Multilateral Development Bank Loans That Raise Environmental Concerns

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Contents

Acronyms

Banks, Lending Institutions, and Nongovernmental Organizations

ADB	Asian Development Bank
AfDB	African Development Bank
BIC	Bank Information Center
CIDA	Canadian International Development Agency
DOE	Department of Energy (U.S. government)
EBRD	European Bank for Reconstruction and Development
EEC	European Economic Commission
EU	European Union
EXIM	Export Import Bank (U.S. government)
EXIMBANK	Export Import Bank (Japan)
GEF	Global Environmental Facility
GTZ	German (bilateral) Technical Assistance Agency
FAO	United Nations Food and Agriculture Organization
IDB	Inter-American Development Bank
IBRD	International Bank for Reconstruction and Development (World Bank)
IDA	International Development Association (World Bank)
IFC	International Finance Corporation (a component of the World Bank)
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IUCN	World Conservation Union
KfW	Kreditanstalt für Wiederaufbau (German Bank for Reconstruction and Development)
MIGA	Multilateral Investment Guarantee Agency (World Bank)
MDB	Multilateral Development Bank
MRC	Multinationals Resource Center (an NGO)
NGO	Nongovernmental Organization
NRC	Nuclear Regulatory Commission (U.S. government)
ODA	Overseas Development Agency (United Kingdom)
OECF	Overseas Economic Cooperation Fund (Japan)
SIDA	Swedish International Development Agency
USAID	United States Agency for International Development
WB	World Bank Group (including IBRD, IDA, IFC, and MIGA)
WWF	World Wildlife Fund

Other Abbreviations

EA	Environmental assessment
EDS	Environmental data sheet (World Bank)
EIA	Environmental impact assessment
GIS	Geographic information system
Gwh	Gigawatt hours
ha	hectare(s); 1 ha = 2.47 acres, 1,000 ha (10 km^2) = 3.87 $miles^2$
ICDP	Integrated conservation and development project
IEE	Initial environmental examination
km	kilometer(s); 1 km = .62 miles
kV	kilovolts
MOS	Monthly operational summary (World Bank)
MW	Megawatts
N/A	Not applicable
PID	Project information document (World Bank)
USED	U.S. executive director

Summary

IN TITLE XIII of the International Financial Institutions Act, Congress has directed the U.S. Agency for International Development to ensure that multilateral development bank (MDB) assistance proposals are reviewed by USAID and other U.S. government agencies to determine whether the proposals will contribute to the sustainable development of the borrowing country. The reviews address the economic viability and potential adverse effects on the environment, natural resources, public health, and indigenous peoples. USAID and its partner reviewing agencies are to recommend measures, including alternatives, that could eliminate or mitigate adverse impacts. After evaluating MDB proposals, USAID investigates those that may have substantial adverse effects, ensures that the resulting information is made available to the public, and reports regularly to Congress on loans likely to have such effects. USAID works with other executive branch agencies and the public to promote mechanisms to improve the environmental and related performance of the MDBs. Finally, it helps the Treasury and State Departments establish a system to share information on proposed MDB loans with other interested governments.

USAID reviews MDB proposals internally and compares its findings with those of other agencies. In addition, USAID cochairs a regular meeting with representatives of 25 nongovernmental organizations (NGOs) and several agencies, called the Tuesday Group, to review MDB actions and proposals and solicit their views. Minutes from the Tuesday Group are sent to another 165 interested NGOs around the world.

USAID also considers the operational systems in place at the banks so it can identify options for improving the review process and strengthening MDB policies. Throughout this process, the Agency communicates with the banks through the Treasury Department and through those representing the U.S. government on each bank's board of directors to encourage improvements.

In this report USAID reviews a sampling of loans posing potential risks. It identifies issues raised during the review and suggests ways to improve both the individual proposals and aspects of the loan selection process brought to light by the project at hand.

The World Bank's Inspections Panel, the International Finance Corporation's Compliance Adviser and Ombudsman, and the similar bodies of regional development banks have been created largely since USAID began reviewing proposals of the MDBs. These institutions can help make possible more effective accountability and improved institutional governance. They complement the work of such bodies as the Quality Assurance Group and the Operations Evaluation Department.

THIS REPORT is submitted by the U.S. Agency for International Development in accordance with Title XIII of the International Financial Institutions Act, as amended, 22 U.S.C. Sec. 262m–1–7 (as enacted in section 537 of Public Law 100–202), and 22 U.S.C. 262r–2. To fulfill our duty under the law, USAID reports to Congress on a selection of proposed and current multilateral development bank (MDB) projects and other assistance proposals likely to have adverse impacts on the environment, natural resources, public health, or indigenous peoples.

Since this is a report to the public as well as to the Congress, the introduction to this report describes who reviews proposals, how the assessment and reviews are done, and the kinds of things USAID looks for in terms of key risks, with particular attention to safeguard policies designed to address the most critical environmental issues. The main body of the report presents reviews of projects by region and country, exemplifying the types of environmental issues that arise in some MDB activities.

USAID would like to acknowledge the valuable work of the Treasury Department's Office of Multilateral Banks, the U.S. executive directors at the MDBs, the Environmental Protection Agency's Office of International Affairs, the Department of State's bureaus involved with MDBs, the National Oceanographic and Atmospheric Administration, the National Invasive Species Council, the U.S. Department of Agriculture's Foreign Agriculture Service's Development Resources Division, colleagues throughout USAID, investigators of the General Accounting Office, the Congressional Research Service, the Netherlands Commission on Environmental Impact Assessment, and the many nongovernmental organizations (NGOs) monitoring both the banks and the agencies. USAID also wishes to acknowledge the MDBs' environmental experts, who continue to produce some of the best analyses in the world.

While greater emphasis is placed in this report on the World Bank than on regional banks, this should not be taken as implying that the issues at the World Bank are greater than the regional banks. We expect to address the regional banks in more detail in future reports.

As seen in previous reports, the loans surveyed below indicate that infrastructure, power, natural resource extraction, and road projects were the most environmentally problematic sectors.

The Loan Review Process

The process of reviewing proposed MDB loans relies upon several departments and agencies. These work together to assess risks and propose measures, including alternative courses of action, to eliminate the risks. USAID is working with the other departments and agencies involved in the process of implementing federal law and developing Administration policy with regard to the MDBs to improve the implementation of the law and the performance of the MDBs.

USAID's Review of Proposed Multilateral Development Bank Loans

USAID and other development agencies have found that an underlying goal of sustainable development is maintaining the natural resource base on which economic and social development depend so progress can continue over time and backsliding is avoided. Even for programs with narrower goals such as reducing poverty, we have found that success will not last unless environmental soundness is fully assessed and integrated into such programs. This report represents part of the process required by law to ensure that the MDBs effectively support such sustainable development.

In the late 1980's the Congress found, and stated in Title XIII of the International Financial Institutions Act, that US assistance to the MDBs should promote the sustainable use of natural resources, the protection of the environment, public health and the status of indigenous peoples. But the Congress found that "MDB projects, polices and loans have failed… to provide adequate safeguards" and that sometimes their borrowers do not ensure that appropriate policies and procedures are in place to use natural resources sustainably, and that the MDBs do not yet provide systematic and adequate assistance to their borrowers" in this regard.

Congress therefore required Treasury, State, the Environmental Protection Agency, the National Oceanographic and Atmospheric Administration, the Council on Environmental Quality and USAID to help develop and promote mechanisms and institutional and procedural arrangements within the MDBs to ensure sustainable use of natural resources and protection of these values. As part of this process, USAID is directed to draw information from our own investigations, other agencies, other countries, and the public to enhance USAID notices and reports.

Congress set out in Title XIII several elements of USAID's role:

> In the course of reviewing assistance proposals of the multilateral development banks, the Administrator of the Agency for International Development shall ensure that other agencies and . . . overseas missions . . . analyze . . . the environmental impacts of multilateral development loans well in advance of such loans' approval to determine whether the proposals will contribute to the *sustainable development* [emphasis added] of the borrowing country. . . .
>
> [S]uch reviews shall address the economic viability of the project, adverse impacts on the environment, natural resources, public health, and indigenous peoples, and recommendations as to measures, including alternatives, that could eliminate or mitigate adverse impacts. . . .
>
> If . . . any such loan is particularly likely to have substantial adverse impacts, the Administrator . . ., in consultation with the Secretary of the Treasury and the Secretary of State, shall ensure that an affirmative investigation of such impacts is undertaken in consultation with relevant Federal agencies. If not classified under the national security

> system of classification, the information collected pursuant to this paragraph shall be made available to the public. . . .
>
> [T]he Administrator . . . shall identify those assistance proposals likely to have adverse impacts on the environment, natural resources, public health, or indigenous peoples. The proposals so identified shall be transmitted to the Committees [of jurisdiction in the U.S. Congress].

Other sections of the law require U.S. departments and representatives to encourage MDBs to promote renewable, nonpolluting energy and other environmentally benign technologies to enhance development and the environment and, in the process, to coordinate those efforts with USAID (*e.g.*, 22 U.S.C. 262j and 262f).

As one of its steps in reviewing MDB activities for environmental soundness, USAID sends information about these projects and other activities to its missions around the world for review and comment through its Early Project Notification system. When information derived through the EPN system or through other research raises substantial questions or provides a new perspective, it is shared with Treasury, other agencies, and in cases of loans particularly likely to have substantial adverse effects, with the public.

Within this context, USAID develops information and analysis concerning specific bank projects and overall processes. We share that information and analysis with other agencies. They also bring their own expertise to interagency review meetings at two levels: the environmental reviews that occur weeks or months before the relevant MDB board votes, and the overall review that occurs as little as a week or two before the boards vote.

Complementing this interagency process is the Tuesday Group of concerned NGOs and government agencies. Meeting monthly for more than a decade, it addresses policies and macroeconomic and project loans of the MDBs. Meetings are held in Washington and attended by representatives of several agencies and about 25 NGOs as well as guests from around the world. USAID and the Bank Information Center, an NGO serving citizens groups concerned about MDBs, cochair the meetings. Minutes from the meetings are shared with about 165 NGOs worldwide.

The Pelosi Amendment, Environmental Assessments, And the Interagency and Public Review Process

USAID's role under Title XIII complements the Pelosi amendment in (section 1307, 22 U.S.C. 262m–7). The Pelosi amendment in most cases requires that the United States not vote in favor of --

> …any MDB action which would have a significant effect on the human environment, unless for at least 120 days before the date of the vote an assessment analyzing the environmental impacts of the proposed action and of alternatives . . . has been completed by the borrowing country or the institution, and made available to the board of directors of the institution.

Further, the Pelosi amendment requires that the assessment or a comprehensive summary must, in most cases, have been made available in the same time frame, to the "bank, affected groups, and local nongovernmental organizations." Consideration of the adequacy of such assessments is part of the USAID and interagency process of reviewing proposals and making recommendations to the U.S. executive directors (representatives of the U.S. government on each bank's board of directors (USEDs)).

An International Review System

Title XIII, in section 1304, requires a cooperative information exchange system:

> The Secretary of the Treasury, in consultation with the Secretary of State and the Administrator of the Agency for International Development, shall create a system for cooperative exchange of information with other interested member countries on assistance proposals of the multilateral development banks.

USAID is working with Treasury, State, and others on this process. For example, in the case of the Chad–Cameroon pipeline, USAID received an analysis by the Netherlands Commission on Environmental Impact Assessment of the project's General Oil Spill Response Plan (GOSRP) from concerned NGOs. This led USAID to ask U.S. agencies with special expertise to review the GOSRP. They agreed with the Dutch about the inadequacy of the plan. Their concerns about the plan were shared by USAID and eventually were incorporated into the official U.S. position represented by the U.S. executive director which led to a requirement that the more detailed response plans be prepared earlier in project's development.

The Netherlands Commission has now proposed that an international body be established to review each year a selection of important environmental assessments, particularly ones with international ramifications, to improve the practice worldwide and to provide decision-makers with the best available analysis.

Sharing Environmental Analysis

To implement that law more fully and to be more effective, USAID and the other core reviewing agencies are encouraging other federal agencies and, as appropriate, other governments, to review the environmental soundness of MDB proposals. For example, the Interior Department has expertise in migratory birds and other internationally shared wildlife. The National Oceanographic and Atmospheric Administration (NOAA) has special expertise in coastal pollution from oil tanker filling operations.

In the case of other countries, the G–7 nations and their finance ministers have expressed a desire for cooperation to improve the transparency and performance of the MDBs regarding safeguard policies and due diligence. As a start, USAID has begun reaching out, for example, to the Netherlands, the United Kingdom, and Japan, because those nations have indicated a desire to cooperate on these issues.

In response to NGO requests for bank documents and information on the Chad–Cameroon Pipeline Project, USAID reviewed the statutory provision requiring the public release of information concerning likely substantial adverse effects. USAID determined that it should promptly release such information (except for agency decision memoranda), and the Agency provided such information to interested NGOs.

Multilateral Development Bank Safeguard Policies: Substantive Limits Complementing the Assessment Process

The binding policies of the World Bank protecting environmental and related values are called *safeguard policies.* The environmental assessment policy was the first of what are now 10 safeguard policies created since 1989. As the term indicates, they are intended to safeguard people and resources that could be harmed by projects that are not carefully assessed and planned before they are implemented. These are

4.01 — Environmental assessment
4.30 — Involuntary resettlement
4.04 — Natural habitats
4.36 — Forestry
4.09 — Pest management
4.37 — Safety of dams
4.11 — Cultural property
7.50 — Projects on international waterways
4.20 — Indigenous peoples
7.60 — Projects in disputed areas

The World Bank has additional directives and guidelines in place to run its operations, but the safeguard policies are perceived by many as the primary policies that are enforceable by persons whose interests in the environment, natural resources, and the status of indigenous peoples could be harmed. Such policies are ultimately enforced through the World Bank's Inspection Panel. Several of them, such as policies on forests, resettlement, information disclosure, and indigenous peoples, are being revised or will be reviewed again soon. The cultural property policy may also be updated, and a gender policy may be added. Related strategies are more action-oriented plans than policies limiting bank impacts. Some Bank strategies, such as the forest and water strategies are also being revised.

The monthly meetings of the Tuesday Group of NGOs and agency representatives, and the Interagency Environmental Working Group of Treasury, State, USAID, and EPA help us to review and to develop comments not only on some of the MDB loans but also on some of the policy proposals of the MDBs.

In addition to the formal bank safeguard policies, USAID is aware of the need to respect and support international law in the process of development. USAID also weighs the benefits, costs, and risks inherent in different development choices such as different kinds of energy production and natural resource extraction, of the intentional or mistaken introduction of non-native species in agricultural aid and the opening of new transportation routes, and of difficulty of allocating scarce water resources.

Conclusion

The MDBs still have a distance to go in improving their environmental performance. As in previous reports, infrastructure, power, natural resource extraction, and road projects continue to be the most environmentally problematic sectors reviewed by USAID in this report.

Nevertheless, there has been a decline in recent years in the number of objections and abstentions by the USED on Pelosi Amendment grounds. This indicates that the MDBs are probably getting better, for example, at circulating Environmental Assessments within 120 days of Board votes for those project loans that they classify as category A projects.

USAID, Treasury, State, and EPA are working together to improve the selection process and the development work that it makes possible. We are also working together to improve the policies and strategies of the MDBs to ensure better stewardship of natural resources and related values and the most effective development work possible. We will continue to work with these agencies, and with all our other partners, to ensure that with the help of the MDBs, the nations of the world will learn together to use our natural resources in a way that restores and sustains public health, indigenous peoples and the environment, which must sustain us all.

Multilateral Development Bank Assistance Proposals Likely to Have Adverse Impacts – By Region & Country

AS DESCRIBED IN THE INTRODUCTION, USAID is required to review proposed multilateral development bank (MDB) loans for economic viability and impact on the environment, natural resources, public health, and indigenous peoples. This main body of this report describes a selection of loans at various stages with an emphasis on the World Bank's review process and its project loans. Structural adjustment and other loans are also represented. Because of space considerations, there are some projects in USAID's last report that are not repeated here yet continue to be controversial. Their omission from this report is not necessarily an indication that all questions have been resolved. The Agency is continuing to press for resolutions.

This report does not prejudge the U.S. government's position on the final versions of the projects listed here. Rather it serves as a record of USAID environmental monitoring of a group of MDB projects at a given time. Since USAID does not have the resources to analyze every MDB project, this analysis is representative rather than comprehensive. Thus, should a particular loan not be included in this list, it should not necessarily be concluded that the project does not have potential environmental issues. Though this list is representative, USAID has confidence in its value as a review during this period of MDB projects with potential environmental problems.

The Agency hopes to include more on the regional development banks in its future reports. The report seeks to inform congressional and other readers of problem areas and to help the MDBs to demonstrate that any problems in these areas have been addressed so that the tremendous development potential of these institutions and their partners can be achieved.

This report was written over a period of late 2000 to mid-2001. Entries tend to reflect the evolution of the projects over that time. **For the most recent status of projects, the reader may wish to check directly with USAID or the MDBs or the banks' Web sites**. Finally, some loans or project descriptions are included even though board votes or other actions may have been taken on a given part or phase, because such projects and loans often come in several segments with support from one or more international financial institution. Such descriptions are also useful for the light they shed on the process and the likely impact on the affected environments and peoples.

Tracking Bank Loans: Monthly Operating Summary

One of the best means of tracking World Bank loans is the Monthly Operating Summary (MOS), which had been available only for a subscription rate of several hundred dollars, but which on 16 June 2000, at least for a trial period, became available on the bank's Web site at http://www.worldbank.org/html/opr/procure/MOS/mosguide.html.

The MOS is updated on the 16th of each month. The following description is taken from that site. It provides a useful description of the World Bank's project cycle as well. The reader is warned, however, that not all projects one would expect to find are easily located in the MOS. Therefore, it should not be the reader's only source.

> The Monthly Operational Summary reports on the status of projects in the World Bank's pipeline—from the point of identification of investment opportunities to the signing of the loan or credit. After loans or credits are signed, entries are dropped from the MOS.
>
> By becoming familiar with the Bank's "project cycle," summarized in the following paragraphs, consultants or suppliers of goods and works can gauge when the timing is right for them to pursue business opportunities with Bank borrowers. Each entry in the MOS tells at what point in the project cycle a particular project resides.
>
> During IDENTIFICATION, both governments and the Bank are involved in analyzing development strategies for the borrower's economy as a whole and in identifying projects that support those strategies. When the project identification is completed, the Project Information Document will be available through the Public Information Center —see below for more information.
>
> PREPARATION, the second stage of the cycle, is the responsibility of the borrower. During preparation, the technical and institutional alternatives for achieving a project's objectives are identified and discussed. Preparation usually requires feasibility studies followed by more detailed studies of the alternatives that promise to yield the most satisfactory results. The environmental assessment is usually carried out during this phase—see below for more information on environmental assessment. In this stage of the project cycle, borrowers often supplement their own efforts by hiring consultants to carry out a major part of the work.
>
> Project APPRAISAL, the responsibility of the Bank, provides a comprehensive review of all aspects of the project (technical, institutional, economic, and financial) and lays the foundation for implementing the project and evaluating it when completed. Conducted by Bank staff, project appraisal may be supplemented by individual experts. A Project Appraisal Document is published following this stage.
>
> During NEGOTIATIONS, discussions are held between the Bank and the borrower and agreements reached are contained in the draft loan documents. Upon completion of negotiations, the project is then presented to the Executive Directors of the Bank for their consideration. After approval, the loan agreement is signed.
>
> IMPLEMENTATION of a project usually starts after the loan is declared effective, which can normally be expected to take a few months after loan signing. Contractors and suppliers, therefore, should contact borrowers expressing their interest in specific projects. They should obtain information on what goods and services will be needed, and when and how to submit bids and proposals. During implementation, consultants are

often used to provide technical assistance and other project implementation support. As contracts for consulting services are not usually advertised, consultants, in particular, should contact the responsible implementing agency early in the project preparation period to express their interest.

Within each region, projects are classified by the following sector designations:

Agriculture	Education/Training
Environment	Finance
Industry	Infrastructure
Population, Health, and Nutrition	Power
Private Sector Development	Public Sector Management
Reconstruction/Rehabilitation	Rural Development
Social Sector	Structural Adjustment
Transport	Urban Development
Telecommunications	Water Supply/Sanitation

A typical entry in the MOS looks like this:

Kenya

Water Supply/Sanitation

(R) Mombasa Water and Sanitation: The project seeks to a) develop ground water sources; b) improve the transmission line between Baricho Well Field and Mombasa; and c) provide emergency measures to improve distribution systems and reduce unaccounted for water. Project preparation is under way. Environmental Assessment Category to be determined.

US$30 million (IDA). Consultant services to be determined.

National Water Conservation and Pipeline Corporation, Workshop Road and Commercial Street, PO Box 30173, Nairobi, Kenya, Tel: (254–2) 556–600, Fax: (254–2) 545–882.

World Bank Environmental Assessment Process and Categories

In October 1989 the bank established a specific policy and procedures for environmental assessment and related environmental analyses of the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA) lending operations. Under this environmental assessment process, the type, timing, and main issues of environmental analysis to be performed by the borrower are to be confirmed at the time that a given lending operation is initiated into the bank's prospective lending program and thereafter reported and updated on a quarterly basis in the Monthly Operational Summary.

In October 1991 the bank revised its policies and procedures so that projects are now assigned one of the following categories on the bases of the nature, magnitude, and sensitivity of environmental issues:

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. A proposed project is classified as category FI if it involves investment of bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.

"U" (unclassified). This indicates structural and sectoral adjustment loans, which do not fall within one of the above categories for purposes of the directive governing environmental assessment.

The 1991 revision also introduced the use of a standard environmental data sheet for all projects to identify the main issues and schedule for any required environmental analysis.

Project descriptions in every issue of the Monthly Operational Summary include the environmental category A, B, C, or FI, except in the case of structural and sectoral adjustment loans, which are designated "U."

Most regional development banks and financial institutions have similar systems, though there are differences in the names of the designations and how the process is applied. Further information is available from each institution. The Asian Development Bank, for example, gives helpful illustrative examples of environmental categories for projects. These are generally representative of all three basic categories used by the MDBs:

Category A (World Bank A, AfDB I):
- 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, river intakes, or both)

Category B (World Bank B, AfDB II):
- Agroindustries (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 (World Bank C, AfDB III):

- Forestry research and extension
- Protected area establishment and management
- Marine sciences education
- Geological or mineral surveys
- Education
- Family planning
- Capital market development study

Stages of World Bank Processing

There are 11 stages in the processing of a typical World Bank project. They ordinarily proceed as follows:

1. Identification
2. Preparation, including feasibility studies, alternative studies, environmental assessment
3. Preparation mission
4. Preappraisal mission
5. Preappraisal
6. Appraisal mission, including comprehensive review of all aspects of the project
7. Appraisal report preparation concludes this stage
8. Negotiations
9. Board date and approval
10. Signing of loan agreement
11. Implementation

Selected Multilateral Development Bank Projects With Possible Environmental Concerns

Projects and Loans in Africa

1. Western Africa: IDA/AfDB—Regional Hydropower Development (Mali, Mauritania, and Senegal)

PROJECT DATA

Projected AfDB: $20 million. IDA funding: $38 million. Projected Total Cost: $444 million. Tentative AfDB board date: Indefinite. WB board date: June 1997. Stage: AfDB negotiations completed in November 1997, but board consideration awaits a policy determination on multinational projects. World Bank approved its loan in June 1997. AfDB environmental category I. World Bank environmental assessment (EA) category A. WB project I.D.: SNPA46648. Project first entered: March 1997. Entry last updated: April 1999, with additional USAID notes, mid-2000, below.

DESCRIPTION OF PROJECT

The main objectives of this proposed project are to a) install power generation capacity to generate economic and financial benefits from the Manantali dam, which has already been built, and encourage cooperation and energy exchanges between the three member countries; b) help minimize the long-term cost of electricity supply to the three countries; c) provide hydropower to help meet increased demand for electricity and reduce fuel costs (in Dakar, Bamako, and Nouakchott); d) strengthen the Organization of the Development of the Senegal River (OMVS) and the power sector entities in the three countries and establish an effective organization to manage and operate the Manantali dam and project facilities with satisfactory procedures, in particular regarding safety, health, and environment protection; and e) contribute to development of traditional agriculture downstream through the rational management of the Manantali reservoir.

