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September 8, 2008

FROM: Vice President and Corporate Secretary

INSPECTION PANEL

Inspection Panel Investigation Report

Uganda - Private Power Generation (Bujagali) Project

1. Attached is a memorandum from the Executive Secretary of the Inspection Panel dated August 2, 2008, transmitting a memorandum to the Executive Directors from the Chairperson of the Inspection Panel entitled "Inspection Panel Investigation Report: Uganda: Private Power Generation (Bujagali) Project (Guarantee No. B0130-UG)".

2. In accordance with paragraph 23 of the Resolutions establishing the Inspection Panel "within six weeks from receiving the Panel's findings, Management will submit to the Executive Directors for their consideration a report indicating its recommendations in response to such findings". Management's report will be circulated in due course.

<u>Distribution:</u>

Executive Directors and Alternates
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Bank Group Senior Management
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Inspection Panel

Report No. 44977-UG

The Inspection Panel

Investigation Report

Uganda: Private Power Generation (Bujagali) Project (Guarantee No. B0130-UG)

August 29, 2008

About the Panel

The Inspection Panel was created in September 1993 by the Board of Executive Directors of the World Bank to serve as an independent mechanism to ensure accountability in Bank operations with respect to its policies and procedures. The Inspection Panel is an instrument for groups of two or more private citizens who believe that they or their interests have been or could be harmed by Bank-financed activities to present their concerns through a Request for Inspection. In short, the Panel provides a link between the Bank and the people who are likely to be affected by the projects it finances.

Members of the Panel are selected "*on the basis of their ability to deal thoroughly and fairly with the request brought to them, their integrity and their independence from the Bank's Management, and their exposure to developmental issues and to living conditions in developing countries.*"[1] The three-member Panel is empowered, subject to Board approval, to investigate problems that are alleged to have arisen as a result of the Bank having ignored its own operating policies and procedures.

Processing Requests

After the Panel receives a Request for Inspection it is processed as follows:

- The Panel decides whether the Request is *prima facie* not barred from Panel consideration.
- The Panel registers the Request—a purely administrative procedure.
- The Panel sends the Request to Bank Management, which has 21 working days to respond to the allegations of the Requesters.
- The Panel then conducts a short 21 working-day assessment to determine the eligibility of the Requesters and the Request.
- If the Panel recommends an investigation, and the Board approves it, the Panel undertakes a full investigation, which is not time-bound.
- If the Panel does not recommend an investigation, the Board of Executive Directors may still instruct the Panel to conduct an investigation if warranted.
- Three days after the Board decides on whether or not an investigation should be carried out, the Panel's Report (including the Request for Inspection and Management's Response) is publicly available through the Panel's website and Secretariat, the Bank's Info Shop and the respective Bank Country Office.
- When the Panel completes an investigation, it sends its findings and conclusions on the matters alleged in the Request for Inspection to the Board as well as to Bank Management.
- The Bank Management then has six weeks to submit its recommendations to the Board on what actions the Bank would take in response to the Panel's findings and conclusions.
- The Board then takes the final decision on what should be done based on the Panel's findings and the Bank Management's recommendations.
- Three days after the Board's decision, the Panel's Report and Management's Recommendation are publicly available through the Panel's website and Secretariat, the Bank's Project website, the Bank's Info Shop and the respective Bank Country Office.

[1] IBRD Resolution No. 93-10; IDA Resolution No. 93-6.

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Abbreviations and Acronyms

AESNP	AES Nile Power Corporation
AfDB	African Development Bank
APRAP	Assessment of Past Resettlement Activities and Action Plan
BEL	Bujagali Energy Limited
BIP	Bujagali Interconnection Project
BIU	Bujagali Implementation Unit
BNWPP	Bank-Netherlands Water Partnership Program
BP	Bank Procedures
BST	Bulk Supply Tariff
CDAP	Community Development Action Plan
CIDA	Canadian International Development Agency
CPMP	Cultural Properties Management Plan
CRMU	Compliance Review and Mediation Unit (CRMU) of the African Development Bank (AfDB)
DANIDA	Danish International Development Agency
DSP	Dam Safety Panel
DWD	Directorate of Water Development
EAP	Environmental Action Plan
EIRR	Economic Internal Rate of Return
EMP	Environmental Management Plan
EPC	Engineering, Procurement and Construction
EPRP	Emergency Preparedness and Response Plan
ERA	Electricity Regulatory Authority
ERT	Energy for Rural Transformation
ESMAP	Energy Strategy and Management Action Program
FIRRI	Fisheries Resources Research Institute (now known as National Fisheries Resources Research Institute-NAFIRRI)
GCM	General Circulation Models
GoU	Government of Uganda
HPP	Hydroelectric Power Plant
IA	Implementation Agreement
IBP	International Best Practice
IDA	International Development Association
IFC	International Finance Corporation
IOH	Institute of Hydrology of the United Kingdom
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Project
IUCN	World Conservation Union
LC	local government council representatives
LVEMP	Lake Victoria Environmental Management Project
MIGA	Multilateral Investment Guarantee Agency

