomed the decision to delay the project pending further consultations in Lao PDR. USAID also looks forward to receiving the EA. Circulation of this report should be followed by consultative workshops with affected communities.

USAID believes adequate consultation and participation are key to the success and long-term sustainability of this project and supports the World Bank's efforts to reformulate the project along these lines. When the project was prepared and appraised in 1990-91, the few international NGOs operating in Lao PDR were little involved in natural resource management, and this lack of initial involvement resulted in misunderstandings and misinformation reported by NGOs. The World Bank subsequently made serious efforts to address this through dissemination of public information, documents and meetings. The level of public participation planned for the implementation of the project is noteworthy, and is crucial to the success of a project that concentrates on sustainable development of rural communities.

16. Nepal: IDA/ADB - Hydro Power (Arun III) (Power Generation)

Projected IDA Funding: \$108.0 million
Projected ADB Funding: \$150.0 million
Projected Total Cost: \$750.0 - 800.0 million
Tentative WB Board Date: 4-5/94
Tentative ADB Board Date: Unscheduled, but following WB board date.
Stage: WB appraisal is completed and the post appraisal mission has returned from the field. ADB appraisal completed.
World Bank Environmental Assessment Category: **A**
ADB Environmental Assessment Category: **A**

Description: The proposed project will construct a 201-MW run-of-river hydropower plant (this the first of two 201-MW stages) with associated transmission facilities, and institutional strengthening of the Nepal Electricity Authority. Project includes 68-m-high dam, 11.4-km-long headrace tunnel, an underground power house of up to 402-MW capacity, switchyard, 220 kV power evacuation facilities). Cofinancing from ADB, Swedish AITEC (BITS), FINNIDA, KfW, OECF, and various governments. The WB project is linked to a previously approved loan for a 122-km access road.

Issues: This project raises a number of serious environmental and social issues.

- a) It will include construction of an access road through a formerly roadless indigenous area. According to the Asian Wetlands Bureau, a regional NGO, this is expected to have a significant negative effect on the use and management of land and resources along the route and on the economic and social circumstances of the population. The proposed road, originally designed to follow a 171-km north-south route near the ridge lines, is now planned to go on a more direct 122-km route through stream valleys. Unless carefully planned and maintained, it could cause primary impacts (severe gully erosion and stream disturbance) and secondary effects (providing easy transport routes for illegal logging, induced development, and impacts on rare or endangered species).
- b) Increased impacts from the tourism industry are expected because the road will provide new access to the Everest region. Climbing and trekking parties in the region can have significant adverse impacts through their camps.
- c) Increased agricultural and commercial activities due to the dam construction and access road will negatively impact the region. Slash and burn practices, livestock production with overgrazing and forest grazing are the most threatening activities.
- d) Landslides and deforestation in the project area may shorten the life of the dam

through rapid sedimentation of the reservoir.

- e) A Regional Action Plan (RAP) to ameliorate the hydro project's environmental impacts has been completed. However, it is unclear how or when the plan will be implemented in conjunction with the project, and whether IDA and ADB plan to fund mitigation measures identified in the Action Plan.
- f) USAID/Nepal emphasizes the need for strict adherence to the conditionalities placed by IDA and ADB on the project, such as reforming government management capability. [#04421 28Jul92].

Economic issues related to the project need to be re-examined, especially the question of whether the project is affordable. This is a very expensive dam for the amount of energy produced. Arun III could also be in conflict with Nepal's new privatization policy.

Status: These comments have been conveyed to the World Bank and the Asian Development Bank. According to the ADB, the above issues have been fully addressed in the extensive environmental studies associated with this project. Environmental considerations and requirements have been incorporated into the detailed design of the project; into the contractors contractual obligations and actions plans for (a) land acquisition, compensation and rehabilitation and (b) the overall sustainable economic development of the Arun Valley.