The proposed project would include the following components: Construction of a 200-MW hydroelectric plant (5 units of 40 MW each and civil works); construction of a 225-KV high-voltage transmission lines to Bamako (306 km) and to Dakar (821 km) along the Senegal River and a 132-KV transmission line to Nouakchott (219 km); construction of 11 substations and a dispatching center; supervision of project construction; technical assistance and training (support to OMVS and the Sociétié de Gestio de l' Énergie de Manantali (SOGEM), including regulatory, reservoir management, health, and environment aspects and the recruitment of a private operator for the project).

USAID'S COMMENTS – 1999 (See Update Below)

The bank recognizes downstream and water management issues for the lower

Senegal River in conjunction with this project. It has the potential to promote a win–win development program—by achieving sound development goals with economic, environmental, and social sustainability. However, it is not clear from the EA and other project documents that the project design takes full advantage of this opportunity.

Background. Since its completion in the late 1980s, the Manantali Dam on the Bafing River in Mali, which controls about 45 percent of the total Senegal River flow, has aggravated environmental and socioeconomic conditions downstream, adversely affecting the well-being of hundreds of thousands of riparian households. The pre-dam flood regime supported a dense human and livestock population in a low-rainfall area. The flood made possible a sustainable seasonal succession of fishing, herding, flood-recession farming, reforestation, and aquifer recharge.

The cessation of the natural flood and the inconsistent and flawed attempts to provide simulated floods have resulted in incidents of social conflict in the valley. Herders and fishers now must compete for land and water resources they previously were able to use mutually. Poverty and migration out of the area have increased, as productive yields have declined. Labor burdens for women, children, and the elderly have increased without corresponding increases in income.

USAID realizes that this project is trying to rectify some of the downstream impacts that the dam has had, while trying to realize its economic potential through hydropower development. However, the environmental assessment summary (January 1997) does not analyze the downstream environmental and social impacts that the Manantali has had. Nor does it refer to a host of studies on the subject. Though the EA proposes a Water Management Optimization Program to address downstream issues, it is vague on what OMVS will be held accountable to. USAID supported the Institute for Development Anthropology's studies of resettlement upstream from the dam and environmental and socioeconomic impacts of the changed river regime downstream. These studies conclude that a properly managed release of reservoir waters replicating the natural flood would substantially restore the pre-dam production system without adversely affecting hydropower potential.

The issue of dam management has been much debated and politicized. On the basis of the above research, the government of Senegal is willing to follow recommendations regarding a controlled release program. Mali has been indifferent on the subject, as long as power is generated, since most of the floodplain is downstream from the country. Mauritania is apparently resistant to the idea, since it is seeking a shift from traditional production to large-scale irrigation.

USAID understands that the French agency ORSTOM has been selected to carry out an optimization study. It was USAID's perception that ORSTOM historically has shown little enthusiasm for maintaining the traditional production system, and its river-flow model for dam releases should be replaced by one based on rainfall and runoff data from the Fouta Djallon, where at least five collection stations are tied into the meteorological satellite network. The latter model would substantially enhance real-time

forecasting and should be carefully considered. A comparative analysis of the two models would be in order. The World Bank reported that ORSTOM is using real-time (teledetection) modeling based on rainfall and runoff data upstream. It is also using real-time modeling on measured flows of downstream river tributaries (for better timing of the artificial flood).

USAID suggested the following:

1. The bank should try to leverage as much as possible a policy change at OMVS, to include as one of its fundamental objectives management of the Senegal River basin for recessional agriculture and other flood-based activities in an integrated way with electricity production.

2. Loan disbursements should be conditioned on the successful implementation of this integrated approach. Especially, the private operator of the project should have incentives *and* disincentives in its contract that would ensure an optimal artificial flood while producing a maximum of electricity. The operator should not receive bonuses based on electricity production alone.

3. Downstream villages should be given representation on the board of OMVS—or in some other significant way have an ongoing voice in reservoir management.

4. The project's environmental assessment should be expanded to include (or refer to) an analysis of downstream environmental and social impacts.

USAID and World Bank staff met regarding the above issues. The bank followed up with these comments: Although the EA summary of January 1997 is not clear on how the project would contribute to achieving the sound, use-balanced management of water resources from the Manantali reservoir, this issue is much better addressed in the Environment Impact Mitigation and Monitoring Plan (PASIE). The plan has just been finalized by OMVS and its consultant, as well as in the corresponding sections of the SAR on environment, social, and health aspects, which was to have been sent to the board during the first week of June 1997. These aspects will be discussed during credit negotiations. Specifically, agreements must be reached on 1) detailed actions and budget to carry out the environmental impact mitigation and monitoring program, in particular for involuntary resettlement and land acquisition, and 2) final terms of reference for preparing the Manantali reservoir management agreement.

On background, the three countries will, through OMVS, undertake an agreement (charter) for the sound management of the Manantali reservoir. OMVS will be held accountable for monitoring the proper application of the agreement, while the private operator of the hydropower plant will be charged of the actual implementation of the reservoir management program. Adequate dispositions will be defined in detail during the studies financed under the project by IDA, the Canadian International Development Agency, and France. The study, contracted by the bank to a hydrology specialist during

project preparation, confirms the results of other detailed studies regarding the need/feasibility of maintaining artificial flooding without adversely affecting hydropower potential.

Also as background: after verification with bank staff working in the agriculture sector in this country, Mauritania is not "resistant to the idea [of a controlled release program], since it is seeking a shift from traditional production to large-scale irrigation." Indeed, in its report Mauritania clearly defines the important role that artificial flooding will continue to play in the valley, complementing the irrigation program.

On USAID suggestions: That suggested in this section is precisely what will be done through the project—OMVS subscribing to a charter for sound management of the Manantali reservoir; dated covenant in credit agreements regarding this charter; and adequate incentives and disincentives in the contract of the private operator to ensure application of the charter's dispositions for artificial flooding. It is not planned, however, to expand the EA on downstream environmental and social impacts, because both the EA and the PASIE refer to detailed studies carried out on these aspects and in large part endorse their conclusions.

The World Bank's financing of the project was approved and signed in June 1997. The African Development Bank's financing decision was delayed until early in 2000, pending passage of its policy on multinational projects.

USAID remains concerned about how sound management of the Manantali reservoir will be achieved as the operating principles or objectives of the charter have yet to be defined. Agency review of the study concluded that it indicates hydropower would compete with flooding. USAID in May 1998 began work on disseminating information on the project to downstream water users and other stakeholders. The Agency will continue to work with the banks on these issues.

Mid-2000 update. The board approved the loan in March 2000 despite continuing questions raised by the U.S. Environmental Protection Agency, USAID, and others. There were questions about moving forward when various aspects of assessment appeared incomplete, about resources that appear to have been unwisely spent since the dam was built in 1988, about the risk of corruption, and about the extent to which traditional seasonal flooding downstream would be replicated so as to sustain traditional fishing and agriculture and the ecosystem services overall. USAID's Africa regional bureau continues to monitor this multifaceted project.

2. Benin: World Bank—Power

PROJECT DATA

Environmental assessment category A. US$35 million (IDA). Consulting services will be required for a) institutional reform and restructuring measures and b) engineering and preparation of the bidding documents. Societé béninoise d'électricité et d'eau (SBEE), Direction générale, Carré No. 9, BP 123, Cotonou, Benin, tel: (229) 31–21–62, fax: (229) 31–50–28, contact: M.C. Kohoue, directeur général.

DESCRIPTION OF PROJECT

Seventh Power: The project will support a) institutional reform measures, including privatization of the distribution utilities and reinforcement and expansion of the transmission and distribution systems; and b) creation of a business environment for private sector power generation. Appraisal mission was scheduled for January 2001.

USAID'S COMMENTS

The issues here include whether the government and market are ready to reap the maximum benefit from selling off utility resources while controlling negative impacts ranging from increased rates unaffordable by the poor to rapid expansion of the system without adequate assessment of the alternative generation and conservation options.

3. Cameroon: IDA—Railway Concession

PROJECT DATA (2000)

Environmental assessment category B. PID: CMPE54786. US$22 million (IDA). Consulting services to be determined. Infrastructure and Equipment Rehabilitation and Informatics. Components: CAMRAIL, 51, Rue Louis Blanc, 92400 Courbevoie, France, Tel: (33–1) 41–41–54–92, Fax: (33–1) 41–41–50–38, contact: Mr. Monpert; Management Capacity Development Component: Ministry of Transport, Ministry of Economy and Finance, Ministry of Public Investment, Yaoundé, Cameroon, tel: (237) 23–97–50, fax: (237) 25–51–08. Contact: Bassoro Aminou, president of the Privatization Committee.

DESCRIPTION OF PROJECT

Railway concession: The project will assist the government in concessioning the railway company to the private sector. Board presentation is scheduled for August 2000.USAID'S 2000 COMMENTS

The issues here include whether the government and market are ready to reap the maximum benefits from privatizing a railway. These include the environmental and natural resource benefit of its being the most efficient land mode of transporting large weights and volumes and the reduction of the need for roads that have unintended effects upon wildlife and indigenous peoples such as increasing bush-meat harvest and trade and migration into the area. If allowed to decline in public or private hands, a lack of transportation results. Either can lead to excess attempted use of unimproved roads leading to public safety risks, road erosion, further runoff, siltation, and other problems. To the extent that USAID is asked to review economic viability, the Agency considers what the supply-and-demand situation is when selling off a large government industry that is vital to the public welfare, so that the institution and the government will both retain the ability to do their parts.

2001 UPDATE

Transport
Railway Concession: The project will assist the government in concessioning the railway company to the private sector. Board presentation is scheduled for February 2002.
Environmental Assessment Category A. PID: CMPE54786. US$ 22.0 (IDA). Consulting services to be determined. Infrastructure and Equipment Rehabilitation and Informatics Components: CAMRAIL, 51, Rue Louis Blanc, 92400 Courbevoie, France, Tel: (33-1) 41-41-54-92, Fax: (33-1) 41-41-50-38, Contact: Mr. Monpert; Management Capacity Development Component: Ministry of Transport,
Ministry of Economy and Finance, Ministry of Public Investment, Yaoundé, Cameroon, Tel: (237) 23-97-50, Fax: (237) 25-51-08, Contact: BassoroAminou, President of the Privatization Committee.

4. Chad–Cameroon: International Bank for Reconstruction and Development/International Finance Corporation—Petroleum Development and Pipeline

OVERALL PROJECT DATA

Stage: Approved, along with capacity building projects. World Bank environmental assessment category A. IBRD Project I.D.: TDPE44305. IFC Project I.D.: 4338. Project first entered: March 1997. Entry last updated: August 2001.

DESCRIPTION OF OVERALL PROJECT

This project is a cluster of projects summarized in the following short entries. The longer description, drawn in part from the entry in the 1999 USAID report and in part from action in 2000, is merely a summary of a complex series of reviews, meetings, and memorandums that continue as the relevant agencies of various governments and the World Bank follow through on commitments made in the approval process. Further information is available from USAID, the U.S. Treasury Department, and several NGOs—including Environmental Defense and the Center for International Environmental Law.

The core of the project is a $3.7 billion pipeline from Chad to Cameroon's Atlantic coast and a port facility to load oil onto tankers. In January 2000, in response to the acknowledged need to increase the capacity of both countries' governments to regulate such operations and to manage the revenue from them, the bank added capacity-building projects.

The project will provide support to the Chad and Cameroon governments in implementing the Chad–Cameroon pipeline, especially with respect to environmental issues and development of domestic oil resources. It involves developing Chad's oilfields and constructing a petroleum export pipeline from the south of Chad to the Atlantic coast of Cameroon and related marine installations. The objectives of the project are

- To promote the economic growth of Chad and Cameroon through the private sector–led development of Chad's substantial petroleum reserves and their export through Cameroon
- To strengthen Chad's management of petroleum revenues through a technical assistance component
- To strengthen the capacity of Chad and Cameroon to monitor the consortium's activities and develop and implement environmental safeguards

The project involves

- Developing 300 production wells in Chad's Doba oilfields

- Constructing a 30-inch, 1,050-km buried pipeline (170 km in Chad, 880 km in Cameroon) from Chad's oilfields to Cameroon's Atlantic coast, and related pumping stations, ancillary facilities, and infrastructure

- Installing marine export terminal facilities in Cameroon (a moored floating storage and offloading vessel) and associated marine pipelines and related facilities

The following are the elements included in this cluster of projects:

4-a. Cameroon—Environment/Governance

SUBPROJECT DATA

(R) Petroleum Environment Capacity Enhancement (formerly Environment Oil Technical Assistance); (Cr. 3372–CM): approved 6 June 2000 by the executive directors. Environmental assessment category C. PID: CMPE48204. US$5.77 million (IDA). Consulting services to be determined. Implementing agency to be determined.

DESCRIPTION OF SUBPROJECT

The project will provide support to the government of Cameroon in implementing the environment mitigation plan for the Chad–Cameroon pipeline.

4-b. Cameroon—Power/Pipeline

SUBPROJECT DATA

(R) Petroleum Development and Pipeline (Ln. 7020–CM): Approved 6 June 2000 by the executive directors. Environmental assessment category A. PID: CMPE51059. US$55 million (IBRD). Consulting services to be determined. Implementing agency to be determined.

DESCRIPTION OF SUBPROJECT

The project involves a) constructing a petroleum export pipeline from the south of Chad to the Atlantic coast of Cameroon and related marine installations and b) developing Chad's oilfields.

4-c. Chad—Power/Pipeline

SUBPROJECT DATA

(R) Petroleum Development and Pipeline (Ln. 4558–CD): Approved 6 June 2000 by the executive directors. Environmental assessment category A. The final

environmental assessment is available from the World Bank's Infoshop. PID: TDPE44305. US$35 million (IBRD). Consulting services to be determined. Project Services Manager, Esso Exploration and Production Chad, Inc., 800 Gessner, Suite 400, Houston, Texas, USA 77024, fax: (1–713) 973–5230; Ministry of Mines, Energy, and Petroleum, BP 816, N'Djamena, Chad, tel: (235) 51–21–88, fax: (235) 51–25–65, 51–30–43; Société nationale d'hydrocarbures, BP 955, Yaoundé, Cameroon, tel: (237) 20–19–10, fax: (237) 20–46–51.

DESCRIPTION OF SUBPROJECT

The project will support a) constructing a pipeline to the coast of Cameroon, b) developing the Doba oilfields, and c) transporting oil from Chad to the coast of Cameroon.

4-d. Chad—Power/Governance

SUBPROJECT DATA

(R) Petroleum Sector Management Capacity-Building (formerly Petroleum Technical Assistance/Oil Sector); (Cr. 3373–CD): Approved 6 June 2000 by the executive directors. Environmental assessment category B. PID: TDPE48202. US$24 million (IBRD/IDA). Consulting services to be determined. Ministry of Mines, Energy, Hydraulics, and Petroleum, N'Djamena, Chad.

4-e. Chad—Management of the Petroleum Economy Project

SUBPROJECT DATA

Original unit: AFC07. Last updated: 27August 27 2001. Project status: active. Sector: public sector management. Subsector: other public sector management. Environmental category C. Bank team lead: Huybens Elisabeth. Project ID: P062840. Main Loan/Credit #: 33160. Approval Date: 27 January 2000. Closing Date: 30 June 2005. IBRD commitment: 0. IDA commitment: $17.5 million. IBRD+IDA Comm.: $17.5 million. Grant Amount: 0. Total Project Cost: $17.5 million. Product line: IBRD/IDA. Lending Instrument: specific investment loan. Borrower: government of Chad. Implementing Agency: Cellule Économique—Presidency of the Republic.

DESCRIPTION OF SUBPROJECT

This subproject was approved in January 2000, several months ahead of the other components it supports. The project development objective is to help Chad deploy oil revenue efficiently and transparently to reduce poverty. The proposed project accompanies the proposed IBRD participation in the Chad–Cameroon Petroleum Pipeline Project and an IDA technical assistance project to strengthen the management of the petroleum sector and environmental management. It also complements IDA operations supporting expenditure programs in the priority poverty reduction sectors. The project

would build capacity in Chad to help integrate sector programs within a viable consolidated budget and public expenditure framework, manage macroeconomic distortions induced by oil exports, provide the analytical underpinning for the allocation of public resources to poverty reduction, implement the mechanisms mandated by law for the control and oversight of oil revenues, associate the civil society to policy formulation, and inform it on the outcomes of public resource use.

The project would have five components: 1) strengthening of public financial management, by upgrading and rationalizing the budget cycle, including the macroeconomic and public expenditure framework, budgetary programming, revenue mobilization, expenditure circuits, debt and cash flow management, the internal control and audit systems, and financial reporting; 2) production of a poverty database and reporting system and participatory articulation of a strategy for poverty reduction; 3) support to civil service reform, including implementation of reform in key economic administrations; 4) implementation of oversight and control capacities in the Auditor General's Office and the Committee for Oversight and Control of Petroleum Revenue and information of the civil society on the implementation of the petroleum revenue management strategy; and 5) monitoring of economic reform.

4-f. IFC—Petroleum Development and Pipeline Project

SUBPROJECT DATA

Loans in the amount of $100 million in A-loans and up to $300 million in B-loans to the Chad Oil Transportation Company, S.A. (Project appraisal document, 13 April 2000, WB/IFC Report No. 19343 AFR).

The pipeline contribution was changed by April 2000 from the early 1999 figures: Projected IBRD funding: $90 million. Projected IFC funding: $250 million of projected total cost: $3.5 billion. By April 2000 they had become IBRD loans of $39.5 million to Chad, $53.4 million to Cameroon, and IFC loans of $100 million in A-loans and up to $300 million in B-loans to Chad and Cameroon Oil Transportation Companies.

Private sector sponsors: Exxon–Mobil International, Petronas, and Chevron. (Royal Dutch Shell and Elf Aquitaine withdrew.) Exxon's local affiliate was to be the operator of the project—as of April 2000 the operators were the Chad and Cameroon Oil Transportation Companies.

DESCRIPTION OF SUBPROJECT

The following is derived from the IFC's July 2001 description of the overall project.

The project is to develop the oilfields at Doba in southern Chad (at a cost of US$1.5 billion) and construct a 1,070-kilometer pipeline to offshore oil-loading facilities on Cameroon's Atlantic coast ($2.2 billion). The sponsors are Exxon–Mobil of the

United States (the operator, with 40 percent of the private equity), Petronas of Malaysia (35 percent), and Chevron of the United States (25 percent). The project could result in nearly $2 billion in revenues for Chad (averaging $80 million per year) and $500 million for Cameroon (averaging $20 million per year) over the 25-year production period.

Rationale. This project could transform the economy of Chad. At the moment, the country is so poor that it cannot afford the minimum public services necessary for a decent life. By 2004, the pipeline could increase government revenues by 45–50 percent a year and allow it to use those resources for important investments in health, education, environment, infrastructure, and rural development—all necessary to reduce poverty.

Status. On 6 June 2000 the Board of Directors of IBRD, IDA (the World Bank's lending arm for the poorest countries), and IFC approved lending for the Chad–Cameroon Petroleum Development and Pipeline Project and two related capacity-building projects, one project each in Chad and Cameroon for petroleum, environmental, and social aspects associated with petroleum development and export. The board approved an IDA credit for revenue management in Chad in January 2000.

Physical implementation of the project has started. The first contractors for the infrastructure works and the oil-field facilities were mobilized in September 2000.

Project description and financing. The Petroleum Development Project involves a) developing Chad's Doba oilfields, b) constructing a buried pipeline (1,070 km in length, 76 cm in diameter) from Doba to Cameroon's Atlantic coast near Kribi, related pumping stations, ancillary facilities, and infrastructure, and c) installing an offshore moored floating storage, offloading vessel 11 km out to sea, associated marine pipelines, and related facilities.

Construction will take three years. Oil could begin to be exported by the end of 2003. Chad and Cameroon are likely to benefit from oil revenues over the 25-year production period, in amounts totaling more than US$1.8 billion (in royalties, dividends, and taxes) for Chad and more than $500 million (in transit fees, dividends, and taxes) for Cameroon.

Total project costs are estimated at about US$3.7 billion, with $1.5 billion for development of the oilfields in Chad (field facilities) and $2.2 billion for the pipeline and marine facilities (the export system). The project's private sponsors (led by Exxon–Mobil, the operator, Petronas, and Chevron) are financing about $3 billion or 81 percent of the project costs from their own resources, including 100 percent of the field facilities. About $600 million in debt financing for the export system has been obtained by the sponsors from export credit agencies and commercial banks. The World Bank Group is providing $92.9 million in IBRD loans ($39.5 million to Chad and $53.4 million to Cameroon, amounting to about 3 percent of project costs) for financing the two governments' minority holdings in the joint-venture pipeline companies (TOTCO in Chad and COTCO in Cameroon). The World Bank's private sector affiliate, the IFC, is providing an A-loan of $100 million ($85.5 million to COTCO and $14.5 million to

TOTCO), about 2.7 percent of the total debt, and has mobilized another $300 million (for COTCO and TOTCO) in commercial lending under a B-loan umbrella. Additional borrowing for the export system has been obtained from U.S. and French export credit agencies. The European Investment Bank is providing $41.5 million to finance Chad's and Cameroon's equity in the two joint-venture oil companies, TOTCO and COTCO ($15 million and $25.5 million, respectively).

USAID'S COMMENTS

We will first summarize the improvements achieved through the intervention of the USG and others. We will then review the process that led to those improvements and some of the questions or issues that remain.

Summary of Reviews and Improvements Achieved By the Time of the Board Vote

USG internal review of this project was the most extensive interagency process ever run by the USG for an MDB project. This included perhaps a dozen different meetings, with World Bank staff, NGOs and several agencies. These were accompanied by an extensive volume of informal communications by USG agencies, both internally and with outside groups.

The project contains an array of safeguard measures, some of which are unprecedented for World Bank operations. Over the years leading up to the World Bank Board approval, significant improvements were made to the project at U.S. urging. For example, a revenue management plan intended to provide both transparency and accountability in the handling of oil revenues was introduced in Chad. The government and Parliament approved the structure of this plan under the Revenue Management Law. Under the plan, oil revenues will be directed to a series of sub-accounts including commercially managed off-shore escrow accounts, a "Future Generations" savings account, and special commercial bank accounts. Also, a portion will go directly to the budget for general government budgetary purposes. Eighty percent of the direct revenues will be earmarked for priority social investments such as health and education; five percent will go directly to the oil-producing region. An oversight committee, nearly half comprised of civil society/NGO representatives in addition to a member of the Supreme Court and two Parliamentarians, will have authority to authorize disbursements of oil revenues from the commercial banks to the general government budget.

Significant improvements were also made, again with U.S. active engagement, with respect to environmental issues. The World Bank rejected the original Environmental Management Plan (EMP) as inadequate and, as noted earlier, worked with the project sponsors to reroute significant parts of the pipeline to avoid certain sensitive wildlife habitats and resettlement of indigenous communities. In addition, two new national parks in Cameroon were designated as "offsets" to compensate for losses of special wildlife habitat that will occur.

Provisions for monitoring the Environmental Management Plan were improved

by providing that the normal monitoring by the private sponsors and governments will be supplemented by external consultants and experts. The Bank also agreed to an independent high level international advisory group, which the U.S. and other shareholders had sought.

The Bank included conditions or "covenants" in its loan and project agreements that could lead to suspension of disbursements and accelerated repayment of World Bank loans if the Chadian revenue management plan and/or elements of the EMP are not developed or implemented.

Thus, at the time of the Board vote, the project had substantially improved, both conceptually and with respect to specific design elements. To the majority of agencies, the overall structure of the project appeared sound.

USAID'S COMMENTS (BEFORE 2000)

This is said to be the largest construction project in sub-Saharan Africa. The project is mentioned in the World Bank's country program strategies for Chad and Cameroon.

Local environmental NGOs have shared with USAID their concerns regarding the three alternative pipeline routes and how they would affect sensitive ecosystems. These NGOs indicated their sense of inadequate public consultation in conjunction with the environmental impact assessment (EIA) because the document was not readily available within Cameroon. While clearing for construction preparation had begun south of Kribi, the EIA could be read only inside a certain office where photocopying was not possible.