NAPE	National Association of Professional Environmentalists
NBI	Nile Basin Initiative
NBTF	Nile Basin Trust Fund
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NGO	Nongovernmental organization
NPV	Net Present Value
OP	Operational Policy
PAD	Project Appraisal Document
PAP	Project Affected People
PCN	Project Concept Note
PCDP	Public Consultation and Disclosure Plan
PEAP	Poverty Eradication Action Plan
PPA	Power Purchase Agreement
PSDO	Power Sector Development Operation
RAP	Resettlement Action Plan
RCDAP	Resettlement and Community Development Action Plan
ROW	Right of Way
SEA	Social and Environmental Assessment
SEAP	Social and Environmental Action Plan
SSEA	Strategic/Sectoral Social and Environmental Assessment
T-Line	Transmission Line
TOR	Terms of Reference
UETCL	Uganda Electricity Transmission Company Limited
UMEME	Electricity distribution company

Units and Measures

USD	United States Dollars
USh	Uganda Shilling
GWh	Gigawatt hour
kWh	Kilowatt hour
MW	Megawatt

Acknowledgements

The preparation of this Report would not have been possible without the support and valuable contributions of many people and organizations. The Panel wishes to thank the Requesters and the communities who met with the Panel in the Project area. The Panel especially expresses its appreciation to the representatives of the Requesters for arranging visits with affected people and for showing the Panel areas of concern to them. The Panel also wishes to thank NGOs and other people and organizations with whom the Panel met.

The Panel expresses its appreciation to the many national and local government officials in Uganda with whom the Panel met. They provided valuable insights and information. The Panel is also grateful to the World Bank Executive Director's office for Uganda for the assistance provided.

The Panel also wishes to extend its gratitude to World Bank Staff in Washington D.C. and in the Kampala office. The Panel wishes to thank Bank Management and Staff for their assistance in obtaining documents, providing the Panel with information, responding promptly to written requests, and assisting with logistical arrangements.

The Panel is grateful for the expert advice provided by Prof. Theodore Downing, Prof. Richard Fuggle, Mr. Graham Hadley, Prof. Peter Pearson and Prof. Carlos Tucci. The Panel also wishes to thank all the distinguished experts with whom the Panel met in Uganda. The Panel appreciates the professionalism exhibited by them at all times.

Finally, the Panel wishes to convey is gratitude and appreciation to its former Chairperson, Edith Brown Weiss, and to the Secretariat for its resourceful handling of this investigation, particularly to Peter Lallas, Executive Secretary, Dilek Barlas, Deputy Executive Secretary, Tatiana Tassoni and Serge Selwan, Operations Officers, Eduardo Abbott, expert consultant, and Shéhan de Sayrah, Christine Curella and Trudy Rebert for their expertise and professional assistance.

Executive Summary

Introduction. In March 2007, the Inspection Panel received a Request for Inspection related to the Private Power Generation Project, commonly known as Bujagali Hydropower Project (the "Project"). The Request was submitted by the Ugandan National Association of Professional Environmentalists (NAPE) and other local organizations and individuals.

The Project consists of the construction of the Bujagali hydropower plant on the Nile River near the Bujagali Falls, downstream from the existing Kiira – Nalubaale Hydropower Plants. It is designed to provide an increase of 250 MW of power generation capacity to the national grid in Uganda. The Project would inundate Bujagali Falls and other natural habitats, which are sites of cultural and religious significance to a large community of people, and involve displacement and resettlement of people and families from their lands.

The Project is a Public-Private Partnership between private sponsors and the Government of Uganda (GoU) that is supported by private lenders and multilateral and bilateral development agencies. World Bank Group support includes a partial risk guarantee from the International Development Association (IDA, also referred to as the Bank), loans from the International Finance Corporation (IFC), and a guarantee from the Multilateral Investment Guarantee Agency (MIGA).

