

**BANK MANAGEMENT RESPONSE TO
REQUEST FOR INSPECTION PANEL REVIEW OF THE
IDA-FINANCED UGANDA THIRD POWER PROJECT (CREDIT 2268-UG) AND THE
PROPOSED BUJAGALI HYDROPOWER PROJECT**

Management has reviewed the Request for Inspection of the IDA-financed Uganda Third Power Project (Credit 2268-UG) and the proposed Bujagali Hydropower Project received by the Inspection Panel on July 27, 2001 and registered on August 7, 2001. Management has prepared the following response.

CONTENTS

Acronyms and Abbreviations	v
Executive Summary	vii
I. Introduction	1
II. The Request	1
III. Background	2
IV. Other Issues Related to IDA Compliance With Its Directives, Policies and Procedures	17
V. Claims of Violations of IDA’s Directives, Policies, and Procedures	19

Table

Table 1.	Hydropower Capacity in Uganda
----------	-------------------------------

Illustrations/Photographs

Owen Falls Extension – Artist’s Rendering
Bujagali Falls

List of Maps

Map 1.	Third Power Project and proposed Bujagali Hydropower Project – IBRD 31599
Map 2.	Owen Falls and Owen Falls Extension Hydropower Plants – IBRD 31610
Map 3.	Proposed Bujagali Hydropower Project – IBRD 31611

Attachments

Attachment 1.	Electricity Regulatory Authority of Uganda – Revised Tariff Schedule – May 2001
Attachment 2.	Agreed Curve – Letter dated May 12, 1991 from Egypt
Attachment 3.	Proposed Bujagali Hydropower Project – Project Briefing/NGO Forum – Meeting Summary – Washington, D.C. – June 2000
Attachment 4.	Proposed Bujagali Hydropower Project Forum – Meeting Summary – Jinja, Uganda – June 2001
Attachment 5.	Proposed Bujagali Hydropower Project – Second International Forum – Meeting Summary – Washington, D.C. – July 2001
Attachment 6.	Uganda Power III Project – File Documentation Concerning Technical, Economic, Financial and Institutional Aspects

- Attachment 7. International Rivers Network / Africa Coordinator – Notes of Meeting, December 13, 2000
- Attachment 8. Back-to-Office Report – Donors’ Meeting for Uganda’s Third Power Project – December 5, 1991
- Attachment 9. Documentation on Kalagala Offset – April 2001
- Attachment 10. Uganda Power III Project, Power III Supplemental Credit and Power IV Project – Overview of Economic Analyses

ACRONYMS AND ABBREVIATIONS

AES	The AES Corporation
AESNP	AES Nile Power Limited (company formed by private sector to own, manage and implement the proposed Bujagali Hydropower Project)
ADF	African Development Fund
BIC	Bank Information Center
BP	Bank Procedures
CAO	Compliance Advisor/Ombudsman
CDC	Commonwealth Development Corporation
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ERA	Electricity Regulatory Authority
ERR	Economic Rate of Return
FIRRI	Fisheries Resources Research Institute
IA	Implementation Agreement
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IEPS	Initial Executive Project Summary
IFC	International Finance Corporation
IPN	Inspection Panel
IPP	Independent Power Project
IRN	International Rivers Network
ISDB	Islamic Development Bank
JITDA	Jinja Tourism Development Association
kWh	Kilowatt hour
LRMC	Long run marginal cost
MOP	Memorandum of the President
MOU	Memorandum of Understanding
MW	Megawatt
NAPE	National Association of Professional Environmentalists
NDF	Nordic Development Fund
NEMA	National Environmental Management Authority
NGO	Non-governmental organization
NORAD	Norwegian Agency for Development Cooperation
OD	Operational Directive
ODA	Overseas Development Agency of the United Kingdom
OMS	Operational Manual Statement
OP	Operational Policy
OPN	Operational Policy Note
PPA	Power Purchase Agreement
PRG	Partial Risk Guarantee
RAP	Resettlement Action Plan
RCDAP	Resettlement and Community Development Action Plan
SAR	Staff Appraisal Report

SBC	Save Bujagali Crusade
SDR	Special Drawing Rights
SEA	Sectoral Environmental Assessment
Sida	Swedish International Development Agency
TOR	Terms of Reference
UEB	Uganda Electricity Board
US	United States
USh	Uganda Shilling
UTA	Uganda Tourist Association

EXECUTIVE SUMMARY

1. On August 7, 2001, the Inspection Panel registered for inspection IPN Request RQ01/3 concerning the Third Power Project (Credit 2268-UG) (Power III) financed by the International Development Association (IDA) and the proposed Bujagali Hydropower Project. The proposed Bujagali Hydropower Project is the first major power sector investment in Uganda to be undertaken by the private sector. IDA support for the proposed project would be provided not through a credit to Uganda as a borrower, but by issuing a Partial Risk Guarantee (PRG) to cover specific risks in connection with financing provided by private lenders for the project. The International Finance Corporation (IFC) has been requested to provide direct financing to the proposed Bujagali Hydropower Project and to arrange further private sector financing. This response deals with claims against IDA only, as the Inspection Panel's jurisdiction does not extend to claims against IFC.

2. The Request is submitted by the National Association of Professional Environmentalists of Kampala (NAPE), Uganda Save Bujagali Crusade (SBC) and other local institutions and individuals. The Notice of Registration from the Inspection Panel (Notice) lists a number of directives, policies and procedures with which IDA may not have complied, including those on Environmental Assessment, Natural Habitats, Indigenous Peoples, Involuntary Resettlement, Safety of Dams, Management of Cultural Property in Bank-Financed Projects, Economic Evaluation of Investment Operations, Poverty Reduction, Disclosure of Operational Information, Project Monitoring and Evaluation, and Project Supervision.

3. The Requesters state that the failures and omissions of IDA in the design, appraisal, and implementation of the above-referenced Projects have materially affected the rights and interests of the Requesters and are likely to jeopardize their future social, cultural, and environmental security. More specifically, the Requesters state that the Owen Falls Extension and the construction of the proposed Bujagali Hydropower Project have resulted, or may result, in social, economic and environmental harm to the local population. The Requesters also state they have been harmed or are likely to be harmed as a result of failure to undertake an Environmental Assessment (EA) of the Owen Falls Extension; the lack of a cumulative environmental assessment related to the dams already built, under construction and in the final stages of design; inadequate involuntary resettlement (including compensation arrangements); inadequate consultation, participation and disclosure of information; and lack of economic and technical analysis, including lack of alternative economic analysis, especially in the case of the Owen Falls Extension.

4. The Owen Falls Dam (financed by the United Kingdom) and the Owen Falls Extension is a complex constructed and extended over a period of some 50 years during which time hydrological, environmental and economic conditions have changed, and with them the standards required for IDA's appraisal. IDA has been involved in the power sector in Uganda for over 20 years through development of several projects, beginning with emergency repairs to the Owen Falls Dam in the early 1980s; under the Power II Project in 1985 (SDR 29.5 million) under which rehabilitation works were carried out for

the Owen Falls Dam; the Power III Project in 1991 (US\$125 million) for the construction of the Owen Falls Extension; a Supplemental Credit to the Power III Project (US\$33 million) in January 2000; and the Power IV Project, approved in July 2001 (US\$62 million), which will assist in financing Unit 14, and contingent upon economic viability, Unit 15 (40-80MW) at the Owen Falls Extension powerhouse.

5. Following completion of Owen Falls Extension, the proposed Bujagali Hydropower Project has been identified by the Government and subsequently confirmed by further studies as the least-cost option to meet Uganda's medium- to long-term power generation requirements. It is the first major power sector investment in Uganda to be undertaken entirely by the private sector. The proposed project, which is expected to cost about US\$550-600 million, is sponsored by The AES Corporation (AES), a United States firm. AES's main business is the development, construction and operation of power plants. AES owns or has an interest in 128 power plants in 27 countries. At end 2000, AES had assets of US\$31 billion, with an annual turnover of US\$6.7 billion. AES formed AES Nile Power Limited (AESNP) to manage, own and implement the proposed Bujagali Hydropower Project. AES has requested that IFC provide direct financing and arrange further private sector financing for it. In August 1997, the Government of Uganda requested an IDA PRG to support a Uganda private sector hydropower project and in February and June 1999, reaffirmed this request for the proposed Bujagali Hydropower Project.

6. The proposed Bujagali Hydropower Project has been prepared over a period of several years by AES in collaboration with IFC and IDA staff working under the direction of the managements of the Africa Region and IFC. The project has attracted considerable attention among affected communities, non-government organizations (NGOs) and other stakeholders both in Uganda and internationally. Extensive consultations have been conducted with stakeholders by AESNP. This process was complemented by three Forum meetings that were convened by IFC. IDA has not yet appraised the project. As such, there is time to address residual concerns or misunderstandings that have been raised by stakeholders. While Management considers that IDA is in compliance to date with the applicable Bank directives, policies and procedures in carrying out its due diligence, it recognizes that full compliance is required throughout the project cycle, including through Board presentation and supervision.

7. Pursuant to para. 18 of the Resolution establishing the Inspection Panel, Management hereby responds to this Request on the Questions and IDA's compliance with the operational directives, policies and procedures applicable to the matters raised in this Request. With respect to the claims made, Management's view is that IDA has complied with the applicable operational directives, policies and procedures, and has thus far applied them adequately and with due diligence with regard to the environmental, social, cultural, economic, technical, institutional and financial requirements of the Power III Project and its Supplemental Credit, the Power IV Project, and the proposed Bujagali Hydropower Project.

8. During the course of Management's review of the Response to the Request, three areas of deficiency were revealed. While these deficiencies were not mentioned in the Request, Management wishes to acknowledge them as described below.

9. First, a review of the records of the Power III Project revealed that the SAR and Development Credit Agreement were not fully consistent in their descriptions of the extension capacity. This was due to modifications to the design of Owen Falls Extension which were not adequately reflected in the SAR. The changes in the project's configuration were technical in nature, consistent with the objectives of the project, and motivated by safety concerns, opportunities to enhance power supply and concern over the loss of the IDA allocation as the end of the fiscal year approached. Management regrets that the documentation presented to the Executive Directors was not revised to incorporate design modifications reflected in the Development Credit Agreement. Management acknowledges that there was not full and frank disclosure of this situation to the Board.

10. Second, according to Annex 18 of the SAR for the Power III Project, the Government was to have produced a Sectoral Environmental Assessment (SEA), even though such an SEA was not required by the applicable directives and policies. However, the SEA was not carried out in the manner intended. As explained in the text, studies were undertaken which, over time, yielded analyses that accomplished the objectives of an SEA.

11. Third, as the documentation for the Power IV Project was being prepared, the Category B EA was sent to the InfoShop prior to appraisal. However, its dissemination in Uganda did not take place until after appraisal, in contravention of Operational Policy (OP) 4.01 (1999). Despite the delay, the EA was released in-country more than five months before the Power IV Project was approved by IDA's Board, substantially achieving the intent of the full disclosure requirement. Management regrets this oversight.

12. Management submits that adequate measures have been taken to follow IDA directives, policies and procedures. It is recognized that this process will need to be continued through Board presentation and supervision of the proposed Bujagali Hydropower Project.

13. **Claims with regard to environmental matters** concern the inadequacy of environmental assessment under the Power III Project, the lack of a post-construction Environmental Impact Assessment (EIA) for Owen Falls Dam and thus inadequate assessment of cumulative effects. Management believes that directives, policies and procedures prevailing at the time the Power III Project was prepared were adhered to. Moreover, the Power IV Project was supported by an EA. An EIA for the proposed Bujagali Hydropower Project has been conducted by AESNP in close consultation with IFC and IDA. Independent analyses of cumulative effects were prepared and incorporated in the March 2001 EIA for the proposed Bujagali Hydropower Project. The seven volume EIA was disclosed in Uganda and deposited in the InfoShop on April 30, 2001.

14. **Regarding the appraisal of the Power III Project**, the Requesters state that IDA did not conduct an adequate economic, financial, institutional and environmental appraisal, and that mistakes in the design of the project resulted in only 100MW being installed at Owen Falls Extension instead of 200MW, thus hastening the need to build the proposed Bujagali Hydropower Project. Owen Falls Extension will have 120MW installed by the end of 2002, with a projected total of 160MW installed by end 2003. Management's view is that the appraisal of the Power III Project was robust and conducted in compliance with the relevant guidelines and policies in effect at the time. It is also worth noting that project benefits have been in line with appraisal estimates.

15. **With regard to matters concerning resettlement**, the Requesters state that resettlement activity for the proposed Bujagali Hydropower Project has commenced without IDA's supervision or involvement, and in the absence of a resettlement plan approved by IDA. Management has ascertained that both IFC and IDA staff have reviewed the Resettlement and Community Development Action Plan (RCDAP) prepared by AESNP to ensure that it responds to the requirements of Operational Directive (OD) 4.30, although neither institution has made a final determination as to its compliance with applicable directives, policies and procedures. AESNP has taken comments from IFC and IDA staff and reflected these comments in the RCDAP without prejudice to the final decision. The RCDAP is available in the InfoShop and in Uganda as part of the seven volume EIA. While AESNP commenced resettlement activity at the Bujagali site in April 2001, it is doing so at its own risk. As part of IDA's appraisal, IDA will evaluate the RCDAP to ensure that it complies with OD 4.30, and also evaluate the resettlement activities carried out to date to ensure that AESNP has properly conducted the resettlement activities in accordance with IDA directives, policies and procedures.

16. The Requesters state that the lenders are concerned that AES does not have "controlling authority" over the **riverbed and riverbanks** at Bujagali because "the lenders would like to take a legal security over the lease," and that this would require **an amendment to the Land Act**. IDA has neither required the proposed amendment to the Land Act nor had any involvement in substance or in the procedural aspects of the proposed amendments to the Land Act.

17. **The Requesters have questioned whether the proposed Bujagali Hydropower Project is the least-cost option for generating power in Uganda; they state also that the proposed Bujagali Hydropower Project would have significant negative cumulative impacts on the environment.** Management's review of the extensive analysis of Uganda's least-cost power master plan has confirmed the Government's assessment that the proposed Bujagali Hydropower Project is the next least-cost generation option for Uganda after Owen Falls Extension. An assessment of generation alternatives has identified three potential power projects – Bujagali, Kalagala, and Karuma – and has examined possible cumulative effects of their development. Studies undertaken by the Government of Uganda and those commissioned by IFC and funded from Trust Funds have concluded that the Bujagali site - and in the future the Karuma site - could be developed as hydropower projects, provided the Kalagala site was not developed for hydropower. An agreement has been reached among the Government, IFC and IDA to develop Kalagala for tourism and other purposes.

18. **With respect to tariff questions**, the Requesters state that the proposed Bujagali Hydropower Project is the cause of the newly raised electricity tariffs and the increase would harm Ugandan citizens. The May 2001 tariff increase was the first to be implemented in Uganda since 1993 and was made by the autonomous Ugandan Electricity Regulatory Authority (ERA). A tariff increase was needed, independent of the proposed Bujagali Hydropower Project to ensure the financial viability of the power sector. The increase re-establishes a satisfactory financial basis for power sector operations, based on current cost structures, and will ensure that the power sector generates sufficient revenues to cover recurrent expenditures, debt service, working capital and investment needs.

19. **Concerning the impact of the proposed Bujagali Hydropower Project on fisheries and tourism**, the Requesters state that a rare fish could be threatened by the proposed dam, and that the inundation of Bujagali Falls would eliminate whitewater rafting in the project area, and hence harm Uganda's tourism industry. Recent studies commissioned by AESNP have determined that the fish species found in the project area are also found both upstream and downstream. Additional fish sampling has been undertaken to confirm the findings in the EIA. Management agrees that the proposed project will impact tourism, but notes that an agreement is in place to develop a downstream site at Kalagala for purposes other than hydropower production, including tourism. This initiative is designed to promote tourism in the upper Nile. Moreover, to give effect to this objective, a multi-stakeholder task force headed by the Prime Minister has been established to develop proposals for environmentally sustainable development programs at Kalagala. In this connection, meetings have been held with the Ministry of Tourism, Trade and Industry; Ministry of Energy and Minerals Development; Water, Lands and Environment; Mukono, Kayunga and Jinja District Local Authorities; NEMA; Uganda Investment Authority; stakeholder NGOs; and representatives of Basoga Kingdom and IDA.

20. **With respect to the Requesters' statements that the Power Purchase Agreement (PPA) pertaining to the proposed Bujagali Hydropower Project as well as its economic analysis have not been released to the public**, Management notes that the PPA is an agreement between the Ugandan Government and AES, and that should the concerned parties agree to disseminate it to the public, IDA would have no objection. Management also notes that the proposed Bujagali Hydropower Project has yet to be appraised and that when the economic analysis has been finalized, a summary will be made publicly available.

I. INTRODUCTION

1. On August 7, 2001, the Inspection Panel registered for inspection IPN Request RQ01/3 concerning the Uganda Third Power Project (Credit 2268-UG) (Power III) financed by the International Development Agency (IDA) and the proposed Bujagali Hydropower Project. The Government requested IDA's support for the proposed Bujagali Hydropower Project in the form of a Partial Risk Guarantee (PRG). The AES Corporation (AES) has requested that the International Finance Corporation (IFC) provide direct financing to the proposed Bujagali Hydropower Project and arrange further private sector financing for it. IFC and IDA staff have worked closely together as a team on all aspects of the proposed Bujagali Hydropower Project, including on the environmental and social areas and on its economic evaluation. It should be noted that this response deals with claims against IDA only, as the Inspection Panel's jurisdiction does not extend to claims against IFC.