The U.S. executive director's office hosted a January 1999 briefing by bank staff for interested U.S. government agencies. In 1999 USAID understood the Bank staff to have announced that they would produce a "unified environmental and social assessment" that would include all assessment and related documents):

- Environmental assessments for Chad and Cameroon received November 1997
- Environmental mitigation plan for Chad—November 1997
- Environmental mitigation plan for Cameroon—February 1998
- Chad compensation/resettlement plan—February 1998
- Cameroon compensation plan—September 1998
- Chad and Cameroon environmental mitigation plans (including technical specification
- Chad compensation/resettlement plan
- Cameroon compensation plan
- Chad rural development plan
- Community health outreach program
- Oil-spill response plan
- Decommissioning plan
- Indigenous peoples plan in Cameroon

- Environmental offset program in Cameroon

Bank staff were hoping for a July 1999 board date. But this was ultimately delayed a year owing, in part, to the withdrawal of a major project partner and, in part, to a 120-day requirement for public review of the environmental assessment before the board vote. Until the unified environmental assessment document and supporting material are on file at the World Bank, the U.S. government does not begin to count the 120-day period required by both the Pelosi Amendment and by World Bank policy. According to staff, preliminary disclosure and consultation with local peoples would happen before the official transfer of the final project documents. *Revisions to many of the aforementioned documents were made after review by the World Bank, the executive directors' offices, the Chad and Cameroon governments, in-country public review, and international NGOs.*

Progress was made on the pipeline rerouting issue. A meeting was held with the government of Cameroon, the consortium, and bank staff, during which rerouting was discussed extensively. The pipeline will avoid, in part, some sensitive areas that were of concern: The Mbere Rift Valley near Chad has been avoided (the pipeline will follow the ridge); most of the Deng Deng forest was to be avoided (the pipeline will now follow a railroad through central Cameroon); environmental offset areas were still pending as new sites for protection have yet to be chosen by the government of Cameroon. The proposed trust fund would underwrite costs for the management of the new protected areas. The pipeline must go through coastal forests to get to the shore.

By April 1999 some resettlement in Chad had occurred. There were no plans for resettlement in Cameroon—only compensation for lost land. In early 1999 there was still no indigenous peoples plan for the project, nor had the associated trust fund plan been established. The bank was consulting with the Global Environmental Facility on how to manage the trust fund.

A new revenue management law was passed in Chad, though it is unclear to what degree this law will affect the project. In 1999, USAID noted that the World Bank's leverage to push for equitable revenue sharing on the Chad side is limited, but the Bank said that it would include language in the loan agreement stipulating that Chad's failure to comply with requirements will negatively affect future Bank funding for the country. Questions continue to surround the security situation and the role of the military in Chad. Other issues were discussed at the 1999 Bank staff briefing, including additional oil production areas in Chad and their possible connection to the project, project design capacity, the regional development plan, and the policy letter approved by Chad's parliament.

USAID'S COMMENTS (IN MID-2001)

While the opportunities from this project are great, so are the risks. This is a large and complex project and Chad and Cameroon have poor underlying policy environments. Both countries have severe governance problems and limited capacity. More generally,

the history of oil development projects in Africa is poor. Like Angola and Nigeria, this area is rife with strife though it has not yet seen its richest natural resources tapped. The central question is whether the countries are ready to ensure that those resources contribute to development and not to a cycle of degradation and conflict.

In January 2000, in response to the acknowledged need to increase the capacity of both countries' governments to regulate such operations and to manage the revenue from them, the bank added capacity-building projects. The Bank categorized these as category B and C loans, which the Bank does not require to have full environmental assessments. The EA that had been circulated for the pipeline project itself was from the oil consortium. In USAID's view, a more comprehensive EA could have addressed more clearly and officially many questions, especially about a) financing and legal and institutional responsibility for oil spills and b) establishment and management of parks set aside to conserve biodiversity reduced by the direct and indirect impact of the project, and the role of the governments of Chad and Cameroon in each aspect of the overall project from environmental assessment to de-commissioning. There also were questions about the funding adequacy of the indigenous peoples plan, the governance capacity of both governments, the cumulative impact of the project on the poor and displaced peoples (particularly pygmy minorities), and the details about an international advisory group (such as its budget, its powers, and its relationship to other aspects of project oversight). USAID noted these concerns in meetings and memoranda.

This cluster of loans was considered in interagency meetings and bank briefings throughout the first six months of 2000. After requesting and receiving copies of the loan agreements between the consortium and the governments, USAID felt they contained unresolved legal questions that could potentially lead to environmental problems. For example, though the capacity-building projects were aimed in part at building the capacity to regulate oil development, it was unclear whether adequate environmental laws and specific standards and controls would be in place in time before the oil began to flow and enforceable by the consortium and the governments.

The effect of the project on the indigenous Bakola (whom some refer to as pygmy) people was and remains another issue of concern. It is addressed in the Indigenous Peoples plan, but the adequacy of the consultation and the plan itself is uncertain. This is attributable, in part, to unclear land titles and competition for the use of declining forest resources. Others warned that these problems and others, such as the risk of disease, would be made worse by the in-migration of thousands of job-seekers.

Other basic risks also may make the project vulnerable. For example, USAID pointed out that the project still relies on a single-hulled holding ship, feeding oil to single-hulled tankers, instead of double-hulled tankers. Oil-spill risks can be reduced with planning and adequate investment and training, but the extent of that was not determined by the bank in the detail USAID sought at the time of the vote. The specific legal and technical requirements for spill response, management and funding for parks created to offset the harm done by the pipeline to natural areas, and other issues were unclear and

scheduled to be clarified after the loans were approved.

As noted above, the Chad–Cameroon pipeline project was improved by the time it was approved in mid-2000, but in USAID's view it had then and still seems to have many shortcomings. For example, the project, at the time of Board vote, had no controls for likely exotic invasive species infestation through the dumping of ballast water as tankers take on oil. USAID asked the National Council on Invasive Species to address the question during interagency consideration of the loans. The NCIS pointed out in a memo sent to USAID and the U.S. Treasury Department that

> [F]or several years, it has been U.S. government policy to reduce the risks associated with introductions of organisms via ballast water. Failure to take cognizance of this issue in the pending project would be inconsistent with this policy.

In interagency meetings and in a meeting with Exxon, USAID raised the question of how the invasive species issue would be addressed. Copies of the loan agreements for projects are generally not released to the public, but neither the loan agreement nor any other document we have reviewed to date addressed this issue. US agencies, however, intend to follow up on a number of issues, including concerns about invasive species.

Concerning the loan to help Cameroon regulate oil's environmental effects, USAID asked if agreements predating the capacity loans and their improvements would limit the ability of the governments to further regulate oil production and revenue. The answer was and remains unclear as to what extent the revenue controls and environmental mitigation plan and environmental assessment controls would apply to new oil (from wells beyond the 300 cited) flowing through this pipeline. The wording of the above Environment/Governance loan to Cameroon in particular was vague as to the timing and application of oil production regulations. The loan does not call for new regulations to control this project and there is a question as to the extent to which any new regulations will be able to control the project or liability arising from it given the various agreements and conditions of different dates.

Draft loan agreements, as well as the existing contracts or "conventions" between the governments and the consortium which were made available to agencies before the Board vote, in the opinion of USAID, raised nearly as many questions as they resolved and appeared to be at best unclear as to which environmental and resource protection elements controlled which actions. USAID recommended in interagency meetings that in addition to the authority of the bank to trigger macro-level measures, that in order to ensure environmental and indigenous peoples' protections, that the bank require the anti-corruption measures that the General Accounting Office had recommended in its April 2000 report on World Bank management controls to fight corruption (GAO/NSIAD-00-73) be put in place. USAID also recommended that the loans require early establishment and funding of enforcement systems that would respond to local complaints or allegations of violations of either Bank policy, corporate covenants, or local law with specific remedies in cases where the complaints were found to be justified.

USAID continued to remain concerned about governance problems at the time of

the pipeline loan and it was our understanding that Cameroon had not yet agreed to take part in the bank's full anticorruption and governance program.

The Bank's International Waterways policy requires informed consent of nearby countries such as Equatorial Guinea when the risk of environmental harm from a Bank project is significant. USAID raised this point and asked how Equatorial Guinea had been informed of the risks and how it had given its consent.

USAID also noted that the bank's project appraisal document rated the project's overall risk as "significant" and that historically there have been concerns of corruption in the countries involved. In light of such concerns, USAID opposed the project as presented, recommending that the package be revised to address these concerns, reviewed as a coordinated whole through the EA process, and timed to develop confirmed management capacity first, followed by oil development.

USAID resolved to work with other agencies and concerned parties and to follow up on the project as a whole, and on particular details such as invasive species prevention measures. That particular matter may not be clarified until the area-specific oil-spill plans are published, despite the fact that invasive species and oil spills are separate concerns.

Issues Arising After Board Consideration

In the first few months following Board approval of this project, there were developments that required faster implementation of the Government of Chad's Revenue Management Oversight Plan.

On April 25, 2000, the Government of Chad received a $25 million signing bonus from Chevron and Petronas, the two new members to the oil company consortium, as a form of compensation for the tax relief that the two previous members of the consortium (Shell and Elf) had negotiated. The tax relief package previously negotiated by Shell and Elf was based on their substantial investments in oil exploration; the $25 million payment to the government of Chad allows Chevron and Petronas to benefit from that same negotiated package without having made the same investments.

The bonus payment technically falls outside the scope of the legal covenants or agreements between the World Bank and the government of Chad. Nonetheless, in mid-May, Chadian President Deby committed to the IMF and World Bank to use the bonus money in accordance with the Revenue Management Law.

In September 2000, reports confirmed that the bonus was being spent outside mechanisms planned for under the Revenue Management Law. Although the spending of the bonus outside the Revenue Management Law structure did not constitute a breach of the legal agreement or the covenant with the World Bank, it did violate President Deby's commitment.

In response to this breach of commitment, the World Bank raised the issue in a number of high level meetings between the Bank and the government of Chad. In a joint IMF/World Bank letter dated October 13, the institutions suggested that the government of Chad take the following actions:

- freeze the remainder of the bonus until the Oversight Committee is put in place and a commitment is made to spend the rest of the bonus on priority sectors;
- issue a public report on the spending of the oil bonus to the appropriate institutions, including the Chadian Parliament and the Oversight Committee;
- fully disclose to the World Bank and IMF all existing government accounts and commit to providing monthly information on their balances;
- commit to not approve and execute any government spending outside the official monthly treasury cash plan.

After a delay in Chad's HIPC decision point, all of these conditions were finally met.

Issues Requiring Continued Monitoring

Given the inherent risks to this project, the unprecedented nature of the project improvements, and the safeguard measures that were put in place, the USG continues to remain engaged. We have continued the inter-agency review process for monitoring the early implementation of the project. Agencies have been particularly focused on ensuring the following gets done:

- Area-specific oil spill response plans should be completed and released to the public six months prior to oil shipment.
- The World Bank and private sponsors need to report on further detailed development of the general oil spill response plan.
- Invasive species control measures must be proposed and put in place.
- The World Bank and private sponsors need to assess and report on the adequacy of the funding and management of the offset parks.
- The World Bank and private sponsors need to assess the need for any possible additional work on the Indigenous People's Plan and then to rectify any uncovered deficiencies.
- The Revenue Management Oversight Committee's authority may need to be strengthened.
- There must be public release of the audits of offshore escrow accounts holding the oil revenue.
- World Bank-supported public expenditure reviews need to be regularly updated and available to the public.
- Project monitoring reports must be regularly updated and made available to the public.
- Dissemination of project information to local Chadians and Cameroonians needs to assured.

- The Bank must clarify the form and frequency of the International Advisory Group (IAG)'s communication and interaction with the Board and public and on the nature of the IAG's operational relationship with the World Bank.
- Must ensure the adequacy of funds available for the supervision and monitoring of this project.

The bank's *Interim Fuel for Thought* report declared the Chad–Cameroon project to be a model example of a project under its third objective "To promote environmentally sustainable development of energy resources."

A fundamental question in USAID's assessment remains: To what extent will the presence of the bank and its capacity-building loans enable affected people to protect themselves from environmental risk or to remedy environmental harms that result either from violations of bank policy or other standards that apply to the pipeline and oil production? USAID believes that the capacity-building loans should be used to build such remedies.

On March 22, 2001 the Inspection Panel of the Bank received a Request for Inspection alleging actions in regard to the pipeline and Chad management capacity loans that the Panel initially found could constitute violations of several of the Bank's policies and procedures. On September 12, 2001 the Inspection panel recommended an inspection to resolve differences between the Bank management and the complainant. It was approved by the Board by October 1, 2001, and the inspection, or investigation, began in full.

4-g. Chad—Power/Electric Power Generation

SUBPROJECT DATA

Appraisal is scheduled for August 2000. Environmental assessment category A. US$20 million (IDA). Consulting services to be determined. Implementing agency to be determined.

DESCRIPTION OF SUBPROJECT

The project would assist in the expansion of power generators to increase capacity. It will also support the rehabilitation and expansion of transmission and distribution facilities.

USAID'S COMMENTS

Two questions: To what extent can electric power be derived from natural gas

discharged from oilfields that would otherwise be flared off? And, to what extent will safer solar, wind or other renewables be developed over time so that oil and gas might be devoted to other uses?

5. Ethiopia: IDA—Power

PROJECT DATA

Project preparation is under way. Environmental assessment category A. US$200 million (IDA). Consulting services to be determined. Ministry of Mines and Energy, PO Box 486, Addis Ababa, Ethiopia, tel: (251–1) 150–465, fax: (251–1) 517–874.

DESCRIPTION OF PROJECT

Power Distribution: The project will rehabilitate electricity and expand the distribution system in Addis Ababa and four major towns.

USAID'S COMMENTS

Given the Agency's review of bank-endorsed assessments for similar projects, USAID is concerned that the electric utility EA will probably not include an adequate analysis of alternative power-demand management measures such as rate designs—and as such is not adequate, given that extended lines will probably lead to increased demand. It is USAID's view that the Banks should discuss in Environmental Assessments and related documents the extent to which conservation and efficiency can be encouraged, for example, by providing relatively affordable power in small amounts but charging higher rates as the customer uses more, or by charging rates that may vary with the time delivery. Given rapid advances in cost-effective renewable and high-efficiency energy, there should also be an analysis showing why renewables are not feasible in whole or in part over new fossil fuel plants considering fossil fuel pollution.

6. Madagascar: IDA—Social Sector

PROJECT DATA

Community Development Fund: Project preparation is under way. Environmental assessment category B. US$63 million (IDA). Consulting services to be determined. Fonds d'intervention pour le développement, Lot II J 164, Villa ALMA, Ambodivoanjo, Antananarivo 101, Madagascar. Contact: Mr. Armand Randriamamonjy, general manager, tel: (261–20) 22–423–77, 22–420–74, fax: (261–20) 22–426–89, e-mail: fid@dts.mg. (Altered and expanded loan of $110M approved April 2001.)

DESCRIPTION OF PROJECT

The project will build on the success of the ongoing community development project. Subprojects will include primary schools, health posts, feeder roads, community water-supply projects, irrigation projects, and income-generating activities.

USAID'S COMMENTS - 2000

In response to USAID's questions about the possible use of DDT in health activities in the context of a related community health loan in 1999, the World Bank reported that it did not rule out the relatively safe use of DDT use in homes. USAID makes the point again in regard to potential use of DDT in the above loan, that while indoor use of DDT in health programs can be an appropriate and effective means of insect control, the Agency believes it still warrants treating the social sector loan as category A to ensure that there are no viable and safer alternatives and that the use is limited to this purpose. Also, the irrigation activities can present a risk of snail-borne disease, invasive species, and long-term soil degradation unless carefully designed and maintained.

The 12/99 EA posted with the project summary notes, highlighting other issues of concern:

Implementation of the Regional Social Fund Project is expected to adversely impact the environment, due to the construction of reservoirs, bridges, and, effluent management, particularly as it relates to soil erosion, flooding, deforestation, and potential adversity on historical, and archaeological sites. This environmental assessment reviews the legal environmental context in Madagascar, suggesting institutional measures to integrate the National Environmental Office with the works of the Regional Consultative Committee, in order to achieve consensus on agreed recommendations. Mitigation measures regarding technical aspects include the following: Construction of terraces on slopes, should stabilize the terrain, and prevent flooding, to be further enhanced by re-vegetative practices, which should contain soil erosion. In addition, taking advantage of steep inclines, will ensure appropriate drainage, by segmenting lateral masonry, or wood ditches, a practice which will not only reduce resurfacing costs, but prevent water contamination. National forestry ecosystems are protected areas,

encompassing natural reserves, parks, and re-forestation zones; moreover, forestry projects, both multilaterally, and bilaterally financed, support forestry conservation.

7. Mali: IDA – Rural Development

PROJECT DATA

(R) Rural Infrastructure: Negotiations completed. Board presentation was tentatively scheduled for late June 2000. Environmental assessment category B. PID: MLPE41723. US$115.6 million (IDA). Consulting services to be determined. Ministry of Rural Development, c/o Banque mondiale, BP 1864, Bamako, Mali. Tel: (223) 22–87–85, fax: (223) 22–02–95. Contact: Paul Coulibaly, conseiller technique.

DESCRIPTION OF PROJECT

The objective of the project is to provide basic rural infrastructure on a sustainable basis to help increase agricultural production, reduce poverty, and improve the livelihood of the beneficiaries. Specifically, the project will a) strengthen local capacity in infrastructure planning, design, construction, operation and maintenance; b) support the rehabilitation and construction of large irrigation perimeters; c) support rehabilitation and construction of main rural roads; and d) provide water to rural communities.

USAID'S COMMENTS

USAID is concerned that this project has been inappropriately classified for EA purposes. A project that includes new road construction and major upgrading of existing roads should have a full environmental assessment. This project also includes large irrigation and drinking water facilities and increasing agricultural production. All of these can have substantial impacts on the human environment. Depending on how each is done, irrigation can raise the threat of waterborne diseases, and expanding agricultural production may depend on intensive use of pesticides, energy-intensive fertilizers, and other inputs as well as side effect of cash crops crowding out food crops.

8. Mauritius: IBRD—Water Supply and Sanitation

PROJECT DATA

Solid Waste Management: Appraisal was scheduled for November 2000. Environmental assessment category A. PID: MUPE57775. US$20 million (IBRD). Consulting services to be determined. Ministry of Environment, Ken Lee Tower, Barracks St., Port Louis, Mauritius. Tel: (230) 212–6080, fax: (230) 212–6671.

DESCRIPTION OF PROJECT

The project will address a) the most appropriate institutional and legal framework, to be set up at the national level, to allow gradual introduction of the private sector through operations and capital investment; and b) the financial sustainability of the sector as a whole.

USAID'S COMMENTS

When considering a national approach to both solid-waste management and water supply it is important not only to prepare a full EA but also to review a broad array of alternatives. For example, the bank should not assume that chlorination should be the final treatment method of choice without first considering the alternatives. Though it may be the most commonly used method in some countries such as the United States, other methods are used widely and successfully. Nor should the bank assume that collection and landfilling are the solid-waste-handling methods of choice when recycling may be a better or at least partial choice, given the right incentives and appropriate technologies.

9. Rwanda: IDA—Private Sector Development

PROJECT DATA

Rwanda-Regional Trade Facilitation (LIFT): Appraisal was scheduled for October 2000. Environmental assessment category B. PID: RWPE65788. US$5 million (IDA). Consulting services to be determined. African Insurance Agency. Approved at $7.5 04/03/2001 with an assessment category F. The website noted that no documents were available as of early November 2001.

DESCRIPTION OF PROJECT

The objective of the project is to jump-start private sector activity. The project will consist of a political risk insurance facility in support of commercial financing for productive transactions involving enterprises in participating countries and their foreign partners.

USAID'S COMMENTS

Rwanda is the home of some of the most fragile and rare ecosystems and species in the world. It has also been in serious conflicts in recent years. Therefore such a project, though small, can do considerable good or harm depending on which activities it supports. This project was categorized as a B, which does provide a certain degree of public notice and an opportunity to consider the environmental impact of certain kinds of activities that may be insured and thus subsidized by the facility. This category was changed to an F, reducing the required level of advance and public analysis.

10. Tanzania: IDA—Water Supply and Sanitation

PROJECT DATA

(R) Dar es Salaam Water Supply and Sanitation: Appraisal mission was scheduled for May 2001. Environmental assessment category B. PID: TZPE59073. US$35.0 million (IDA). Consulting services to be determined. Implementing agency to be determined.

DESCRIPTION OF PROJECT

The project would support technical, commercial and financial rehabilitation of the water supply and sanitation service in Dar es Salaam. This would be achieved by privatizing Dar es Salaam Water and Sewerage Authority's operations and implementing a program of rehabilitating all water supply and sanitation facilities and extending piped water in poorly served neighborhoods.

USAID'S COMMENTS

Given the potential for significant environmental concerns in water supply and sanitation projects, USAID believes this should be classified as a category A project and have a full Environmental Assessment undertaken.

11. Uganda: IFC/IDA—Hydropower

This project is a series of loans for interrelated dams and additions to existing dams. The extensive description here reflects the fact that this program has been on the informal watch list of the Tuesday Group for some time. USAID's concern is the need for an adequate environmental assessment that includes not only consideration of environmental issues of both individual dams and the collective impact of the series of them, but also includes consideration of the impact on the affected communities, including the indigenous peoples who believe this particular site is a sacred home of certain spirits who will be disturbed by the development. This project calls for a careful application of the World Bank/IFC standards concerning cultural properties and physical cultural resources.

The EA summary of the Uganda Phase IV loan noted a number of recommendations, including financing unfinished mitigation that was to have been implemented under the previous (Power III) phase, staffing and capacity-building concerning enforcement of the Environmental Management Plan. As is often the case, during review of the final EA it was necessary to forward questions to the bank to determine whether these had been accepted and adopted.

Credit is due the bank for the direct acknowledgement in this context of the need to consider the findings of the World Commission on Dams; however, the bank seems slow to do so in any public or disciplined way, both for this project and in general.

A related project was approved in January 2001. However, as of 22 February no project documents were available despite a rating of A, which requires EA availability 120 days before board action.

11-a. Uganda—Electric Power

PROJECT DATA

Major sector: electric power and energy. Subsector: hydro. Environmental category A. Project I.D.: P069840. Board approval date: 20 January 2000. Closing date: N/A. Total commitment at board: $33 million. Lending Instrument: specific invest loan. Borrower: government of Uganda. Implementing agency: Uganda Electricity Board, MOF, MEMD.

11-b. Uganda—Uganda–Bujagali Hydropower Project

PROJECT DATA

IFC. Sector: electric power and other energy adjustment. Project I.D.: UGPE63834 (IFC code 8943). Borrower: government of Uganda. Implementing agency: AES Corporation (Nile Power Limited). Environmental category A. Date PID prepared:

January 2000. Appraisal date (est.): ongoing (IFC); September 2000 (IDA). Board date (est.): mid-2001.

Access to electricity: About 5 percent of the population has access to grid-supplied electricity. Moreover, Uganda has one of the lowest per capita electricity consumption rates (44 kWh/year) in the world (44 kWh/year, versus India's 300, China's 580, and the United States' 11,000 in 1996). Seventy-two percent of the total grid-supplied electricity is consumed by 12 percent of the domestic population, concentrated in the Kampala metropolitan area and in the nearby towns of Entebbe and Jinja. Total domestic consumption of electricity in 1999 was about 900 GWh. In 1999 the main categories of domestic consumption of electricity were residences (50 percent), industries (26 percent), commercial end-users (14 percent) and government services (10 percent). Uganda is experiencing daily power shortages during peak demand of around 80 MW.

Uganda Electricity Board. UEB was established in 1948 with a mandate to generate, transmit, distribute, and supply electricity within Uganda and other countries in the region. UEB is wholly owned by the government and operates under the legal arm of the Electricity Act, reenacted in 1964. Its policies are determined by the board of directors, who are appointed by the minister of energy and mineral development. The day-to-day running of UEB is executed by the managing director (the chief executive officer) together with a management team appointed by the board of directors. UEB currently has a monopoly over generation, transmission, and distribution activities in the country. These include the 180-MW Owen Falls Power Station and the 1-MW Maziba hydropower station, some isolated diesels, an interconnected 132-kV and 66-kV transmission network, a 33-kV subtransmission network, and a distribution network at voltages of 11 kV and below.