The summary EA was circulated by ADB and WB in August 1993; and USAID has reviewed the document. In response to the above issues, and after a meeting of World Bank and USAID staff, the World Bank had the following comments:

- a) In addition to mitigating direct environmental impacts, a \$14.5 million Regional Action Program (RAP) has been developed to deal with induced impacts. A regional EA was also prepared by a local NGO, the King Mahendra Trust. The WB has stated that it will not go ahead with the project until all of the RAP funding is committed. ADB and WB will provide \$7 million in loans and additional funding is expected from grants by GTZ and the ODA. Woodlands Mountain Institute (an international conservation NGO active in the region) and the ODA have been mentioned by the banks as primary candidates responsible for implementing the conservation and community forestry components of the RAP respectively. Also, the K.M. Trust was mentioned as the primary candidate for the overall coordination and monitoring -- serious concerns had been raised when it was originally reported that the Nepal Electricity Authority would be the RAP coordinator.
- b) The new road alignment will result in a reduced risk of landslides on cultivated slopes compared to the alternative route, but an increased risk along 7 km of

the river valley. Careful routing will avoid erosion prone areas and significant flora and fauna habitat. The World Bank emphasizes that the project in itself will not cause landslides and deforestation.

- c) Without the Arun project, the regional EA study concluded that due to the current unsustainable practices, total deforestation would occur in the Arun valley within 10-15 years (WB emphasis). The RAP proposes conservation areas and community forestry funding to address concerns about logging and extension programs to promote sustainable agriculture in what is presently a food-deficit area. An adjacent area also likely to be affected by increased tourism is the recently established Makalu-Barun National Park and Conservation area, where appropriate facilities to handle climbing and trekking parties are being established by the Woodlands Mountain Institute.
- d) Strict conditionalities have been agreed upon, including issues of general management and environmental protection, and direct and induced effects. Assistance with implementation of the RAP is being provided by WB, ADB and a number of bilateral donors (as noted above).
- e) Regarding cost of power, many reviews have shown that the Arun project is not out of line with known alternatives. WB believes that the implementation of Arun is indeed affordable for the Nepalese and complementary to developing smaller schemes. The project has also been structured to support the government's new privatization policy.
- f) Cumulative impacts have been addressed through the regional environmental assessment, including additional roads and transmission lines.

In conclusion, one of the major issues, assurance that RAP funding is in place with the institutional capacity to implement it, has been addressed by the World Bank. USAID is encouraged by the World Bank's statement that it will not move forward with the project until the entire RAP funding is in place. This issue should be resolved before the infrastructure project is financed.

USAID believes that both Arun III and privately financed projects are needed, given the long construction periods and the latest load forecasts. This multi-project strategy should have been the focus for the past decade, but now Arun and the smaller projects need to go forward. This project was included in the December 1990 List of Upcoming MDB Projects with Possible Environmental Concerns.

17. Papua New Guinea: IBRD - Forestry

Projected IBRD Funding: \$10.0 million

Projected Total Cost: Unknown

Tentative Board Date: To be determined

Stage: Preparation may be delayed depending on Government action on issuing Forestry Development Guidelines, and allocating supplemental budget funds.

World Bank Environmental Assessment Category: **A**

Description: The proposed project will support institutional restructuring of the forestry sector (including higher revenue capture, improved control on resource acquisition, much higher fees paid to clan landowners, and sustainable yield management), training, the establishment of landowners' trust funds, conservation area identification, and other components of the national forest plan.

Issues: Papua New Guinea (PNG) is faced with rapid deforestation of important tropical moist forests, and care must be taken that the resources from this loan are effective in preventing uncontrolled deforestation and inappropriate forestry and plantation practices. Large scale forestry projects in PNG have been subject to considerable community criticism and a full commission of inquiry by a judicial tribunal. Due to strong pressure by international forestry companies and to weak governmental control, commercial forestry currently proceeds in an uncontrolled manner--in spite of a moratorium on issuing new forestry permits.