II. THE REQUEST

2. The Request for an Inspection Panel Review is submitted by the National Association of Professional Environmentalists of Kampala (NAPE), Uganda Save Bujagali Crusade (SBC) as well as other local institutions and individuals (the "Requesters").

3. Attached to the Request, contained in a letter dated July 25, 2001, are copies of:

- (i) "There is something more than hydropower in the Victoria Nile" by Dr. Les Kaufman;
- (ii) "Likely Tariff Implications of Bujagali Dam" by International Rivers Network (IRN);
- (iii) "Tourism Sector Standpoint on the AES Nile Power proposed Bujagali Hydro Project" by Wolfgang H. Thome, President, Uganda Tourism Association;
- (iv) Letter to IRN from Mr. Stephen Linaweaver;
- (v) Set of documents on a Proposed Land (Amendment) (No.2) Bill - One Step Forward, Two Steps Backwards in Promoting Transparency and Public Participation in Natural Resources Governance in Uganda, by Ministry of Water, Land and Environment, Kampala;
- (vi) Copies of Articles from the East African Newspaper and Sibexnews; and
- (vii) Copies of Articles entitled "The Divine Power of Profit," by Deepak Gopinath, published in Institutional Investor, March 1, 2001.

4. The Notice of Registration issued by the Inspection Panel by letter to the President of the World Bank dated August 7, 2001, states that the claims could constitute

non-compliance by IDA with a number of Bank directives, policies and procedures. These are:

- OD/OP 4.01 on Environmental Assessment
- OP 4.04 on Natural Habitats
- OD 4.20 on Indigenous Peoples
- OD 4.30 on Involuntary Resettlement
- OP 4.37 on the Safety of Dams
- OPN 11.03 on Management of Cultural Property in Bank-Financed Projects
- OP 10.04 on Economic Evaluation of Investment Operations
- OD 4.15 on Poverty Reduction
- BP 17.50 on Disclosure of Operational Information
- OD 10.70 on Project Monitoring and Evaluation
- OD 13.05 on Project Supervision.

5. In conveying the Request to Management, the Inspection Panel Notice of Registration states that the Request claims that the failures and omissions of IDA in the design, appraisal, and implementation of the above-referenced Projects have materially affected the rights and interests of the Requesters and are likely to jeopardize their future social, cultural, and environmental security. More specifically, the Requesters claim that the extension of the Owen Falls Dam¹ and the construction of the proposed Bujagali Hydropower Project have resulted, or may result, in social, economic and environmental harm to the local population including negative effects on tourism activities, serious impact on fisheries, and increased electricity tariffs. The Requesters also claim they have been harmed or are likely to be harmed as a result of failure to undertake an Environmental Assessment (EA) of the Owen Falls Extension; the lack of a cumulative environmental assessment related to the dams already built, under construction and in the final stages of design; inadequate involuntary resettlement (including compensation arrangements); inadequate consultation, participation and disclosure of information; and lack of economic and technical analysis, including lack of alternative economic analysis, especially in the case of the Owen Falls Extension.

III. BACKGROUND

6. This Management Response will address these concerns and respond to each specific claim of non-compliance raised in the Request. The Compliance

¹ The Government has changed the names of the Owen Falls Dam to Nalubaale and the Owen Falls Extension to Kiira.

Advisor/Ombudsman (CAO) of the IFC has received a complaint from local people in Uganda and, as part of the assessment of the complaint, has asked IFC Management a series of questions about the proposed Bujagali Hydropower Project, to which IFC Management has responded separately. It should be noted, however, that in their letter to the Inspection Panel forwarded to Management by the Panel, the Requesters state that “some of the issues raised in the claim to the CAO would be addressed by the Inspection Panel of the World Bank (Ref. claim to the CAO and her response letters).” The Requesters go on to request the Panel “that issues contained in the CAO’s claim that are relevant to the Inspection Panel be addressed by your Office.” This exchange of letters has not been forwarded to Management by the Panel and in preparing this response Management has therefore relied exclusively on the documentation contained in the Request forwarded by the Panel to Management.

7. Management also raises a threshold question regarding the jurisdiction of the Panel in relation to PRG operations for private sector borrowers. IDA’s involvement in the proposed Bujagali Hydropower Project would be through a PRG for a private sector project. This is the first IBRD/IDA operation of such a type to be referred to the Inspection Panel and it is not clear that the drafters of the resolution establishing the Panel intended it to have jurisdiction over private sector guarantee operations. The 1993 Resolution is drafted in a way that envisages public sector operations. The October 1996 Board Clarifications of the Resolution in its opening paragraph specifically leaves open what it calls “the question of inspection of World Bank Group Private Sector Projects.” The applicability of the Inspection Panel Resolution to private sector operations is a matter for the Executive Directors, who have the power to interpret the Resolution in this regard. Management also notes that in connection with paragraph 15 of the Resolution, the Panel shall seek the advice of the Bank’s Legal Department on matters related to the Bank’s rights and obligations with respect to the request under consideration.

8. The particular nature of these operations is brought out in Operational Policy (OP) 14.25 on Guarantees, which provides the requirements for the processing of IDA guarantee operations. The role of the guarantor is simply to appraise and assess the risks of an existing operation. IBRD/IDA guarantees “must comply with all applicable Bank policies, including those governing disclosure of information and the environmental, social and international law safeguards” (OP 14.25, para. 3). However, OP 14.25 goes on to provide that, “Projects to which Bank guarantees are applied are appraised and supervised to ensure that they conform to applicable Bank policies. For private sector projects, the Bank conducts its own appraisal of risks to be covered by the Bank’s guarantee; however, the Bank may rely on any appropriate technical, environmental, and financial evaluations of the project that are satisfactory to the Bank, which are carried out by IFC or by private sector lenders or other financing agencies whose evaluation capacity and process the Bank considers satisfactory” (OP 14.25, para. 11). If the appraised project does not comply with Bank policies, then IDA would cease to process the PRG.

UGANDA’S DEVELOPMENT STRATEGY

9. Uganda is a landlocked country lying astride the equator, located west of Kenya, more than 800 kilometers from the Indian Ocean. The total area of the country is about

241,000 square kilometers, including some 44,000 square kilometers of inland water. Its population is 22.3 million with a per capita income of about US\$300 (2000).

10. Uganda has implemented broad-ranging policy reforms over the past decade and its macroeconomic performance has been impressive, with growth averaging close to 7 percent per year. Rapid economic growth has contributed to increasing standards of living of the poor. The Government's strategy to reduce poverty goes further. Since 1997, public expenditures have been overhauled to focus specifically on improving education, health, water and rural infrastructure for all Ugandans, in particular the poor. A key to success of the public finance reforms has been the removal of subsidies to inefficient parastatal entities so as to generate additional budget resources for essential social services.

11. Private sector development in Uganda is central to sustaining economic growth. Uganda's deregulation and privatization programs have thus far concentrated on manufacturing, but in recognition of the importance of infrastructure in enabling economic growth, the Government is now turning to the private sector to support infrastructure in general and the power sector in particular. This is appropriate, since only some 3 percent of Uganda's population has access to electric power, and it is important to expand access to power supplies in order to broaden the base of economic growth. Moreover, the poor quality and reliability of power supplies in Uganda are consistently cited by investors as binding constraints to private investment. Private sector firms reported in a 1998 investor survey that in recent years they were without power supply for an average of 89 days per year. Some 43 percent of firms surveyed have their own generators, which produce power at costs that are 60 to 100 percent higher than prevailing tariffs. About 34 percent of private sector investments are being currently allocated to the purchase of power generators, thus crowding out other productive investments. Before the 80MW capacity increase at Owen Falls Extension came on stream in July 2000, there were significant annual economic losses that resulted from power shortages.

12. As a landlocked country, Uganda has continually suffered economic disadvantages because it imports its petroleum product requirements about 1,000 kilometers overland from Mombasa, Kenya or from Dar es Salaam, Tanzania. Uganda's special advantage is considerable hydropower potential, primarily from the Victoria Nile, to meet its medium- to long-term energy requirements. In these circumstances, the Government's strategy to develop the power sector aims to: (a) remove power supply constraints hindering economic growth and meet the increasing demand for electricity over the medium term; (b) develop the country's significant hydropower potential; (c) support private investment in the power sector; (d) expand energy access to the rural population; and (e) potentially increase export of electricity to Kenya, Tanzania and other countries in East Africa. The Government's energy sector strategy is consistent with IDA's Country Assistance Strategy which aims to promote economic growth and reduce poverty.

OVERVIEW OF UGANDA'S POWER SECTOR AND IDA ASSISTANCE STRATEGY

The Power Sector in Uganda and Bank Assistance Strategy

13. *Overview.* This section discusses the Government of Uganda's involvement with IDA in the power sector since the early 1980s, beginning with emergency repairs to the Owen Falls Dam to relieve serious energy constraints. Second, it describes the pervasive problem of poor utility management within the Uganda Electricity Board (UEB), particularly high system losses, poor collection rates and an inadequate tariff; the efforts to improve UEB's operational and financial performance which fell short of expectations; and the Government's power sector reform program aimed at addressing the sector's continuing problems. Third, it reviews the options that were identified to increase generation capacity required to meet Uganda's growing electricity needs, the rationale for the Power III Project, the establishment of a Panel of Experts on Dam Safety, and the analysis undertaken to ensure that power system development was to be carried out in accordance with least-cost planning principles. This includes the Government's encouragement of several possible independent power producer projects, and its decision to proceed with the proposed Bujagali Hydropower Project as the next component of Uganda's least-cost development plan to meet the country's electricity needs after the Power IV Project. Fourth, it describes proposed ways to increase energy access and economic activity in rural Uganda. Table 1 provides a description of Uganda's hydropower capacity (see also Map 1).

14. *The Power II Project.* Uganda experienced about ten years of internal civil strife, which ended in 1986.² In 1985, IDA approved a Credit of SDR 29.5 million for a Power II Project (Credit 1560-UG) to relieve urgent energy constraints caused by the poorly maintained 30-year old generators at the 150MW Owen Falls Dam hydropower station (financed by the United Kingdom and commissioned in 1954), and by the inadequacies of a long-neglected, out-of-date transmission and distribution system. The Owen Falls Dam hydropower station was essentially the sole source of electricity supply for the country.

15. *The Power III Project.* The severe deterioration of power infrastructure was identified as a serious obstacle to the revival of the commodity-producing sectors soon after IDA recommenced its involvement in Uganda in the mid-1980s. In 1988, the Government began to prepare a power generation project with IDA's assistance. The project aimed to: (a) develop the country's hydropower resources to provide least-cost, reliable power to meet the growing demand for electricity; (b) expand the transmission and distribution system; and (c) provide technical assistance to UEB and the Ministry of Energy and Minerals.

16. The Power III Project (Credit 2268-UG) of US\$125 million was approved in 1991. The main objective of the project was to meet Uganda's demand for electricity at least cost, through construction of an extension at Owen Falls. In addition, the project

² The Bank made its first loan in the power sector to the Uganda Electricity Board in 1961 for US\$8.4 million (Loan 279-UG) for the expansion and improvement of the transmission and distribution system, and construction of small hydroelectric and diesel plants and the distribution networks to supply isolated areas. This project was successfully implemented and the loan closed in August 1964.

aimed to improve UEB's operational and financial performance. The Power III Project included 2x40MW (Units 11 and 12), financed by co-financiers, which were commissioned in July 2000. The Swedish International Development Agency (Sida) and the Norwegian Agency for Development Cooperation (NORAD) are financing Unit 13 (40MW), and the Power IV Project (Credit 3545-UG) is financing 40-80MW (Unit 14 and, possibly, Unit 15). (See Map 2.)

17. Under the Power III Project, in accordance with Operational Manual Statement (OMS) 3.80 on Safety of Dams of June 1997, a Panel of Experts was established to: (a) assist the Government to identify the steps required to improve the safety and maintenance of the Owen Falls Dam and its appurtenances; (b) review the technical and safety aspects of the design of the Owen Falls Extension financed under Credit 2268-UG; and (c) advise on the instrumentation and frequency of inspections required for the Owen Falls Dam and the civil works for the Owen Falls Extension.

18. *Independent Power Projects (IPPs)*. It should be noted that as early as 1994, the Government of Uganda signed a Memorandum of Understanding (MOU) with a private sector sponsor, AES,³ to develop the Bujagali Hydropower site, and subsequently signed additional MOUs with other sponsors to develop the Kalagala and Karuma hydropower sites on the Victoria Nile. In August 1995, IDA responded favorably to the Government's request to finance (under Credit 2268-UG) legal, technical and financial advisory services in the preparation of the proposed Bujagali Hydropower Project. IDA acceded to this request because of the importance for the Government to have internationally recognized consultants advise on the structure and commercial arrangements, even though this financial support was not to be construed as IDA support for the proposed Bujagali Hydropower Project. In December 1995, IDA indicated to the Permanent Secretary of the Ministry of Finance that it was essential to carry out, without delay, a hydropower development master plan study.

19. The Government of Uganda carried out the *Hydropower Development Master Plan* (completed by Rust Kennedy and Donkin in November 1997) with funding from the African Development Fund (ADF). The plan was expected to identify and establish the least-cost generation plan for Uganda, and help form the technical basis to underpin IDA support for a significant hydropower investment. In August 1997, the Government requested possible PRG assistance for Uganda's next hydropower project. IDA responded in September of 1997 that it would be interested to pursue a PRG for a private power project as one element of a broader package of assistance in support of restructuring the power sector. IDA's view was that it would be difficult to justify support for a large hydropower project, and almost impossible to obtain commercial financing on reasonable terms, if UEB and the power sector were not being placed on a sound financial footing. In February 1999, a joint IFC and IDA team met with the Ministers of Finance and of Energy to discuss the way forward on private sector participation in the next hydropower project. The Government stated its preference for

³ AES' main business is the development, construction and operation of power plants. AES owns or has an interest in 128 power plants in 27 countries. At end 2000, AES had assets of US\$31 billion, with an annual turnover of US\$6.7 billion.

proceeding with the proposed Bujagali Hydropower Project since: (a) it had been identified in the Master Plan as the next least-cost option after Owen Falls Extension; and (b) negotiations between the Government and AES on the Power Purchase Agreement (PPA) and Implementation Agreement (IA) had been completed. In response to the Government's letter of June 21, 1999 requesting IDA support for two IPPs (the Bujagali and Karuma Hydropower Projects), IDA informed the Government that there was continued concern about UEB's poor operational and financial situation, and for a number of reasons (including the demand forecast, the country's ability to afford these significant investments from the macro perspective as well as in terms of tariff levels), IPP investments would have to be sequenced.

20. *UEB's Operational and Financial Performance.* While UEB's performance concerning the physical execution of the Power III Project was satisfactory, its operational and financial performance remained poor. System losses were high (about 29 percent in 1997) and collection rates were low. Through the 1990s, UEB collected revenues on about 60 percent of the power it generated. It became evident to the Government and the donor community that their combined efforts to improve UEB's operational efficiency had fallen short of expectations. It should be noted that in July 1998, the Government took an extraordinary step of dismissing UEB top management and replacing staff in several key positions (including the Managing Director) and directing staff of UEB to operate UEB along commercial lines. Within a year and a half under the new management team, cash collection grew by 26 percent, billing for electricity consumption increased by about 12 percent, and UEB's collection rate (cash collected as a percentage of billed) rose to 94 percent. Although these improvements were noteworthy, the Government recognized the limits to the overall approach and thus decided to unbundle and divest UEB, and invite private investment to expand system capacity and access.

21. *Power Sector Reform.* In June 1999, the Government approved a comprehensive power sector restructuring and privatization strategy involving the unbundling of UEB into distribution, transmission and generation units. A new Electricity Act was promulgated in November 1999, which allows for private participation in the sector. An Electricity Regulatory Authority (ERA) was established and a Regulator was appointed in April 2000. In April 2001, UEB was unbundled into three independent corporate entities, one each for generation, transmission and distribution, and most of UEB's assets were transferred to these companies. The Government has issued a Request for Proposals to concession distribution facilities. The award of the concession is anticipated around end-2001.

22. *Power III Project Supplemental Credit.* In January 2000, IDA approved a Supplemental Credit of US\$33 million equivalent for the Power III Project. The justification for the Supplemental Credit was: (a) cost over-runs due to exceptional circumstances beyond the Government's control; (b) urgent remedial works identified by the Panel of Experts to be undertaken on Owen Falls Dam to enhance dam safety; and (c) funding for the Government to finance the transaction advisors and investment bankers who would be responsible for implementing the unbundling of UEB and the concessioning of distribution and generation assets. It was impossible to reduce the scope

of the project to fit the available resources without significantly impairing the project's economic viability.

23. *The Power IV Project* (Credit 3545-UG) for US\$62 million equivalent was approved in July 2001. Its main objectives are to: (a) meet electricity demand through the provision of 40-80MW (Units 14 and 15) to be installed at the existing Owen Falls Extension; and (b) strengthen the Government's capacity to manage the power sector reform and privatization process. While the installation of Unit 14 was established as the next least-cost generation option, IDA disbursement for Unit 15 will be contingent upon confirmation of its economic viability. (See Map 2.)