UEB suffers from poor financial performance, operating inefficiencies, low productivity, and inadequate funds for required investments. System losses, both technical and nontechnical, are currently estimated at around 34 percent. Poor collection has also been a concern in the past, though revenues collected improved to about 94 percent of electricity billed in 1999. Thus UEB realized only around 60 percent of the value of all electricity generated in the system in 1999. Though being addressed by the new management team, nontechnical (or commercial) losses attributable to illegal connections and nonpayment of utility bills continue to remain serious problems.

While the proposed Bujagali PPA presently contemplates UEB as the power off-taker, a fully privatized sector in which ideally multiple distribution companies will act as off-takers is crucial to the sustainability of the project.

Power exports to neighboring countries. UEB currently exports 30 MW to Kenya, 7 MW to Tanzania, and 1 MW to Rwanda—or about 300 GWh with total annual export earnings of about $20 million. The governments of Kenya, Tanzania, and Uganda envisage a partnership within the context of East African Cooperation for the development of electricity generation and transmission projects. This is likely to further increase exports from Uganda. The government is presently discussing export sales to

neighboring countries for a portion of the power to be produced from the proposed Bujagali project. Existing transmission lines would permit up to 80MW of power exports to Kenya. Moreover, the provision of power to the mining area in northwest Tanzania is being explored.

Power Sector Reform Program. The government has embarked on a reform program for the sector that includes a) establishing new electricity legislation and an independent regulatory regime to promote a commercially oriented private sector–operated industry structure, b) unbundling generation, transmission, and distribution activities, and c) creating incentives for competition and private sector investment. The reform program has been motivated by the need to improve the performance of the power sector and attract investment. In June 1999, the cabinet approved a power sector reform strategy, and revised electricity legislation was passed in October 1999. The recruitment of transactions advisers to assist the government with implementation of the reform program is under way.

Power sector reform is essential to the financial viability of the Bujagali project. A critical indicator of progress on execution of the reform program will be the award of concessioning of UEB's distribution assets; this is perceived as a "point of no return" in the reform process and a clear signal of the beginning of a financial turnaround of the sector. For this reason, the government has placed importance on completing distribution concessioning as soon as feasible (target date April 2001), in advance of commencement of construction for the proposed project.

Project objectives. The proposed project would promote increased growth through the provision of adequate, reliable, and affordable power in line with Uganda's comparative advantage. The project would help catalyze private investment to develop the country's significant hydroelectric potential and potentially increase export of electricity to neighboring countries.

Rationale for IDA involvement. The principal country assistance strategy objective is to reduce poverty in Uganda through rapid economic growth, led by broad-based foreign and domestic private investment. Recent surveys indicate that the quality and adequacy of power supply is the most binding impediment to private investment. (Ugandan private firms surveyed in 1998 reported that they incurred on average 89 days of power outages per year. In addition, 43 percent of the firms surveyed said they had their own backup generation—equivalent to about 60 percent of the installed capacity of the Ugandan interconnected public system, or up to 100 MW.) This is also the case in rural areas hampered by a lack of access to electricity. Current electricity shortages are estimated to cost Uganda annual economic losses on the order of $100 million.

The use of a range of bank group complementary financial instruments is expected by the bank to help attract international commercial finance in support of the project. A partial-risk IDA guarantee would facilitate mobilizing commercial finance, which would provide for risk sharing with the commercial lenders. The lenders and sponsors would assume commercial risks (e.g., construction and operations risks),

whereas IDA and the government (by virtue of its counterguarantee under the Indemnity Agreement with IDA) would assume only the risks related to government performance as provided for in the project agreements.

IDA's ongoing lending program involves financial support for the power sector reform program under the Power III Project (Credit 2268–UG). The main component of this project is the civil works construction of the Owen Falls Extension dam and the installation of 80 MW (out of 200 MW) of generation plant. During the interim period until the power sector is restructured, the government and IDA have developed short-term targets for improved UEB operational and financial performance. It is to be implemented under UEB's new management team, which has been in place since April 1999. A proposed Power IV project is currently being prepared with the potential support of the bank group and donors. Nordic aid has been secured for the third of five 40-MW units of generation at OFE. The Power IV project would involve installation of the fourth 40 MW of generation at OFE.

DESCRIPTION OF PROJECTS

The project includes the construction of a) a 200-MW (1700 GWh) run-of-the-river power plant on a falls, and b) about 100 km of 220-kV and 132-kV transmission lines and associated substations. The project sponsors are AES Corporation, Arlington, Virginia; and AES Sirocco, Limited, a wholly owned subsidiary of AES. Nile Independent Power, the privately owned and operated project company, will sell electricity to UEB or its successors under a 30-year Power Purchase Agreement (PPA).

Project costs financing: Total project costs are estimated at $530 million. A tentative financing plan is described below.

Financing Plan	**US$ Million**
AES (equity)	110
OPIC (debt)	100
Export credit agencies	125
IFC A loan	60
IFC C loan	25
AfDB (project finance)	40
Commercial loans IFC B loan and IDA partial-risk guarantee	70
Total	530

The IDA partial-risk guarantee would provide coverage only for loan default on scheduled debt service payments of both principal and interest resulting from the government's failure to meet its payment obligations under the project agreements for certain defined risks. These possibly include a) government breach of contract under the terms of the IA and the PPA, b) political *force majeure* events, including war and expropriation, c) convertibility and transferability of foreign exchange, d) discriminatory changes in law, and e) uninsurable natural *force majeure.* The precise scope of the

guarantee coverage will be formulated through negotiations with the government and the lender banks and would be limited to the minimum required to make the transaction bankable.

Implementation period. 44 months.

Executing agencies. AES and AES Sirocco Limited (London) are jointly the private sponsor responsible for constructing and operating the Bujagali hydropower plant. Founded in 1981, AES Corporation is a public corporation whose stock is traded in the United States on the New York Stock Exchange. AES is the largest independent power producer in the world, with assets of $11 billion and approximately 40,000 MW of electricity-generating plant. Its net income in 1998 was US$311 million. AES has a reputation for long-term sustainable investments that are both financially and socially acceptable to stakeholders. Its primary business is to develop, own, and operate electric generation facilities in 17 countries around the world.

Sustainability. The generation investment will be sustainable only if the performance of the power sector improves. The government is tackling this issue through a comprehensive sector reform program that will place the management and operations of generation, transmission, and distribution facilities with the private sector, and which envisages an appropriate legislative and regulatory framework. The award of concession(s) for UEB's distribution facilities was targeted for April 2001—seen as a point of no return in terms of a financial turnaround of the power sector. This date coincides with the presentation of the proposed project to the bank group's board of executive directors. (Emphasis added.) Additionally, sustainability of the project will be underpinned through the structure of the project, which places the sponsor's equity at risk for poor performance.

Lessons learned. IDA assistance for the development of Uganda's energy sector began in 1961. To date, IDA has financed three power projects, with credits totaling about US$195 million. While the power sector assistance has improved physical facilities, it has been only partially successful in improving the efficiency and performance of the power sector. IDA also financed a petroleum exploration promotion project of $5.1 million.

The design of the proposed project draws on the following lessons learned from Uganda and other countries:

A. *The importance of fundamental sector reform as a basis to ensure the financial sustainability of the power sector.* The government of Uganda has recognized that restructuring the power sector involving private sector participation is required to achieve sustainable efficiency improvements, to meet the growing demand for electricity, and to increase service coverage. The first phase of it restructuring plan will involve the unbundling of UEB's generation, transmission, and distribution assets and the concessioning of

UEB's distribution facilities (this is the most management-intensive activity of utility operations where productivity gains will have the biggest impact).

B. *The importance of commercializing energy sector operations and promoting private sector participation.* The proposed project has been designed to maximize sector efficiency through private sector ownership and private sector management, technical, and operational expertise. The structure of the proposed project will place the investor's equity and returns at risk for poor performance.

C. *The importance of making investment decisions on the basis of their technical, financial, and economic merits, consistent with macroeconomic and sector development objectives—including minimizing costs and maximizing benefits to stakeholders.* This has been taken into account in the design of the proposed project: it is proposed that new investments and entrants to the sector would be contingent on the maintenance of adequate sector cash flows and certain financial ratios for the sector.

Program of targeted intervention. None.

Environmental aspects. This is a category A project, according to the World Bank Group's environmental and social review procedure. To date, considerable progress has been made relating to the environmental and social aspects of the project. *An alternative analysis of electricity-generating options for Uganda concluded that hydroelectricity—from a cost, technology, engineering, and social perspective—was the best option for Uganda and that the Bujagali project was one of several hydro options available to Uganda. Additionally, a study is assessing the cumulative effects of several hydropower projects on the Victoria Nile as part of a strategic environmental impact assessment. The preliminary findings of the strategic EIA are that the cumulative effects of future hydropower projects on the Nile must maximize the objectives of regional economic development and access to electricity, health services, education services, land compensation, and employment—all poverty alleviation objectives. Also reflected in the preliminary findings of the strategic EIA is the need to adequately consider significant safeguard policy issues such as cultural properties, natural habitat, and international waterways.* (Emphasis added.)

The sponsors have prepared an EIA for the project, approved 1 November 1999 by the National Environment Management Authority (NEMA) of Uganda. An EIA for the transmission line to Kampala is currently available in draft form. Should the transmission line to Tanzania materialize, an EIA for this project component will also be prepared. The sponsors have retained a panel of experts to advise them on both EIAs.

The EIA approved by NEMA is undergoing an extensive revision to comply with the World Bank Group's safeguard policies and environmental and social guidelines, in particular the following: Projects on International Waterways (OP 7.50), Involuntary Resettlement (OP 4.12), Cultural Property (Bujagali spirits and aesthetics) (OP 4.11),

Safety of Dams (OP 4.37), Natural Habitats (PO 4.04), Forestry (OP 4.36), and Environmental Assessment (OP 4.01). The important areas being revised are alternative configurations of the project (for example, the dam versus diversion channel option), land compensation, analysis of fisheries, the spiritual significance of Bujagali Falls (which will be flooded by the configuration currently envisaged by the sponsor), and the cumulative effects of the project in the context of the upstream Owen Falls and Owen Falls Extension projects and at least one downstream hydroelectric power project (Karuma, Kalagala, etc.). The project has recently engaged a resettlement expert to assist with preparation of a resettlement plan for the dam site and transmission lines fully compliant with World Bank Group guidelines. The sponsors have also obtained the services of a specialist on traditional religions and cosmology to ascertain the spiritual significance of the water (and of Bujagali Falls in particular) to local communities and the possibilities of providing mitigatory measures consistent with the way of life of the local communities. The revised EIA is expected to be available in May 2000. The bank group has requested that Uganda formally notify the riparian states about its intention to proceed with the Bujagali project. (Emphasis added.)

The sponsors have engaged in extensive public consultations since the preparation of the Public Consultation and Public Disclosure Plan in 1997. *The project, in the context of the parliamentary debate on the electricity bill, has had wide national exposure. Consultations have been and will continue to be extensive with affected communities, government stakeholders, and the international NGO community. Such consultations have taken place during the preparation of the EIA for NEMA. The revisions to the EIA, to the alternative analysis of electricity-generating options, and to the cumulative effects study have been communicated to the sponsors with regard to meeting the World Bank Group's environmental and social requirements. Public debate has centered on the potential impact of the project and on the national issue of electricity supply and the use of the Victoria Nile watershed in meeting this supply requirement. The sponsors are preparing documentation on the consultation process with the local communities to establish that there were informed and meaningful consultations.* (Emphasis added.)

Given that the dam will be more than 15 meters high (about 30 meters), it is classified as a "large dam" consistent with OP 4.37 Safety of Dams. A panel of independent experts, acceptable to the bank group, will be appointed to form a dam safety panel. Discussions have been initiated with the sponsor and the bank group concerning the appropriateness of the existing panel of experts presently involved in the Power III Project (Credit 2268–UG, which is financing the Owen Falls Extension). The bank group has been in contact with the World Commission on Dams concerning the juxtaposition of its final report to decisions on this project. Informal discussions have taken place to ensure that our analysis will be consistent with the commission's approach and recommendations. (Emphasis added.)

Note: This is information on an evolving project. Certain components may not be necessarily included in the final project.

USAID'S COMMENTS

USAID has visited the area of Bujagali and Owens Falls and found that some additional generating capacity seems possible without a major impact on the environment. The plan described above, however, combines a restructuring of the electric market with the building of the Bujagali dam in anticipation of building additional hydroelectric dams in Uganda in part to export electricity for mining and other activities with substantial environmental impact. While dam design can reduce environmental costs, dams in Africa can, if not well designed, increase malaria and other diseases by increasing insects that thrive in the lakes behind the dam. Dams also can change the fish populations both above and below the dams to the detriment of fish, wildlife, and the people who depend on them. These problems tend to occur in rough proportion to the size and stillness of the lakes behind the dam and the degree of change in water flow as impoundment changes natural patterns. Thus they are less problematic when natural waterfalls provide more of the power to drive the turbines.

While it is clear that the IFC has identified many of the key issues, among those highlighted above (including the need for an assessment of the cumulative impact) we expect to review with care the EA for the Bujagali dam and any related developments. The Agency will also consider the cumulative effects of the various dams envisioned in this electricity restructuring and the activities they will make possible (such as mines and competing demands for water). Environmental assessments for such development should be broad enough in scope to consider cumulative impacts of the overall project or program and alternatives.

12. Zambia: IDA—Urban Development

PROJECT DATA

(R) Mining Township Services: Board presentation was scheduled for late June 2000. Environmental assessment category B. PID: ZMPE64064. US$37.7 million (IDA). Consulting services will be required. Implementing agency to be determined.

DESCRIPTION OF PROJECT

The project will support provision of efficient and sustainable water supply services, wastewater services, and solid waste management in five mine townships, particularly during the privatization of Zambia Consolidated Copper Mines Ltd. The project will introduce a new management mechanism that promotes private sector participation and commercialization in the sector. Most likely through the use of a management contract, the project will help develop and put in operation a longer term strategy to integrate the management of water, wastewater, and solid waste in the five mine township with the responsible municipal institutions.

USAID'S COMMENTS

Any project that combines water, wastewater, solid waste, and mining-dependent communities should probably be a category A requiring a full EA. Policy issues within the project include taking care to ensure that the externalities of mining are internalized in the price and future operations of privatized mining.

The Agency looks forward to reviewing in any case the noted "longer term strategy to integrate" these elements.

13. Zimbabwe: IDA –Population, Health, and Nutrition; Transport Structural Adjustment; Railways Restructuring; Public Sector Management

Most discussion of the following Zimbabwe loans will be reserved until the end of the Zimbabwe section in light of concerns affecting all of the projects, including the government's capacity to conduct environmental assessments.

13-a. Zimbabwe: IDA—Road Maintenance and Reform

PROJECT DATA

Negotiations are currently on hold. Environmental assessment category B. US$100 million (IDA). Consulting services will be required. Ministry of Transport and Energy, Department of Roads, PO Box CY595 Causeway, Harare, Zimbabwe. Tel: (263–4) 700–991, ext. 229; fax: (263–4) 700–817.

DESCRIPTION OF PROJECT

The project will help strengthen the government's ability to rehabilitate and maintain its roads through coordinated sector development plans, policy and institutional reforms, improved programming of rehabilitation and maintenance, private sector participation, and human resource development.

13-b. Zimbabwe: IDA—Fiscal Restructuring

LOAN DATA

Board presentation is tentatively scheduled for July 2001. Environmental assessment category C. PID: ZWPE50320. US$140 million (IDA). Consultants will be required. Ministry of Finance, Munhumutapa Bldg., Samora Machel Ave., Private Bag 7705, Causeway, Harare, Zimbabwe. Tel: (263–4) 722–101, fax: (263–4) 796–563.

DESCRIPTION OF LOAN

The credit will support the government's reform program to *restructure public expenditures,* reduce domestic debt, privatize state enterprises and *initiate land reform.*

UPDATE

By November 2001 this had been recast as a Structural Adjustment Loan:

Structural Adjustment
Fiscal Restructuring: The credit will support the government's reform program to restructure public expenditures, reduce domestic debt, privatize state enterprises and initiate land reform. Board presentation is tentatively scheduled for July 2002.
Environmental Assessment Category C.

PID: ZWPE50320. US$ 140.0 (IDA). Consultants will be required. Ministry of Finance, Munhumutapa Bldg., Samora Machel Ave.,Private Bag 7705, Causeway, Harare, Zimbabwe, Tel: (263-4) 722-101, Fax: (263-4) 796-563, Contact: Mr. C.T. Kuwaza, Senior Secretary

13-c. Zimbabwe: IDA—Railways Restructuring

PROJECT DATA

Environmental assessment category B. PID: ZWPE57096. US$60 million (IDA). Consultants will be required. National Railways of Zimbabwe, PO Box 596, Bulawayo, Zimbabwe. Tel: (263–4) 363–838, fax: (263–4) 363–502.

DESCRIPTION OF PROJECT

The project will include staff retrenchment and rationalization, infrastructure rehabilitation, studies and technical assistance, training and counseling and assistance to retrenched staff. Project preparation is under way.

UPDATE

A version of this project was approved in November 2000 for $27million, largely for downsizing railways.

13-d. Zimbabwe—Public Sector Management

PROJECT DATA

(R) Local Government and Development: Environmental assessment category B. PID: ZMPE3306. US$50 million (IDA). Consulting services will be required. Ministry of Local Government and National Housing, Private Bag 7706, Causeway, Harare, Zimbabwe. Tel: (263–4) 790–601, fax: (263–4) 708–943. Contact: Mr. S. Chakaipa, deputy secretary.

Further detail from USAID 1999 Report: Projected IDA Funding: ($30 million 1999, raised to $50 million by mid-2000). Projected total cost: $60 million. Tentative board date: unknown. Stage: project preparation is under way. World Bank EA category B. Project I.D.: ZMPE3306. Project first entered: May 1998.

DESCRIPTION OF PROJECT

The project will provide infrastructure financing and capacity-building support for local governments, including urban and rural district councils. Negotiations completed. Board presentation is on hold because of country situation.UPDATE

As of November 2001, negotiations on this project are scheduled for February 2002.

USAID'S COMMENTS -- 1999

The Agency believes that the project should include strengthening of environmental units of local governments. In Zimbabwe, environmental reviews are restricted to the Department of Natural Resources in the Ministry of Mines, Environment, and Tourism. USAID is not aware of any local governments in Zimbabwe that require environmental review for projects. Zimbabwe's present EIA policy placed this function within the Department of Natural Resources, which has capacity constraints. It might be necessary for the project to set up a mechanism for environmental reviews for its subprojects.

Status. Bank staff responded that USAID is correct that information is limited as they are at the initial stage of agreement with the government on project design. The bank and USAID have agreed in principle that this should be a "programmatic" operation under which infrastructure would be financed with proceeds of the IDA credit only if local authorities meet strict eligibility criteria.

Two types of local authorities (representing all local government in Zimbabwe) would be potentially eligible. First, Rural District Councils (RDCs) would be eligible for District Development Grants (DDGs) as continuation of the current Rural District Council Pilot Capital Development Project. DDGs are small, about US$100,000 equivalent per RDC per year, and these are approved against meeting all the criteria and procedures laid out in the agreed Operational Manual. Infrastructure projects (e.g., boreholes, small bridges) are approved as part of the annual investment plan that is approved only if the evaluation presented in the manual is satisfied. This evaluation includes environmental screening (environmental assessment category B). The main objective of this project is RDC capacity-building.

Second, any local authority (22 Urban Councils and 57 RDCs) potentially would be eligible to receive matching grants for financing of investments that are a) creditworthy and attract financing from Zimbabwe's capital market and b) meet all the evaluation criteria to be determined in a prospectus provided to potential investors. These criteria will include screening of environment impact (again category B). Exact investments will be demand driven by the local authorities and evaluated by the capital market. Some investments may be for social infrastructure such as school and health building rehabilitation or construction, for which a full EA may not be required. Other investments may be for economic infrastructure, such as water supply and sanitation or roads that, depending on their condition may require a full EA (category A). In the latter case, an EA would be done, summarized in the prospectus, and placed in the public domain.

In summary, current dialog with Zimbabwe indicates that investments partially financed by IDA will be demand driven, subject to strict eligibility and evaluation criteria, and diverse, ranging from small rural projects to social infrastructure to large economic infrastructure projects. Most or all of these should have a full environmental assessment. Thus, the proposed operation would be classified as category B as an overall operation, but some major infrastructure projects to be financed would be classified as category A.

Issues: update mid-2000. Some loans in this series are on hold pending resolution of a volatile situation in Zimbabwe and questions of governance in general. The bank could demonstrate before making further loans to Zimbabwe that it has put firmly in place each of the corruption-control mechanisms recommended by the GAO in its April 2000 report to Congress (GAO/NSAID–00–73). Absent these steps, the loans are likely to be neither economically nor environmentally sound. Questions remain, however, about Zimbabwe's general governance conditions and concerning the above loans. The first of the three contains land reform support that could have a related environmental impact. Land reform is at the core of the recent racial tensions and tensions between the government and donors. Therefore, the direction of support by MDBs will have an impact on various ethnic groups, with resettlement, land use, and related environmental and natural resource questions that should be aired carefully and probably more publicly than a category B would require, yet this has been rated as category C.

The EA capacity of local governments in Zimbabwe was described as an overriding issue in the 1999 report to Congress. Zimbabwe has also been a leader of an informal caucus of nations acting to limit the application of CITES and the CBD, or restrictions that may arise under them, in regard to the trade in elephant ivory. This course of action has caused African neighbors who share resources, such as migrating elephants, to raise objections about the effect on that joint stewardship. This should be considered in MDB loans to the extent that the combination of land reform and public expenditures may affect the stewardship of the natural resources of Zimbabwe and its neighbors.

Another issue is the combination of railway retrenchment and highway improvement, which is not unique to this country. It raises the question whether the bank is helping to move Zimbabwe away from rail and toward motor transport. Rail is far more fuel efficient, though less flexible. Conversions should be done with caution.

Projects and Loans in Asia and the Pacific

14-a. Cambodia: IDA—Rural Development

PROJECT DATA

(R) Forest Concession Management and Control Pilot (LIL); (Cr. 3365–KH): The project was approved, following LIL procedures, on 5 June 2000. Environmental assessment category B. US$5 million (IDA). Consulting services will be required to a) conduct inventories and to prepare strategic and operational forest management plans; b) design and conduct training programs; and c) assist in project management. Department of Forestry and Wildlife, 40 Preah Norodom Blvd., Phnom Penh, Cambodia. Tel: (855–23) 219–282, fax: (855–23) 214–966, e-mail: Secretariat@Camnet.com.kh. Contact: Mr. Ty Sokhun, director, Department of Forestry and Wildlife.

DESCRIPTION OF PROJECT

The project will assist the government in implementing management planning and control regulations on forest concessions.

USAID'S COMMENTS

Although this loan is small and may be helpful in controlling timber poaching, this is also perhaps the greatest environmental problem in Cambodia and if not undertaken carefully, could lead to exacerbation of the problem. This is particularly sensitive, given the repeated assertions of violations of the timber-cutting law there, which are the subject of several recent reports and an Asian Development Bank review in Cambodia. USAID's concern is whether this loan (which appears to facilitate *additional* timber harvests) complies with the spirit and letter of the bank's forestry policy. USAID also believes that the project should be a category A instead of B. The loan will prepare operational and strategic forest management plans, which usually means harvesting. Local aid may not be sufficient when controls on the export and purchasers' imports of illegally harvested logs are still insufficient, and therefore the question is whether $5 million is enough to control the problem. Congress has noted the lack of pursuit of concessionaires who have engaged in illegal logging, the lack of open access to government records concerning forest crimes monitoring, and the need for further information on the status of the involvement of Thai, Laotian, and Vietnamese officials in illegal timber trade. Therefore, we must approach such loans with great care and monitor their implementation as closely as possible.

14-b. Cambodia: IDA—Northeast Village Development (formerly Northeast Rural Development)

PROJECT DATA

Projected IDA funding: $5 million. Projected total cost: unknown. Tentative

board date: May 1999. Stage: Negotiations completed. World Bank EA category B. Project I.D.: KHPE58841 (formerly KHPE45621). Project first entered: January 1997. Entry updated: April 1999.