Two technical assistance projects sponsored primarily by the Australian International Development Assistance Bureau, the Japanese Grant Facility, and the United Nations Development Program, and executed by the World Bank, are helping the PNG government and its Department of Forestry to assess the situation and develop national guidelines for forestry. There is also the risk that in the absence of a project, the National Forest Service (which is replacing the Department of Forestry) and the Department of the Environment and Conservation may not gain effective control of the sector. The proposed IBRD project is on hold until the guidelines or other acceptable policy controls are in place, and until IBRD has received an official funding request.

There is some concern by Conservation International, WWF and other NGOs that this forestry project might be developed in isolation of the conservation sector, where there is an equal need for institutional strengthening and support. However, the National Alliance of NGOs in PNG (NANGO) has endorsed the draft National Forestry Development Guidelines. The World Bank may consider an integrated forestry and conservation project, which would involve both the Department of Forestry and the Department of Environment and Conservation, as an alternative to funding two independent conservation and forestry projects. Such an integrated project, also

involving local communities and NGOs, is more appropriate given the current situation; and is essential in PNG where most of the rural population depends on the forests.

Status: The project is still in the very early stages of development. USAID has discussed the project with Bank staff, and the above comments incorporate Bank feedback. WB also reports that NGOs are being closely consulted on the project. USAID will continue to monitor the development of the proposed project.

18. Philippines: ADB - Power XVIII (Masinloc Thermal Power {Stagell})

Projected ADB Funding: \$150.0 million

Projected Total Cost: \$312.0 million

Tentative Board Date: None scheduled

Stage: Fact-finding mission to be scheduled. Co-financing by Exim Bank of Japan is envisaged.

ADB Environmental Assessment Category: A

Description: The proposed project's objectives are the construction of the second 300 MW coal-fired thermal power generating unit at Masinloc and about 130 km of 230 kV double circuit transmission line.

Issues: Stage I of the Masinloc Thermal Power project has not yet been implemented. It took two years for the project to receive the required Environmental Clearance Certificate from the Philippine Department of Environmental and Natural Resources. In addition, the local population has been opposed to the project on social and environmental grounds. Environmental concerns include the potential adverse effects of the plant to fisheries and to mango trees from waste, ash and effluent.

Status: The above comments have been conveyed to the Asian Development Bank. ADB reported that this project will not be processed until the hold on the Stage I project is released. Reportedly, the Stage I activity will be on hold until June 1994. Stage II of the project will not commence until Phase I is implemented.

The ADB, the government, and the local population are working to arrive at a consensus on outstanding issues, which includes resettlement and compensation.

19. Indochina Regional: ADB - Red River Basin Study

Projected ADB Funding: \$ 1.5 million
Projected Total Cost: \$ 1.5 million
Tentative Board Date: last quarter of 1994
Stage: Fact finding mission to be scheduled
ADB Environmental Assessment Category: B

Description: The proposed study will assist in improving the management and utilization of water resources of the Red River. The immediate objectives are to facilitate the collection, use, and sharing of hydro-meteorological information among the Lao People's Democratic Republic, China P.R., and Vietnam; to improve flood forecasting and warning; and to enhance the capacity for planning and designing water resource projects for the Red River and headwater areas.

The Study will form the basis for the Red River Delta Water Resources Development Sector loan of \$80 million for ADB Board consideration in March 1994.

Issues: According to the Asian Wetlands Bureau, a regional NGO, the project represents the first stage in the development of plans for large-scale water resource projects in this watershed. Particular attention must be devoted to the effects of upstream activities on the Red River Delta which is Vietnam's only Ramsar Treaty site, an internationally recognized and globally important wetland.

Since the objective of this study is to lay a foundation for water resources planning, it is important that the scope of the study include elements of environmental planning. The study team will need to address problems including: power generation, agriculture, deforestation, siltation, dredging, river hydrology, income generation, hanging river bed problems and embankments.