24. *The Proposed Bujagali Hydropower Project*. In 1994, the Government signed a MOU with AES, the project sponsor, for a 200MW run-of-the-river hydropower plant at Bujagali, 8 kilometers downstream of the Owen Falls Extension. AES formed AES Nile Power Limited (AESNP), the Project Company, to develop and construct the hydropower project on a Build-Own-Operate-Transfer basis.⁴ (See Map 3.) The project also includes the construction of about 100 kilometers of 220 kV and 132 kV transmission lines and associated substations. AESNP will sell electricity to UEB under a 30-year PPA. The 200MW project including the transmission lines is expected to cost about \$550-600 million. As noted above, while MOUs were signed with other private sponsors for the Kalagala and Karuma hydropower sites, for which some detailed technical, environment work was completed, the Government did not enter into negotiations with them.

25. Government and AES negotiations on the Bujagali PPA and IA took several years. Because a Government guarantee would be required under the Bujagali contractual agreements, the PPA and IA were submitted to Parliamentary committees in 1998. The review and approval process took almost one year. In 1999, the Government reaffirmed its request to consider supporting the proposed Bujagali Hydropower Project through an IDA PRG and debt financing from the IFC. In February 1999, IFC and IDA outlined again the importance of a financially viable power sector. This included satisfactory progress on implementing the Government's power sector reform program, in addition to the normal technical, financial, economic, environmental, financial, social, institutional and legal due diligence which would be required for a private sector project. In January 2000, the joint IFC Corporate Investment Committee and IDA Guarantee Review Committee reviewed the proposed Bujagali Hydropower Project concept document and authorized the joint IFC/IDA Bujagali team to proceed with the appraisal of the project. IDA is tentatively planning to appraise the proposed Bujagali Hydropower Project in October 2001.

26. *Energy for Rural Transformation*. Less than one percent of the rural population in Uganda has access to grid-based electricity. In order to address the needs of the rural poor, the Government, with assistance from IDA, is preparing an Energy for Rural Transformation Project. Its main objective is to develop Uganda's rural energy and information and communication technology sectors, so that they make a significant

⁴ The PPA for the proposed Bujagali Hydropower Project includes an option to install a fifth unit of 50MW to increase the Bujagali plant capacity to 250MW.

contribution to bringing about rural transformation, i.e., facilitating a significant improvement in productive rural enterprises as well as in the quality of life of rural area households. The proposed project will support investments and enable capacity building and technical assistance in both the energy and information and communications technology sectors to achieve the following specific goals of the Government:

- *Access* – Reaching about 10 percent rural electricity access – approximately 400,000 new electricity connections – in ten years, via a combination of investments in grid extensions where these are the least-cost supply option, independent grid systems for relatively concentrated loads in areas that cannot economically be served from the grid, and individual/institutional solar photovoltaic systems for the smaller and scattered loads where even small independent grid systems are not viable;
- *Health sector* – Within the first four years and in ten districts, the provision of modern energy to rural health clinics, thereby improving the health care service for more than 75 percent of the population in those districts – with the program expanded to all districts within ten years;
- *Education sector* – Within the first four years and in ten districts, the provision of modern energy and information and communication technology packages in selected post-primary schools and learning institutions – with the program expanded to all districts within ten years;
- *Rural telephony* – In commercially unattractive areas, the provision of at least one public telephone per 5,000 inhabitants at the sub-county level within four years;
- *Rural internet access* – Internet points of presence together with a public internet access facility at each District Headquarters within four years; and
- *Rural multipurpose community telecenter* – At a “vanguard institution” in each district located outside the District Headquarters.

27. In summary, IDA’s assistance strategy aims to support the Government’s efforts to restructure the power sector to improve its overall efficiency and performance, to provide a least-cost generation plan, and to address the energy needs of the unserved rural population, so as to broaden the base of economic growth, improve the living standards of the population at large and reduce poverty. IDA’s strategy for the energy sector is consistent with the Country Assistance Strategy for Uganda, and with Operational Directive (OD) 4.15.

Table 1. Hydropower Capacity in Uganda

Hydroelectric Power Plant/ Project	Year of Commission	Financial Support	Installed Capacity (MW)	Hydropower Components
Existing Hydropower September 2001				
Owen Falls Dam	1954	United Kingdom	150	10 x 15MW generating units (Units 1-10)
Power II (Credit 1560-UG)	--	IDA SDR 29.5 million; co-financing from ODA and CDC. Approved 3/1985. Closed 12/1993.	--	Reconstruction work at Owen Falls power station and dam
Owen Falls Dam (Nalubaale) Upgrading	Mid-1990s	ODA	30	Upgrade to 10 x 18MW (Units 1-10). ODA grant that was part of Power II was increased in 1989 to cover this work.
Power III (Credit 2268-UG) Owen Falls Extension (Kiira) – Units 11 & 12	2000	IDA \$125 million equivalent; co-financing from Sweden, Norway, ISDB and ADF. Approved 6/1991. Closing date 12/2001.	80	Initially planned for 3x34MW units, but design changes result in 5x40MW configuration. 2x40MW units (Units 11 and 12) installed; all civil works for 200MW in 5 units built. Canal, upstream of Owen Falls Dam, about 1.4 km long, feeds Owen Falls Extension powerhouse located downstream. Project includes measures to increase stability of Owen Falls Dam; Panel of Experts convened to advise on dam safety for Owen Falls Dam and Owen Falls Extension.
Power III Supplemental (Credit 2268-1-UG)	--	IDA \$33 million equivalent. Approved 1/2000. Closing date 12/2001.	--	Strengthens Owen Falls Dam, as priority measure, based on recommendations of Panel of Experts and finances shortfall in funds for civil works.
Total Installed Capacity as of 9/2001 ⁵			260	
Planned Increases in Hydropower				
Owen Falls Extension – Unit 13	2002	Sida and NORAD	40	Unit 13 financed by Sida and NORAD.
Power IV (Credit 3545-UG) Owen Falls Extension (Kiira) – Units 14 & 15	2003	IDA \$62 million equivalent; co-financing from Nordic Development Fund and NORAD. Approved 7/2001. Closing date 12/2004.	40-80	Unit 14 (40MW) to be installed at Owen Falls Extension powerhouse constructed under Power III. Disbursement for Unit 15 (50MW) contingent upon economic viability.
Proposed Bujagali Hydropower	To be determined	AESNP, IFC loan to AESNP and IDA Partial Risk Guarantee	200	4x50MW, with Government option to install additional 50MW. Site is about 8 km downstream from the Owen Falls complex.
Total Planned Increase in Capacity			280-320	

⁵ Uganda has approximately 2MW of capacity in diesel plants in areas not connected to the grid. The Government of Uganda and IDA are preparing an Energy for Rural Transformation Project to increase access of the rural poor to energy, with special emphasis on schools and health facilities.

Financial Policies and Retail Electricity Tariff Levels

28. During the preparation of the proposed Power III Project (Credit 2688-UG), it became apparent that the average tariff level was inadequate for UEB to meet its operating costs, service its debt obligations, cover working capital requirements, and generate resources to meet a portion of its investment requirements. In 1990, a study estimated that the long run marginal cost (LRMC) of electricity was 7 cents (US) per kWh. The need to ensure financial viability of UEB and the adequate costing of its services is consistent with OMS 2.25 concerning Cost Recovery Policies for Public Sector Projects: General Aspects, March 1977, and OMS 3.72 for Energy, Water Supply and Sanitation and Telecommunications, September 1978. A condition of Credit effectiveness was to raise UEB's average retail tariff to 4.8 cents (US) per kWh. This was met. A financial covenant in the Project Agreement between IDA and UEB was that UEB would adjust its tariffs to an average of 7.2 cents (US) per kWh by no later than January 1, 1993, and, thereafter, adjust the average retail tariff annually by an amount that would result in an annual 5 percent increase over the average retail tariff in US Dollar terms. UEB raised its average retail tariff to about 7.3 cents (US) per kWh in January 1993 as agreed. It should be noted, however, that there have been no annual increases to the average retail electricity tariff since January 1993. The reasons given by the Government were:

- During the mid 1990s, the Uganda Shilling appreciated against the US Dollar, to the extent that at one point the average retail tariff was close to 10 cents (US) per kWh; and
- During the second half of the 1990s, UEB began to shed load, while at the same time the Uganda Shilling depreciated against the US Dollar. There were weekly scheduled outages throughout the country, which led to public discontent over the availability and reliability of power supply, making tariff increases difficult.

29. In 2000, the ERA was asked by the Government to review the adequacy of tariff levels which had dropped to 5.6 cents (US) per kWh. In June 2001, the ERA completed its review and made a determination of the tariff increase required to ensure full cost recovery and the financial viability of the power sector. Attachment 1 provides a copy of the May 29, 2001 press release issued by the ERA, which describes the old and new tariff structure, and provides reasons why the ERA saw the necessity to adjust the average retail tariff to the about 9.5 cents (US) per kWh based on a full pass-through of all outstanding government contracted and onlent debt to UEB. The new tariff schedule removed the heavy cross-subsidy to domestic consumers, which had been borne by commercial consumers, but maintained the lifeline tariff with some cross subsidization from other consumer categories. Subsequent to the electricity tariff increase, the Government has announced that a portion of the onlent Government debt to UEB will be converted from debt to equity, which will provide some tariff relief to consumers from the 9.5 cents (US) level per kWh.

30. The Government of Uganda recognizes that adequate retail electricity tariffs are required in order to ensure the financial viability of the power sector, including sufficient cash flow for rehabilitating and extending the distribution system, adding new consumers and expanding the provision of supply beyond the small (3 percent) portion of the population that has access to grid-based electricity. In past years, the power sector has been a significant drain on the Ugandan Treasury and has diverted budgetary resources from social sector needs. The inefficient operations of the power sector also have caused businesses to purchase and rely on back-up generators, which can cost between 16 and 20 cents (US) per kWh.

Hydrology on the Victoria Nile

31. The Owen Falls Dam is located on the Victoria Nile, the only outlet from Lake Victoria. The available outflow from the lake is a key factor in the assessment of hydropower development of the Victoria Nile.

32. The headwaters of the Victoria Nile rise in the five countries surrounding and draining to Lake Victoria, namely Uganda, Kenya, Tanzania, Burundi and Rwanda. The Victoria Nile flows north from Jinja over a series of rapids and low falls for about 80 kilometers to Lake Kyoga, and then another 200 kilometers to Lake Albert. From Lake Albert it flows northward into Sudan. In addition to the outflow from Lake Victoria, the river receives flow from the Lake Kyoga and Lake Albert watersheds, a portion of the latter originating in the Democratic Republic of the Congo.

33. The inflow to Lake Victoria is dominated by a delicate balance between rainfall and evaporation over the lake surface of 69,000 square kilometers. Recent studies indicate that, on average, rainfall is greater than evaporation, resulting in some net inflow, which is greater than the tributary inflow. Although evaporation loss is almost constant, rainfall varies considerably. As a result, in high rainfall years, the net inflow (rainfall less evaporation) is very large and greater than the tributary inflow. By contrast, in low rainfall years, there is a net loss from the lake surface. In extremely dry years, the net loss from the lake surface can exceed the tributary inflow.

34. Ample data are available throughout the 1900s on the level of Lake Victoria and the corresponding flow of the Victoria Nile. However, during 1961-1964, the level of Lake Victoria rose by two meters (the reasons for which are still subject to debate among experts); and for the past 35-40 years, the level of Lake Victoria has varied around the higher range when compared to the 1900-1960 period. There is an on-going professional dispute – somewhat more than a mere difference of opinion – among the experts who have studied the hydrology about the long-term level of the lake. The main point of contention is about the validity of the “official” flow record and its application to future hydropower development. The two schools of thought on this matter are: (a) that the lake level in the long run (i.e., next twenty years or so) will reduce to the pre-1960 levels corresponding to an average Victoria Nile flow of approximately 660 m³/sec; or (b) that the increase in the lake levels are permanent and the long-term average Victoria Nile flow will be approximately 1,100 m³/sec. Following construction of the Owen Falls Dam, Ripon Falls (which is situated about one kilometer downstream of the outlet of the

Victoria Nile River at Lake Victoria), was partly excavated and buried under rubble to provide adequate hydrologic capacity at low lake levels. The configuration at Ripon Falls previously acted as a natural hydraulic regulator of the Victoria Nile. Because Ripon Falls, which used to control Lake Victoria's flows, has been modified and because the hydro-meteorological network is so sparse and the data from it are of uncertain quality, it is not possible to definitely confirm or refute either view (a) or view (b). Also it is important to note that at no time, is it possible to measure or determine lake flow directly. Net inflow can only be derived by adjusting outflow to allow for the net change in storage in the lake. The measurement of the contributing factors is difficult. Lake rainfall can only be approximated because of the size of the lake and the historical absence of rain gauges within the lake; and tributary inflow from the many rivers is only partly and imperfectly measured.

35. The Owen Falls Dam replaced the control of flows from Lake Victoria when Ripon Falls was modified. Flows that pass the Owen Falls Dam are determined on the basis of the "Agreed (operating) Curve," which was agreed to by Uganda and Egypt in the 1950s and again confirmed in 1991 (see Attachment 2). Broadly, the Agreed Curve seeks to ensure the natural flow of the Victoria Nile in the absence of Ripon Falls, so that there are no changes to the downstream discharges. Simplified, the Agreed Curve determines the flow of the Victoria Nile as a function of the level of Lake Victoria. The Agreed Curve controls water releases from Owen Falls Dam. Thus, it is not possible to vary the flows to optimize power generation, which would be the case if the power station had a dam with a large regulating capacity.

36. Given the many uncertainties in establishing the available water flows for power generation, the phased development of the Owen Falls Extension has minimized the investment risk of hydropower development in Uganda. In addition, hydrological conditions have also aggravated safety concerns. To this end, the installation of increased spillage capacity and remedial measures to strengthen the old Owen Falls Dam under the Power III Project and the Supplemental Credit have improved the dam's safety for the benefit of Uganda and the other riparian states.

OVERVIEW OF ENVIRONMENT AND SOCIAL ASPECTS OF THE PROPOSED BUJAGALI HYDROPOWER PROJECT

37. This section provides a chronology of activities undertaken with respect to the environment and social review of the proposed Bujagali Hydropower Project. (See Map 3.) IFC and IDA environmental and social staff have collaborated on the environmental and social review of the proposed Bujagali Hydropower Project. IDA staff visited the project site as early as 1997. An Environmental Data Sheet was approved in February 2000 placing the proposed Bujagali Hydropower Project in environmental screening Category A. In March 2000, following the IFC Corporate Investment Committee and IDA Guarantee Review Committee meeting (para. 25), IDA became increasingly involved in the environmental and social review of the proposed Bujagali Hydropower Project. Because IFC would be lending directly to AESNP and IDA anticipates being involved through a PRG, IDA is allowed to rely upon IFC's evaluation, according to OP

14.25. Therefore, IFC's role was more intense than IDA's in the earlier years. The sections below summarize the environmental and social due diligence undertaken to date.

38. In early 1997, AESNP approached IFC seeking its comments on the draft Terms of Reference (TOR) for the proposed Bujagali Hydropower Project Environmental Impact Assessment (EIA).⁶ Based on a site visit by an IFC environmental specialist in August 1997, IFC issued its Environmental Information Memorandum. Highlights of the Environmental Information Memorandum were:

- Bujagali is a Category A project for which an EIA would need to be prepared by AESNP to meet requirements of the Government of Uganda, IFC and IDA;
- An Independent Advisory Panel was recommended;
- Joint review of the proposed Bujagali Hydropower Project should be coordinated between IFC and IDA;
- Draft TOR for the EIA as well as a draft Public Consultation and Disclosure Plan (the latter an IFC requirement for Category A projects); and
- Potential issues were highlighted such as resettlement, impacts on natural habitats and fisheries, socio-economic impacts, the need for public consultation and disclosure, the spiritual significance of Bujagali Falls, and impacts within the Nile Basin.

39. A December 1, 1997 memo from AESNP to the National Environmental Management Authority (NEMA), IFC and IDA acknowledged receipt of comments on the TOR and advised on the appointment of an Independent Advisory Panel (renamed as an Environmental Assessment Review Panel). The memo also noted that, after holding scoping sessions in Uganda, the TOR would be finalized in January 1998.

40. IFC's environment and social staff visited the project site in January 1998. The visit included attendance at a stakeholder consultation in Kampala which was hosted by AESNP and at public meetings in Jinja and the surrounding area. The Back-to-Office report of this visit (February 25, 1998) made the following observations:

- Assessment of alternatives for generating electricity and the evaluation of the least-cost option needed to include environmental and social costs;
- Impacts on tourism needed increased attention; and

⁶ Readers of this response should note that various terms are used in this Management Response in reference to environmental/social impact assessment. Environmental Impact Assessment (EIA) and Environmental Impact Statement (EIS) are documents prepared by AESNP. Environmental Assessment (EA) refers to the environment/social review processes of IFC and IDA. These terms are used as appropriate in Management's response.

- TOR for the EIA needed to be expanded (including assessment of alternative configurations, cumulative effects assessment, and implications for shrines and spirits).