DESCRIPTION OF PROJECT

The learning and innovation credit aims at improving rural livelihoods by piloting innovative approaches to the selection, financing, and sustainable operation of rural investment subprojects in select poorer districts of northeast Cambodia as part of a government decentralization initiative.

USAID'S COMMENTS

This activity will be directed at the provinces of the northeast. They are sparsely populated and have some of Cambodia's most pristine forests, including a large population of indigenous peoples. An environmental assessment category C seems to not fill this need for clearer understanding of potential impacts of investments on the environment. (The project was an EA category C when USAID first raised the issue.) For example, will roads be a part of this infrastructure investment? If so, what will be the impact on illegal logging? On forest degradation? Also, production is listed as an input. There are plans for large-scale plantations of palm oil, rubber, etc., which potentially have major environmental impacts if implemented.

USAID noted the following in its 1999 report: The Agency would like to correct the statement in the World Bank's Environmental Data Sheet for the "North East Rural Development" project that indicated that "this support has already led to adoption by the government of significant short and long term policy changes for forestry, whose implementation is being monitored." Substantive policy recommendations in the forestry sector are only now being developed under the auspices of a World Bank Forestry Project. This project is tasked with developing recommendations that will affect forest policy, sustainable forest management, monitoring of illegal logging operations, and the legal environment conducive to sustainable forest resource use in Cambodia. The technical assistance team responsible for the policy recommendations is scheduled to complete its assignment by the end of May 1998. Additionally, the statement that "it is expected that it will lead to the adoption by the government of a National Environmental Action Plan in 1997" should also be amended. An executive summary of the final draft of the NEAP Action Plan was only recently circulated. It addressed 1) forest policy, 2) fishery and floodplain agriculture in the Tonle Sap region, 3) coastal fishery, 4) biodiversity and protected areas, 5) energy and the environment, and 6) urban waste.

The World Bank responded that, having initiated a major effort on forest/logging policy in Cambodia over the past year, its managers are familiar with the value of and threats to the natural resources of the northeast part of the country.

USAID has found that the proposed NE Rural Development Project will concentrate on raising incomes of poor farming households mainly in the Mekong River

valley, from Kompong Cham up to Stung Treng, rather than in the two sparsely populated highland provinces of the northeast (Ratanakiri, Mondulkiri).

The project would not include any large-scale plantation development. It would finance subprojects for the improvement of small-scale crop farming and livestock raising and possibly some nonfarm enterprise development.

The project would help repair some roads and other basic infrastructure in the area, which has received virtually no public investment or maintenance for nearly 30 years, but would not get into new road or highway construction. Thus, it would not be opening forestland for commercial logging and would help discourage illegal tree felling by local residents by improving alternative income earning opportunities in agricultural and similar activities.

By helping to establish village-based organizations for community development and by strengthening local government capacities for basic land-use planning, the project would help pave the way for a possible GEF-supported natural resource management/ biodiversity conservation project in the northeast of Cambodia. This possible GEF project would include the watershed areas of the three Mekong tributaries reportedly being considered for hydropower development by the NGO Multinationals Resource Center as well as critical riverine and wetland areas in the Mekong valley proposed as a RAMSAR site.

Thus the proposed RDP does not raise significant environmental issues but, rather, helps develop local capacities and willingness to prevent them. Its environmental category rating will be decided at the concept review stage.

2000 update: A March 2000 review commissioned by the Asian Development Bank found that Cambodian forest stocks were being depleted at a rapid rate. Such problems can be handled in a number of ways and often require the use of multiple tools at once. For example, the bank has procedures for listing and avoiding contracts with companies with which they have had significant difficulties, including difficulty verifying compliance with applicable policies and laws. Effective cooperation and action on these fronts to affirmatively ensure full compliance and take appropriate action when it is not evident can help considerably when dealing with the fragile and threatened ecosystems that many ancient native forests have become.

USAID has some concerns about the forest concession loan (14a) that may also be applicable to the rural development loan (14b), to the extent that the later includes forestry or forest clearing. Since the World Bank's early 1990s ban on direct financing of logging in primary tropical forests, the bank has used a number of different types of loans to fund forestry reform. Bank support for "forestry reform" in many cases has not produced the positive results hoped for.

The question then becomes whether to take the potential risks and how to limit them.

Forest resources are depleted, in part in response to the demands of international trade. The bank could through such forestry reform projects and with the cooperation of its developed members, help ensure that forest exports and imports of its members or borrowers are accounted for in order not to contribute indirectly to the problem. The banks could help develop such a system, in cooperation with industrial countries. They could use a combination of satellite sensing and photography, computerized cooperation, and appropriate authorities and agreements, such as Appendix III listings under CITES by countries that limit harvests of a given species to help track regulated harvests and international trade in such species. Within that context, sustainable forestry in Cambodia and elsewhere might be more likely.

15-a. China: IBRD/IDA—Western Poverty Reduction and Inspection Panel Report (see below for 2000 update); Rural Development

PROJECT DATA

Projected IBRD/IDA funding: $60/100 million. Projected total cost: $334 million. Board date: June 2000. Stage: remaining $40 million request withdrawn. World Bank EA category B. Project I.D.: CNPE46564. Project first entered: April 1999. Entry updated: April 1999/August 2000 (below).

DESCRIPTION OF PROJECT

The World Bank describes this as follows: "The project seeks to reduce absolute poverty through a multisectoral program in an environmentally sustainable rural development that includes upland agriculture, rural infrastructure, social services, voluntary settlement, and rural enterprise development."

USAID'S COMMENTS

The following discussion by USAID, from 1999, is included as it provides key background information and an example of the Agency's role in the process.

This is a miscategorized project. It should have been an environmental assessment category A (complete EA) instead of B (limited EA). The project will generate significant environmental and social impacts and clearly calls for a complete EA. The World Bank's policies call for projects that have significant resettlement, large-scale irrigation, drainage, waterways, flood control, land reclamation, and river basin development aspects to have complete environmental assessment (category A).

The project has a major voluntary resettlement plan for an estimated 100,000 poor people currently living in marginal, eroded, and mountainous areas of eastern Qinghai. About 26,700 hectares of "suitable" land with adequate water resources have been identified in central Qinghai for resettlement. The irrigation development component entails the construction of a 40-meter-high dam, renovation of an existing 8-meter dam, and construction of an irrigation and drainage (wells) system on 26,500 ha in Qinghai.

According to the project information document (PID), the principal environmental issues associated with the initiative include land leveling and soil erosion; saline and sodic soils; energy and timber supplies for settlers; livestock management; and land compensation. The PID observes that "the soil in much of the area Qinghai resettlement area is saline and a minor part of it is likely to be sodic as well. . . . Additional work is required to define the severity and extent of the sodic soils." Through field surveys, the bank should make sure that this question is resolved before approval. A full environmental assessment, completed with public consultation, would identify the appropriate alternatives and proper mitigation measures for developing these less-than-adequate soils.

The PID also notes: “In the long-run, the development of good water management at the system level and at the field level is the key to avoiding salt problems. The supply of energy for cooking and heating and the demand for timber for construction purposes in Qinghai must be addressed before resettlement occurs. In the absence of adequate supplies there is potential for excessive demand on local timber resources particularly in the adjacent sensitive mountain areas.” Again, a complete EA is necessary to resolve these issues.

The remaining comments describe the situation faced by the World Bank’s board of directors in mid-2000, as it was reconsidering the Western China Poverty Reduction Project.

In 1999 the board delayed funding for WCPRP, pending a yearlong inspection panel review to determine whether the project had violated (or would violate) any safeguard policies.

The panel found that despite assurances by management in the summer of 1999 that the project was in compliance, the proposed project was in violation of 7 of the 10 mandatory operational policies that have been designated as the bank’s major safeguard policies. Those violated included the policies on environmental assessment, indigenous peoples, resettlement, information disclosure, and conversion of critical natural habitat. The panel described “policy illiteracy” in the bank and flaws in the bank’s management process as reasons for the violations.

The Chinese nonetheless requested board approval of management’s decision to provide the remaining funds that had been withheld pending the report of the inspection panel.

The U.S. position was to oppose bank involvement even if it might make the project marginally more acceptable, because the board could not be assured that the bank’s own policies were not being violated.

In a watershed development that has great implications for MDB projects and policies generally, the World Bank board took the unusual step of rejecting the bank management’s recommendation in a vote on the Western China Poverty Reduction Project. This move also greatly affects USAID, the Departments of Treasury and State, and other interagency cooperation. The U.S. executive director called for systemic reform in the bank to enforce safeguard environmental and related policies that NGOs and some agencies fear are being formally weakened as well as sometimes not enforced. USAID expects to be engaged in the bank’s current revision of the safeguard policies and in the design of the new preapproval clearance mechanism and other remedies recommended by the U.S. executive director.

On 7 July 2000, China withdrew its request for the remaining $40 million of the Western China Poverty Reduction Project. This was in response to the board vote of 64

percent (comprising generally the industrial nations' votes) rejecting bank management's proposal that the safeguard policies were general "guidelines" only and not to be enforced "mechanistically" or "literally." Although the United States opposed the project, in effect it created part of the majority of the board that was prepared to decide that the earlier decision would have to come back to the board pending further review.

The U.S. executive director on the board called for management to address the overall World Bank weaknesses identified in the inspection panel report by making specific proposals, including those that

1. Strengthen the role of internal bank networks to better control of operations, including a mechanism with approval authority to ensure policies are fully understood and respected in Washington and in the field

2. Create a new compliance unit (as distinguished from the quality assurance and compliance unit established in 1998, and the inspection panel, which as currently constituted reviews a selection of projects and only those that are the subject of formal complaints) to ensure that no project is moved to the board without prior certification as to compliance with all applicable policies

3. Institute personnel incentives and disciplines to support these policies

After the panel's report and the withdrawal of the project, it was noted by many observers that the bank began the process of revising several of these policies as well as consolidating the Operational Policies and Bank Procedures, which are mandatory, and the Good Practices, which are for guidance only. In this ongoing process, NGOs have found a trend toward weakening the policies and moving some from mandatory to guidance status. Some expressed concern that if this is so, and if this trend continues with the current forestry, resettlement, indigenous peoples, and information disclosure policy revisions that are now under way, then stricter enforcement of weakened policies will mean less protection than it would otherwise appear. This has particular relevance for China and some other major borrowers who have operated with relative independence of MDB and other donors and lenders even with regard to the operation of projects subject to conditions.

Throughout the 1990s China has been the bank's largest borrower with new commitments averaging $2.5 billion per year and 200 projects financed since lending began in 1981. By some measures the quality of performance has been higher than that of the average borrower. Still, concerns about the implementation of safeguard policies adopted since 1989 led the bank to establish a special Quality Assurance Group (QAG) Panel to review six major projects in China in *Review of Safeguard Policies in China*. These reviews occurred at the midpoint of their implementation.

The General Accounting Office of the U.S. Congress reported in September 1998 in *Multilateral Development Banks: Public Consultation on Environmental Assessments* that of the projects surveyed, those in China tended to have less than adequate consultation. The Chinese government "typically submits project proposals for bank

consideration only after much of the consultation and design are already complete." This limits the ability of the reviewing agencies, the consulted public, and the bank to have an impact on projects' designs, making it more likely that such projects will warrant being listed in this report.

Although a dam was only one part of the withdrawn project, China has been among the most active dam builders in recent years, continuing with the Three Gorges Dam, which the bank informally rejected several years ago. Water diversions may reach a point where the river dries up entirely as the mouth of the Colorado River does in the United States at times. This has consequences for the ecosystems involved and even for major projects sharing the water.

15b. China: IBRD/IDA—Rural Development

PROJECT DATA

Guangxi Baise Multipurpose: Environmental assessment category A. US$400 million (IBRD). Consultants for project preparation and feasibility studies, a dam safety review panel, and a panel of international environmental and social experts have been appointed. Prequalification for two main civil works contracts will be undertaken soon. Youjiang Water and Power Development Corporation, 36 Jianzheng Rd., Nanning, Guangxi 530023, China. Tel: (86–771) 562–8529, fax: (86–771) 563–7491. Contact: Mr. Yang, general manager.

DESCRIPTION OF PROJECT

The project is designed primarily to protect Nanning and nine other downstream municipalities and counties against floods. The Baise Dam and Power Facilities component will consist of a 130-meter-high RCC dam and spillway, power facilities including a hydropower plant of 540 MW, two saddle dams, and underwater works for a navigation shiplift. The institutional development component includes strengthening the Youjiang River Basin Development Corporation and developing a flood forecasting and monitoring system along with operation procedures, including the EPP and related institutional reform. The project also includes a resettlement component and an environmental management component. Project preparation has been put on hold at the request of the Chinese government.

USAID'S COMMENTS

In the past two years, in depth reviews of the effects of dams and of China's weaknesses in regard to some safeguard policies, such as consultation with affected peoples, lead USAID to recommend particular caution with regard to such major dam projects as this.

Given the fact that this large dam project is designed to protect a large region of ten cities and counties against flooding and that it will involve resettlement, and given the difficulties still encountered with resettlement, the environmental assessment process should begin early and review with the affected public a variety of options for flood control, including the use of ecosystem services, such as allowing flood plains to absorb more overflow and restoring ground cover upstream as well as downstream.

USAID Recommends that the Bank:

1. Address the "safeguard dilemma" as it may affect this project by
   - Defining compliance, particularly with regard to resettlement and other changing policies. This may mean instituting, as the USED recommended in the Western China Poverty Reduction case, an accessible process by which compliance questions can be expeditiously determined with regard to this project before board action.
   - Considering a safeguard fund to finance costs of meeting bank's safeguards where they exceed costs of meeting borrower's own

2. Move beyond compliance: use safeguards more strategically by
   - Undertaking environmental and social assessment early in the project cycle to illuminate options and alternatives
   - Carry- out a sector or region-wide assessment on macro issues raised by this project, such as land and water use as they effect flooding and the need for such a dam, even if it requires lengthening the project cycle and changing current budget practices

3. Concentrate on enhancing participation and consultation and ensure confidential and culturally appropriate data-gathering techniques

4. Make line management more accountable and give the sector coordinator oversight responsibility over the task manager

5. Give external monitors more independence (through long-term contracts, for example).

16. India: IFC/ADB—Balagarh Power Company Limited

PROJECT DATA

Project number: 4897. Company: Balagarh Power Company Limited. Environmental category A. Projected board date: uncertain. Date SPI disclosed: 9 May 2000. Project sponsor and major shareholders of project company: the projects sponsors are CESC Limited (CESC) and Southern Energy Asia–Pacific Limited (SEAP).

CESC is an existing IFC client in which IFC has made two previous investments. CESC is a vertically integrated utility company that owns and operates the generation, transmission, and distribution system that serves the metropolitan Calcutta area. In existence for over a hundred years, it is a publicly traded company listed on the local stock exchanges in India.

SEAP is a wholly owned subsidiary of the Southern Company (Southern) of the United States. It operates a number of independent power projects in the Asian market. Southern is a reputable and financially strong electric utility with assets worldwide. Its ownership in SEAP is held through a direct wholly owned subsidiary, Southern Energy Inc. (SEI), which holds Southern's other international assets. Southern is the largest producer of electricity in the United States. It operates more than 36,000 MW, including 23,891 MW of coal-fired plant. SEI directly operates more than 4,000 MW outside the United States and has an ownership interest in more than 15,000 MW. SEI has operations in Argentina, the Bahamas, Brazil, Chile, China, Germany, the Philippines, Trinidad and Tobago, and the United Kingdom. Southern has assets of more than $36.2 billion and employs 25,000 people in the United States and some 6,600 people overseas. In 1998, Southern reported a net income of $977 million on revenues of $11.4 billion. Shares of Southern, a widely held corporate stock, are traded on the New York Stock Exchange.

The project company, Balagarh Power Company Limited (BPCL), a newly organized enterprise set up to develop, own, and operate the project, will have the following ownership structure:

Shareholder	**% Ownership**
CESC Limited	30.2
SEAP Mauritius	26.0
CESC/other investor	7.0
Hanjung	10.0
AIDEC	13.9
ADB	8.0
IFC	5.0
Total equity	100.0

Total project cost and proposed IFC investment. Estimated at $572 million. The proposed IFC investment consists of a senior A loan of $45 million for IFC's account, a senior B loan of up to $100 million for the account of participants, and an equity

investment of up to 5 percent (US$9.2 million) of the common stock of BPCL for IFC's account.

Location of project and description of site. The Balagarh power plant will be located on a greenfield site on Balagarh Island in the River Hugli, 70 km north of Calcutta. The site was originally earmarked for a power plant to be built by the West Bengal State Electricity Board. However, in an effort to attract private sector investment into power generation, the state government has invited CESC to develop the proposed site as an independent power project. The proposed site is well situated, with close access to major road and rail links and plentiful cooling water supplies from the River Hugli. The project will affect eight residential structures and about 1,600 people who own or use the agricultural land for the site.

DESCRIPTION OF PROJECT

The Balagarh project is to build, own, and operate a 2 x 250 MW coal-fired thermal power plant. The project is expected to be implemented over a 33-month schedule, with the first unit entering commercial operation toward the end of 2003 and the second one 3 months later (for a total of 36 months). The energy output will be used entirely by CESC and sold under the basis of a two-part tariff power purchase agreement.

Primary equipment will include two pulverized coal steam generators, one for each of two turbine generators, designed to burn high-ash low-volatile pulverized coal as the principal fuel supplemented by light diesel oil for start-up and heavy fuel oil during low-load operation. The two steam-generating units will be sized to ensure adequate margin over the requirements of the turbines and to provide for auxiliary steam load and future degradation. Each boiler will be equipped with all required air preheaters, soot blowers, and fans. The turbo generators will use a regenerative feed-heating and reheat system, and the condenser will operate on a closed-cycle cooling system. A fully mechanized coal handling system to handle 2.8 million metric tonnes per year and partially covered storage capacity at the site sufficient for about 30 days reserve will also be provided.

Coal for the plant will come from mines owned by Eastern Coalfields Limited in West Bengal and Bihar. These mines are about 200 km from the plant site and are connected by existing rail links. These mines are well developed and are presently in production. Coal reserve estimates indicate there is ample supply to cater for the plant throughout its lifespan.

It is proposed that under an operation and maintenance agreement with BPCL, a CESC/SEAP joint venture will operate, maintain, and repair the facility according to international industry practices using their own engineering and operation and maintenance staff. BPCL is proposing to implement the project through a lump-sum turnkey engineering, procurement, and construction contract with Hanjung of South Korea for the design, construction, procurement, supply, erection, installation, and commissioning of all mechanical, electrical, control, and instrumentation plant and

equipment, as well as the power station civil works.

Development impact/IFC role/fit with World Bank Group strategy. This project will ensure secure and reliable power supply for the city of Calcutta and improve the efficiency of electricity generation in the region. A more reliable power supply should also help stimulate overall growth in economic activity in the area. It will moreover create local contract employment during the construction period, as well as permanent local jobs during operations. Private investment in the power sector would reduce the need for public investment and enable the government of West Bengal to deploy more resources to meet poverty alleviation and social development objectives.

Despite the considerable development delays, this project will be one of only a handful of independent power projects developed to date in India under the revised Electricity Act Guidelines published in 1991. It will also be the first to sell its output directly to a creditworthy private utility. The project will not require state and central government counterguarantees. Its revenues will be directly funded, on a pass-through basis, by the tariff charged to CESC's customers. This project will help demonstrate to both government and private investors that power projects can be structured without the need for government support, provided that output from such projects is tied to a creditworthy distribution company and a functioning regulatory framework.

The overall World Bank Group strategy for India is aimed at helping the country achieve an "accelerated growth with equity" strategy that aims to double per capita income by 2010 and thereby significantly reduce poverty. To achieve this objective the bank group has concentrated on supporting policy reform, social and environmental issues, and private and financial sector development. Within the bank group's overall strategy, IFC's attention over the medium term will be on a) developing the infrastructure sector (power, telecom, ports, roads, and urban infrastructure), b) developing the financial sector, c) greater participation in agribusiness as agriculture reforms progress, d) support for export-oriented projects, especially in the high-tech sector, and e) increased private participation in the social sector through technical assistance programs and direct investments. This project is consistent with a) the overall World Bank Group strategy of promoting private sector development in India and b) IFC's strategy of promoting private investment in the power sector in India. In addition to the development impact, IFC participation in the project will provide direct long-term financing, help mobilize additional sources of long-term debt, and ensure that the project is implemented in an environmentally sound manner.

Environmental and social issues. This is a category A project, according to IFC's Procedure for Environmental and Social Review of Projects, because it may result in significant adverse environmental and social impacts that are sensitive, diverse, or unprecedented.

The locations of environmental documents in locally affected communities are

- Office of the district magistrate, Hooghly, West Bengal

- BPCL office near the site at village of Sripur, Balagarh, West Bengal
- Local library in village of Sripur, Balagarh, West Bengal
- Office of the block land and land reforms officer (BL & LRO), Jeerut, West Bengal
- Balagarh Power Company Limited head office, CESC House, Chowringhee Square, Calcutta 700 001, West Bengal

In addition, a leaflet containing the nonexecutive summary for both the environmental impact assessment and the resettlement action plan has been prepared in vernacular and kept at all the above places for distribution to the interested persons.

To contact the project company, write to Mr. J. Chakrabarty, Project Manager, Balagarh Power Company Limited, CESC House, Chowringhee Square, Calcutta 700 001 India. Tel/fax: + 91 33 225 5557; e-mail: jc@rpgnet.com.

(This summary of project information is prepared and distributed to the public in advance of the IFC Board of Directors' consideration of the proposed transaction. Its purpose is to enhance the transparency of IFC's activities. This document should not be construed as presuming the outcome of the board decision.)

USAID'S COMMENTS

The Agency has several concerns about the environmental design of this project:

- Whether cleaner renewable sources of energy on and off the grid are available
- If conservation (e.g., inclining block) rates have been considered
- The effects of the high-ash-content coal and whether these could be reduced through the use of more efficient mining equipment to separate lower quality material from the coal before it is burned
- The impact on ambient air quality, given decade-old statistics used in the materials provided to U.S. agencies to review
- The impact of the increased coal mining on the natural environment and people of Bihar

An earlier loan to Coal India of $530 million to start, expand, or modernize two dozen open-pit coal mines was to demonstrate how India's coal resources could be put to use in a way that does no harm. But in summer 2000, after villages were bulldozed, followed by unsuccessful resettlement and retraining (among other problems), the World Bank agreed to India's request to cancel the remaining half of the loan. Nevertheless, the mining of more coal to fuel new plants raises similar questions of resettlement and effects on endangered tigers and indigenous peoples in Bihar and Bengal.

USAID is also concerned whether by helping finance so much power production from traditional carbon-based fuels with subsidized loans the MDBs are not only unnecessarily adding pollution but also putting private investors and renewable power providers at a disadvantage.

17. Indonesia: IBRD—Transport

PROJECT DATA

(R) Ports Environment Improvement: Date of negotiations is to be determined. Environmental assessment category B. PID: IDPE40892. US$4.2 million (IBRD). Consulting services to be determined. Ministry of Communications, Gedung Karra, Lt. 4., J.I. Merdeka Bar, No. 8, Jakarta, Indonesia. Tel: (62–21) 784–2440; 381–1308, fax: (62–21) 384–2190.

DESCRIPTION OF PROJECT

The project will help the government in implementing policies that address the environmental issues of maritime transport. The objectives are to a) develop the capacity for appropriate disposal of ship wastes, b) upgrade the capacity for oil-spill prevention and contingency planning, and c) develop the capacity to manage pollution from contaminated dredged materials.