Status: These comments have been conveyed to the Asian Development Bank, which reports that updating and further processing missions are expected in September and November 1993. The original amount of the study (\$100,000) was questioned as being inadequate for the number and complexity of the issues involved. ADB is now submitting the study to the Government of Japan for financing under the Japan Special Fund. So it appears that this issue has been addressed.

PROJECTS LOCATED IN LATIN AMERICA

20. Argentina: IFC - Celulosa Puerto Piray S.A. (CPP)

Projected IFC Funding: \$ 40.0 million
Projected Total Cost: \$465.0 million
Tentative Board Date: Indefinite
Stage: Sponsors reviewing project structure. IFC is not actively working on this project.
World Bank Environmental Assessment Category: A

Description: The proposed pulp and paper project will reactivate a mill construction project on the Alto Paraná River in Argentina's northeastern province of Misiones bordering Paraguay. Construction of the plant began in 1983. As a result of weak management and insufficient support from Celulosa Argentina S.A. (CASA), the main stock holder of the plant, CPP ran into financial difficulties and borrowed heavily from the Argentine government. The original project was suspended in 1986 after expenditures of \$241 million.

Citicorp Equity Investments S.A., CASA and Kymmene plan to modify the CPP project by converting it into a bleached kraft pulp mill with a production capacity of 285,000 air-dried metric tons. The project will produce both bleached softwood and hardwood kraft pulp entirely for export. The project has been approved by the Argentine government.

CPP owns about 34,000 ha of land, half of which has been developed for plantations; the remainder consists of natural forest and there are no plans for disturbing the latter for environmental reasons. CPP's own plantations will supply 30 to 40 percent of the project's total wood requirements; the remainder is expected to come from other plantations in the region.

Issues: The principal environmental concerns are the potential for water pollution from toxic wastes from the plant, and possible expansion of plantation forests in the region. Potential toxins include dioxin, furan and other organochlorine pollutants.

A local NGO, Centro Mocoví, is concerned that the mill will stimulate additional conversion of subtropical humid forests to plantations. This threatened ecosystem is part of the "Atlantic Forest," a biogeographic region covering parts of Brazil, Paraguay and Argentina. Less than 2% of these forests remain. Argentina has the largest remaining unprotected forests of this region, which are crucial for the conservation of the ecosystem as a whole. However, Misiones and the nearby province of Corrientes contain the largest forested area in Argentina (43 percent of Argentina's total forest). If the plant is to produce hardwood pulp as well, further deforestation

as a result of the project is inevitable.

Centro Mocoví has also expressed concern over the indirect impacts on Guaraní indigenous communities in the region. Guaraní have been displaced from plantation activities in the past without compensation.

There is also concern that the project is not economically viable. According to Centro Mocoví, "Celulosa Argentina," the main stockholder of the mill, had a loss of \$110 million in 1992, and the CPP is in arrears by approximately \$50 million.

Status: The above comments have been conveyed to the International Finance Corporation. An environmental assessment has been done and a summary was sent to CASA for comment. IFC is waiting for a response from CASA before finalizing the EA report. Also, given the depressed state of the pulp market at present, IFC is not actively working on the project. IFC reported that the past performance of CASA should not be used to judge the viability of a restructured CPP; the project has the potential to be attractive financially.

USAID will review the EA report for the above issues if it becomes available.

21. Bolivia: IDA - Natural Gas Export (Bolivia-Brazil Pipeline)

Projected IDA funding: \$ 35.0 million
Projected Total Cost: \$2000.0 million (approximately)
Tentative Board Date: July 1995
Stage: Preparation underway
World Bank Environmental Assessment Category: **A (though continued to be reported as a "B" in the Monthly Operational Summary)**

Description: The proposed project will finance the Bolivian section of a Bolivia-Brazil natural gas pipeline, including :

- a) export of 8 to 16 million m³/day of natural gas through a 1900-km-long pipeline from Santa Cruz, Bolivia, to São Paulo, Brazil;
- b) technical assistance to the government of Bolivia to implement the project; and
- c) construction of public infrastructure during project implementation.