41. On March 15, 1999, AESNP submitted the Environmental Impact Statement (EIS) for the proposed Bujagali Hydropower Project to NEMA for its approval. Following NEMA's required disclosure period and public hearing, NEMA approved the EIS on November 1, 1999. Within fourteen days after receipt of an EIS, the Executive Director of NEMA forwards it for comment to lead agencies, which must respond within thirty days:

- The EIS was made available in pertinent District Offices and public libraries and a Public Notice was published on April 1, 1999 informing the public where to access the EIS.
- Ten days after receiving the lead agency comments, if satisfied that the EIS is complete, the Executive Director invites the public to comment. On May 13, 1999, NEMA published the Public Notice inviting written comments for a period of twenty-one days.
- A Public Hearing Notice and a Summary of Issues were published on July 14, 1999. The hearing was held on August 6, 1999 and attended by 754 people.

The EIS remains publicly available in libraries and District Offices.

42. In Spring 1999, the IFC environment and social team reviewed the March 15, 1999 EIS (prepared by AESNP and its consultant, WS Atkins International Ltd.). This document was entitled Bujagali Hydroelectric Project: Environmental Impact Statement Final Report, March 1999. IFC's review, "Uganda: Bujagali Hydroelectric Power Project, Review of Environmental Impact Statement, Final Report, March 1999," (June 3, 1999 memo from IFC's Environment Division) cited deficiencies in the following areas:

- The absence of a review of the least-cost studies that had been used to justify the proposed Bujagali Hydropower Project;
- The absence of an assessment of alternative configurations for the proposed Bujagali Hydropower Project to demonstrate their potential to avoid or minimize environmental and social impacts (for example, avoiding the inundation of Bujagali Falls);
- Lack of an adequate cumulative effects assessment of the proposed Bujagali Hydropower Project along with Owen Falls Dam, Owen Falls Extension and a potential future hydropower project on the Victoria Nile in Uganda; and
- Inadequate information on the impact of the project to shrines and spirits at Bujagali Falls; and insufficiencies in the analysis of impacts on fisheries and tourism.

These shortcomings were subsequently addressed in the March 2001 EIA, which was submitted to the InfoShop and disclosed in Uganda on April 30, 2001. The March 2001 EIA was complemented by the *Assessment of Generation Alternatives – Uganda* (Acres International, May 2000) and the draft *Economic Review of the Bujagali Hydroelectric Project* (Acres International, June 2001), which analyzed least-cost alternatives in detail, as well as the ESG study of January 2000 that further assessed cumulative affects (see below).

43. Because of the inadequate cumulative effects analysis, IFC commissioned additional independent studies to address these issues:

- *Victoria Nile Strategic Impact Assessment – Uganda* (ESG International) completed in January 2000. It proposed a methodology for assessing cumulative effects arising from further hydropower developments on the Victoria Nile. Based on consultations with stakeholders in Uganda, the methodology presents criteria against which to assess the degree of change to the Victoria Nile acceptable to Ugandans and how future hydropower developments on the river should optimally occur. One of the observations from the study was that there was a desire in Uganda to use the Victoria Nile for other purposes (in particular, tourism) in addition to generating electricity; and
- *Assessment of Generation Alternatives – Uganda* (Acres International), completed in May 2000. The main objective of the study was to provide an assessment of the alternative electric generating projects in Uganda on the basis of environmental, social, cost and technical considerations. The study focused on hydropower projects on the Victoria Nile, although generation alternatives to hydropower were also addressed. Using stakeholder consultations, criteria were developed to evaluate alternative hydropower projects. Three projects were identified as possible least-cost alternatives: Bujagali, Kalagala, and Karuma. This study addressed the cumulative impacts associated with these three projects. The study concluded that the proposed Bujagali Hydropower Project is the least-cost generation alternative.

44. In April 2001, AESNP submitted to IFC and IDA the March 2001 EIA documents that addressed the deficiencies identified in 1999 (see para. 42). These documents were the proposed Bujagali Hydropower Project Executive Summary; Hydropower Facility EIA (including Technical Appendices and Resettlement and Community Development Action Plan-RCDAP); and the Transmission System EIS (including Technical Appendices and Resettlement Action Plan-RAP).

45. As part of the larger consultation process (described further in para. 113), three NGO Forums have been convened:

- An NGO Forum was convened on June 27, 2000 in Washington, D.C., at which AESNP presented the proposed Bujagali Hydropower Project. IFC and IDA discussed their respective potential involvement in the project.

Participants from Uganda included representatives of NAPE and SBC (the Requesters). Participants were presented with copies of the ESG International and Acres International reports. These reports, addressing cumulative impacts, were broadly distributed electronically on June 2, 2000. The Meeting Summary is found in Attachment 3. The issues discussed included: public release of the PPA; impacts on whitewater rafting; IFC/IDA environmental and social procedures for the processing of the proposed Bujagali Hydropower Project; and the then forthcoming World Commission on Dams Report;

- On June 12, 2001, IFC hosted a public meeting in Jinja, Uganda to discuss issues related to the project and the March 2001 EIA on the proposed Bujagali Hydropower Project. Participants included representatives of NAPE and SBC (the Requesters) and local project affected people (approximately 180 in total attended). The Meeting Summary is found in Attachment 4. Issues discussed included: public release of the PPA; compensation; World Commission on Dams Report; impacts on tourism; the IFC/IDA/NEMA approval process for the transmission line EIS; and project affordability; and
- On July 17 and 18, 2001, in Washington, D.C., IFC and IDA hosted an NGO Forum on the proposed Bujagali Hydropower Project (participants included NAPE, a Requester). The Meeting Summary is found in Attachment 5. Key discussion points included: the impact on fisheries; compensation; cumulative impacts; release of the PPA; NEMA/IFC/IDA approval of the transmission line EIS; impacts to tourism; and the Land Act.

46. On July 18, 2001, NEMA approved the EIS for the transmission line component of the project.

47. With the Government's concurrence, the EIA was disclosed in Uganda and deposited in the InfoShop on April 30, 2001 prior to a proposed IDA appraisal, which has yet to be conducted. The disclosure of the EIA is without IDA's and IFC's endorsement and, therefore, is not any indication that environmental and social clearance has been given for the further processing of the proposed Bujagali Hydropower Project. However, OP 4.01 does require that "public availability in the borrowing country and official receipt by the Bank of Category A reports for projects proposed for ... IDA financing ... are prerequisites to Bank appraisal of these projects." IDA has tentatively planned its appraisal of the proposed project in October 2001.

IV. OTHER ISSUES RELATED TO IDA COMPLIANCE WITH ITS DIRECTIVES, POLICIES AND PROCEDURES

48. Management would like to highlight some unique features of the Power III Project, its Supplemental Credit, the Power IV Project and the proposed Bujagali Hydropower Project:

- The Owen Falls Dam and Owen Falls Extension constitute a complex constructed and extended over a period of some 50 years during which time

hydrological, environmental and economic conditions have changed and, with them, the standards required of IDA's appraisal;

- The proposed Bujagali Hydropower Project is the first major power sector investment in Uganda proposed to be undertaken entirely by the private sector. IDA support for the project would be provided not through an investment credit to Uganda as a borrower, but by issuing a PRG to a group of private commercial lenders participating in the financing for the Project. Uganda would provide a counter guarantee to IDA for the risks covered by the PRG;
- As provided in paragraph 11 of OP 14.25 on Guarantees, in conducting the due diligence for the proposed Bujagali Hydropower Project, IDA may rely on the technical, environmental and financial evaluations carried out by IFC in the conduct of its own appraisal of risks to be covered by the PRG; and
- IDA has not yet appraised the project. As such, there is time to address residual concerns or misunderstandings that have been raised by stakeholders. While Management considers that IDA is in compliance to date with the applicable Bank directives, policies and procedures in carrying out its due diligence, it recognizes that full compliance is required throughout the project cycle, including through Board presentation and supervision.

49. During the course of Management's review of the Response to the Request, three areas of deficiency were revealed. While these deficiencies were not mentioned in the Request, Management wishes to acknowledge them as described below.

50. First, a review of the records of the Power III Project revealed that the SAR and Development Credit Agreement were not fully consistent in their descriptions of the extension capacity (paras. 78-87). This was due to modifications to the design of Owen Falls Extension which were not adequately reflected in the SAR. The changes in the project's configuration were technical in nature, consistent with the objectives of the project, and motivated by safety concerns, opportunities to enhance power supply and concern over the loss of the IDA allocation as the end of the fiscal year approached. Management regrets that the documentation presented to the Executive Directors was not revised to incorporate design modifications reflected in the Development Credit Agreement. Management acknowledges that there was not full and frank disclosure of this situation to the Board.

51. Second, according to Annex 18 of the SAR for the Power III Project, the Government was to have produced a Sectoral Environmental Assessment (SEA), even though such an SEA was not required by applicable directives and policies. However, the SEA was not carried out in the manner intended. As explained in the Response to Claim 1, studies were undertaken, which over time, yielded analyses that accomplished the objectives of the SEA intended under the Power III Project.

52. Third, as the documentation for the Power IV Project was being prepared, the Category B EA was sent to the Info Shop prior to appraisal (October 1999). However, its dissemination in Uganda did not take place until after appraisal, in contravention of OP 4.01 (1999). Despite the delay, the EA was released in-country more than five months before the Power IV Project was approved by IDA's Board, substantially achieving the intent of the full disclosure requirement. Management regrets this oversight.

V. CLAIMS OF VIOLATIONS OF IDA'S DIRECTIVES, POLICIES, AND PROCEDURES

CLAIM # 1:

“The Owen Falls Extension (Kiira) Dam is adjacent to the old Owen Falls Dam. Kiira Dam is served by a canal bypassing the old Owen Falls Dam. It is to house 4 hydropower turbines generating up to 200MW by 2006. Construction of Kiira Dam commenced in 1998 and last year (2000) turbines 12 & 13⁷ were commissioned by His Excellency, the President of the Republic of Uganda, Mr. Yoweri Museveni. However, no Environmental Impact Assessment (EIA) was conducted for the Kiira Dam prior to commencement of construction work. This is complicated by the fact that, by the time the old dam was constructed (1950-54), EIAs were unknown. Hence no prior EIAs were done for the Old Owen Falls Dam. This is further compounded by the fact that to date no post-construction EIA has been done for the old Owen Falls Dam.”

RESPONSE:

53. IDA conducted environmental and social analyses of Owen Falls Extension in 1990, consistent with the intent of OMS 2.36 on Environmental Aspects of Bank Work, May 1984. OD 4.00 (1989) was not applicable because the Power III Project was initiated in 1988. IDA subsequently conducted an EA for the Power IV Project approved by the Board in 2001, in accordance with OP 4.01 (1999).

54. With respect to the Requesters' concerns that no post-construction EA was prepared for Owen Falls Dam, Management observes that the conduct of such studies is not common practice and no IDA policy, directive or procedure requires a post-construction EA. In any event, Management notes that the purposes such an EA might have served were achieved in a variety of studies conducted under the Power III Project, Power III Supplemental Credit and Power IV Project. These conclusions are elaborated below.

Applicability of OD 4.00

55. The World Bank's OD 4.00 on Environmental Assessment, providing guidance to staff on policies and procedures for conducting EAs, was issued October 31, 1989. Paragraph 3 of that OD states: “All projects which reach the IEPS [Initial Executive

7 Units 11 and 12 were commissioned in 2000.

Project Summary] stage after October 15, 1989 are fully subject to this directive. Projects currently in advanced stages of preparation are not normally subject to this annex. For other projects already past the IEPS stage, the TM [Task Manager] and the RED [Regional Environment Division] should, by December 31, 1989, review the status and recommend how to achieve the objectives of this annex within the existing time and resource constraints.”

56. In January 1988, IDA began discussions of the Owen Falls Extension (now known as the Kiira power station) as part of the Power III Project. A January 21, 1988 Office Memorandum reflected the decision to prepare an IEPS for the Power III Project in March 1988. The IEPS located in the project files is undated, but it references a future April 1988 mission. Based on this January 1988 memorandum and the IEPS language, the date of the IEPS is after January 21, 1988 but before the end of April 1988. Project components included a hydropower scheme at a location and size to be determined, and reinforcement of transmission lines. The Final EPS was prepared in June 1990, which included the extension of generating facilities at Owen Falls. Appraisal of the Power III Project was conducted in June and July 1990. IDA’s Board approved the project in June 1991. The Requesters have stated that the OD was in effect in 1991, which is correct, but given the pre-appraisal timelines noted above, it was not applicable to the Power III Project.

57. Because the 1988 IEPS for the Power III Project pre-dates by approximately a year and a half the October 15, 1989 date of OD 4.00’s applicability, Management’s view is that IDA met the requirements of OMS 2.36. This OMS did not require an EA. The analysis conducted for the Power III Project adhered to the principles (OMS 2.36, para. 9) of the Bank’s guidelines to address environmental concerns and followed the format recommended by OD 4.00, Annex B1: Environmental Policy for Dam and Reservoir Projects (see para. 59).

Environmental Analysis of Power III Project

58. As explained by an IDA environmental specialist in response to a question about the Owen Falls Extension at the July 2001 Washington, D.C. Forum on the proposed Bujagali Hydropower Project, no formal EIA process of the type contained in the 1989 OD 4.00 was conducted for the Power III Project.

59. Notwithstanding the inapplicability of OD 4.00, the Power III Project incorporated an “environmental assessment analysis” (Annex 17) in the SAR of May 1991 presented to the IDA Board. As also stated at the above-mentioned Forum, two other reports addressed environmental and social impacts related to the Power III Project in addition to the environmental analysis in the SAR. A feasibility study report (WS Atkins, 1986, *Power Development Study, Annex B, Environmental Impact Assessment*) compared five sites, one of which was an Owen Falls Extension (a tunnel engineering scheme instead of the canal scheme eventually adopted). In 1986, this option was eliminated because of concerns about Lake Victoria hydrology (see paras. 31-36, for more information on hydrology). During Power III Project preparation, the technical report on the Owen Falls Extension dedicated a chapter to environmental impacts (Acres

International, 1990, *Proposed Extension to Owen Falls Generating Station, Feasibility Study Report, Volume 2, Technical Report, Chapter 9, Environmental Considerations*); this examination of canal options for the extension found that such schemes created relatively few environmental changes and thus, few impacts.

60. In addition, the project records demonstrate that attention was paid to environmental and social concerns from the first stages of project development (see Attachment 6 for additional detail). Beginning with the 1988 IEPS, IDA identified its role “to assist Government and UEB to address the environmental issues.” During 1989 and 1990, project documents reiterated environmental concerns, such as dialogue with Government on the environmental issues, need for an environmental assessment and mitigation measures in the draft feasibility report prior to appraisal, and an environmental specialist on the appraisal team. The principal issues were: the disposal of large volumes of material to be excavated for the power canal; sediment control during construction; resettlement of households in the area of the proposed power canal; and compensation for lost crops and land.

61. Receipt of a resettlement plan, including details of compensation proposals, was required prior to an invitation being sent to negotiate the Credit, and implementation of the plan was a condition of disbursement for the civil works component of the project. In March 1992, the Relocation and Compensation Plan Final Report for Owen Falls Extension (following on the January 1991 UEB submittal) was finalized (for a much larger number of households than foreseen in the SAR). By the end of March 1993, compensation payments had been made to nearly all the families found to be affected by the construction works. In May 1993, a review for the Bank’s East Africa Department concluded that the plan, design and management of the exercise, which had extended to 222 families, were “successful and generally conformed to Bank policy.” In December 1993, the Bank social scientist specializing in resettlement was cited as concluding that the exercise had been executed to completion and was an example of good practice. As part of coming to closure on the Power III Project’s resettlement work, in December 2000, IDA recommended an audit be conducted. UEB has carried out the audit, the results of which are expected in September 2001.

62. As part of the Power IV Project’s due diligence, in March 2000, UEB submitted to IDA an “Environmental Report” (UEB, Project Manager to Managing Director, March 2, 2000, Ref ZEI/cm/OFE-101), which summarized the mitigation measures undertaken for Owen Falls Extension. The measures reviewed included compensation for displaced families; replacement of a police station and barracks, primary school, tree nursery with staff housing, and two houses; restoration of the project site to minimize insect breeding areas; and protection of canal banks. Construction materials had been supplied from existing town facilities without need to open new quarries or mines. Because the construction site was adjacent to Jinja town, little auxiliary development had been required to construct the power station. Proximity of the site to Jinja allowed utilization of the existing sewage and water supply system. Material from excavation was utilized for extension of the town airport runway and right river bank upgrading. The disposal areas for excavated material had been graded and reseeded.

Sectoral Environmental Assessment

63. The Power III Project SAR, along with earlier project documents, called for an SEA of Hydropower Development, with emphasis on the major Victoria Nile hydropower sites in Uganda and reference to geothermal and fossil fuel options as part of the analysis of alternatives. Annex 18 of the SAR presents draft TOR for this SEA for which US\$1.1 million were provided in the project financing plan. UEB was to have responsibility for conducting, integrating and coordinating the SEA. The TOR recommended that an Inter-Agency Advisory Panel, chaired by UEB and including representatives of various government and non-government agencies, determine the scope of the SEA, assign responsibilities and coordinate and supervise its preparation.

64. While the approach of an Inter-Agency Advisory Panel was not adopted, the objectives and substantive concerns of the SEA, i.e., “list the proposed projects in an order of environmental preference” and “cost of mitigation factored into the least-cost calculations” (SAR, Annex 18, p. 5), were addressed through various studies. An assessment of the alternatives for electricity generation and supply in Uganda was conducted through the Hydropower Development Master Plan, commissioned by UEB and financed by the ADF. The *Assessment of Generation Alternatives* (Acres International, May 2000) also analyzed generation alternatives. The studies examined alternatives that could provide electricity to meet projected demand in Uganda, including wind power, geothermal power, solar energy, small scale hydropower, biomass, co-generation facilities, thermal power plants, large scale hydropower, and electricity demand management. Based on these studies, large scale hydropower development emerged as the most viable way forward for Uganda in the short to medium term.