USAID'S COMMENTS

While the World Bank is commended on such projects intended largely to improve environmental control capacity and performance, USAID has found that such projects, if not properly designed, can perversely have negative environmental impacts. Ship wastes, contaminated dredged materials and oil spills are in most cases, highly dangerous materials. They require careful comparisons of alternatives, and at least some means of ensuring that funding most of the process does not lead to greater harm being done by a closely related part of the project. For example, a Baltic state within the last two years, completed a similar harbor dredging operation with MDB assistance, while still dumping toxic dredged material in a manner which the MDB advised against, by funding that portion of the project by itself. The USEPA has completed an exhaustive environmental impact statement and analysis of alternatives for handling contaminated river and harbor bottom materials in the Hudson River valley. It reviewed, for example, whether to leave the material undredged or to risk spreading contamination by disturbing the bottom in removing it. The next questions in such cases include whether to incinerate any toxic dredge material or dump it in a sealed and clay-lined landfill, for example. In regard to harbor transport hazards, oil spills and invasive species in ballast water are just two of several issues that are best confronted publicly. That way the public and independent experts can debate the choices of requiring double-hulled or lined tankers, and a variety of blocking and cleaning techniques to control oil spills, and whether to require high-seas ballast water exchange to reduce the likelihood of coastal invasive species introductions when ships take on cargo and release ballast water in port. The World Bank has also approved loans that did not do take these precautions. It has also approved loans (See, *e.g.*, Tehran Sewerage -Ln. 4551–IRN- under Iran, below.) for much needed sewage treatment facilities, that unfortunately included plans to use sludge as fertilizer for food crops without evidence that the sludge would be tested for heavy metal, PCB, or other contamination before distribution. In category B assessments, alternatives are not always

well reviewed, though ways of minimizing the harm of the planned option usually are. Therefore, USAID recommends that either this project's B classification be reclassified as an A, or that the Bank otherwise require that as part of the capacity building, the agencies will conduct public reviews of drafts discussing such alternatives before undertaking new operations or adopting new regulations, so as to ensure the project succeeds in reaching its goals.

18. Thailand: ADB—Samut Prakarn Wastewater Management Project

PROJECT DATA

The total project cost is estimated at US$750 million, with funding from three sources: US$230 million from ADB and the balance from the Japan Bank for International Cooperation and the government of Thailand.

ADB's role: A partner in the development of the project and one of the three financiers. Government of Thailand's role: project owner and one of the three financiers. Executing agency: Pollution Control Department/Ministry of Science, Technology, and Environment. Loan approval dates: loan No. 1410—Thailand was approved 7 December 1995, and supplementary loan No. 1646—Thailand 3 December 1998. Status: as of 1 December 2000, overall implementation progress was estimated at 48 percent. Under ADB's portion of the loan, expenditures have reached 39 percent and contract awards 99 percent. Completion date: the project is targeted to be completed by 31 December 2003.

DESCRIPTION OF PROJECT

The Samut Prakarn Wastewater Management Project, costing about US$750 million and partly financed by ADB (US$230 million), aims to improve the environment in one of Thailand's most polluted provinces. It is designed to manage industrial, commercial, and residential wastewater that currently flows to the sea through open canals and rivers in a heavily populated area. The wastewater poses health hazards for up to a million people and pollutes large stretches of coastal areas in the Gulf of Thailand.

The project has adopted an integrated approach that tackles wastewater pollution both at the source and final treatment points, representing a significant attempt to proactively minimize wastewater pollution. The project includes the collection and treatment of domestic and pretreated industrial wastewater. The treatment plant is designed to treat wastewater after industry has pretreated it to remove toxic elements in accordance with Thai government standards. Under the project, the pretreated industrial wastewater will be collected by sewer pipes and carried to a treatment plant designed to further decompose and purify up to 525,000 cubic meters of wastewater a day. ADB believes that the Thai government's approach to the wastewater management problem in Samut Prakarn is technically sound and will help improve the environment. ADB and the government of Thailand welcome the views of civil society and stakeholders about the project.

The local pollution situation. Samut Prakarn, located southeast of Bangkok, is the most heavily industrialized and polluted province in Thailand. Straddling the Chao Phraya River, the province has one million people and more than 5,000 factories. The sanitation and wastewater management facilities in the province are ineffective in dealing with the large wastewater flows from industrial, commercial, and residential sources.

The result has been severe degradation in water quality and deterioration in public health, as evidenced by the incidence of water- and sanitation-related diseases. Many of the waterways are ecologically weakened. Most of the beneficial uses of the water from the Chao Phraya River have been lost. Owing to the severity of the pollution, the government of Thailand designated the province as a "pollution control area" in 1994, giving it priority for government-funded environmental improvements.

Background. The project is designed to improve wastewater management facilities in Samut Prakarn Province, Thailand, where water pollution poses serious environmental and health risks. The project consists of wastewater collection systems (sewers and associated pumping stations), a central wastewater treatment plant, wastewater and effluent monitoring systems, a program for cleaner production and industrial efficiency, and capacity-building of government agencies responsible for managing wastewater.

Overall objectives. The project seeks to improve the quality of the province's environment and public health by providing modern, reliable, and cost-effective wastewater collection and treatment facilities. Complementary programs are being carried out to improve environmental monitoring and enforcement as well as to promote cleaner production for industry.

Rationale. The project supports the Thai government's policy of developing comprehensive wastewater management strategies in severely polluted areas. Further degradation of the environment and deterioration of public health are inevitable without the implementation of a comprehensive wastewater management program.

Centralized wastewater collection and treatment was determined to be the most technically sound and appropriate approach for the situation—as well as the most cost-effective—when combined with an industrial pollution prevention program and enforcement of pollution control regulations.

Treatment plant location. Klong Daan, Samut Prakarn Province, Thailand: a lightly populated area of low ecological value. Local mangroves have diminished because of the area's extensive shrimp farming.

How the project works. A wastewater treatment plant will collect wastewater from factories and households using a system of more than 300 kilometers of sewer pipes. The treatment plant, which is only one component of the management strategy supported by the project, is designed to break down and purify domestic wastewater along with industrial wastewater after it has been partially pretreated to remove toxic elements (as required by the Thai government). The treated wastewater will be released through a 3.4-km outfall pipe into the Gulf of Thailand.

Capacity. The plant will have the capacity to treat up to 525,000 cubic meters of wastewater a day.

Expected benefits. Improved health and quality of life. By cleaning up the environment and raising water quality, the project will directly benefit one million residents by improving public health through lower incidence of water- and sanitation-related diseases. The quality of life will improve for low-income families, many of whom often live close to factories in low-lying, flood-prone areas and are most exposed to polluted waterways.

Cleaner environment. The project will annually remove an estimated 72,000 tons of pollutants and about 90 tons of heavy metals from wastewater entering the sea. This will significantly improve water quality, thus enhancing mussel and fish farming yields.

Cost recovery. The polluter-pays principle will be implemented for the first time in Thailand, where industry, which causes 80 percent of the pollution, will pay 80 percent of the clean-up costs.

Cost savings. For medium to serious polluters in the food and textile industries, the cost of using the centralized systems is estimated to be 1.3 to 40.0 times less per cubic meter than onsite treatment.

USAID'S COMMENTS

The project is the subject of complaints by villagers near the construction site. Over the course of the preparation of this report these issues became the basis for the first formal complaint filed with the ADB inspections panel. The complaints include allegations that the project was miscategorized as a B, allowing it to avoid a full environmental assessment; that approval was based on a different site 20 kilometers away from the one eventually chosen for the plant; that very different impacts and potentially dangerous characteristics of the chosen site (as well as resulting inefficiencies) were not properly assessed, thus avoiding certain efficiency requirements of Thai law; and that heavy metals and toxic pollutants remaining in the discharge water will be concentrated in the release or "outfall" area and will harm people, aquatic life, and livelihoods.

It is also the subject of separate inquiries by authorities concerning allegations of irregularities in the land purchase and decision-making process.

In particular, complainants allege the violation of the "National Environmental Quality Act of 1992, the Factory Act (1992), and the 1997 Constitution in matters relating to . . . public consultation and participation and the Environmental Impact Assessment requirements."

They note that the affected communities of Samut Prakarn province acknowledge the need for wastewater management, and that they do not oppose a project that will deal with the problem properly. However, they aver that

> [T]he relocation of the project to Klong Daan resulted in various ADB policy violations. These include Bank's Policies on Environmental Assessment, Involuntary Resettlement, Economic Analysis, Incorporation of Social Dimensions in Bank Operations, Benefit

Monitoring and Evaluation, Confidentiality and Disclosure of Information, Governance, Anticorruption, Internal Audit, Fisheries, Supplementary Financing of Cost Overruns, Bank's Operational Missions, and its Poverty Reduction Mandate.

The ADB's inspection policy (approved 1995, published 1996) calls for interim reports to be sent to a committee of the board. The ADB inspection policy permits the bank management or the Board to suspend disbursements to projects, but gives little guidance on the circumstances that should cause it to take such action. Whether a person who claims to be harmed by a project under review can have the project (and the harm) suspended during that review also may depend on the agreement between the bank, the borrower, and other parties as well as on any available domestic legal or injunctive remedies. Therefore, whatever the outcome of this case, it illustrates the need to ensure that there are effective means of enforcing bank policies and applicable domestic laws.

19-a. Vietnam: IDA—Rural Development

PROJECT DATA

(R) National Water Resources Management: preappraisal was scheduled for June 2001. Environmental assessment category to be determined. US$130 million (IDA). Consulting services to be determined. Ministry of Agriculture and Rural Development (MARD), 2 Ngoc Ha St., Hanoi, Vietnam. Tel: (84–4) 733–0782, fax: (84–4) 824–7133. Contact: Mr. Pham Hong Giang, vice minister, MARD.

DESCRIPTION OF PROJECT

The project will introduce integrated water resource management to selected basins.

19-b. Vietnam: IDA—Transport

PROJECT DATA

(R) Mekong Transport and Flood Protection: negotiations were tentatively scheduled for September 2000. Board presentation was scheduled for October 2000. Environmental assessment category A. PID: VNPE42927. US$110 million (IDA). Consulting services to be determined. Ministry of Transport and Communications, 187B Tay Son St., Hanoi, Vietnam. Tel: (84–4) 851–1278, fax: (84–4) 852–1013. Contact: Mr. Pham Ngoc Thuy, general director, PMU1.

DESCRIPTION OF PROJECT

The project will support the government's efforts to complete the rehabilitation of Highway 1. It will emphasize protecting flood-prone sections in the central coastal area and improving the surface transportation system in the Mekong Delta.

USAID'S COMMENTS

Projects 19-a and -b involve potentially many environmental issues related to the water basin management questions described in the following section of USAID's 1999 report. Whereas the Mekong Delta Water Resources Project was classified as a category B, the Mekong Transport and Flood Control Project is an A. This should allow informed discussion of the effects of waterborne transport interfaces with highway transport, dikes versus bridges, and other issues. The nationwide water resource project will almost surely call for an "A" categorization, given the intense criticism of the lack of review in just the Mekong Delta Project in 1999 below.

19-c. Vietnam: IDA—Mekong Delta Water Resources Development

PROJECT DATA

Vietnam Projected IDA Funding: $102 million. Projected Total Cost: $148 million. Board date: 4 May 1999. Stage: approved. World Bank EA category B. Project first entered: April 1999. Project information updated: April 1999. (The project was active in 2001 and expected to continue through 2005.)

DESCRIPTION OF PROJECT

The Mekong is the 10th largest river in the world. This project will support completion of salinity control and water-delivery systems to improve agricultural production and increase rural income in some of the poor regions in the lower Delta. The proposed project would cover five subproject areas in six provinces with a total area of 535,000 ha (14 percent of the Mekong Delta). Four of the subprojects—South Mang Thit (225,682 ha), Quanlo–Phuonghiep (178,900 ha), Baring–Talim (31,000 ha), and Tiep Nhat (54,000 ha)—are in the lower Delta. The Omon–Xano subproject (45,430 ha) is in the middle Delta. Each area is a unique hydraulic unit.

The basic approach to the development of the subprojects in the lower Delta is to prevent salinity intrusion by extending existing dikes and installing 200 additional sluice gates on canals serving the agricultural areas, together with completion and improvement of existing irrigation systems. The sluice gates would close at low tide, especially in the dry season, to prevent saline tidal flows from entering existing agricultural lands. They would open in periods of high freshwater flow to allow drainage and flushing of contaminants. This would create a year-round freshwater environment to allow an additional crop to be grown in the dry season. Improvement of drainage and inundation in the wet season would secure the second or third crop. Existing canals would be enlarged where necessary, and the density of secondary canals would be increased to improve water delivery capacity for irrigation and drainage. Tertiary canals and on-farm systems would be developed.

The Omon–Xano area is above the salinity line. Fresh water is available year round. The main aims of this subproject would be to improve flood protection and drainage through extending embankments and building sluices and to improve secondary canals.

Overall, the improved water delivery systems of over 3,000 km of irrigation and drainage canals, embankments, and structures would promote agricultural intensification and diversification by providing fresh water and through improved drainage. The project would facilitate rural transport through enhancements in canals, bridges, and canal-connected rural roads.

The project would also develop a number of deep groundwater wells to provide drinking water to the rural population of the region (about a million people), as mitigation

for expected declines in surface-water quality.

The project involves resettlement of 1,650 families (moving homes), and compensation for 34,000 families expected to lose small parts of their farmland. It has a resettlement budget of $21 million, to be completely covered by the government (a problematic practice in some countries, but the government of Vietnam appears committed). The resettlement action plan appears to have been well done—a major improvement over the prior Vietnam Inland Waterways Project, which the U.S. government opposed.

USAID'S COMMENTS

The Agency finds that the project's limited environmental assessment inadequately addresses issues of surface and groundwater quality, fishery impacts, nutrition trends with specific reference to protein intake, waterborne diseases and pesticide exposure, and subsidence related to groundwater pumping. Such issues apply not only to the project area but also to downstream impacts where the fresh water meets the sea.

The project should be classified as an environmental assessment category A because of the project's significant resettlement, and large-scale irrigation, drainage, waterways, flood control, land reclamation, and river basin development aspects. The bank says that it was given a category B because of the prior completion of a Mekong Delta Master Plan, which indicated a preference for these projects and included a regional environmental impact assessment.

However, the area has a high international profile for environmental sensitivity, and a paucity of baseline data, as acknowledged by the project's EIA numerous times.

The project does not convert nonagricultural lands, but its purpose is to control salinity intrusion and flooding so a formerly large area of seasonally brackish wetlands can be converted to a freshwater wetland regime. This will enable rice production to go from one or two crops per year to two or three crops (the bank says the third crop will usually not be rice, but other crops with less water demand). This type and scale of land reclamation or conversion can be ecologically significant, with diverse effects—on mangroves, fisheries, waterfowl, and disease vectors such as mosquitoes carrying Japanese encephalitis and malaria.

The project environmental assessment examines (by subproject area) the issues of salinity, local hydrology, acidic soils, within-site fishery economics, and inhibition of transport, without ever looking at the cumulative picture or areas adjacent to the projects that are likely to be affected.

A USAID-conducted interagency review (by NOAA, EPA, USAID, State, and Treasury) of the environmental assessment and related documentation concluded that the environmental studies were too narrow in scope and suffer from a serious lack of baseline

data on a variety of potentially serious issues:

- Other than moving sluice gates from one location to another, there was no apparent consideration of development alternatives to the project.

- There are reports that some farmers prefer to pump—and are already illegally pumping—saline groundwater into some project areas to grow shrimp, which is more lucrative than rice. The sustainability of this practice is uncertain. The bank assumes that this was occurring in areas that had been excluded from the project, as they expressly redesigned it to avoid overlap with shrimp production areas.

- A variety of potentially serious issues were not even considered, such as several types of human health effects, delta subsidence, changes in Mekong flows attributable to upstream development or water-sharing agreements to be worked out under a forthcoming World Bank/GEF project, nutritional and other socioeconomic consequences of changes in common property regimes such as subsistence fisheries, gender, and economic aspects of farmer's operation and maintenance responsibilities.

- A host of other issues were briefly mentioned but dismissed without basic data collection: fisheries, sediment flows, water quality, protected areas, increased use of pesticides and fertilizer use.

- The environmental assessment and other studies seem to make widely conflicting statements about a variety of issues, sometimes in adjacent sentences (e.g., magnitude of increases in pesticide and fertilizer usage; contamination or isolation of deep aquifers).

- The mitigation plan suggests expanding a small existing integrated pest management program, but no funding was provided. The bank promised to discuss this with the Vietnamese government in relation to a separate agriculture bank project.

- Monitoring components are inadequate (total of $300,000). The bank promised to increase the monitoring program, especially regarding fishery, nutrition, water quality, and disease vectors.

Industrialized countries have realized that while widely practiced in the past, conversion of wetland ecosystems, whether from wet to dry or from brackish to freshwater, is a major ecological sustainability issue. The United States is now spending billions of dollars to undo the billions it spent on such works in Florida, Louisiana, Texas, California, and other states. A cavalier attitude toward such delta modification has proven to be catastrophic in Senegal. It should not be taken lightly or dismissed as minor because sufficient data are lacking on the Mekong Delta.

USAID believes this project should have had a far more comprehensive regional/sectoral environmental assessment, with baseline data collection, and including long-term sustainability issues. This should include an appropriate array of ecologists and social impact specialists, not just engineers and economists.

Projects and Loans in Europe and Central Asia

20-a. Croatia: IBRD—Municipal Infrastructure

The issues raised are discussed after the several Croatia loan entries.

PROJECT DATA

WW Water Supply & Sanitation report date: 27 May 1998. Loan No: 4352. Report No: 17075. Municipal water distribution systems.

DESCRIPTION OF PROJECT

The Municipal Environmental Infrastructure Project seeks to a) reduce municipal wastewater pollutant discharges into the environmentally sensitive Kastela and Trogir Bays consistent with Croatian and European Union standards; b) improve the safety, reliability, and delivery of drinking water in the project area; and c) improve the operational and financial performance of the water and wastewater utility, to make it more attractive for private sector participation in the future.

There are three project components. First, the wastewater component will include reconstruction, expansion, and upgrading of the wastewater collection, treatment, and disposal system for the Split, Solin, Kastela, and Trogir municipalities. Second, the water component will cover reconstruction and upgrading of the water-treatment and -delivery systems for the Split, Solin, Kastela, and Trogir municipalities. Third, the institutional strengthening component will provide technical assistance to the project agencies.

20-b. Croatia: IBRD—Gas-Sector Development

PROJECT DATA

Project preparation has been delayed. Environmental assessment category B. US$80 million (IBRD). Consulting services to be determined. Industrija Nafte d.d. Zagreb (INA)—NAFTAPLIN-Gas Division, 10000 Zagreb, Croatia. Tel: (385–1) 645–0000, fax: (385–1) 645–2507. Contact: Mr. Darco Karacic, director.

DESCRIPTION OF PROJECT

The primary objectives of the project are to a) improve gas supplies through enhanced physical and commercial diversification; b) ensure a continued economic source of natural gas and compensate for declining domestic gas production; c) provide fuel as an alternative to coal; d) provide a cleaner and cheaper substitute to fuels currently in use by residential, commercial, and industrial consumers; e) facilitate more consumer choice in fuel supply; f) promote regional international gas trade; and g) facilitate a legal and institutional framework for the gas sector. The project will include construction of a 200-km, 75-barrel gas-transmission pipeline between Zagreb and Slavonsksi Brod.

USAID'S COMMENTS

The gas project has the potential for valuable environmental improvements but also carries risks. Although this is a fairly clean fuel, it poses dangers of explosion at ground level and escaping methane which is an active greenhouse gas. Further, prices for natural gas have risen substantially in the last two years, which might tempt some to cut corners on safety. In regard to the gas pipeline for importing natural gas, it makes sense to determine whether domestic and renewable options—such as biomass and methane, wind and geothermal, or conservation and efficiency investments for better use of gas—have been exhausted. This is especially the case given recently rapidly rising natural gas prices. Energy pipeline construction, impacts from siting, alternative avenues that may reduce CO_2 and methane emissions, and risk of explosions and fires should all be addressed. These all lead to USAID's recommendation that category A would be more appropriate. The questions of increasing foreign debt to pay for the gas and the continued issue of gas price volatilityalso go to the economic viability of the project. During the noted delay in project preparation, these and related issues could be addressed.

The treatment of wastewater and drinking water also can result in desirable environmental benefits but poses risks if not done right. For example, treatment should take into account the nature of the pollutants entering the system and the ability to maintain different filtration systems. Different levels of arsenic or other elements allowed to remain in treated drinking water can cause different levels of harm in the consuming population. An environmental assessment should help the public and decision-makers choose the appropriate level of cost and risk for the affected population.

21-a. Russia—Coal and Forestry Sector Guarantee Facility

PROJECT DATA

Sector Private and Financial Sector Development Project ID RUGU60045; RUGU57893. Borrower: Russian Federation. Implementing agency: Federal Center for Project Finance (FCPF). *Environmental category FI.* Date PID prepared: June 2000. Appraisal: June 2000. Board date: 12 September 2000.

DESCRIPTION OF PROJECT

Coal. Russia is the world's sixth largest producer of coal, having produced 240 million tons in 1999. Years of poor management of the sector in the Soviet period (corruption, antiquated equipment, deteriorating safety conditions, inefficient use of investment funds, geological depletion of some traditionally major basins) together with the general collapse of demand in the early 1990s made apparent the full-blown crisis in the industry by 1993. That was when prices for coal were liberalized and many coal enterprises proved to be highly loss-making. Subsidies from the federal budget to the sector grew to the unsustainable level of more than 1 percent of GDP.

In recognition of the state of crisis in the industry, in 1993 the government embarked upon an intensive restructuring of the coal industry. The objectives of the Russian government's coal sector reform program were stated in its Letter on Coal Sector Policy (28 November 1997). The Second Coal Sector Adjustment Loan (Coal SECAL II; Report No. P–7202–RU) was developed to support this reform program and to deepen the achievements of Coal SECAL I (Loan No. 4058–RU) through a program directed toward four objectives:

1. Separation of state management functions and commercial activities in the industry and improvement of sector governance
2. Continued reduction and improved management of coal subsidies, aiming at the eventual elimination of coal subsidies
3. Development of a strengthened and more targeted social safety net for affected workers, their families, and their communities
4. Establishment of a more efficient and sustainable industry and promotion of an accelerated privatization program

Because of delays in implementing the agreed coal sector reform program, attributable in part to the August 1998 economic crisis, Coal SECAL II was restructured in mid-1999 at the request of the government. As a result, the remaining funds under the loan were divided into four "social" disbursements of $50 million each and two "privatization" disbursements of $100 million each. Since the restructuring of the loan, to date, three social tranches and one privatization tranche have been disbursed totaling $250 million. With the recent privatization of KrasnoyarskUgol (March 2000), private and privatized coal companies account for 44 percent of overall 1999 coal production. In addition, initial actions have been taken to prepare for sale of the Federal shares in the

remaining coal companies in the government's 1999–2000 privatization program. If these first steps lead to the sale of the federal shares in all cases, an additional 24 percent of the industry (based on 1999 production) will have been privatized.

Forestry. Russia has the largest forest resource of any country. Forests comprise 764 million ha, an area 15 times the size of France. Before 1989, Russia was second only to the United States as an industrial wood producer. Annual wood production averaged more than 300 million m^3, accounted for 2 percent of GDP, and employed 2 million people directly and 10 million people indirectly. Since 1990, commercial roundwood production has fallen dramatically to less than 70 million m^3 in 1998.

Although the harvesting and processing sectors have been privatized, most enterprises are operating at a loss. Nevertheless, the industry showed some recovery in 1999, following devaluation of the ruble.

The number of industries reported as operating at a loss fell to just over 50 percent in 1999, compared with 68 percent in 1998. Commercial roundwood production increased to 72 million m^3. Exports, which had fallen in value to $3 billion in 1998, increased to $3.6 billion. There was also a modest recovery of foreign investment in the pulp and paper industry.

The great majority of exports continue to be in saw-logs; however, they have low value added for the Russian economy, and many industries are operating with obsolete, inefficient, and environmentally damaging harvesting and processing equipment. Furthermore, technical skills (in use of the latest processing technologies) and modern management and business skills need to be upgraded. *Russia has a long history of forest management, with well-developed institutions and a tradition of research in both forest management and timber utilization.* Russian authorities are committed to improving forest sector management.

A new forest code, issued in 1997, provides the framework for sustainable forestry management, and regulations are under preparation for implementing the code and for introducing an improved legal framework for forest utilization.

The Sustainable Forestry Pilot Project recently approved by the board will address forest management and utilization issues by supporting

1. Regulatory reforms, including reforms in leasing and introduction of "evergreen" leasing systems, whereby lease renewal is contingent on sustainable management and operation

2. Introduction of mandatory certification and piloting of voluntary certification, so enterprises can document their sustainable management practices

3. Training of forest enterprise employees in both modern business practices and use of modern technologies

It will also address technical management issues, including forest regeneration, fire and pest management, and improved forest land-use planning.