A separate request relating to this Project was submitted to the independent recourse mechanism (IRM) of the African Development Bank (AfDB). The Panel and the IRM collaborated by sharing experts and conducting a joint field mission. The conclusions of the Panel and the IRM are, however, independent and based on different applicable policies.

Context. Uganda is facing a serious power supply crisis. The Panel wishes to place on record that it considers energy a crucial factor in Uganda's development. However, as this Report shows, energy production requires considerable care in order to ensure that social, economic and environmental aspects are properly considered, in line with Bank policy, to adhere to sound development practices and avoid situations where costs, including social and environmental costs, outweigh the benefits expected from what are usually sizable investments.

The Request raises a number of environmental, hydrological, social, cultural, economic and financial concerns, and contends that a failure of the Bank to follow its own operational policies and procedures in the design and appraisal of the Project will result in serious harm to the people living in the Project area and to the environment. The Management Response of April 2007 states that experienced Bank staff and consultants were engaged to work on the preparation of this Project, that economic, financial, safeguard, technical and other analyses were done to a high standard, and that they took into account the findings of the Panel's 2002 Investigation of the previous Bujagali project in the design and preparation of the Project.

Environmental Issues. In the context of the Bank's policies on Environmental Assessment, OP 4.01 and on Natural Habitats, OP 4.04, the Panel found areas of compliance, including that the Project had been appropriately classified as category "A" and that the Kalagala Falls had been established as an offset for the natural habitats to be inundated by the Project. The Panel also found that the Bank complied with the procedures set forth in Bank policy OP 4.37 on the Safety of Dams.

However, there were several important areas of non-compliance with Bank policies. The Project did not appoint an independent panel of environmental experts, as required under Bank policy for this type of complex project, nor did it support needed capacity building for implementation of social and environmental aspects of the Project. The Project Social and Environmental Assessment (SEA) did not adequately make reference to the Strategic/Sectoral Social Environmental Assessment (SSEA) of the separate Nile Basin Initiative, which analyzed issues such as climate change and cumulative effects. As a result, important information required under Bank policy was not disclosed in a timely manner as an integral part of the Project's documentation.

In addition, neither the SSEA nor the SEA addressed the cumulative effects of the existing and planned projects in a meaningful way. And while the Kalagala Falls have been established as an offset, in light of institutional weaknesses there is no evidence that this offset site will be maintained in accordance with appropriate conservation and mitigation measures in conformity with sound social and environmental standards.

Hydrological and Climate Change Risks. The Panel examined a range of issues, including the impact of hydrologic risk on energy output, the potential impact of the Project on the levels of Lake Victoria, and the risks from climate change. The Panel noted the substantial body of analysis under the Project, and found that the hydrologic data sets used in Project design constitute a reliable data series and an appropriate baseline for analysis in compliance with OP 4.01. The Panel also found, however, important areas of non-compliance with OP 4.01 and OP 10.04.

In particular, there is a discrepancy between the PAD and the Economic Study as to which water release regime will be in effect once Bujagali becomes operational. This brings into question the data basis for the Project's economic analyses and is likely to have resulted in a more positive conclusion to the Economic Study than would have been warranted. The SEA also considered that the Project's area of influence ends downstream of the Kiira – Nalubaale dams and therefore did not assess the Project's potential impacts on the changing levels of Lake Victoria, as it should have. This is particularly important because the lowering of water levels in the Lake, as has occurred in recent years, brings significant social and environmental impacts. In addition, the PAD's categorical assertion, without any reference to risk and uncertainty, that there will be no adverse effect on water release due to climate change during the Project life fails to express a potential risk factor, which was identified in the SSEA, as required.

Economic and Environmental Analysis of Alternatives. The terms of reference (ToR) for the Economic Study called for a comprehensive update of the first round of the Bujagali Project. The Panel found, however, that the ToR encouraged a focus on relatively large grid-connected plant and did not draw attention to the evaluation of smaller scale or off-grid alternatives. In a country where only 5 percent of the population is connected to the grid, it would be reasonable to expect attention to be paid to such options which might in theory more directly address local and rural poverty. The Panel found that the information in the Economic Study and the PAD on these options did not demonstrate full compliance with OP 10.04's requirement to evaluate alternatives.