65. The Rust Kennedy and Donkin *Hydropower Development Master Plan* included a comparative analysis of the environmental effects of Murchison, Ayago North, Ayago South, Kamdini (also known as Karuma), Kalagala and Bujagali (Section 10, Executive Summary). A first stage environmental impact assessment was contained in Volume 8, including the range of mitigation and monitoring appropriate and a comparative assessment. This study concluded that “overall Bujagali or Kamdini [Karuma] are considered to be the sites which would be least damaged by development.” The Government accepted the findings and recommendations of this study and decided it wished to proceed with the proposed Bujagali Hydropower Project.

66. The Rust Kennedy and Donkin *Hydropower Development Master Plan* was the beginning of a series of studies that looked at issues on the sectoral level. In addition to three individual EAs for Karuma Falls (Norplan A.S., 1999), Kalagala (Lahmeyer, 1998) and Bujagali (WS Atkins, March 2001), two sector-level assessments have examined the environmental effects of the major Victoria Nile hydropower sites in Uganda.

- *Assessment of Generation Alternatives – Uganda, Final Report* (Acres International, May 2000), commissioned by IFC and initiated in 1998, examines existing generation stations and transmission systems, rural electrification, and potential future generation projects. This study includes an assessment of socio-economic, cultural property and biophysical issues of

Bujagali, Kalagala, Karuma Falls, Ayago, Murchison and Masindi hydropower projects as well as a review of cumulative effects. The assessment concluded that from the technical, environmental, social and cost perspectives the proposed Bujagali Hydropower Project was the preferred option; and

- *Victoria Nile Strategic Impact Assessment – Uganda* (ESG International, January 2000) analyzed the three prime hydropower projects under consideration for the Victoria Nile (Bujagali, Kalagala and Karuma), as identified by Acres International, and developed evaluation criteria in order to assess future projects.

These studies were examined and supported by the Government and made publicly available at the June 2000 Washington, D.C. Forum.

67. Management acknowledges that the SEA was neither conducted nor funded under the Power III Project in the way envisioned in the SAR. Management recognizes that, with respect to the SEA, supervision was inadequate and the rationale for not pursuing a SEA earlier on in project implementation should have been discussed and documented. Over time, the studies referenced above yielded analyses that accomplished the objectives of an SEA.

Environmental Concerns in Power III Supplemental Credit

68. The Supplemental Credit for the Power III Project, approved by the Board in January 2000, financed shortfalls as a result of delays caused by the cancellation of the original civil works contract due to non-performance, and extreme weather conditions. Additional monies were needed to cover completion of the civil works of the Owen Falls Extension and the strengthening of the 50-year old Owen Falls Dam, which was deteriorating, in part due to structural problems caused by a chemical reaction called “Alkali Aggregate Reaction.” Strengthening was deemed a high priority because of potentially severe economic, social and environmental consequences of any failure.

69. The consideration of environmental aspects in the Memorandum of the President (MOP) of December 21, 1999 for the Supplemental Credit concluded that the analysis carried out in May 1999 (as part of environmental studies for the Power IV Project) confirmed the 1990 findings of the environmental analysis documenting the minimal impacts as a result of the Owen Falls Extension.

The Power IV Project Environmental Assessment

70. The Power IV Project, which will install up to two additional 40MW units in the existing civil works built under the Power III Project, was screened in accordance with OP 4.01 and classified as Category B under that OP, because the potential impacts were considered to be limited. A Category B EA (Final EA, August 2000) was prepared and disclosed at the InfoShop on October 1, 2000, prior to appraisal later that month. The EA contained a specific Environmental Monitoring Plan. Uganda’s NEMA approved the EA and the Environmental Monitoring Plan on October 20, 2000 (Certificate of Approval of Environmental Impact Assessment No. 105). In mid-January 2001, the EA was disclosed

in Uganda at public libraries, institutional libraries, the Ministry of Energy and Mineral Development and Parliament. IDA recognizes that in-country disclosure subsequent to appraisal was not in accordance with OP 4.01. This disclosure date, however, did allow the EA to be available to the public for approximately five and half months prior to Board approval of the Power IV Project in early July 2001.

71. As stated in the Project Appraisal Document (June 2001), the Power IV Project is not anticipated to have significant environmental impacts. Nevertheless, mitigation measures and monitoring were incorporated in order to address concerns pertinent to both the Power III and Power IV Projects and the eventual decommissioning of the construction site, as follows:

- Decommissioning Plan, based on conduct of an environmental audit, will be prepared at the end of the project. It will involve the removal of temporary infrastructure remaining from the Power III and Power IV Projects;
- An Environmental Monitoring Plan will focus on water quantity and quality, biology and ecology of fish populations, silt accumulation and removal, shoreline stability, effects of fish processing factories along Lake Victoria whose number may increase as a result of improved power supply, and implementation of the Decommissioning Plan; and
- An Environmental Monitoring Plan will also, as needed, include mitigation measures related to the Power III Project. These measures will include buttressing of the Owen Falls Dam upstream, which entails reinforcement of the island that is not strong enough to withstand river currents, and landscaping with terracing of the shoreline downstream of the Owen Falls Dam to reduce soil erosion and run-off. The UEB has engaged an environmental officer to assist in the plan's implementation.

Post-Construction EIA for Owen Falls Complex

72. Post-construction EIAs or EAs, inside or outside IFC and IDA, are not common practice and are rarely done. They are neither mandated nor recommended in the 1989 or 1991 ODs on Environmental Assessment, nor in the current 1999 OP 4.01 on Environmental Assessment. Many of the purposes that any retrospective EIA or EA might have fulfilled have already been served as described below.

73. The benefits of the Owen Falls Dam were extended, i.e., optimized by selection of Owen Falls Extension for the Power III Project instead of a new hydropower site. Concerns regarding the safety of the Owen Falls Dam were addressed in the Power III Project and the Supplemental Credit, based on the inspections and recommendations of the Power III Panel of Experts. An environmental monitoring plan will be put in place under the Power IV Project (para. 71) and a resettlement audit has been conducted (para. 61). The effectiveness of mitigation measures under the Power III Project was assessed as part of the Power IV Project and needs have been addressed, including the strengthening of UEB's institutional capacity for environmental monitoring. Thus, environmental and

social issues associated with the Owen Falls complex (Owen Falls Dam and Owen Falls Extension) have been reassessed, as appropriate.

74. The cumulative impacts of the Owen Falls Dam, Owen Falls Extension and Bujagali as well as other hydropower sites on the Nile were analyzed in connection with the proposed Bujagali Hydropower Project. (For additional information, see response to Claim # 3.)

CLAIM # 2

“The World Bank admitted at the July 17th-18th, 2001 public forum on the Bujagali Dam project (held in Washington D.C.) that there was no formal EIA for the Owen Falls Extension Project, which has received World Bank support. It appears that this project design was based on flawed assumption about the hydrology, which a thorough EIA process would have discovered. According to Acres International, the Extension project is designed to supply Uganda with 200MW of power.

The Project Information Document on Bujagali Dam states ‘The main component of this project (Power III) is the civil works construction of the Owen Falls Extension (OFE) dam and the installation of 80MW (out of 200MW) of generation plant.’ But now it has been determined that there is only enough water for a 100MW project, according to Ron Anderson of the IFC’s Bujagali team (he stated this in a December 13, 2000 meeting with BIC and IRN). The project’s shortfall has directly led to the pressure to approve the Bujagali Dam now under consideration at the World Bank Group, which will have its own serious environmental impacts.”

RESPONSE:

75. The environmental analyses for the Power III Project and the Power IV Project are discussed under Claim # 1. Management observes that the other statements in this claim do not refer to any policy violation.

76. The December 13, 2000 meeting cited in the Request involved IFC, the Bank Information Center (BIC) and the IRN. Contrary to what is claimed, Ron Anderson did not make the statement attributed to him. This is confirmed in the email minutes of the meeting (dated January 23, 2001) prepared by the IRN Africa Coordinator (see Attachment 7). The context of the discussion was straightforward. The Owen Falls Extension project has been built to accommodate up to 200MW of installed capacity. Together with the 180MW at Owen Falls Dam, there would be a combined installed capacity of 380MW. The full installed capacity, because of variability in water flows and maintenance requirements, is not generally used, but it provides needed flexibility for repairs and use of high flows when available.

77. A set of least-cost analyses, begun in 1995 and continuing through 2000, have confirmed that the Owen Falls Extension and proposed Bujagali Hydropower Project are the first and second power generation expansion options in Uganda’s least-cost

generation plan to meet the country's electricity demand. The design of the Owen Falls Extension was based on detailed analyses of the 1960-1988 historical hydrology records and independent hydrology experts confirmed the methodology to evaluate the project's power and energy production capability under uncertain hydrology and water outflow conditions. Actual water outflow data since the project's appraisal in 1990 confirm that the data used in project design is still valid after eleven years, so there was no change in the plant's generation capability (see Claim # 4). IDA's due diligence of the Power III Project recognized that the available outflow from Lake Victoria is a key factor in the generation capability of hydropower plants on the Victoria Nile (see Claim # 4). The generation capability of the Owen Falls power station and Owen Falls Extension power station is variable depending on hydrological conditions. This situation occurs because of the Agreed Curve agreement with Egypt (para. 35). The SAR for the Power III Project notes that under low hydrological conditions, the plant's output would be reduced but experts assessed this risk of low hydrology to be small. IDA took adequate cognizance of the expert scientists' extensive hydrology studies that have been carried out ever since the construction of the Owen Falls Dam. Scientists continue to disagree on the level of water available for power generation (see hydrology discussion, paras. 31-36).

78. A review of the records for the Power III Project revealed that the SAR and Development Credit Agreement were not fully consistent with their descriptions of the extension capacity. Management wishes to present an overview of the decision making process which resulted in modifications to the design of the Power III Project. The records indicate that IDA proceeded with presentation of the project to the Board, even with an evolving design. IDA did so because of the need for increased spillway capacity to prevent overtopping the Owen Falls Dam (with a risk of failure and a major flood event), and in order to retain the IDA allocation, which otherwise would have been lost at the end of the fiscal year.

79. The original design of Owen Falls Extension and the basis for IDA appraisal in June 1990 consisted of a canal-fed powerhouse structure to be located about three quarters of a kilometer downstream of the existing Owen Falls Dam, a powerhouse accommodating 3x34MW units, and actions to address concerns about the safety of Owen Falls Dam, which had not been fully evaluated at that time. The SAR described a 3x34MW facility but the Development Credit Agreement (see paras. 82-83) described a planned capacity of 5x34MW.

80. A May 1990 hydrologic risk assessment undertaken by UEB's consultants and independently reviewed by hydrology experts in January 1991, concluded that the spillway capacity for Owen Falls Dam was inadequate. Without increased spillway capacity, the Owen Falls Dam would be physically endangered. IDA's view was that the Owen Falls Dam had to be stabilized. UEB's consultants were requested to study the various alternatives for meeting the additional spillway capacity either at Owen Falls Dam or at Owen Falls Extension. Also IDA recommended that the Panel of Experts review and advise on the recommendations of UEB's consultants regarding dam maintenance, operations and the spillway.

81. UEB's consultants analyzed eight alternative spillway schemes. Because of the uncertainties and significant dam safety risks concerning the structural integrity of the existing Owen Falls Dam, the recommended optimal spillway configuration was a scheme involving an increase in the size of the canal and a conventional spillway alongside the powerhouse at Owen Falls Extension. As part of the riparian notification process, an update to the riparian states was issued to explain the need for additional spillway at Owen Falls Extension.

82. The Government/UEB and IDA negotiations on the proposed project took place in February 1991. At negotiations, it was agreed that the additional spillway capacity would be accommodated by increasing the capacity of the proposed canal feeding Owen Falls Extension. The additional spill capacity at Owen Falls Extension aimed to protect the Owen Falls Dam against overtopping and possible failure in a major flood event (one percent in 100 years, a figure generally accepted as good practice). The consequences of a dam break at Owen Falls would have been catastrophic, not only for Uganda, but for numerous downstream riparian states along the Nile River, which would have been affected by the estimated five to eight meters of Lake Victoria discharging into the Victoria Nile. The description of the project in the Development Credit Agreement referred to plant capacity expansion by at least 102MW (3x34MW) and civil works to accommodate a plant capacity of 170MW (5x34MW).

83. With the increased size of the canal and thus water flows, UEB wished to review expanding the configuration of the powerhouse shell to accommodate additional generating sets (over and beyond the 3x34MW units). This additional modification was accommodated with regard to the civil works (5x34MW) but not with respect to the number of generating units because: (a) further detailed assessments would be required to justify a large powerhouse configuration; and (b) it would have resulted in a significant funding gap for the project.

84. In March 1991, IDA commented on the consultants' draft addendum to the feasibility report (March 1991) concerning the spillway configuration, including the economics of enlarging the power station to house five units rather than three. The study also confirmed that it was not economic to install more than three units initially. Of the several configurations reviewed, the two optimal powerhouse configurations were 5x34MW units or 5x40MW units. The differences in Net Present Value terms between these two options was negligible and the consultants recommended the 5x40MW configuration because it would provide greater peaking capacity and flexibility for operation and maintenance. IDA: (a) confirmed its concurrence on the recommended spillway configuration (a conventional spillway alongside the powerhouse); and (b) recommended that UEB's consultants investigate the cost and viability of increasing the civil works at Owen Falls Extension to accommodate two additional generating units, as well as the economic justification. The project was approved by the Board on June 13, 1991.

85. The Power III Project files provide a record of the November 4, 1991 meeting with co-financiers, including a description of the change in project dimensions (see Attachment 8). Co-financiers were kept fully informed and were involved with regard to

actions taken on design modifications. The record of the meeting notes that since Board presentation, UEB's dam safety consultants for the stability of the Owen Falls Dam and power station had completed studies into the reasons for the cracking of the concrete structure of the existing power station (caused by expansion of the concrete induced by a chemical reaction). Although the consultants concluded that the Owen Falls Dam powerhouse should continue to be operable for the foreseeable future, the Government and UEB expressed concern about the implications of the dam cracking in reaching their decision regarding the need for flexibility in the final powerhouse capacity for Owen Falls Extension. Taking into account the above factors, installation of 200 MW (5x40MW) was recommended. It was agreed that a staged installation, with two units initially, and three units at a later date, in a powerhouse shell built to accommodate five units (instead of the three units envisaged in the SAR) was the most prudent strategy and was justified on technical, economic and financial grounds.

86. The SAR presented to the Board in June 1991 does not clearly explain the design changes that were already in process. Management regrets that the documentation presented to the Executive Directors was not revised to incorporate design modifications reflected in the Development Credit Agreement. Management acknowledges that there was not full and frank disclosure of this situation to the Board. The EA appears not to have been subsequently revised to account for the larger canal and the increased volume of spoil and larger spoil disposal area. The design alterations also appear to account for the increased numbers of land acquisitions and households to be resettled, compared with the estimates noted in the SAR. The resettlement plan and its implementation, nevertheless, did result in compensation for several hundred households, and good practice was demonstrated as explained in the response to Claim # 1. It should be noted that satisfactory completion of the resettlement plan was a condition of disbursement for the civil works construction component of the project.

87. The changes in the project's configuration were technical in nature, consistent with the objectives of the project as defined in the Development Credit Agreement, and motivated by safety concerns and opportunities to enhance power supply. Management views these changes as beneficial to Uganda, because: (a) they have provided flexibility in power capacity; (b) the revised approach minimized costs to meet demand and hydrological risks; and (c) dam failure risks were minimized for Uganda as well as other riparian states. The Development Credit Agreement for the Power III Project was amended after Board approval of the Power III Supplemental Credit in January 2000 to reflect the minor change in plant capacity from 170MW to 200MW.

CLAIM # 3:

“The lack of an EIA for Owen Falls Extension violates the World Bank's policy, in effect at the time of project approval, on Environmental Assessment. The project consists of a 1400 meter long, 120m wide canal from upstream of the existing Owen Falls Dam to a concrete power station/spillway structure. Associated works include construction of a transmission line to Kampala. Clearly, this is a major project with environmental impacts. The lack of EIA for either the Owen Falls or Owen

Falls Extension projects also means that it is very difficult to assess the cumulative impacts of these two projects, plus the proposed Bujagali Hydropower Project. We believe, we and all Ugandans, have been harmed by the failure to do a proper EIA on the project.”

RESPONSE:

88. See Response to questions about the EIA for Owen Falls Extension in Claim # 1.

89. IFC and IDA, from the onset of the environmental and social review of the proposed Bujagali Hydropower Project, have been cognizant of the potential cumulative effects from existing, proposed and anticipated future hydropower station developments on the Victoria Nile in Uganda. IFC commissioned two independent studies using Trust Funds. The first study, *Assessment of Generation Alternatives – Uganda* (Acres International, May 2000) provided the assessment of cumulative effects on the Victoria Nile as one of its main objectives:

“Cumulative effects are defined in this assessment as the incremental impact of specified development activities on the environment when added to other past, present and foreseeable future actions, regardless of who undertakes the activities” (p. 8-82).