Issues: The proposed pipeline could have serious negative effects on environmentally sensitive areas, such as parts of the Gran Chaco and the Pantanal; or on endangered species, such as the Chacoan peccary, marsh deer, maned wolf, giant armadillo, and jaguar. The project should be planned very carefully to prepare for mitigation activities. There is particular concern about induced development of formerly isolated areas; indigenous peoples could also be indirectly affected.

Status: The above comments have been conveyed to the World Bank. The World Bank reported that that project was actually classified as an "A" (the MOS was erroneous). An EA study and mitigation plan were prepared for the Bolivian pipeline in 1991. However, the project design has changed since then, and a new EA study will be prepared to reflect these changes. Based on the World Bank's experience with the previous EA study, it expects that an environmental mitigation plan will be developed for the Bolivian portion of the pipeline which will protect the Chaco vegetation, wildlife, wetlands, and indigenous peoples within the project's area of influence. The World Bank will also need to be assured that adequate environmental mitigation measures will be implemented for the Brazilian portion of the pipeline, even if the Bank only finances the Bolivian portion.

USAID concerns regarding the EA were allayed given the Bank's response. USAID will continue to monitor the development of the project given the sensitive nature of the region being traversed by the pipeline.

22. Costa Rica: IDB - Arenal - Tempisque Irrigation Program III

Projected IDB Funding: \$ 50.0 million
Projected Total Cost: \$ 72.0 million
Tentative Board Date: 1995
Stage: Project under identification
IDB Environmental Assessment Category: To be determined

Description: The proposed program includes:

- a) irrigation of 34,000 ha in Tempisque, Zapandi Norte and Sur, requiring construction in the second part of the west channel (55 km) to reach the Tempisque River, the Zapandi channel for irrigation with underground waters, a pump station on Tempisque River, and a 10 km principal channel for irrigation of Zapandi Norte;
- b) irrigation of 5,400 ha in Lajas and Abangares requiring a second part to the South Channel; and
- c) supplementary services.

Issues: USAID/Costa Rica suggests a complete EA be done on the first two stages before selecting technology in the third stage. Concerns include sedimentation and contamination in the Gulf of Nicoya. [#06292 28Jul92].

Status: These comments have been conveyed to the Inter-American Development Bank. IDB has reported that the project design is in progress with due consideration to:

- a) updating of the Irrigation Master Plan for the Arenal-Tempisque area;
- b) environmental and socio-economic evaluation of Stage I; and
- c) development of a national strategy for the irrigation subsector.

IDB expects to finance technical cooperation in 1994 to carry out the feasibility study for Stage III, which will include an environmental impact assessment. The Environmental Briefs for the technical cooperation and for the project have not been submitted to the Environment Committee. Once approved, the Briefs will be made available to the Board of Directors. USAID concerns have been passed on to the country and technical teams to be taken into account in the analysis of the operation as appropriate.

23. Dominican Republic: IDB - Management of the Mao River Basin

Projected IDB Funding: \$13.0 million
Projected Total Cost: \$14.0 million
Tentative Board Date: Unknown
Stage: Project under identification
IDB Environmental Assessment Category: 3

Description: The proposed project is designed to improve community life and the situation of renewable natural resources in the Mao River Basin area:

- a) management of the remaining natural forests and reforestation;
- b) protection against erosion, and increasing peasant production through agroforestation and conservation; and
- c) institutional strengthening through training, environmental education and the assistance of consultants.

Issues: USAID/Dominican Republic urges IDB to obtain substantial policy reform regarding sustainable use of forests. Given this concern, a complete EA should be conducted [#00043 03Jan92].