As part of its assessment of least-cost options, the PAD asserts that tariff rates may drop by up to 10 percent. The Panel found, however, that this should have been qualified to take into account the increases in Engineering, Procurement and Construction (EPC) costs and transmission costs after the Economic Study was prepared. The issue of electricity tariffs and affordability is of high importance to the people and communities.

It is the Panel's view that Management did not ensure that cultural and spiritual matters of high significance at Bujagali Falls were adequately considered in Project preparation, and when comparing the Bujagali and Karuma alternatives. Alternative project configurations were unduly narrowed on the basis of a-priori judgments rather than exploring all technically feasible options, including those that would not involve flooding the Bujagali Falls and thus have lower social and environmental costs, and laying them out in a systematic way along with their economic, social and environmental benefits and costs, so that judgements on optimal alternatives could be made with a full understanding of the trade-offs involved.

Economic Evaluation: Poverty Reduction and Risks. The Panel examined poverty reduction issues and the risks and consequences associated with the Power Purchase Agreement (PPA) in the context of OP 1.00 on Poverty Reduction and OP 10.04. The quantitative assessments of costs and benefits in the Economic Study suggest that the Project would have largely positive direct impacts on Uganda's economy and thus appears to have complied with the requirement to show that the Project is likely to contribute to "broad based growth."

The Panel notes, however, that the tariff figures provided in the Economic Study are likely to be based on an underestimate of the cost of electricity with the Project. In addition, much of the expected direct benefit from Bujagali, especially in the early years, is likely to be experienced by the better-off urban households, and electricity would still be too costly for many, especially poorer households. Neither the Economic Study nor the PAD, however, provides estimates of the economic impact of the Project on low-income households.

The Panel found that, as with the previous Bujagali project, the PPA capacity charge is not related to output, so that the payment by the government-owned power purchaser, UETCL, will be the same under low hydrology as high hydrology, and also invariant to reduced plant availability. More generally, the Panel found that the introduction of a cost-based formula in the 2005 PPA (as amended) represents a significant shift in risk away from the Project investors and lenders to UETCL. The high allocation of risk to the power purchaser and eventually the GoU increases the possibility that the GoU will have to make payments under its guarantee and/or increase tariff subsidies. In this context, the Project may not achieve the broad objective of sustainable development and poverty reduction embodied in Bank Policies. The potential consequences are described in the Report.

Involuntary Resettlement. This Project involves the rather unusual circumstances of an ongoing, incomplete resettlement program developed under the prior plan for a dam at Bujagali Falls, based on a policy no longer applicable. The policy now applicable, OP 4.12 on Involuntary Resettlement, nevertheless has the same overall objectives, and both the old and new policy call for preparation of a Resettlement Action Plan (RAP). Management chose to develop an "*Assessment of Past Resettlement Activities and Action Plan (APRAP)*", rather than a new RAP, with the justification that affected people had already been relocated and others had already received compensation under the prior project.

The Panel considers that the overriding issue is whether the approach taken meets the objectives and requirements of Bank policy. The way the APRAP was substituted for a full RAP, however, had far ranging consequences in terms of complying with Bank policy. The Panel found that the critical policy requirement to census all displaced persons was neglected – a decision undermining much of the policy objectives. The public consultation process was truncated, and the APRAP failed adequately to assess and update the previous RAP to ensure compliance with Bank standards. The Panel found that the effects on the people of the original displacement, and of the ensuing delay, were not fully reflected in the APRAP.

On the critical question of livelihood restoration, the Panel concluded that the Project did not comply with the mandate of Bank policy to improve or at least to restore, in real terms, the livelihoods and standards of living of the people displaced by the Project. Many affected people also believe that other promises made under the prior project were not kept.

The Panel did not find any evidence that Bank Management violated the provisions of the Bank's policy on Indigenous Peoples, with regard to the Basoga people.

Cultural and Spiritual Values. The Project is moving into a neighborhood long inhabited with strong, complex cultural and spiritual traditions. To the Basoga people, the Bujagali Falls area, which is to be inundated by the Project, is inhabited by ancestral spirits. The Panel notes that studies prepared in 2001 for the prior project mapped individual and community level spirits. Problems emerged, however, with the so-called "appeasement of community spirits", which failed to lead to a lasting solution.

Under the current Project, the consultation process has not yet led to satisfactory outcomes and mitigation efforts, required by Bank policy, and cannot be considered completed. The Panel found that the Bank misjudged the Bujagali Falls as a cultural resource of importance only to those living in the vicinity of the Falls, and that the consultation process excluded key spiritual leaders of the wider Basoga community.