90. This study (pp. 8-85 to 8-98) defined three cumulative impact regions: (a) Upper Reach of the Victoria Nile, upstream of Lake Kyoga to Lake Victoria, which included the existing Owen Falls Dam and Owen Falls Extension, the proposed Bujagali Hydropower Project approximately 8 kilometers downstream and a potential project at Kalagala Falls, a further 11 kilometers downstream from the proposed Bujagali dam site; (b) Lower Reach of the Victoria Nile—Murchison Falls National Park and upstream to the outlet of Lake Kyoga where there is the potential for three new projects—Murchison Falls, Ayago and Karuma—on the Victoria Nile and one diversion proposal—the Masindi project; and (c) Combined Upper plus Lower Reach of the Victoria Nile. The study concluded:

- The cumulative effects of more than one new project in (a) would have major negative cumulative impacts to aesthetics, natural heritage (habitat) and tourism;
- Only one project in (b) - the Karuma project - would have moderate negative cumulative impacts (the remainder having major cumulative impacts); and
- With respect to (c) the conclusion was that the loss of eco-tourism (including whitewater rafting) earnings associated with the construction of the Bujagali, Kalagala, Ayago, Murchison Falls, and Masindi projects would have a major cumulative effect (for Karuma it would be moderate).

91. The second study *Victoria Nile Strategic Impact Assessment – Uganda* (ESG International, January 2000), also addressed the issue of cumulative effects. It built upon the aforementioned Acres International study and developed a methodology for assessing cumulative effects arising from further hydropower developments on the Victoria Nile.

This methodology, “Change Management Objectives,” is neither highly quantitative nor statistical in nature and is a modified version of the “Limits of Acceptable Change” approach to cumulative effects assessment (pp. 28-40). Based on consultations with stakeholders in Uganda, the methodology presents criteria against which to assess the degree of change to the Victoria Nile acceptable to the Government of Uganda and how future developments on the river should optimally occur. One of the observations from the study was that there was a desire in Uganda to use the Victoria Nile for purposes other than for the generation of electricity.

92. IFC’s June 1999 review (Uganda: Bujagali Hydroelectric Power Project: Review of Environmental Impact Statement, Final Report, March 1999) of the March 1999 EIS had identified the need for a cumulative effects analysis. It stated: “a cumulative effects assessment needs to be included in the EIA which at minimum assesses the impacts of the proposed Bujagali Hydropower Project, Owen Falls Dam and the Owen Falls Extension and at least one future hydroelectric project on the Victoria Nile (preferably a project where an MOU has been signed with the Government of Uganda).” The March 2001 EIA for the hydropower facility (pp. 379-398) and the accompanying March 2001 Technical Appendices (Appendix G.2) presented details of the anticipated cumulative impacts of three cascade scenarios (Owen Falls Dam, Owen Falls Extension, Bujagali and Kalagala; Owen Falls Dam, Owen Falls Extension, Bujagali and Karuma; and Owen Falls Dam, Owen Falls Extension, Bujagali, Kalagala and Karuma). Also, a cumulative effects assessment was carried out on the transmission line component of the proposed Bujagali Hydropower Project.

93. Key conclusions from the March 2001 EIA on this subject (proposed Bujagali Hydropower Project EIA, Executive Summary, Uganda, p. 54) are:

- The cumulative effects of Owen Falls Dam and Owen Falls Extension, though largely undocumented, are likely to have been moderate to major;
- The cumulative impacts of the three potential new hydropower projects on the Victoria Nile (Bujagali, Kalagala and Karuma) appear to range from moderate to major, and together, are likely excessive on environmental and social grounds;
- Of these three projects, the cumulative effects of the Kalagala project appear to be the greatest. Together with the Owen Falls Dam and Owen Falls Extension projects, the Kalagala project would likely prove excessive on environmental and social grounds for the stretch of the Victoria Nile between Lake Victoria and Lake Kyoga; and
- The proposed Bujagali Hydropower Project’s cumulative effects appear to be intermediate between those of Kalagala and Karuma, suggesting that it might proceed without excessive effects on environmental and social resources upstream of Lake Kyoga on the Victoria Nile system.

94. On the basis of the environmental and social review of the proposed Bujagali Hydropower Project by IFC and IDA, including concerns related to the cumulative effects, IFC, IDA and the Government of Uganda on April 25, 2001 reached an agreement known as the “Proposed Bujagali Hydropower Project: World Bank Group’s Requirement of an Offset at Kalagala Falls” (Attachment 9), which is proposed to be reflected in the IDA Indemnity Agreement with the Government. Highlights of the agreement are:

- Kalagala Falls, partly because of the cumulative impacts in association with the proposed Bujagali Hydropower Project, would be developed as a non-hydropower site (tourism, research, etc.); and
- The Government of Uganda has ruled out the development of hydropower initiatives at Murchison Falls.

CLAIM # 4

“The Owen Falls Extension project also violates the World Bank’s policy on Economic Evaluation of Investment Operations, which states, ‘To obtain a reasonable assurance that the project benefits will materialize as expected and will be sustained throughout the life of the project. The Bank assesses the robustness of the project with respect to economic, financial, institutional and environmental risks. The economic analysis of the projects is necessarily based on uncertain future events and inexact data, and therefore inevitably involves probability judgments. The Bank’s economic evaluation considers the sources, magnitude and effects of the risk associated with the project, by taking into account the possible range in values of the basic variables and assessing the robustness of the projects outcome with respect to changes in these values.’ There is sufficient evidence that the Owen Falls Extension was not subject to this kind of analysis at the World Bank Group.”

RESPONSE

95. Management observes that the Bank’s OP 10.04 on Economic Evaluation of Investment Operations, which was issued in September 1994, was not applicable to the Power III Project which was appraised in June/July 1990.

96. IDA’s evaluation of the Power III Project, Power III Supplemental Credit, and Power IV Project included thorough technical and economic assessments for each project in accordance with the operational policies in effect at each time (OMS 2.20, Project Appraisal, January 1984 and OMS 2.21, Economic Analysis of Projects, May 1980 for the Power III Project and OP 10.04 for the Power IV Project). Attachment 10 provides detailed information to demonstrate that IDA addressed the technical, economic, financial, institutional, environmental and social aspects of the Power III Project and its Supplemental Credit and the Power IV Project, in order to assess the robustness of the projects’ outcomes.

CLAIM # 5

“The mistakes in the design, which resulted in only 100MW instead of 200MW being installed at Kiira Dam has meant a hastening of Uganda Government’s efforts to build Bujagali dam. It has also been described in the press here as being one of the causes of the newly raised electricity tariff rates (see attached articles from East African and Sibexnews). We as Ugandan citizens, have been harmed by the sudden and unexpected increase in electricity tariffs.”

97. The question concerning the 100MW instead of 200MW of installed capacity at Owen Falls Extension (Kiira) has been covered above (see para. 76). Below is a response to the issue concerning the causes of the “sudden and unexpected” electricity tariff increases.

RESPONSE:

98. The Requesters have not asserted in the Request that IDA has violated any directives, policies or procedures regarding the establishment of public utility tariffs. Management is of the view that it has followed the usual practices for projects in the power sector. The following sections comment on the statements of the Requesters.

99. As mentioned in paras. 28-30, in January 1993, the Government increased the average retail tariff to 7.2 cents (US) per kWh in line with the financial covenants agreed under the Power III Project. Until recently, there had been no further adjustments to electricity tariffs in Uganda. Thus, an increase in electricity tariffs was inevitable, independent of the proposed Bujagali Hydropower Project, and became a condition of Board presentation for the Power IV Project. With no change in tariff rates since 1993, revenues generated from electricity sales became disconnected from present day costs. This was partially due to local inflation and the significant devaluation of the Uganda Shilling against foreign currencies. The Power III Project SAR notes that the US Dollar was equivalent to 670 Uganda Shillings (USh) in May 1991, at the time the Government had agreed to increase tariffs to 7.2 cents (US) per kWh. The USh/US rate today is about US\$1,800/US\$1. This has had an impact on UEB’s ability to repay its debt, which is in large part denominated in foreign exchange. After the Owen Falls Extension (80MW) was commissioned in July 2000, the power sector had to pay for this “performing asset” entirely from its own resources. In 2000, the Government established the ERA, an autonomous body under the new power sector structure, responsible, *inter alia*, to periodically review the adequacy of electricity tariffs and to take decisions on the appropriate level of the retail tariff, as and when required.

100. In 2000, the Government requested the ERA to review the adequacy of electricity tariff levels, which had declined to 5.6 cents (US) per kWh. In May 2001, the ERA established a new tariff structure. Attachment 1 explains the rationale for the tariff adjustment and includes many of the points made in para. 99. The decision was to increase tariffs in one step rather than in a phased manner. The ERA kept the lifeline tariff, which entails some cross subsidization from other consumer categories.

Subsequent to the electricity tariff increase of May 2001, the Government announced in August 2001 that it converted a portion of the debt that the Government lent to UEB to equity. This action will provide some tariff relief to consumers.

101. Along with the ERA's decision to charge appropriate costs for power, budgetary subsidies for electricity will have been removed, and will thus free budgetary allocations which can be directed to poverty reducing programs. Investments to connect new consumers and to rehabilitate the existing power system are required for which revenues need to be raised. Moreover, in order to attract capital to meet future investment needs, the power sector must be placed on a financially viable and sustainable basis. The ERA has attempted to re-establish a satisfactory financial foundation for the power sector, based on its existing cost structure; the need to ensure that the sector generates sufficient revenues to cover its recurrent expenditures, debt service, and working capital; and the need for the sector to meet a portion of its investment needs through internally generated funds. Most of these reasons appear to be enunciated in the newspaper articles attached to the Request, which quote the views of the ERA:

Quotations from the articles from the East African and Sibexnews:

- **“Reuters reported ERA said the new tariffs were also aimed at paying for the new Kiira Dam opened on the River Nile last year and the extension of the grid to rural areas.**
- **“ERA said in a statement, the sector should be able to cover its costs without government subsidies.**
- **“It [ERA] said ‘Tariff adjustment is necessary to pay for the cost of the Kiira project, finance the investments required to improve quality of supply...finance new connections to the network, and extension of the grid to rural areas.’**
- **“ERA Chairman Ben Dramadri told Reuters the changes were justified because retail tariffs have not been adjusted since 1993, adding the new tariff was lower than the 1993 tariff adjusted for inflation and foreign exchange moves.”**

102. According to the due diligence work on financial modeling, if the proposed Bujagali Hydropower Project were commissioned in 2006, the average retail electricity tariffs could fall in the range of 10.5 cents (US) to 12.5 cents (US) per kWh. This does not take into account the debt restructuring announced by the Government, which will reduce these projections. Actual domestic retail tariffs will depend upon the level of domestic demand and could be reduced if there are continued and expanded export sales with Kenya.

103. It should be noted that the Government, with IDA assistance, is preparing an Energy for Rural Transformation project to address the energy needs of the rural population in Uganda. The proposed project will support investments and technical

assistance to: (a) increase rural electricity access by 10 percent over the next decade; (b) within the first four years and in ten districts, provide modern energy to rural health clinics and modern energy and information and communication technology packages in selected post-primary schools and learning institutions, and expand the program to all districts within 10 years; and (c) provide at least one public telephone per 5,000 inhabitants at the sub-county level within four years, etc.

CLAIM # 6

“proposed Bujagali Hydropower Project appears to be on a fast track, which we can only attribute to the inability of Kiira Dam to meet Uganda’s current electricity needs. This has resulted in many shortcuts being taken. We believe these will lead to harm to all Ugandans because proposed Bujagali Hydropower Project is likely to raise the electricity tariffs further again to rates that most Ugandans cannot afford. Below are some indicators to the way Bujagali appears to be on a ‘fast track’.”

RESPONSE:

104. The proposed Bujagali Hydropower Project is not on a “fast track.” The project has been under development since the signing of an MOU between the Government and AES for the proposed Bujagali Hydropower Project in 1994. The proposed project is still under review by IFC and IDA (see paras. 18, 19, 24 and 25). The chronology of due diligence undertaken on the proposed Bujagali Hydropower Project’s environmental and social aspects beginning in 1997 is described in paras. 37-47. IDA tentatively plans to appraise the proposed Bujagali Hydropower Project in October 2001.

CLAIM # 6 (1)

“Resettlement and compensation has already begun, although there is no assurance that the World Bank or other funders will decide to back the project. This means that resettlement is going on without the World Bank’s supervision or involvement: an approach that appears to violate the Bank’s policy on Resettlement. This policy says that ‘during project preparation, the feasibility of resettlement must be established, a strategy agreed upon, the plan drafted and budgets prepared. At negotiations, the borrower and the Bank should agree on the resettlement plan...Resettlement components should be supervised throughout implementation (see OD 13.05, Project Supervision). Supervision that is sporadic or left until late in implementation invariably jeopardizes the success of resettlement.’”

RESPONSE:

105. The requirements for the processing of IDA guarantee operations are governed by OP 14.25 on Guarantees. IDA has followed the requirements of this OP. As the proposed Bujagali Hydropower Project has not yet been approved by the Board, the requirements of OP 13.05 on Project Supervision are not applicable.

106. OP 14.25 on Guarantees states that, “Any project benefiting from a Bank guarantee must comply with all applicable Bank policies, including those governing disclosure of information and the environmental, social and international law safeguards” (OP 14.25, para. 3). This OP goes on to state, “Projects to which Bank guarantees are applied are appraised and supervised to ensure that they conform to applicable Bank policies. For private sector projects, the Bank conducts its own appraisal of risks to be covered by the Bank’s guarantee; however, the Bank may rely on any appropriate technical, environmental, and financial evaluations of the project that are satisfactory to the Bank, which are carried out by IFC or by private sector lenders or other financing agencies whose evaluation capacity and process the Bank considers satisfactory” (OP 14.25, para. 11).

107. As part of the project preparation process carried out to date on the proposed Bujagali Hydropower Project, IFC and IDA staff have worked with AESNP on the RCDAP for the hydropower facilities, and the RAP, which pertains to the transmission line. The objective was to ensure that the plans would respond to the requirements of OD 4.30 – including a strategy, a fully documented plan and a budget. AESNP has been advised on best practice and policy compliance requirements since 1999. Also, IFC and IDA staff have commented on drafts of the RCDAP and the RAP. The complete seven-volume proposed Bujagali Hydropower Project EIA, including the resettlement documentation, was disclosed in Uganda and deposited in the Bank InfoShop on April 30, 2001. After NEMA approval of AESNP’s EIS in November 1999, which authorized AESNP to begin land acquisition, AESNP began compensation activities in April 2001. AESNP is fully aware that it is doing so at its own financial risk in the event that an IFC loan and an IDA PRG do not become available.

108. As part of IDA’s appraisal of the proposed Bujagali Hydropower Project, IDA will evaluate the resettlement activities that AESNP has carried out to date to ensure that they have been properly conducted in accordance with OD 4.30. Measures to address gaps, if any, will be incorporated into the revised RCDAP, which will be approved by IDA. Should the IDA PRG be approved, AESNP will be required to covenant to IDA in the Project Agreement between IDA and AESNP (part of the PRG documentation) that it will comply with the RCDAP for the hydropower facilities and the Resettlement Action Plan for the transmission line.

109. Although the supervision requirements of OD 4.30 and the requirements of OP 13.05 do not apply until there is a Board-approved project to supervise, IFC and others have been involved in monitoring resettlement activities carried out to date by AESNP. The resettlement documentation sets up a multi-layered monitoring mechanism that involves IFC and IDA staff and third parties as follows: (a) site visits by environmental and social staff as part of appraisal and preparation missions; (b) daily monitoring of AESNP activities related to resettlement and public interaction by a third-party “witness” NGO, InterAid Uganda (see RCDAP sections 8.12-8.20); (c) independent support and monitoring by third-party legal counsel appointed to represent project affected people (see RCDAP sections 8.23-8.24 and TOR in Appendix 5); and (d) monitoring by the social specialist on the Environmental Assessment Review Panel (see EIA, p. 295,

section 6.4). The monitoring mechanisms listed above have already been put into place for the proposed Bujagali Hydropower Project and are functioning.

110. Both OD 4.30 and OP 13.05 will guide IDA staff in carrying out their formal supervision of the proposed Bujagali Hydropower Project, if the IDA PRG is approved by the IDA Board.

CLAIM # 6 (2)

“The Ugandan Government recently began a process to reduce the constitutionally mandated protections for communal lands such as riverbeds, specifically stating that it was trying to set up a fast-track approval process because ‘The lenders to AES Nile Power are concerned about the legal limitation, which does not give AES the controlling authority over the riverbed and riverbank and yet the lenders would like to take a legal security in the lease’ (See attachment below entitled, ‘THE PROPOSED LAND AMENDMENT BILL’). This amendment would change the nation’s laws which protect lands held in common. Rushing this amendment would change the nation’s laws which protect lands held in common. Rushing this amendment to satisfy lenders and AES will have serious implications for all protected lands and human rights in Uganda. It will violate the rights of Ugandans to enjoy protection from the environmental impacts of development projects, and to participate in development decision-making. It would violate the World Bank’s Environmental Assessment Policy on information disclosure and involvement of NGOs and civil society.”

RESPONSE:

111. The proposed lenders have asked AESNP to provide only what is normal and customary in a project financing as security for their loans. The terms of the financing remain to be finalized. IDA would not be a lender to the project; its support to the project would be through a PRG (which covers certain political risks only) to a group of commercial lenders. IDA has neither required the amendment to the Land Act nor had any involvement in substance or in procedural aspects of the proposed amendment to the Land Act attached to the Request.