Sector issue to be addressed by the Guarantee Facility Project: sustainable forestry. The proposed project is designed to complement and supplement the Sustainable Forestry Pilot Project by supporting only those transactions that are consistent with sustainable forest management practices. (Details of the environmental procedures that will be used to appraise and monitor individual transactions are described below.)

By giving private owners of forest enterprises, as well as regional entities responsible for the allocation of forest resources, the assurance that noncommercial risk guarantees will be available to help them attract private loans, the facility will demonstrate that compliance with sustainable forest management practices is compatible with commercial viability. These guaranteed loans will be used to help modernize and refurbish existing facilities, introduce more efficient operations, restore production in the forest sector, produce higher value-added forest products, increase access to export markets, and improve the human resource base through on-the-job training. Through renewed investment, there would be increased use of modern, environmentally friendly harvesting and processing equipment, thereby reducing environmental damage from harvesting operations. In addition, increased employment would act as a catalyst for other economic activities in towns where forest enterprises are the main employer and help restore their viability as attractive places to live. That would reduce the cost of public sector welfare payments. Finally, by increasing tax revenues from both stumpage fees and enterprise taxation, it would help restore the financial flows to the public sector at both federal and regional levels, thereby providing funding for sustainable forest management and increasing general revenues.

Coal sector restructuring. The Guarantee Facility will complement and reinforce the privatization component of Coal SECAL II by helping private and privatized mines attract the financing they need to increase their working capital and modernize and refurbish their fixed capital stock. In addition, the Guarantee Facility will supplement the mine closure component of the Coal SECAL II by extending support to noncoal sector transactions in coal mining communities, thereby helping create alternative sources of employment.

Objectives. The project's main development objective is to help Russian coal and forestry enterprises finance the fixed and working capital assets they need to restore production, exports, and employment. Specifically, a $200 million Coal and Forestry Sector Guarantee Facility would issue special noncommercial risk guarantees against a discrete list of government interference risks. A market survey indicated that these guarantees would mitigate those government interference risks that are of greatest concern to potential guarantee holders and would help attract substantial amounts of commercially viable private loans to Russian coal and forestry sector enterprises.

Description. Implementing Agency—The Federal Center for Project Finance

(FCPF), established by the Russian government, would implement the project as agent of the government of Russia. The FCPF is a 100 percent state-owned enterprise created by the Ministry of Economy in 1995. It was created initially to support World Bank loan projects, but by Government Resolution 951 of 28 July 1997, it was also authorized to act as the government's agent for the Russian portion of the Sea Launch Guarantee Project. It is governed by a supervisory board chaired by the minister of economy and consisting of representatives of the ministries of energy and finance and others.

Pursuant to a government decree that *will be* issued in conjunction with the project, the FCPF will be authorized, among other things, to a) sell guarantee contracts against a discrete list of noncommercial risks, b) process applications in compliance with operating procedures and eligibility criteria set out in the Operations Manual agreed with the World Bank; and c) monitor, mitigate, and prevent the occurrence of risks that could give rise to claim payment obligations. Day-to-day operations would be handled by an independent, professional group of staff and managers. A steering committee consisting of officials from various ministries and agencies including the Ministry of Finance, Ministry of Economic Development and Trade, Central Bank of Russia, Ministry of Fuel and Energy, Federal Forest Service, and Customs Service would oversee project implementation.

The FCPF would sell guarantee contracts against a discrete list of government performance and political *force majeure* risks to foreign equipment suppliers, trading companies, and commercial lenders who provide finance for working capital or fixed capital inputs to Russian forestry and coal enterprises.

The FCPF would be authorized to sell guarantee contracts backed by the IBRD for a period of five years from the date of effectiveness. Guarantee contracts could have a maximum tenor of 10 years.

Guarantee contracts will address risk such as the following.

Risk coverage. The terms and conditions of the guarantee contracts sold and administered by the FCPF would be set out in a standard form of guarantee contract and would cover the following risks:

- Inability to convert and transfer currency. Government action that for at least 90 days prevents a payer or the guarantee holder from converting rubles to make a payment amount or from transferring out of Russia the payment amount. However, this coverage would not grant the guarantee holder a right to convert local currency into foreign exchange at a guaranteed future exchange rate or at a favorable rate of exchange. Losses arising from currency depreciation are not covered.

- Expropriation. Government action that for at least 90 days a) deprives a guarantee holder or a contractor under a covered contract of a goods covered by such contract, b) deprives such contractor of its property so that it cannot

continue to carry on its business, or c) deprives the guarantee holder or the holder of the relevant credit of funds needed to make credit payments. Seizure of goods or restrictions on import, sale, use of export. Government action that for at least 90 days results in the seizure of goods to be delivered under a Covered Contract, or material new restrictions on the import into, the sale in, the use in or the export from Russia of such goods.

- War or civil disturbance. Politically motivated acts of war or civil disturbance in Russia which cause destruction of goods to be delivered under a Covered Contract or make the contractor unable to carry on its business for 90 days or more.

- Issuance or cancellation of licenses. *Government failure to issue or renew licenses necessary licenses as agreed by the parties in advance.* This provision would pertain only to those licenses that are explicitly identified and listed in an annex to the guarantee contract.

- Imposition or increase of taxes. *Government imposition of new or increased taxes relating to the import into, use in, sale in or export from Russia of a good to be delivered under a covered contract*. This provision would not provide coverage against any imposition or increase in taxes, levies or duties of a general nature, including, without limitation, value added tax, sales or consumption tax, stamp duty, or corporate or personal taxes on income.

- Interference in the carriage of goods: Government action that prevents or delays the carriage or storage of goods to be delivered under a Covered Contract. Any risk that is not explicitly listed and defined in the Guarantee Contract is not covered. Equally important, the Guarantee Contract does not grant any special commercial privileges, legal benefits, or tax advantages to the Guarantee Holder or any of its local partners and suppliers. All foreign and local enterprises associated with a guaranteed transaction would be subject to the same legal, tax, and regulatory regime as any other foreign or domestic enterprise doing business in Russia.

USAID'S COMMENTS

This is a "financial intermediary" loan. As such it Is not subject to a process that compares alternatives and taeks public comment into account in making the final decision. When the purpose of the loan is to guarantee contracts to increase coal and timber production against certain risks, and when the agency in charge of controlling the environmental impacts of such actions has been recently folded into a more production oriented agency, one may note that it would be useful to compare alternatives in both energy types and forest uses, as well as specific technologies and limits to be applied within the coal and wood products sector.

This need is even stronger in cases when local government institutions on which

the MDB relies to ensure environmental soundness are weak or recently weakened as in this case. This large loan should have a full environmental assessment despite the general good intentions and particular features of the project. A proper environmental assessment for this would review the specific standards to be applied, alternatives, and the extent to which the multiple guarantees for forestry and coal projects may undercut competing industries that are less harmful, such as paper and wood recycling, and energy conservation and renewable energy production.

21-b. Russia—Russian Federation Sustainable Forestry Pilot Project

The following project was approved not long before and is closely related to the more recently approved Coal and Forestry Sector Guarantee Facility. Many of the same issues are raised in both.

PROJECT DATA

Loan amount: IBRD—US$60 million. Terms: Grace period=5 years, maturity=17 years. Project ID RUPE53830. Implementing agencies: Federal Forest Service, Moscow Regional Administrations Foundation for Enterprise Restructuring, Moscow. Environment category B. Date this PID approved: 17 September 1999. Date initial PID prepared: 10 May 1998. Projected appraisal date: 26 September 1999. Board approved: early summer 2000.

DESCRIPTION OF PROJECT

The project aims at improving public sector management of the country's forests through policy reform, improving land-use management, protecting and regenerating forested areas, and supporting the development of a more favorable environment for private investment in the sector. Benefits from the project include increased government revenues from improved resource assessment and taxation, rapid forest growth from improved regeneration, conservation of forest ecosystems, and increased employment in local communities as a result of restoration of their economic base.

USAID'S COMMENTS

Five days before the Russian Sustainable Forestry Project was approved, President Putin moved the 200 year old Forest Service, as well as the Russian State Committee on Environmental Protection (the rough equivalent of the EPA), into the Ministry for Natural Resources. Both the Coal and Forestry Guarantee Facility and the Sustainable Forestry Loan explicitly relied on these institutions. At the time the loans were considered, the extent of any diminished capacity to enforce environmental law and good practice was unclear but a matter of serious concern within and outside of Russia. The strength of responsible agencies is essential in ensuring the coal projects and business guaranteed by the above facility will be net improvements, let alone the best choice of how to spend this amount.

With respect to the Guarantee loan, the US succeeded in convincing the Bank to require tht the loan include specific preconditions before the financing could be disbursed, including the Bank Management's providing the Board with its findings on the sufficiency of the new final statute in establishing and making operational a Federal institution to review and monitor environmental impacts. Since the loan was premised in part upon the administration and enforcement provided by the previous agencies, however, it may be appropriate to consider special oversight mechanisms or other precautions for the Sustainable Forestry loan and the Guarantee Facility until there is a more evidence as to how well the new management and enforcement authorities are doing, and for a significant period of time beyond the initial point of making the new authority operational.

Over the development of these loans, the Bank and its borrower noted there had been consultation with NGOs on the serious concerns about loans for Russian forestry raised by the reorganization of the Russian forest service and environmental agency. Thus some continuing review might include consultations with a range of interested parties.

This project has several excellent elements and there is no doubt that Russian coal and forest industries could be cleaner, but there are additional questions that the Bank could consider before acting in this context:

For example:

- Is there a similar loan in the works or in place to guarantee long term security for renewable energy and conservation and non-timber uses of forests? Unless there is, these guarantees may draw private capital away from competitive insulation or renewable energy firms, or lower impact forest uses, for example. US law requires the U.S. government to encourage MDBs to promote renewable, nonpolluting energy and other benign technologies to enhance development and the environment, and in the process, to coordinate those efforts with USAID and other development agencies.

- To what extent did the United States' or other countries' agencies with expertise in the environment, forest and coal sectors look at the terms, as anticipated in 22 U.S.C. 262m–2&3? The interagency review group raised some of these concerns but did not have avaliable for its review the statute nor the implementation of it, nor specific environmental requirements to be applied in conjunction with the guarantees nor any assessment of overall alternatives, such as an alternative loan that would cover the full range of energy types and forest uses. Although in one sense, there is a review responsibility that lies with the agencies and their governments, in a larger sense, it would serve the banks better in the long run if they took additional steps to ensure the time, notice, and information necessary for careful consideration by the most expert of the agencies, especially in countries

trading in such commodities or affected by their production and use.

USAID is inclined to include in these reports such loans or other actions such as guarantees that will likely have a substantial impact on the environment as a whole (e.g. by guaranteeing long term continuity of taxes and leases for timber harvests and coal production) unless those loan or guarantee projects have each had an EA addressing the basic questions at the programmatic level.

Particular concerns in regard to Russian timber production in the Russian far east where USAID has sustainable forest programs include the potential impact on endangered species such as the Amur or Siberian Tiger which relies on roadless or near-wilderness forests for protection for itself and its prey from poachers. This may be particularly important if some of the smaller loans guaranteed will not be covered by one or more EAs either, although the questions each would address are at different levels of scale.

The project as approved after this note was written required, based on U.S. recommendations, that there be a midterm review of the guarantees and a determination that the new statutes or rules for the newly organized agency be sufficient to carry out the environmental assessment function.

22. Ukraine: EBRD—Khmelnitsky 2 and Rivne 4 (K2R4) Completion

PROJECT DATA

EBRD projected funding: $215 million. Projected total cost: $1.48 billion. Tentative EBRD board date: first vote 7 December 2000, second vote on conditions unscheduled. Stage: approved at first stage, with conditions subject to a second vote. EBRD EA category A. Project I.D.: unknown. Project first Ukraine entered: April 1999. Entry updated: December 2000.

DESCRIPTION OF PROJECT

The objectives of the European Bank for Reconstruction and Development would be to a) increase nuclear safety in Ukraine by facilitating closure of the Chernobyl nuclear power plant and strengthening the Nuclear Regulatory Authority and b) stimulate reform and privatization of the Ukrainian power sector.

Financing of K2R4 would support Ukraine's market-oriented reforms, in particular the privatization and financial strengthening of the electricity sector. In turn, this would advance economic transition. Successful implementation of this project would also provide an internationally acceptable benchmark for safety levels of nuclear power units with VVER 1000-type reactors.

The Least-Cost Electric Power System Development Analysis was completed in May 1998, and EBRD's Project Summary Document in October 1998.

Environmental summary (from the Project Summary Document on EBRD's Web site): The environmental impact assessments were made publicly available in the end of 1998 by the project sponsor. Environmental action plans (EAPs) for the two NPPs are being developed. The EAPs will be covenanted in the project's loan documentation.

The EIAs set out the policy, legal and administrative framework, details of the existing environments, details of the proposed project including arrangements for radiological protection, and the potential environmental impacts associated with the project. They take into account both normal operation and abnormal conditions. Measures are identified to mitigate possible environmental and radiological impacts.

Assessments of the impacts of predicted discharges from both K2 and R4 during normal operation indicate that the annual radiation dose that would be received by the most exposed member of the public would be substantially less than 1 per cent of the regulatory limit set by Ukrainian regulations. These regulations are consistent with those recommended by the International Commission on Radiological Protection (ICRP). The annual radiation dose to the population residing within 30km of the NPPs, taking into account the other operational nuclear reactors at the Khmelnitsky and Rivne sites, and assuming normal operations, would also be well within internationally accepted

radiological protection criteria.

The EA also covers transport of fuel, consideration of a worst-case design-basis accident, occupational safety, and emergency planning. Regulatory documentation dealing with radioactive waste management is currently in preparation together with a national policy on radioactive waste management.

Spent fuel will continue to be stored at both sites for significant periods following the initial three-year decay period, which is customary prior to fuel reprocessing. Assuming that current proposals for the capacity of the spent fuel ponds at both sites are realized, no significant environmental or radiological impacts are anticipated. A package of regulatory documents dealing with decommissioning is currently in preparation. Prior to commissioning of the reactors, the operator will need to have undertaken an assessment of the different strategies for decommissioning.

Environmental impacts not related to radiation exposure may arise during completion and operation of the NPPs. The effects of construction impacts would be reduced because of the three-kilometer sanitary protection zone around the NPPs. Such impacts would be of little significance beyond three kilometers from the NPPs.

The operation of both K2 and R4 would result in increased water requirements at both NPP sites. The exact requirements and the extent to which they can be met from surface or artesian sources require further assessment at both sites.

Public consultation: Public consultation was undertaken at two stages during the process of preparing the EIAs. Scoping meetings were held at three locations in Ukraine at the end of 1996. The outcome of these meetings was taken into account when defining the terms of reference for the EIAs. A further meeting, held in Kiev in September 1997, provided information that was taken into account in the preparation of the EIAs. The public was invited to provide comment on the EIAs, which were made publicly available during the third quarter of 1998.

Alternatives: The EIA methodology required comparison to be made between the completion and operation of K2 and R4 and the "no change option." The latter assumed that the operation of two of the units at the Chernobyl NPP site would continue following completion of an upgrading and safety program and that K2 and R4 would not be completed. This comparison has indicated that routine discharges of radioactivity from two units at Chernobyl would significantly exceed those from the operation of K2 and R4. There would also be an increased risk of a catastrophic accident as a result of the continued operation of Chernobyl. This would lead to widespread radioactive contamination. Work is also being undertaken on an initial assessment of the environmental impacts that would be associated with a thermal power sector program in Ukraine, which assumes closure of Chernobyl without the completion of K2 and R4.

USAID'S COMMENTS

Safety and Liability: The remaining Chernobyl reactor was closed in December 2000. Any new nuclear power plant must be accompanied by an accounting and assignment of costs, safety, and liability as well as the practical responsibility for each of the risks. These include fuel enrichment, storage, and transport to and from the plant for the 10,000 years necessary for the reduction of radioactivity, regular radiation leaks, and potential larger leaks caused by cracking of the containment structure. Other risks include naturally increasing brittleness of the building materials, explosion attributable to overheating of the fuel rod, leaks or explosions following severe weather or earthquake and the radiation poisoning of life and land downwind. Earthquakes have struck the area which is also relatively porous and unstable Karst or limestone topography. During the time that fuel or wastes are accessible, the site will need to be guarded to ensure that neither intentional nor negligent entry is permitted. USAID notes that, in part because the design is different, these plants could not be licensed to operate in the United States. USAID requested that liability system be established before approval. The U.S. government position requested that the questions of assignment of liabilities be clarified.

Procedural compliance: EBRD policy, like that of most MDBs, is that nuclear power is generally not supported unless it is to back out (replace) a more dangerous nuclear plant. This backing out is to occur within the same period. The question then becomes whether a splitting of the vote into initial approval conditioned on subsequent compliance with a list of requirements is in fact compliance with the letter or the purpose of the policy.

Economics: One of the EBRD's conditions for its involvement is that the project must be the least-cost option. There is considerable doubt that these are the least cost options if the full costs are internalized and several studies have determined that they are not the least cost alternatives. Fuel and spent-fuel storage are not expected to be found within Ukraine and are not entirely under the control of the Ukraine government. The costs and risks associated with both fuel and spent-fuel transportation and storage are thus hard to assess with accuracy.

Alternative sources: The U.S. Peace Corps is assessing wind energy potential in Ukraine and has made preliminary findings that the potential is substantial. Ukraine also has a substantial coal resource. Ukrainian authorities are said to have identified numerous alternative energy projects that could meet the need for peak load or base load capacity.

Need: Ukraine has nearly twice the generating capacity it needs, although much of that capacity should be renovated or replaced. To the extent that there is a need it may be for quick-starting peak load capacity, such as gas-turbines could provide.

Financial health of the utility sector: Severe difficulty in paying and collecting energy bills exists in the Ukraine. Many utility workers are underpaid and systems are undermaintained. This sheds doubt on the ability of Energoatom (Ukraine's atomic energy commission) to take on the burden of proper maintenance of these plants on top of

the nuclear plants they already have. Even with the EBRD loan for the plant, given the tendency toward cost overruns in complex construction projects, the loan may not be sufficient to offset the other financial strains on the system.

July 2000 update: Summary: Negotiations are moving toward EBRD consideration of a potential request from Ukraine for a loan to complete construction of the K2R4 nuclear reactors. The donor community is strongly divided with France in favor and Germany and Sweden opposed. Many options for increasing efficiency and adding renewable and other less risky capacity (particularly peak load capacity) have a much shorter lead-time than nuclear plants. Poland, for example, has recently sought proposals for a large wind farm. More complete Assessment of the alternatives and safeguards is called for in such a situation.

December 2000 update: After this report was circulated for review, the Board took up this loan in mid-December in the first of a two-step process granting approval subject to a long list of conditions attributed in part to the active participation of university experts and NGOs. The board planned to revisit the issues within one year to determine whether the conditions were met. USAID also confirmed continuing financial difficulties faced by the utility sector in Ukraine and by Energoatom, including inability to ensure full maintenance of all power plants. This was due in part to an inability to collect fees due. Reform of this aspect was deemed essential. The U.S. government position included numerous recommendations for utility reform and financial control, aimed in part at ensuring system safety. It also included a request to clarify the process for assigning liability. This was based on a USAID recommendation that a full liability system be ensured. (After that, General Electric was reported to have pulled out of a joint North–South effort under the Korean Peninsula Energy Development Organization after the United States and South Korea refused to assume all potential liability. This demonstrates that allocating potential liability can be a determining issue in nuclear power plant development.)

December 2001 Update: A year after the board first considered this project, the Government of Ukraine asked the EBRD not to consider the project further, so it was removed from the Board's agenda. For this or a similar project to be considered in the future it would require a complete re-negotiation and board approval.

Projects and Loans in Latin America and the Caribbean

23. Argentina–Chile: IDB—Trans-Andean Highways

PROJECT DATA

Project No.: AR0202. Estimated total cost: $400 million. Estimated IDB financing: $200 million. Process stage: in preparation. Executing agency: Dirección Nacional de Vialidad: Avenida Maipu No. 3, Buenos Aires, Argentina. Dirección Nacional de Vialidad: Avenida Julio A. Roca 734, Capital Federal, 1067 Buenos Aires, Argentina. Tel: (54–1) 342–9784, 343–2857; fax: (54–1) 342–1965.

DESCRIPTION OF PROJECT

The objectives of the program would be to 1) contribute to the economic integration process between Argentina and Chile through improvement in land transportation for freight and passenger cargoes and 2) support exports from both countries, as well as other MERCOSUR (the common market of South America) countries by facilitating access to ports on the Atlantic and Pacific Oceans. The program would rehabilitate and repave the five most important mountain passes and improve the gravel surfaces of seven other unpaved mountain passes. It would consist of a program of multiple works and include the following components: 1) improvement of the geometric characteristics and pavement of mountain roads that carry large volumes of international traffic, to bring them up to international standards of operational safety and improve their technical standards, 2) improve roads that connect border cities so that they can be used year-round, to stimulate trade among those cities and other important markets, 3) procurement of snow and ice removal equipment and equipment to measure the weight and dimensions of trucks, 4) implementation of technical administrative methods to facilitate border crossing controls and procedures, and 5) institutional strengthening of the executing agency, the National Department of Highways (Dirección Nacional de Vialidad— DNV), in areas related to mountain road administration, operation and construction.

Anticipated procurement: The program would finance road rehabilitation works, including pavement for five mountain passes and gravel surface improvements for seven passes. Consultants would be hired for prefeasibility, feasibility, engineering and environmental studies, as well as project supervision. Roadwork would be continued for highways shown to be feasible. The work would be performed on 1,000 km of roads and include the following activities: a) leveling works to relocate and widen existing platforms; b) installation of surface and underground drainage works; c) bridge construction and special works to stabilize platforms and prevent collapses; d) construction and improvement of surface treading; e) installation of vehicle and pedestrian traffic-safety equipment; f) installation of vertical and horizontal signage; and g) protection measures in environmentally sensitive areas. Consultants would be hired for technical supervision. They would also be needed to provide specialized technical assistance and advisory services to the DNV in areas such as: a) facilitation of border-

crossing processes; b) vehicle weight and dimension controls; c) accident and crash prevention and attention measures for vehicles with dangerous cargo; and d) outsourcing of operations and maintenance services on border roads.

In addition, consultants would be needed to provide institutional strengthening and training to the DNV in various technical and administrative areas to improve efficiency. A component may be included to conduct studies for improving and rehabilitating other mountain pass roads, as well as for improving technical construction and maintenance in cold climates subject to snow storms. Environmental Classification: environmental impact assessment has been completed.

USAID'S COMMENTS

Major highway projects that include funds for planning additional highways always require careful review. When one crosses a continental divide, it has an impact on two major watersheds. That raises concerns about potential spills, invasive species, and the cumulative impact of human in-migration into areas that were too remote before to be developed. Chilean forests are among the world's finest and most rapidly exploited temperate rain forests. The Chilean government was at one point supporting an environmental and economic accounting of the management of these forests. It was suspended in the late 1990s before it was completed. The Chilean temperate rain forests also include threatened CITES-listed Chilean redwoods *(Alercis Fitzroya*) and other sensitive species. This development may not effect those stands but we expect to review the EA with these sorts of questions in mind.

24-a. Bolivia: IDB/WB—Export Corridors: Santa Cruz–Puerto Suárez Highway

PROJECT DATA

Projected IDB funding: $134 million. Projected WB/IDA funding: $65 million. Projected total cost: unknown. Tentative IDB board date: to be determined. Tentative Bolivia World Bank board date: May 2001. Stage: in preparation. IDB EA category: full EIA and social impact. World Bank environmental assessment category A (formerly B). Project I.D.: BO036. Project first entered: January 1997. Entry updated: March 1999 (see below for additional information, 2000).

DESCRIPTION OF PROJECT

This proposed project seeks to increase the competitiveness of Bolivian products in international markets by decreasing transportation costs in the country and ensuring that the Santa Cruz–Puerto Suárez Highway remains open and passable throughout the year. The program will include works, studies, and an environmental impact mitigation component.