In addition, Bank Management failed to prepare a Cultural Properties Management Plan, as required by policy. Such a plan should have identified Bujagali Falls not as a localized cultural site but as a significant cultural resource for the whole Kingdom of Busoga, triggering rigorous safeguards for specific avoidance, consultation and mitigation as required under the Bank's Policy.

OP 4.04 on Natural Habitats also contains provisions that are relevant to these issues. It provides that the Bank does not support projects that in the Bank's opinion involve the significant conversion or degradation of critical natural habitats, a crucial question which requires considered judgment. The Policy states that "critical natural habitats" include "areas initially recognized as protected by traditional local communities (e.g., sacred groves)."

Management took the view that the Project is not significantly converting or degrading a "critical natural habitat," without providing adequate justification for this determination. Considering the known spiritual importance of the Bujagali Falls area, without such an explanation, one could also arrive at the opposite, i.e., that the inundation may be regarded as resulting in the significant conversion of a critical natural habitat which would be in violation of OP 4.04. The Panel found that there is an overriding need to address this issue to ensure compliance with Bank policies.

Systemic Issues Affecting Policy Compliance. In closing, the Panel would like to emphasize that energy is a crucial factor in Uganda's development. As this investigation shows, generating energy for development in a way that is economically efficient, socially equitable and environmentally sustainable is hugely complex and one of the major sustainable development challenges of today.

The results of the Panel's investigation illuminate some of these complexities in the Bujagali Project, which may also be relevant to other similar projects. These include addressing legacy issues from preceding projects, difficulties in achieving transparency on economic and other impacts in public-private partnership projects, incorporating climate change issues into project design, and issues regarding the application of Bank policy on natural habitats to sacred groves and sacred places.

Summary Report

I. Introduction

Right at the outset, the Panel wishes to go on record that it considers energy a crucial factor in Uganda's development. The findings of this Report do not dispute this fact but show that energy production requires considerable care in order to ensure that social, economic and environmental aspects are properly considered, in line with Bank policy, to achieve sound development practices and avoid situations where costs, including social and environmental costs, outweigh the benefits expected from what are usually sizable investments.

On March 5, 2007, the Inspection Panel received a Request for Inspection related to the Uganda: Private Power Generation Project, also known as Bujagali Hydropower Project (the "Project" or the "Bujagali Project"). The Project includes the proposed construction of the Bujagali hydropower plant as well as the Interconnection Project, (which will construct transmission lines, a new substation at Kawanda, and the extension of the substation at Mutundwe financed by the African Development Bank (AfDB)). The Request was submitted by the Ugandan National Association of Professional Environmentalists (NAPE) and other local organizations and individuals.

The Request of 2007 followed a similar Request in 2001 when the Panel was asked to investigate the prior Bujagali Hydropower Project. The Panel issued its Investigation Report on May 23, 2002. Due to difficulties encountered by the former project sponsor, the first Project was terminated in September 2003. The subject of the 2007 Request is the current, second effort of the Government of Uganda (GoU) to develop the Bujagali Hydropower Plant.

The Project

The Project consists of the construction of the Bujagali hydropower plant on Dumbbell Island on the Nile River, at the Bujagali Falls, about 8km downstream from the existing Nalubaale and Kiira Hydropower Plants. The Nile River has its headwaters in Lake Victoria. Under the Project, a powerhouse complex providing a maximum capacity of 250MW and a rock filled dam of about 30 meters high with spillway and other associated works is to be developed. Adjacent to the powerhouse, a high voltage substation, the Bujagali Substation, through which all power generated from the Project will flow, is to be constructed on the west bank of the Victoria Nile. The reservoir will inundate the Bujagali Falls.

The overall Bujagali Project also includes the construction of 100 km of transmission lines, a new substation at Kawanda and the extension of the substation at Mutundwe financed by the African Development Bank (AfDB) under the Interconnection Project. A private sector company, Bujagali Energy Ltd. (BEL), is to develop the Project. BEL is responsible for financing, constructing and operating the Project *"on a Build-Own-Operate-Transfer basis."*

The Project is a Public Private Partnership between the private project sponsors, the GoU, multilateral and bilateral development agencies, and commercial lenders as beneficiaries of the proposed IDA Guarantee. The total Project cost is estimated to be around US$798.6 million. The International Development Association (IDA) supports the Project through a partial risk guarantee of US$115 million. The Project is also financed through, *inter alia*, International Financial Corporation (IFC) loans and a Multilateral Investment Guarantee Agency (MIGA) guarantee. In total, the World Bank Group's financial support to the Bujagali Project is around US$360 million. IDA's Board of Executive Directors approved the IDA Guarantee on April 26, 2007.