112. Disclosure and consultation issues are discussed in Claim # 6 (3).

CLAIM # 6 (3)

“The project appears to be coming close to the Board approval stage at the World Bank despite the fact that no information has been released on either the economic risks of the project to Uganda, or on the potential costs of the project’s power. Bank economists stated at the July 17-18 [2001] meeting in Washington that they do not yet have a complete economic analysis of the project and, therefore, could not comment on these issues. We have been asking for information on the project’s cost implications for two years, and have been told we cannot see the project’s Power Purchase Agreement

(PPA). We believe this violates the Operational Directive on Environmental Assessment, which states that ‘in order for meaningful consultations to make place between the borrower and affected groups and local NGOs, it is necessary that the borrower provides relevant information prior to consultations.’”

RESPONSE:

113. Management concludes there has been no breach of OP 4.01 or the disclosure policies at this time, and that additional disclosure of the economic analysis for the proposed project will be provided as was agreed at the July 2001 Washington, D.C. Forum. In compliance with paragraph 16 of OP 4.01, consultations have been held during EA preparation. As of February 2001, AESNP has carried out:

- 240 consultations with 7,293 residents in affected areas;
- 49 consultations with 103 representatives of cultural institutions;
- 130 media events;
- 235 meetings with 1,464 representatives of local Government;
- 110 meetings with representatives of the Government of Uganda;
- 128 meetings with 199 stakeholders; and
- 87 meetings with environmentalists and NGOs.

114. Consultations began in 1997 and have continued to date with affected people and stakeholders. At the recent July 2001 Washington, D.C. Forum, which included Ugandan and international NGOs, questions were asked about the availability of economic studies. Results of the economic studies were not available for discussion at the time of the Forum. The results have yet to be discussed with the Government of Uganda for issuance to the public. At that Forum, however, IFC staff explained this situation to participants, made a presentation of the analytical process (objectives, approaches and key considerations), and made a commitment that the results of these analyses would be disclosed to the public well before consideration of the Project by the Board. Relevant points from the final Meeting Summary are noted below.⁸

115. The final Meeting Summary records that the IFC economist “apologized for not being able to provide definitive conclusions at the Washington, D.C. meeting, noting that the World Bank Group review is ongoing and should be completed within the next few weeks. He explained that following this analytic process World Bank Group senior management would be briefed, as would the primary benefactor for the project, namely,

⁸ Second International Forum on the proposed Bujagali Hydropower Project, Washington, D.C., July 17-18, 2001, Meeting Summary. Facilitators: Catherine Allen, Marasco Newton Group, and Mary Margaret Golten, CDR Associates. The facilitators prepared the minutes of the referenced event.

the Government of Uganda, prior to making information available to the general public.”⁹ IFC staff have prepared a paper summarizing the results of all the economic studies, which will be disclosed as soon it has been discussed with the Government. When this paper is ready, the intention is that it shall become a public document. There will be opportunities for receipt of comments after the economic studies summary is released.

116. Staff also clarified the status of the PPA, which is a proprietary agreement between the Government of Uganda and AESNP, and, as such, IFC and IDA are not at liberty to disclose it without the agreement of the signatories. The IFC investment officer explained that “the PPA between AESNP and the Government of Uganda, as with any contract, historically is not released for public review, but noted that the PPA was placed for full public discussion for about a year before the Committee on Natural Resources and Committee on Economics of the Parliament. The PPA was discussed in detail with numerous Ugandan NGOs, including NAPE, during this time. [He] added that after much discussion, the spirit and intent of the document was found to be correct by Parliament, which is a representative body of the people of Uganda, and was passed by them.”¹⁰

117. In addition, during the same July 2001 Washington, D.C. Forum, an independent participant noted that it is standard practice in the power industry to maintain the confidentiality of PPAs. As the final Meeting Summary reflects, “On the issue of the confidentiality of the PPA, Leslie Eden of HCI Publications noted that such measures were not unusual. In her experience in the field, such agreements are always confidential and that as the deregulation of electrical utilities has become common, it has become much more difficult to get information from private producers.”¹¹

CLAIM # 7

“We question how the project could be so far along in the ‘due diligence’ stage at the Bank yet there are no hard figures on these important issues. It is also not clear how much of the economic analysis will be released to the Ugandan public. The terms of the PPA remain secret, with no party agreeing to release the document. This document clearly lays out the risks to Ugandans, and we have asked, repeatedly, that it be released. Bujagali dam is being put forward by the World Bank ahead of other projects such as Karuma Dam because it is said to be the ‘least cost’ alternative. We have not seen evidence that clearly backs this claim. The Bank itself admitted, at the Washington meeting that Karuma is expected to have less social and environmental impacts than Bujagali. We believe that alternatives have not been fully assessed.”

9 Ibid., page 8.

10 Ibid., page 11.

11 Ibid., page 12.

RESPONSE:

118. The claims relating to the release of the PPA and the economic analysis have been addressed above in Claim # 6 (3). The following response is in connection with the sequencing of Bujagali and other projects.

119. Management would like to clarify that the Government put forward the Bujagali Dam project ahead of the Karuma Dam. This decision by the Government was based on the least-cost analysis of power expansion options, which determines from detailed calculations and simulations, the least-cost expansion plan for the power sector. As part of the due diligence process for the proposed Bujagali Hydropower Project, IFC and IDA had to be satisfied that the proposed project and its timing constituted the preferred generation option, including its direct and indirect costs relative to other options. For this purpose, extensive studies compared the relative merits of the Bujagali and Karuma hydropower sites, as well as other options.

120. Contrary to what has been stated, studies that support the conclusion that the Bujagali Hydropower plant is the least-cost generation alternative have been carried out and made publicly available. The *Assessment of Generation Alternatives* (Acres International, May 2000), identified three promising hydropower projects: Bujagali, Kalagala and Karuma. This study identified Bujagali as the least-cost option for Uganda. In addition, the *Victoria Nile Strategic Impact Assessment – Uganda* (ESG International, January 2000) proposed a methodology for assessing the cumulative effects arising from further hydropower developments on the Victoria Nile. The methodology presents criteria against which to assess the degree of change to the Victoria Nile acceptable to Ugandans and how future hydropower developments on the river should optimally occur. Both of these studies were made publicly available at the June 2000 Washington, D.C. Forum. In addition, the March 2001 EIA for the project provides summary information on the “least-cost” generation alternative (pp. 131 to 137). The draft *Economic Review of the Bujagali Hydroelectric Project* (Acres International, June 2001) provides the most recent least-cost analyses, and a summary of this report prepared by IFC staff will be released for public review as discussed above in Claim # 6 (3) as well as a cost-benefit analysis of impacts on tourism.

121. The least-cost analysis undertaken includes a range of financial and economic considerations as well as environmental and social impacts, which are assessed both cumulatively and directly. The May 2000 Acres International report concluded that Karuma’s cumulative impacts would be moderate and the impacts of the proposed Bujagali Hydropower Project, together with another upstream project (Kalagala), would have major cumulative impacts (see Claim # 3). Nonetheless, the due diligence conducted to date by IFC and IDA has indicated that when environmental and social impacts are factored into account, the next least-cost generation project for Uganda is the proposed Bujagali Hydropower Project.

CLAIM # 8

“We believe that the information on the project’s cost implications needs to be made public, and independently reviewed. Without such steps, we feel the Bujagali Dam could lead to serious harm to all Ugandans, as we believe costs of power will rise steeply (see attached document from International Rivers Network, ‘Likely Tariff Implications...’), thus slowing economic growth for the country as a whole. Without the information on Bujagali’s economic assumptions, citizens are unable to fully assess the project’s impacts on our economy, our electricity tariffs and our overall energy future.”

RESPONSE

122. See responses to Claim # 6 (3) and Claim # 7.

CLAIM # 9

“The Bujagali Dam is also expected to have serious impacts on fisheries, according to a leading expert on the river’s fish, Dr. Les Kaufman (see attached paper). The EIA team on Bujagali appears to have missed the existence of rare fish that could be made extinct by the dam, despite the fact that Mr. Kaufman had been corresponding with the EIA team for some time on the issue. We understand, from the meeting in Washington, that there will be further studies now that Mr. Kaufman’s paper has been publicly distributed, but we question why this information was not included in the original EIA, which, according to Bank policy, should cover ‘existing environmental conditions.’”

RESPONSE:

123. Management observes that the March 2001 EIA describes the “existing environmental conditions” of the species referred to in the claim and thus, the EIA discussion is in compliance with the requirements of OP 4.01. Since habitat would remain for the species cited, if the project were implemented, the proposed Bujagali Hydropower Project would also comply with OP 4.04.

124. The possible impact of the proposed Bujagali Hydropower Project on fisheries was recognized by NEMA and IFC early on in the environmental and social review of the project. Because the first EIS for the hydropower component of the project prepared by AESNP (WS Atkins, March 1999) to meet the requirements of NEMA had no primary data on fisheries, NEMA’s approval (November 1999) of the March 1999 EIS had a requirement that primary data be collected on fisheries (March 2001 EIA, p. 71) and that AESNP include a fish ladder in the design of the dam. IFC’s review of the March 1999 EIS (“Review of Environmental Impact Statement, Final Report, March 1999”), issued on June 3, 1999 and discussed with AES on June 8, 1999, cited these deficiencies with respect to fisheries:

“This EA included no field studies on fishes or their potential impacts. It proposes to have the effects of the project on fishes within the new reservoir monitored, and then, should problems develop begin the development of remediable actions/plans. Given the high levels of income and other benefits associated with fish harvesting (as noted in the socio-economic surveys), it would be useful to have a baseline assessment of the fishes in the area and region as well as a more proactive plan for mitigation of any potential fisheries impacts, should they occur, than is currently proposed. These studies should be carried out downstream of the project as well as upstream” (Item # 30 in “Review of Environmental Impact Statement, Final Report, March 1999”).

125. The TOR (Terms of Reference for the provision of Baseline Aquatic Monitoring and Fisheries Survey, March 2001, Technical Appendices, Appendix C, Annex B) were approved prior to the start of work in early 2000.

126. The March 2001 EIA (p. 71) states the following about the additional research on fisheries:

“In accordance with the recommendations of the EIS accepted by NEMA in November 1999 (WS Atkins, 1999), AESNP commissioned the Fisheries Resources Research Institute (FIRRI) based in Jinja, Uganda, to carry out a series of surveys of fish stocks and commercial fishing activities on the upper section of the Victoria Nile. These were carried out during 2000, on a three-monthly basis at four sites: 6 kilometers upstream and 1, 24 and 65 kilometers downstream of Dumbbell Island. Data from the ecological aspects of the fisheries surveys are reported and discussed herewith.”

127. The March 2001 EIA details the findings of the FIRRI research (pp. 327-335, Appendix C.1, FIRRI Report). In summary:

- The surveys identified two macrohabitat types in the upper Victoria Nile: fast flowing habitats and slow flowing habitats;
- The fast flowing zone habitats are the section between Owen Falls Dam/Owen Falls Extension and a point approximately 40 kilometers downstream of Dumbbell Island. The northernmost point of this island is the proposed location of the proposed Bujagali Hydropower Project;
- Operation of the proposed project will change the habitat type (fast flowing zone) within the impoundment reach (approximately a 7-kilometer reach between Owen Falls Dam/Owen Falls Extension and the proposed Bujagali Hydropower Project) to a slow flowing zone characteristic of the area approximately 40 kilometers downstream of Dumbbell Island; however, the fast flowing zone habitat will remain for approximately a 32-kilometer reach downstream of Dumbbell Island;

- FIRRI recognized five microhabitat types in the Upper Victoria Nile, and identified the main fish taxa associated with each. FIRRI concluded that the project will result in minor changes to the balance between populations of certain fish species upstream of the dam. Owen Falls Dam is an existing barrier to migration. However, FIRRI concluded that migratory species continue to exist in the Victoria Nile. Therefore, fish either use the accessible parts of the Nile tributaries or are not obligatory migratory (pp. 331-335);
- The haplochromines (Nkejje/Mbipi) comprise a group of small fishes. They occur in virtually all water bodies in Uganda including rivers. They were the most abundant fish species in Lake Victoria and Kyoga but were depleted following introduction of the Nile perch (p. 73);
- Of the species deemed to be of conservation importance, the haplochromines were identified due to recent impacts of Nile perch predation (p. 79); and
- Habitat and food availability for the haplochromines are unlikely to be affected either in the reservoir or downstream of the site. Conclusion, no significant impact upstream or downstream (pp. 334 and 335).

128. These findings confirmed that habitat for species of conservation value and other species would be preserved both upstream and downstream of the project. Hence, the project would meet the requirements of OP 4.04 (Natural Habitats).

129. Professor L. Kaufman, Center for Ecology and Conservation Biology, Boston University, who is also a FIRRI collaborator, notes:

“so far, there are a bunch of fish – probably valid, but undescribed species – that seem to be restricted to the Victoria Nile. Some of them are known only from Bujagali Falls, right where the dam is to be built. They seem to be fishes adapted to rapids habitats, not lakes, so they’ll disappear with the dam unless special provisions are made to preserve enough of their habitat. One of these fishes, *Neochromis simotes*, has been missing to science for years, but was rediscovered on a FIRRI sampling mission to Bujagali Falls. Does this species occur anywhere else? We don’t know...”

130. The haplochromine habitat is described in the March 2001 EIA. Prof. Kaufman was in contact with AES on the haplochromine issue in April 2001. *Neochromis simotes* is a haplochromine (a group of over 300 species). In response to Prof Kaufman’s above-cited request, AESNP initiated a sampling program to address the *Neochromis simotes* issue. Sampling began on August 13, 2001 both upstream and downstream of the proposed project. Preliminary results indicate that haplochromines are abundant at all sites, both in fast flowing zones (including rapids habitats) and slow flowing habitats. *Neochromis simotes* were found at a variety of sites downstream of the proposed Bujagali dam site, including at Kalagala Falls. Hence, the sampling program has reconfirmed the haplochromine habitat statement made in the March 2001 EIA. The final report for this supplementary sampling program is due in September 2001.

131. Professor Kaufman states further:

“Once more is known about the distribution and abundance of the native Victoria Nile organisms, sufficient habitat should be permanently set aside to ensure the viability and survival of these species and the communities they form in perpetuity. It must be acknowledged that in some peoples’ minds, Bujagali is just one in a string of dams to be built on the Victoria Nile in the near future. This vision is inconsistent with the conservation of aquatic wildlife and indigenous fisheries on the river. A reserve has been proposed at Kalagala; one reserve is unlikely to suffice, due to the tendency of river animals to move up and down the watercourse with changing seasons and conditions. The network of development on the river should be matched by an equally impressive network of conservation easements and reserves so that both goals - development now, and the preservation of current and future natural values are achieved....There should be a long-range plan for the development of the Victoria Nile, adjusted periodically as knowledge grows about the system and its role in national and regional affairs.”

132. Pertaining to the above, the following points are relevant:

- AES/FIRRI research for the past year or so (and the work currently ongoing) has been/will be a significant contribution to better understanding the distribution and abundance of the native species;
- The Government of Uganda, IFC and IDA agreement on the Kalagala offset curtails future actions whereby a string of dams could be built on the Victoria Nile in Uganda, thereby setting aside habitat that could otherwise be inundated;
- While IFC and IDA did not solely focus on the preservation of fisheries as the reason for the Kalagala offset agreement, this action is conducive to assisting in the conservation of aquatic wildlife and indigenous fisheries on the river; if habitat for *Neochromis simotes* and newly discovered haplochromines are identified at Kalagala, preliminary results suggest that Kalagala could be an offset for the Bujagali Falls habitat loss;
- The Kalagala offset agreement allows for several other reserves to be developed along the Victoria Nile in Uganda as understanding grows on the distribution and abundance of the native species (hence satisfying both of Prof. Kaufman’s goals - development now, and the preservation of current and future natural values...); and
- The Kalagala offset agreement among the Government of Uganda, IFC and IDA requires future actions which satisfy the request from Prof. Kaufman that a long-range plan be adjusted periodically as knowledge about the system grows (Attachment 9).

CLAIM # 10

“The Bujagali dam will seriously retard the tourism industry, which is the second largest foreign exchange earner following coffee. Construction of Bujagali dam will inundate the falls, which is a major tourist attraction; the camp sites on the banks of the river, and eliminate substantial revenues that accrue from tourism activities like White Water Rafting along the Nile (see attached paper by the Uganda Tourism Association), and we know that this loss has been under estimated in the Bujagali EIA. This violates the World Bank’s Policy on dams and reservoir Projects, which states ‘cost-benefits analysis should explicitly include estimates of all quantifiable losses and enhancements due to the project.’ The tourism data in the EIA may be upgraded in later versions, but the fact is that various parties in the tourism sector have tried to make the Bank aware of these issues, to no avail (see attached letter from Stephen Linaweaver). In addition, the AESNP plan for resettlement and compensation submitted to the WB/IFC for consideration does not mention or consider resettlement and compensation of tourism-related business in the project-affected area. We feel that business proprietors in the Project-affected area will be grossly harmed. Evidence of this is exhibited by the manner in which one Stephen Linaweaver, a former tour operator promoting White Water Rafting on the Nile was afflicted during the early stages of the proposed Bujagali Hydropower Project (see Institutional Investor, Magazine, 2001, pp. 40-46).”