Status: Comments have been forwarded to the Inter-American Development Bank. IDB reported that an Environmental Summary for this project was approved in August 1992. The feasibility study was prepared with the participation of three experts in environment and renewable natural resources management. It complemented studies commissioned by IDB that:

- a) quantified environmental benefits and updated environmental impact information in June 1992;
- b) took into account consultations with local populations regarding social and environmental impacts in an evaluation of forest management and agroforestry activities.

The summary also recommended special attention be given to:

- a) environmental viability of pilot forest industry components;
- b) soundness of the technical design of environmentally beneficial components; and
- c) financial and economic viability of sustainable forest management and conservation in the project area.

The technical team working on the project has carried out five missions to further develop this project from 1987 to 1992. As a result, larger investments are contemplated in the recovery of deforested areas, soil and water conservation, erosion

control, and demonstration fish farming. A modest sawmill component was eliminated. Consultants have been hired to help the government of the Dominican Republic complete program design, and negotiations with Plan Sierra are ongoing regarding its participation in project execution. Specific financing is contemplated for studies to support areas of policy reform regarding sustainable use of forests, which would be directly related to the implementation of this project. An updated Environmental Summary may be prepared if the project team, the Environmental Committee, and/or the Environmental Protection Division consider it advisable.

In conclusion, USAID urges IDB to deal with policy reform issues regarding sustainable use of forests in advance of lending. Studies to support areas of policy reform after the loan has been approved are likely to receive little attention.

24. Dominican Republic: IBRD - Power II

Projected IBRD Funding: \$ 70.0 million
Projected Total Cost: \$400.0 million
Tentative Board Date: 9/20/94
Stage: Appraisal mission scheduled for mid 2/94.
World Bank Environmental Assessment Category: B

Description: The proposed project includes:

- a) the construction of two 125 MW thermal power plants, substations and transmission lines;
- b) technical assistance to:
 - i) prepare and implement a comprehensive security package,
 - ii) strengthen sector regulatory capabilities; and
 - iii) facilitate the implementation of privatization strategy, yet to be defined, with IDB financing.

Issues: USAID/Dominican Republic recommends that the project have an adequate assessment of the potential for air emissions, water and marine contamination, and landscape contamination. [#05649 06Jul93]. This project should fit into a general integrated resource planning strategy for the Dominican Republic. Serious adverse environmental impacts from the site location and possible resettlement include effects on sensitive marine and coastal ecosystems. The government of the Dominican Republic has reportedly suggested the following sites: the Samaná Bay, one of the largest winter breeding areas for humpback whales; and the Luperón Bay, the last known breeding area for the West Indian manatee. The Samaná Bay, a proposed UNESCO Biosphere Reserve, is also growing in importance for nature tourism because of the whales and other marine resources. The U.S. government's expectation is that for projects involving large-scale thermal power plants, regardless of the kind of fuel being used, an adequate EA conducted should be mandatory.

Status: These comments have been conveyed to the World Bank. In response, the World Bank has stated that a detailed EA of the entire electric power sector is underway in the Dominican Republic. This study also examines in detail the environmental implications of the two new thermal power plants which the Power II project would help finance. Moreover, the study will recommend specific improvements in the environmental management of the power plants, including the transportation and storage of coal and the management of ash residues. The study is likely to be completed by February 1994 (in time for appraisal) and is being funded by USAID.

In conclusion, USAID's comments under the issues section still hold; an adequate project specific EA should be conducted with careful consideration being given to site

location alternatives, local participation, marine resources and contamination. The above sectoral EA, though very valuable, will not guarantee complete coverage of the proposed Power II project sites.

25. Mexico: IDB - Forestry Development Program

Projected IDB Funding: \$ 50.0 million
Projected Total Cost: \$100.0 million
Tentative Board Date: 1995 or later
Stage: Project under preparation
IDB Environmental Assessment Category: 4

Description: The proposed project would promote forestry development in the states of Oaxaca and Guerrero. It would seek to increase productivity, create new jobs, and preserve the ecological balance.