The credit will finance construction of the San José–Puerto Suárez road, a sector of about 400 km of the export corridor Santa Cruz–Puerto Suárez. Identification mission is scheduled for fiscal year 2000.

USAID'S COMMENTS

USAID/Bolivia understands that this project aims at improving an existing road, that it has major economic and development significance, and that it will have an environmental impact mitigation component. It is not the direct impacts of the road itself that are of concern, but rather the indirect ones. The project description itself alludes to those potential indirect impacts when it implies that this is a natural area for population expansion.

Specifically, USAID wants to ensure that the improved road will not accelerate haphazard colonization and deforestation into areas that are 1) inappropriate for long-term agricultural production, or 2) of high biological value—for example, the Tucavaca Valley. (Although much of the valley is already slated for "traditional" development, at least portions of it need to be protected.) An improved road would almost certainly put this area under increased conversion pressure, and the protection issue should be considered and resolved before the roadwork would begin.

Another issue is the potential impact the road would have on the Bolivian Pantanal. Although worldwide attention has been directed toward conservation efforts in Brazil, the Bolivian Pantanal may be of even greater biological importance because of the extensive tracts of undisturbed dry forest and cerrado. The increasing emphasis on

mining (e.g., Cerro Mutun), the export of natural gas, and harvest of timber in the dry forests to the northwest could be encouraged by such a project, and therefore these should be predicted. The loan should include a component to build the capacity of the government to ensure that these activities will not be environmentally unsustainable.

USAID would like to see rigorous enforcement of authoritative land-use planning before the road improvements begin. The improved road would also potentially move more people relatively close to the Kaa Iya del Gran Chaco National Park (where USAID supports work with Wildlife Conservation Society and the Izoceño indigenous people). There should be guarantees that it would not encourage encroachment into the park (in particular with cattle ranches, logging of quebracho, or irrigated agriculture). Increased protection for the northern border of the park linked to the road improvement is also needed.

The road is a priority development project. USAID is not suggesting that it should not proceed, but it should be classified as an IDB environmental assessment category 4, or *World Bank EA category A*—"operations that may have significant negative impacts on the environment and will require a detailed environmental assessment."

Another area of conservation importance is also the Chiquitano dry tropical forest that goes from the north to the south of the proposed road. Many of these areas have already been flagged as being of critical conservation importance in the Santa Cruz land-use plan. USAID recommends that an anthropologist be assigned to the team since the project is likely to affect several indigenous groups such as the Izoceños and Chiquitanos. USAID is working with both groups under its forestry and biodiversity conservation work.

USAID/Bolivia recommends using the project as a vehicle to ensure that these areas are protected—that is, build into the project, on the basis of the EA, resources to mitigate the indirect effects of the road construction.

The project would also support the Hidrovía Waterway—building a paved road to it that would make agricultural production and logging more profitable and affect a bigger area. The pressures from those sectors for the Hidrovía would increase.

These comments were conveyed to staff of the Inter-American Development Bank. The bank responded that since April 1997, IDB has not used environmental classification by category for its projects, but determines on a case-by-case basis the scope of the EIA required. Particularly for this project, a full EIA was required, corresponding to the earlier category 3 classification. For the Santa Cruz–San José segment, a consulting firm is preparing the detailed engineering design and the detailed environmental assessment. For the San José– Puerto Suárez segment, this firm is preparing the EIA and feasibility study. The studies are proceeding, if slowly. The draft of the EIA has been presented and the final report (feasibility studies and engineering designs) was scheduled for April 1999. IDB staff members plan to commission additional environmental and social impact studies for the corridor. That would not preclude the

presentation and acceptance of the designs from the consulting firm for the Pailón–San José segment.

The World Bank responded regarding the Santa Cruz–Puerto Suárez Road, including the San José–Puerto Suárez segment, the one in the World Bank's portfolio: IDB's financing of the Pailon–San José segment will complete the Santa Cruz–Puerto Suárez Road. Concerning the section San José–Puerto Suárez, the World Bank has not yet started the project preparation. It is awaiting the results of the prefeasibility study financed by IDB and approval of the bank's budget for fiscal year 2000.

With respect to USAID's concerns about the environmental assessment categorization for the project, the categorization of B is provisional. It will not be definitive until the project concept document review, when it will probably be changed to A. In any case, the World Bank plans to conduct a full environmental assessment, as it has done with the Abapo–Camiri Road, now in the final stage of preparation. The full EA will be performed separately from the one for Pailón–San José, to be prepared by IDB, but in close coordination with it. Finally, our tentative board date was May 2001, to give time enough to complete and discuss the engineering design and the EA. It could be advanced if both are completed before expected. World Bank staff was looking forward to discussing the environmental issues with USAID at the early stages of project preparation.

July 2000 Update from IDB Web site (note the different information posted within the May–July 2000 period in the following entries concerning this project):

PROJECT DATA

Loan: BO0036. Amount: $60 million. Executing agency: Servicio Nacional de Caminos: Avenida 20 Octubre 1829, Casilla 1485, La Paz, Bolivia. Tel: (591–2) 351–746; fax: (591–2) 391–764. Contact: Carlos Klinsky, executive director.

DESCRIPTION OF PROJECT

Increase the competitiveness of Bolivian products in international markets by decreasing transportation costs in the country and ensuring that the Santa Cruz–Puerto Suárez Highway remains open and passable throughout the year. The program will include works, studies, and an environmental impact mitigation component. Estimated total cost: $135 million. Environmental classification: category 3. The environmental study was completed in December 1998, but it needs to be expanded to include evaluation of the Santa Cruz–Puerto Suárez corridor. In preparation stage.

Anticipated procurement. The following works would be financed: a) construction of a 1,500-meter, two-way bridge, b) paving and improvement of a 220-km segment of the Pailón–San José section of the highway, and c) improvements of 380 km of roads (San José–Puerto Suárez segment). Contracts for earth moving, paving, bridge construction, and drainage would be financed. Weight control and other equipment would

be purchased. Consultants would be hired for construction supervision and institutional strengthening activities. The program would also finance studies to identify other transportation infrastructure improvement needs in the eastern and southeastern regions of the country. A firm has been hired to carry out technical, economic and environmental studies.

24-b. Bolivia: IDB/WB—300 Kilometers of Santa Cruz–Puerto Suárez Highway

PROJECT DATA

Identification mission scheduled for fiscal year 2001. Environmental assessment category A. US$65 million (IDA). Consulting services to be determined. Servício Nacional de Caminos, Edificio. Centro de Comunicaciones, Piso 8, Avenida. Mariscal Santa Cruz, esq. Ororu, La Paz, Bolivia. Tel: (591–2) 342–957, fax: (591–2) 391–764.

DESCRIPTION OF PROJECT

Transport. World Bank part of joint IDB/WB project also known as the Export Corridors Project, IDB. San José–Puerto Suárez: The credit will finance construction of the San José–Puerto Suárez road, a 300-km section of the export corridor Santa Cruz–Puerto Suárez.

USAID'S COMMENTS

Since USAID's 1999 report, the World Bank upgraded the project to category A and produced a full environmental assessment. A review of the assessment in early 2001 found it thorough except that there was little consideration of the alternative of helping the new private owners to upgrade the existing railroad in the same corridor, now limited to slow speeds because of disrepair. This alternative could be more efficient, less disruptive. USAID also has a continuing concern about the adequacy of the environmental and social safeguards and their sequencing.

24-c. Bolivia: IDB/WB—Social Sector

PROJECT DATA

Project preparation is under way. Environmental assessment category B. US$5 million (IBRD). Consulting services to be determined. Viceministerio de Asuntos Indigenas y Pueblos Originarios (VAIPO), Sánchez Lima 2072, Mazzanine, CP M–10126, La Paz, Bolivia. Tel: (591) 237–4295.

DESCRIPTION OF PROJECT

The project will a) strengthen the institutional and organizational capacity of indigenous communities and organizations as well as governmental institutions working

with these groups, b) reform indigenous legal framework, and c) test innovative subprojects managed by and for indigenous communities.

24-d. Bolivia: IDA—Transport

PROJECT DATA

Project is being identified. Environmental assessment category to be determined. US$40 million (IDA). Consulting services to be determined. Servicio Nacional de Caminos, Edificio. Centro de Comunicaciones, Piso 8, Avenida Mariscal Santa Cruz, esq. Ororu, La Paz, Bolivia. Tel: (591–2) 342–957, fax: (591–2) 391–764.

DESCRIPTION OF PROJECT

Road rehabilitation and maintenance. The project will support a) institutional development activities to strengthen managerial capacity of the Servicio Nacional de Caminos and interinstitutional coordination, b) investments for the rehabilitation of specific segments of the road network, and c) technical assistance for the design of new projects.

USAID'S COMMENTS

USAID has in the past intervened and achieved mutually reinforcing accommodations in MDB law reform projects that coincided with USAID judicial reform projects (civil and criminal). The Agency recommends that the indigenous peoples project be coordinated and integrated with those of other donors and with major transportation loans such as the San José–Puerto Suárez highway. Social and legal reforms are needed before the potential effects of major development projects such as new roads in relatively pristine areas can be controlled with any degree of assurance. The transport sector loan may have a larger impact on Bolivia than any one highway, so its assessment bears careful consideration to ensure that the ministry's environmental assessment capacity and inclusion of indigenous peoples in planning are in place.

25. Brazil: IDB—Cana Brava Hydroelectric Dam

PROJECT DATA

Tractebel Brasil Limitada ("Tractebel") was awarded the Cana Brava project concession contract, as the result of an international competitive tender, in March 1998 by *Agencia Nacional de Energia Eléctrica (ANEEL)*, the Brazilian regulatory agency for the electric sector. The concession provides for the use of the river resources for a period of 35 years. Tractebel, through its subsidiary Centrais Geradoras do Sul do Brasil S.A. (Gerasul, or the "Sponsor") has created a special-purpose company, Companhia Energética Meridional (CEM), to implement the project. The project will be constructed under a turnkey fixed-price engineering, procurement, and construction contract by a consortium formed by four Brazilian companies: two civil works construction companies, Construtora Norberto Odebrecht S.A. and Construtora Andrade Gutierrez S.A.; and two equipment suppliers, Voith S/A Máquinas e Equipamentos and Siemens Ltda. CEM will enter into an operation and maintenance agreement with Gerasul for the term of the concession contract.

Gerasul will finance the project using a combination of long-term financing and an IDB A/B loan. Gerasul has requested IDB financing for the Cana Brava project in the amount of US$160.2 million, consisting of an A-loan for $75 million and a B-loan of $85.2 million. Total project costs are estimated at $426 million, of which Gerasul will contribute 30 percent with equity, and the remaining 70 percent will be funded with debt.

DESCRIPTION OF PROJECT

The Cana Brava Hydroelectric Power Project entails the construction and operation of a 450-MW hydroelectric power plant and construction of a 50-km 230-kV transmission line. The project is located on the Tocantins River, between the municipalities of Minaçu and Calvacante in the state of Goiás, approximately 250 km north of Brasilia. The initiative is among the first private projects to be developed under the new institutional and regulatory framework established in 1995 and 1996. It is also one of the first independent power producers or self-generators to be financed under a project finance scheme in Brazil. The project involves a private producer and a private off-taker, with tariffs set freely among private parties. Any excess production above the contracted level will be sold to the market. In this way, the project represents a key step toward the creation of a competitive electricity market in Brazil—an effort that has received continuous support from the Inter-American Development Bank.

The Cana Brava project will be located in the upper reach of the Tocantins River Basin, in the state of Goiás, some 250 km north of Brasilia. The Tocantins River runs northward from the Brazilian heartland to the Atlantic Ocean, over a distance of 2,500 km. In the project area, the river separates the municipalities of Minaçu and Cavalcante. The dam site will be located about 1 km downstream from the Tocantins River's confluence with the Carmo River, approximately 46 km downstream from the São Felix River, and 50 km downstream from the Serra da Mesa hydroelectric power plant. In the

Tocantins River, below the Cana Brava Project, there is another hydroelectric power plant in operation (Tucuruí) and another presently under construction (Lageado). The project transmission line will connect the Cana Brava dam site to the Serra da Mesa interconnection facility (at the Serra da Mesa dam site) and will run parallel to the existing road between Minaçu and the Serra da Mesa dam site.

USAID'S COMMENTS

The Cana Brava dam is 610 meters long and 51 meters high. This project was the subject of an environmental impact assessment done under Brazilian law in 1992. Project location and design were altered a bit in 1997, and construction was begun in August 1998 with the reservoir to be fully filled by October 2000.

USAID believes that to come to the board for a loan to help pay for a dam while the reservoir is filling does not make consultation over the alternatives meaningful, thus negating the purpose and possibility of advanced environmental assessments. The Agency advised withholding U.S. support for the dam in light of the impossibility of fulfilling the intent of the EA review process.

The Cana Brava project was deferred by the IDB after the United States objected on "Pelosi" procedural grounds (EA not available 120 days before board consideration) and on the basis of several substantive concerns noted by EPA, NGOs in the field, and USAID field and Washington staff.

One of the major concerns was that the project appeared to be already well underway even in terms of local construction. USAID and others in the interagency review made this objection in this case and again in early September concerning the IDB's Dona Francisca Hydroelectric Power Project, which was approved by the IDB in December 2000.

According to the IDB's description of this project, Brazil has 10-year plans for dam building that began the late 1990s. It would be most useful for the multilateral development banks and the U.S. agencies to review those plans—and Brazil's current thoughts on them—in light of the World Commission on Dams report, to guide our consideration of MDB support for them.

26. Ecuador: IMF/WB—Structural Adjustment Loan

LOAN DATA

Structural adjustment loan (SAL) of US$151.52 million. Technical assistance loan of US$10 million for financial sector. David Yuravlivker, World Bank project manager. Contact: Alejandra Viveros (202) 473–4306. Date approved: 23 June 2000.

DESCRIPTION OF LOAN

The $151.5 million structural adjustment loan will support fiscal reforms, improve public sector financial management, and restore confidence in the financial system, through the restructuring of corporate debt and recapitalization of the banks, in a context of transparency and strengthening of bank supervision.

At the same time, this loan will improve the effectiveness of social expenditures by investing in projects that create jobs for low-income people, including indigenous groups, and by developing education, health, and other services.

The $10 million supplementary technical assistance loan will strengthen the Superintendency of Banks by increasing the efficiency of its regulation and supervision of the banking industry. It will also support the Deposit Guarantee Agency by modernizing its legal framework and operational procedures.

Both loans are part of the World Bank's country assistance strategy (CAS) for Ecuador, which provides for US$425 million in financing until 2002. This strategy, an updated version of which was also discussed recently by the bank's executive directors, forms part of the $2 billion international aid package announced last March. This sum, which includes $300 million from the International Monetary Fund, $620 million from the Inter-American Development Bank, and $700 million from the Andean Development Corporation, will support Ecuador's ambitious program of economic and structural reforms.

The $151.52 million structural adjustment loan is a fixed-spread, single-currency loan to be repaid in 17 years, including a 5-year grace period. The supplementary technical assistance loan of $10 million is a variable-spread, single-currency loan with a duration of 17 years and also includes a 5-year grace period.

The Project Information Document (PID9029) Revised May 18, 2000 reported that in March 2000, the GOE announced a comprehensive economic program which included a an Economic Transformation Law and subsequent legislation that allows for greater private sector participation in the power, hydrocarbon (oil) and telecommunication sectors. The PID reported that "as part of a concerted effort in support of this program, the World Bank, IADB and the Andean Development Corporation (CAF) announced a three year program of about $1.7 billion which would include the Bank's SAL. The SAL is to include making operational the oil stabilization fund and the

necessary regulations for implementing the privatization process for power and telecommunications. The PID concludes "No environmental or resettlement issues are raised by the proposed structural adjustment program."

In the May 14, 2001 Letter of Intent to the IMF that sets forth how the GOE will meet the conditions of the joint IMF-World Bank lending, the GOE says that its financial plan would be supported by an investment associated with the construction of a new oil pipeline. It also notes that inflation would fall to 22-27 percent but that public sector wage increases would be held to 12 and one half percent. The letter says "Although legal obstacles have delayed important parts of the government's structural reform program, significant progress has been made in several areas: Agreement has been reached with a consortium of private oil companies to construct a second oil pipeline from the Amazon to the coast; construction is expected to begin in March 2001. The new pipeline will be able to transport up to 450,000 barrels of oil a day, more than doubling oil exports." The letter notes that a 30-year concession for water and sewage services has been awarded for the largest city in Equador and that six electric generation companies and 18 distribution companies will be privatized by the end of 2001.

USAID'S COMMENTS

The joint International Monetary Fund–World Bank program of structural adjustment points to, among other things, major changes at the national level in many sectors as a condition for future borrowing.

This set of loans raises the question of whether the CAS totaling $425 million from the bank for that period, together with an SAL that provides roughly one third of that in separate installments, will require Ecuador to take actions with substantial effects on human health and the environment. For example, the PID notes that the SAL will support greater private investment in oil development and regulations on privatization of the power sector. These are activities that affect the environment.

Borrowed funds applied now to refinance the ailing bank industry may need to be repaid through increased oil exports. While the need to increase revenues may be important, it may nevertheless create pressure to change oil-production laws and expand oil extraction and pipelines with potentially inadequate assessment and mitigation.

While the SAL may not directly and explicitly require large increases in oil production, it does project that oil will account for 22 percent of GDP each year in the future compared to 14 or 15 per year in most of the last several years preceding the SAL. It also directly supports changes in how oil revenues are managed. It requires the Government to establish an Oil Stabilization Fund held in overseas interest bearing bank accounts and devoted to specific purposes, some of which are quite laudable, including reducing the effect of oil price shocks. The SAL also requires a reform of regulations to facilitate privatization initiatives in the electric power sector. The pollution controls to be required were unknown to USAID. It is commendable that the report on the SAL says, and by implication requires, that the Government will implement a progressive rate to

ease the relative burden of price increases on the poor and to encourage conservation, and thus pollution reduction, among larger users.

Given the recent history of the region and Ecuador in particular, major production increases should be undertaken with caution. For example, recent oil spills have threatened endangered wildlife, commercial fishing, and much needed tourism in Ecuador's Galapagos Islands. Additional traffic may require additional capacity to prevent and control oil spills.

The absence of environmental analysis in this case makes more difficult USAID's job of reviewing assistance proposals "to determine whether the proposals will contribute to the sustainable development of the borrowing country"; to determine their impact on the environment, natural resources, and public health; and on the programs of USAID in the country and to advise Treasury, State and others on those points.

Projects and Loans in the Middle East and North Africa

27. Iran: IBRD—Water Supply/Sanitation

PROJECT DATA

Tehran Sewerage (Ln. 4551–IRN): Approved by the executive directors on 18 May 2000. Environmental assessment category A. PID: IRPE69946. US$145 million (IBRD). Consulting services will include technical assistance, training and consulting services for institutional development, tariff study and project management, engineering design, and construction supervision, updating of the wastewater development program, and feasibility study and engineering design for phase two investments. Tehran Sewerage Company, 14 Andisheh St. Shanned Dr. NBeheshti Ave., Tehran, Islamic Republic of Iran 15686. Tel: (89–21) 840–1310, fax: (98–21) 840–9194, e-mail: tsc@tavana.net.

DESCRIPTION OF PROJECT

The project will support phase I of a development program that includes the extension of wastewater collection and disposal facilities for Greater Tehran. This phase consists of interceptors and laterals, two trunk mains and wastewater treatment works. Areas to be covered by a wastewater collection system are 16,500 hectares for a population coverage of 2.1 million. The project will also include operations and maintenance equipment.

USAID'S COMMENTS

The U.S. executive directors voted against this project reflecting concern expressed by Congress over state-sponsored terrorism. USAID also noted the potential risk to people if proper design and operation were not followed in the plan to use treated sewage for fertilizer, especially for cereal grains. This continues to be a difficult approach, even in industrial countries, when chemicals or insufficiently treated sewage remain in the sludge. Ensuring that runoff and industrial waste will not find their way into food crop fertilizer is essential.

28-a. Jordan: IBRD—Disi Amman Conveyor Project

PROJECT DATA

Project preparation is under way. Environmental assessment category A. PID: JOGU51749. US$100 million (IBRD partial risk guarantee). Consulting services to be determined. Water Authority of Jordan, PO Box 2412–5012, Amman, Jordan. Tel: (962–2) 680–100, fax: (962–2) 679–143. Contact: Dr. Hazim El-Naser.

DESCRIPTION OF PROJECT

August 2000 Summary: The development objective of the operation is to provide an adequate and reliable supply of bulk water to meet the needs of municipal and industrial consumers in greater Amman. The project will be implemented and managed by a private sector concessionaire, with costs recovered from consumers, and within the context of a strengthened national water resources management capability.

An EA has been prepared by consultants to the government of Jordan as part of the feasibility study and is the subject of bank review. Because of the high cost of the project, the bank is giving priority support to a project to improve the efficiency of water management in Amman. The nonrenewable nature of the Disi aquifer will be taken into account during the economic appraisal of the project according to established bank practices. World Bank staff agrees with USAID's other comments and appropriate provision will be made in project design.

USAID'S COMMENTS

The project is intended to pump groundwater from the Disi aquifer that is non-rechargeable. The feasibility study conducted on the Disi aquifer shows that it could sustain a water supply of 50 million cubic meters per year for 100 years. The environmental issues facing this project are the long-term sustainability of the project, soil erosion and cultural heritage.

28-b. Jordan: IBRD—Samra First Private Power

PROJECT DATA

The evaluation of proposals for the selection of the private project sponsors is completed. Environmental assessment category A. US$50 million (IBRD partial risk guarantee). Consultants have been selected. Ministry of Energy and Natural Resources, P.O. Box 140027, Amman, Jordan. Fax: (962–6) 582–1398, Contact: Eng. Ahmad Bashir, Secretary General, Ministry of Energy and Natural Resources. Projected IBRD Funding: $50 million. Projected Total Cost: $200–250 million. Stage: The request for proposals for selection of private project sponsors has been released. World Bank EA category A. Project I.D.: JOPA55678. Project first entered: February 1999. Entry updated: August 2000. Task Manager: Ms. Zoubeida Ladhibi–Belk (458–0020).

DESCRIPTION OF PROJECT

August 2000 summary: Construction of a 450 MW, dual-fired (diesel oil and natural gas) combined-cycle power plant to be located near Amman and developed by a private special purpose company on a build, own and operate basis. It will a) support the government's new initiative for private power generation and its efforts to tap new sources of private capital for the power sector; b) add new power generating capacity at competitive prices while improving the efficiency and reliability of the power supply; and c) strengthen the capacity of the Ministry of Energy and Natural Resources to prepare future private projects and put into effect key policies for the sustainable development of the energy sector.

USAID'S COMMENTS

The Agency is working to mitigate the environmental impact on the people residing around As-Samra. At present the residents of As-Samra as well as residents of other nearby communities suffer from the impact of a refinery, an existing thermal power station, plus the As-Samra stabilization ponds. The GOJ is planning to build a mechanical wastewater system to replace the As-Samra ponds, and thereby reduce the environmental impact on the people of those areas.

This power project is planned near As-Samra for several reasons including using the effluent coming out from the As-Samra wastewater treatment plant to cool the power plant towers. In addition to its environmental effect on the communities, the effect of warming the effluent should be examined and discussed in details. Warming the treatment plant effluent will have its effect on using it in irrigation and it may affect the water reservoir of King Talal Dam.

In Aqaba, the National Electric Power Company is expanding the capacity of its existing thermal power station, which uses heavy fuel oil, from 260 MW to double this capacity. The present expansion will meet Jordan demand through 2005–10. The plant in Aqaba uses seawater as a cooling source.

Status: World Bank staff responded that

1. The expansion for Aqaba power station is being completed and has been taken into consideration when doing the demand forecast to investigate the timing of the proposed Samra power project. Based on the current estimate Samra will be needed as early as 2002/2003;

2. The site for Samra was selected for two reasons: one, as indicated in USAID's message, that is the use of the waste water from the treatment plant; the second is the close proximity to the load center is Amman;

3. The project is classified as category A for environmental assessment. The

environmental aspects of the project will be carried out in accordance with the Bank's directives and guidelines. The issues USAID raised will be investigated when the selected sponsors will be preparing the environmental assessment. (World Bank e-mail, 5 May 1999)