RESPONSE:

133. Management agrees with the statement that the construction of the proposed Bujagali Hydropower Project will inundate Bujagali Falls. The March 2001 EIA (pp. 147-159) presents the analysis of the social, environmental and cost parameters that was undertaken to evaluate the potential for avoiding inundation of Bujagali Falls. It was determined that there was no feasible configuration that would avoid inundation of Bujagali Falls.

134. The proposed Bujagali Hydropower Project’s potential impacts on tourism have always been a concern. For example, the June 3, 1999 IFC review of the March 1999 EIS prepared by the IFC Environment Division stated: “... the environmental and social criteria were weak and, from IFC’s perspective, a satisfactory EIA would need to at least review such studies and update/revise them as necessary. Given the importance attached today to free flowing, cascading rivers as an aesthetic resource (not to mention the potential World Bank Group policy on cultural property issue surrounding Bujagali Falls) and the emerging significance of this section of river for the international whitewater rafting community my guess is that the review of these previous studies will require updates and or revisions. A whole new set of criteria have entered the picture for determining a least-cost option. In any event, this task needs to be completed in order to have a legitimate, transparent EIA and to create the framework for IFC to consider financing the project.” See paras. 152-158 below for the discussion of cultural property issues under Operational Policy Note (OPN) 11.03.

135. The March 2001 EIA pays considerable attention to the project's impacts on tourism, recreational activities and experiences. In particular, there will be impacts on whitewater rafting; general and eco-tourism; aesthetics and ecologically protected areas.

136. The impact on tourism is addressed in the RCDAP, in the Community Development section (pp. 119 – 154). Tourism development and related economic development are being addressed and are based on an on-going consultative process between AESNP and local residents, tourism operators, and community leaders. The RCDAP allocates an initial sum of US\$170,000 for proposals to develop and diversify tourism in the area. Negotiations with whitewater rafting proprietors continue with the aim of tourism industry development and diversification. To mitigate impacts in this sector AESNP has made the following commitments: establishment of the Jinja Tourism Development Association (JITDA) the objective of which is to build upon the area's existing facilities and attractions and amalgamate the presently somewhat fragmented industry into one that is sustainable; a cultural center; a visitor center; and launching facilities for whitewater rafting. (March 2001 EIA, pp. 359 – 367 and March 2001 RCDAP, Chapter 26).

137. The EIA presents information on the current revenues from whitewater rafting. These data were prepared by the two operating whitewater rafting companies, Adrift and Nile River Explorers, currently operating in the project impact area, and provided to AESNP during the consultations as part of the preparation of the EIA.

138. Additional information from the Uganda Tourist Association (UTA) showing larger potential losses than stated in the EIA is very recent, and is subsequent to the March 2001 EIA released on April 30, 2001 and the parallel public meetings held in Jinja, June 12, 2001 and in Washington, D.C. July 17-18, 2001. The matter is being addressed as described in the following three paragraphs.

139. At the July 2001 Washington, D.C. Forum where the matter was discussed at considerable length, the meeting was advised by the IFC economist as follows (see Attachment 5, p. 31):

“the opportunity costs for tourism have not been factored into the economic analysis of the power sector in Uganda. He noted that a gross cash flow of \$0.5 million [the cash flow cited in the March 2001 EIA, pp. 112-118] is not large enough to be factored in to the calculations. He added that if the value of rafting at the site included in the EIA was an understatement, more in-depth study would be needed. He noted the need for including the potential value added to the future activities at the site, but added that a considerable range of uncertainty exists in forecasting the value added of such activities, as they are without historical certainty. He added that no other potential project alternatives are costed to the same level of certainty as the proposed Bujagali Hydropower Project (e.g., Karuma). When comparing Bujagali to Karuma, Karuma is inherently more expensive. He added that the potential value added of the tourism potential at the site would have to be very large to offset the incremental costs for alternative options available for power supply. He also

added that to bring in tourism and commercial enterprises, which typically need to survive in a very competitive international market, the cost of electricity to the sector as a whole is an important consideration.”

140. Using the UTA data presented in the paper attached to this Request for Inspection, staff has completed an economic evaluation of the potential incremental tourism value-added that could be at risk because of the proposed Bujagali Hydropower Project, using a range of assumptions about the extent of incremental value-added and growth of tourist traffic. The costs arising out of this evaluation are being included as a charge against the project in the project’s Economic Rate of Return (ERR) calculation. These costs are compared with the incremental costs of meeting the country’s power supply requirements from the next most likely alternative without the proposed Bujagali Hydropower Project. Based on this analysis, the probability is extremely low that not developing the power supply at Bujagali in the interest of preserving whitewater rafting at this site is desirable economically. Staff expect these results to be part of the public release package relating to the economic analysis for the proposed Bujagali Hydropower Project.

141. In addition, the Government of Uganda agreement with IFC and IDA (“Proposed Bujagali Hydropower Project World Bank Group’s Requirement of an Offset at Kalagala Falls,” April 25, 2001, Attachment 9) is an initiative to assist in the promotion of tourism in the Upper Nile in Uganda: “Therefore, as the implementation of the proposed Bujagali Hydropower Project will inundate Bujagali Falls, the World Bank Group concluded that Kalagala Falls must be conserved in perpetuity for its spiritual, natural habitat, environmental, tourism and cultural values.”

142. The Kalagala Falls site will be preserved in its present state as per the agreement between the Government of Uganda, IFC and IDA as an environmental off-set. This area is of special interest for local tourism development. The agreement between the Government of Uganda, IFC and IDA calls for a multi-stakeholder consultation process which will identify sustainable investment programs, including tourism, with appropriate mitigation measures at Kalagala. Under the direction of the Prime Minister of Uganda, a multi-stakeholder task force is being established to identify, review, implement and monitor such investment programs (see Kalagala Offset document, April 25, 2001). In this connection, meetings have been held with the Ministry of Tourism, Trade and Industry; Ministry of Energy and Minerals Development; Water, Lands and Environment; Mukono, Kayunga and Jinja District Local Authorities; NEMA; Uganda Investment Authority; stakeholder NGOs; and representatives of Basoga Kingdom and IDA. Stakeholders that were consulted included Adrift NRE, local boatmen, local communities and the Community Cultural Tourism Group. The Government of Uganda (Ministry of Tourism, Trade and Industry) has prepared a *Summary of Concept Proposals for Tourism Development*, which not only addresses Kalagala but also the eastern river bank and Itanda Falls, an expansion of the approach.

143. Management is aware of the various parties’ attempts to raise issues relating to impacts to the tourism sector. For example, Mr. Stephen Linaweaver was a stakeholder in the Acres International May 2000 Study (see p.7-21). He submitted a letter to Acres International with issues similar to those in the letter attached to this Request. This

information (both letters), the information in the March 2001 EIA and the data presented by the UTA more recently have all been considered by Management in its evaluation of the project impacts/proposed mitigation.

ADDITIONAL CONTENTIONS BY THE REQUESTERS

“We have taken the following actions to try to resolve the above mentioned issues, but in vain.”

- 1. Written letters of complaint to various World Bank Group staff, but no satisfactory response has been made.**

RESPONSE:

144. Representatives of NAPE/SBC (the Requesters) have written on several occasions to IFC and IDA. IFC and IDA have responded. For example, the May 2, 2000 e-mail from IFC (Corporate Relations) to NAPE/SBC provided detailed answers to several questions raised in their April 4, 2000 e-mail.

145. IFC and IDA have been in continuous contact with NAPE/SBC since these early communications, (including participation of representatives of NAPE/SBC - the Requesters - at the June 2000 Washington, D.C. Forum, NAPE/SBC's participation in the June 2001 Jinja Forum, and NAPE's participation in the July 2001 Washington, D.C. Forum).

146. Throughout the engagement, representatives of NAPE/SBC (the Requesters) have been advised that documentation on this project (e.g., the EIA, RCDAP) would be forthcoming and made available to all interested parties. Specifically, hard copies of the *Victoria Nile Strategic Impact Assessment* and the *Assessment of Generation Alternatives* (para. 43) were provided to representatives of NAPE/SBC at the June 2000 Washington, D.C. Forum. The EIA has been released in Uganda and was submitted to the InfoShop on April 30, 2001. These documents were expected to answer questions raised by representatives of NAPE/SBC.

- 2. We raised concerns at various meetings with IFC and the Bank:**
 - i. Bujagali consultative Forum in Washington, D.C. in June 2000.**
 - ii. A dialogue meeting about Bujagali dam project held in June 2001 in Jinja, Uganda.**
 - iii. Two meetings with Mr. Ron Anderson, EIA Specialist, IFC.**
 - iv. International Forum on Bujagali held in July 2001 in Washington, D.C.**

RESPONSE:

147. The Meeting Summary for (i), (ii), and (iv) itemizes the concerns raised and the answers provided. Meetings with IFC (iii) on May 24 and 25, 2001 in Uganda also discussed similar issues and key aspects of the EIA which had been disclosed in Uganda and in the InfoShop on April 30, 2001.

3. Requested for the Power Purchase Agreement (PPA) and economic analysis of the Bujagali Dam project from World Bank, Uganda government and the developer (AES), to no avail.

RESPONSE:

148. The PPA is a proprietary agreement between AESNP and the Government of Uganda. Neither IFC nor IDA is a party to this contract. This issue has been very divisive in discussions IFC and IDA have had with NGOs and civil society. IFC and IDA have received immense pressure to “release” this document; however, as neither institution is a party to this contract, they cannot release the document without the agreement of the Government and AES to do so. IFC and IDA have taken the position that if the PPA is to be released, this should be by an agreement between the parties involved, namely the Government of Uganda and AES.

149. This was a significant issue at the two International Forums in 2000 and 2001, and was fully discussed by participants. As discussed in the response to Claim # 6 (3), at the Forums, IFC explained that historically contracts between private parties, like the PPA, are not released for public review. One participant at the July 2001 Washington, D.C. Forum, from HCI Publications, noted that in her experience PPAs are always confidential and that as deregulation has become more common, it is more difficult to get information from private producers (see p. 11, Attachment 5). At the July 2001 Washington, D.C. Forum, IFC staff noted that the PPA was placed before Parliament, which is a representative body of the people of Uganda, and the Government’s guarantee of certain obligations within the PPA was approved by it. Also AESNP added that such contracts are commonly considered proprietary in order not to undermine the Government’s future dealings with other contractors in regard to future power provider agreements and export sales.

150. As discussed in para. 115, IFC has prepared a summary paper on the economic analysis of the proposed Bujagali Hydropower Project which will be released by IFC and IDA after it has been discussed with the Government.

4. Requested an explanation from the National Environment Management Authority (NEMA) and World Bank as to why the Bujagali EIA was accepted by the World Bank before the approval of the Transmission Line EIA by NEMA. No explanation has been given.

RESPONSE:

151. There are two separate approval processes for the IFC and IDA and for NEMA. The IFC and IDA have developed a process for working with NEMA, noting that the two processes are separate, with NEMA reviewing the EIA in regard to country requirements and IFC and IDA reviewing the documents against the IFC and IDA safeguard policies, respectively. NEMA approved the transmission line EIS and a certificate was issued on July 18, 2001. Neither the IFC nor IDA has approved the proposed transmission line EIS or the hydropower facility EIA. IFC and IDA staff reviewed final drafts of both the proposed hydropower facility EIA and transmission line EIS. Both were disclosed in Uganda and deposited in the InfoShop. In accordance with the requirements of the policies of the IFC and IDA, OP 4.01 does not require approval of the EA/EIA as a pre-condition of its disclosure.

NOTE ON OPN 11.03 ON CULTURAL PROPERTY

152. The following information on OPN 11.03 on Cultural Property has been prepared even though a claim of non-compliance has not been made.

153. IFC and IDA staff have reviewed the RCDAP, including the Cultural Properties Management Plan, and concluded that it addressed the issues relevant to OPN 11.03 on Management of Cultural Property in Bank-Financed Projects. Determination of the spiritual significance of Bujagali Falls, movement of shrines or other conclusions related to cultural or spiritual matters will be effected through a participatory and negotiated process involving AESNP and affected people, which has been and will be witnessed by third parties.

154. As a prelude to consultation on this issue, AESNP undertook a number of detailed studies of traditional religion and cosmology which were carried out by qualified experts. These studies were based on extensive and wide-ranging interviews during field research.

155. All levels of society were consulted, and continue to be consulted, on the spiritual significance of Bujagali Falls as well as other natural phenomena which characterize the “spiritual landscape” of the area, (such as particular rocks, islands, trees, river rapids). Such places are associated with powerful impersonal spirit forces, which are to be distinguished from personal household-level ancestral spirits.

156. Wide ranging and extensive consultations were held with the Ministry of Culture and Antiquities, with the Baswezi (spirit mediums, including Messrs Nabamba Bujagali and Lubaale Nfuudu) who communicate with the spirits in an altered state of consciousness, with traditional healers, with the Basoga king and ministers of the Institution of the Kyabazinga of Basoga (the cultural kingdom of the Basoga people), as well as with village focus groups, broken down into men’s and women’s sections. (Surveys were also carried out in non-affected communities as a control measure to verify findings from affected villages.)

157. Feedback from these consultations concluded that the dwelling places of spirits could be moved, provided that:

- Cultural and religious sites were preserved as far as possible;
- Traditional healers were gathered together to determine what the spirits want so that rituals can be carried out;
- The requirements of the spirits are met;
- Alternative sites for transfer of spirits are identified and acquired; and
- Caretakers are facilitated to move the spirits and traditional ceremonies are carried out.

158. The Cultural Property Management Plan, Section II of the RCDAP, provides a thorough and articulate summary of traditional beliefs and cosmology, the scope and substance of consultations undertaken with all relevant parties, the role of qualified outside specialists who were employed to provide an expert opinion on the appropriateness of, and suggest improvements to, the methodology used in consultations from which the Cultural Property Management Plan was developed. The plan concludes with a participative process for relocation of the spirits at the community and household levels which is monitored by an independent witness NGO (InterAid) that gives feedback on the process. The plan is supported by a budget and timetable.

NOTE ON OD 4.20 ON INDIGENOUS PEOPLES

159. Even though no reference is made to indigenous people in the Request, the Inspection Panel in its Notice of Registration has identified OD 4.20 as a relevant policy. OD 4.20 on Indigenous Peoples (para. 2) requires special action when Bank investments affect indigenous peoples, tribes, ethnic minorities and other groups whose social and economic status restricts their capacity to assert their interests and rights in land and other productive resources, and who meet in varying degrees specific characteristics set forth in OD 4.20.

160. At an early stage in the proposed Bujagali Hydropower Project identification process, it was determined that no indigenous peoples, as defined in the OD, were affected by the proposed Project and that the directive was not triggered.

NOTE ON OP 4.37 ON THE SAFETY OF DAMS

161. Dam safety has been a focus of IDA support since its involvement in the Power II Project. Management submits that it is in compliance with OMS 3.80 and OP 4.37 (September 1996), which concern the safety of dams, as noted below:

- Full level inspections and dam safety assessments of the Owen Falls Dam and the Owen Falls Extension have been conducted and documented:
 - An independent Panel of Experts has been inspecting and evaluating both the Owen Falls Dam and the Owen Falls Extension, including the operation and maintenance procedures since 1991. The Panel of Experts

visited the Owen Falls Dam and Owen Falls Extension about twice a year and produced written reports on its findings and recommendations. The three latest reports are dated: April 24, 2001, November 16, 2000, and May 12, 2000; and

- Independent experts have monitored the safety of the Owen Falls Dam and its appurtenant structures as well as its electro-mechanical equipment regularly during the implementation of the Power III Project.
- A dam safety program is in operation. It includes:
 - The Supplemental Credit is financing dam remedial works at Owen Falls Dam, which were identified during regular inspections since the establishment of the Panel of Experts in 1991. The design of the remedial works was prepared by independent engineering consultants and reviewed by the Panel of Experts. The remedial works will be completed in September 2001 and include: (a) construction of a roller compacted concrete prop on the downstream side of the dam to counteract uplift forces; (b) sealing the upstream section of the dam to reduce water seepage; and (c) drilling drainage holes. The Government/UEB has an emergency preparedness plan, instrumentation plan, and an operation and maintenance plan in place for Owen Falls Dam and Owen Falls Extension;
 - The Power III Project financed increased spilling capacity to prevent the potential for flood damage at Owen Falls Dam;
 - The Government/UEB has employed an expert to regularly monitor the condition of the Owen Falls Dam and its appurtenant structures. This is an integral part of the operation and maintenance program of the dam; and
 - Government and IDA have agreed that the emergency preparedness plan and the monitoring expert be retained for the duration of the Power IV Project.

162. AESNP has formed the Bujagali Dam Safety Panel, consisting of three technical experts. The March 2001 EIA explains the workings of the independent panel and the key issues to be addressed. The Dam Safety Panel for the proposed Bujagali Hydropower Project is charged with undertaking a review of the design and construction of the proposed dam and related structures with the objective of ascertaining and reporting on its general safety and performance, including structural, geological, soil mechanics, hydrologic and hydraulic aspects (Terms of Reference, August 2000). The TOR make specific reference to the Owen Falls Dam and the Owen Falls Extension, which is being assessed by the Owen Falls Dam Safety Panel. The TOR require that the Bujagali Dam Safety Panel review and consider the reports of the Owen Falls Dam and comment on the adequacy of the remedial works for the Owen Falls Dam with regard to the safety of the Bujagali Dam.