Issues: USAID/Mexico has several questions about the planned activities, environmental mitigation, EA, and general approach of project. [#30909 23Dec91]. The project could have serious negative environmental consequences if not properly designed. Local NGOs have expressed concern about potential misuse of forest resources and impacts on indigenous peoples. There could be impacts on tropical dry forest, which is a threatened ecosystem in Meso America. Current implementation of a WB forestry loan in the Sierra Madre of Mexico has received widespread criticism from the U.S. government and NGOs.

Status: Comments have been forwarded to the Inter-American Development Bank. IDB reported that an Environmental Brief for this project was approved in March 1991, however, it was not made available because the project does not have priority of the government of Mexico for 1993 or 1994. A copy of the brief was made available to USAID. The brief indicates that a full EA was required, and was completed in June 1992; USAID has requested a copy of it. The project design and the terms of reference of the EA clearly contemplated the concerns raised by USAID, namely: The effect on local populations, the appropriate and sustainable use of forest resources and the protection of fragile native species and ecosystems.

The credit component to finance ejido and indigenous community led small-scale forest industries was eliminated through an early redesign process. Potential environmental impacts of the proposed actions to rehabilitate existing forest roads and on ecosystems--with special emphasis on dry tropical forests and on the communities--were studied in detail, both through the EA and an additional study on social effects. Downscaling or eliminating investments for some roads were proposed, although affected communities generally opposed such measures arguing that better road connection was vital to any increase in the level of socio-economic development of the local population.

The study included a detailed list of areas that should be protected due to biodiversity concerns. It also recommended additional measures to improve the protection of the forests against fires and pests. The EA studied the capacity of different forest tree

species to regenerate, both naturally and by enhancement through ecologically sound silvicultural measures, and presented recommendations on treatments based on different soil and forest types. The redesigned project included a strong component to strengthen the local community organizations that would be implementing the project. This component includes environmental education and training, and the financing of appropriate forest conservation and management studies.

USAID will continue to monitor this project. However, it appears that IDB's EA procedures have been effective in bringing about significant improvements in the design of the project. This project was included in the December 1990 List of Upcoming MDB Projects with Possible Environmental Concerns.

26. Nicaragua: IDB - Forestry Resources Management/Conservation Program

Projected IDB Funding: \$28.0 million
Projected Total Cost: \$31.0 million
Tentative Board Date: Unknown
Stage: Project under identification
IDB Environmental Assessment Category: 3

Description: The proposed program contemplates the execution of recommended actions included in the Forest Action Plan related to the Pacific Coast as well as the Central Zone. It consists of four components:

- 1) establishment of agroforestry systems in basins in process of degradation;
- 2) pine forest protection and sustainable management;
- 3) management and conservation of protected areas; and
- 4) institutional strengthening.

Issues: Care must be taken that the resources from this loan do not contribute to further deforestation and inappropriate forestry and plantation practices. The FAO-sponsored Tropical Forestry Action Plans have been criticized in general for being too strongly dominated by commercial timber interests and for neglecting to address issues of sustainability and the rights of forest dwellers. Recently, serious environmental concerns were raised by NGOs with regard to pine forest timber concessions in Nicaragua.

Status: Comments have been forwarded to the Inter-American Development Bank. IDB reported that an Environmental Brief was approved and made available in April 1993. As the brief indicates, project preparation activities contemplate an EA to be carried out in parallel with the general feasibility study. The program emphasizes community and NGO participation, and will rely on implementation of forestry policy reforms required under IDB's Agricultural Sector Program (NI-0020). USAID concerns regarding pine forest timber concessions will be passed on to the project team. However, USAID should be urged to provide information in this regard with sufficient specificity to be taken into account in the environmental assessment, if not already covered. Terms of reference for the EA are under preparation.

USAID will review the EA when it becomes available.

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In addition to USAID's Early Project Notification System, the following references were used in compiling project data and descriptions:

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