The Claims of the Requesters

The Request contends that the Bank has failed to follow a number of its operational policies and procedures in the design and appraisal of the Project, and that this will result in serious harm to the people living in the Project area and to the environment, in particular the Nile River and Lake Victoria, and to the customers of the generated electricity and to Uganda citizens in general.

Hydrological and Climate Change Risks, Cumulative Impacts. The Requesters claim that the Project Social and Environmental Analysis (SEA) does not properly address hydrological changes and their effect on power production, nor the potential impacts of climate change which they claim will lead to drier conditions, lower lake levels, and therefore lower power production. The Requesters contend that the SEA lacks an analysis of the cumulative effects is based on *"flawed assumptions and computations*" related to hydrological risks, and does not adequately consider Project alternatives. The Request also asserts that the guarantee that the Kalagala Falls will be put aside as an offset and not be developed for hydropower is not binding on the GoU.

Economic Analysis, Options and Affordability. The Requesters raise the concern that the electricity from the Bujagali hydropower plant will not be affordable, will not meet the needs of the majority of Ugandans, and will reduce the funding available for rural electrification. They state that there is no evidence that a comprehensive economic analysis of the Project has been done, and that alternative energy options have not been adequately studied to provide evidence that Bujagali dam is the least-cost option.

Disclosure and Consultation, Use of Data, and Dam Safety. The Requesters further claim that the Power Purchase Agreement (PPA) between the Project Sponsor and the GoU, crucial to the Project's economic viability, was only released shortly before they submitted their Request. They also allege that the public version in Kampala was not the actual version used to negotiate loans. The Requesters say that no evidence exists that the PPA was debated and approved by the Ugandan parliament. They also raise concerns about the Project consultation process and the use of old and inconsistent data in key Project documents. The Request also claims that the Sponsor has failed to adequately address dam safety issues or determine whether Bujagali would be able to withstand a failure of the Nalubaale dam.

Social and Cultural Issues. The Requesters claim that the Project did not recognize the presence of indigenous peoples in the Project area nor deal adequately with cultural and spiritual issues of the affected community. The Requesters say that the compensation and resettlement frameworks need to be updated to reflect the current economic situation and that the sponsor needs to create a detailed compensation and detailed community development action plan.

Management Response

In its response of April 5, 2007, Management maintains that the proposed project is being developed to provide the needed capacity in a least-cost manner. With respect to the previous Bujagali project and the Inspection Panel's 2002 investigation, Management notes that an action plan was prepared and approved by the Board on July 17, 2002. A matrix describing the 2002 Panel's investigation findings and the status of implementation of the action plan was included in the Management Response.

Related to Kalagala Falls, Management claims that the GoU has reiterated a commitment to the offset and that the Bank will include the commitment as part of the indemnity agreement. Management also reports that a Dam Safety Panel was created to provide advice and ensure consistency with Bank policy and that the Project's legal agreements will require the preparation of an Emergency Preparedness and Response Plan (EPRP), which includes failure scenarios for Nalubaale, Kiira and Bujagali dams.

Management acknowledges that past resettlement was not completed. To address these issues, the Assessment of Past Resettlement Activities and Action Plan (APRAP) and Community Development Action Plans (CDAP) were undertaken to assess the current conditions. BEL and the Bujagali Implementation Unit (BIU) are resolving outstanding issues. In response to the claims that the Basoga people in the project area should be considered indigenous people, Management asserts that the Basoga are not considered indigenous people under the Bank's definition because the Basoga do not meet criteria such as marginalization and vulnerability in addition to criteria on ancient origin, self definition and land.

Management maintains that experienced Bank staff and consultants were engaged to work on the preparation of this Project and that economic, financial, safeguard, technical and other analyses were done to a high standard. Project analyses considered a wide range of electricity demand scenarios and the impacts of both low and high hydrology scenarios. Management regards the environmental and social work carried out thus far to have appropriately considered the issues that emerged in the previous Bujagali investigation and the new issues outlined in the current request relate to resettlement, cumulative impacts, and consultations.

Management claims that the Project will bring benefits to many. According to Management, providing least-cost power is expected to increase the number of connections of residential users to the national grid, including in rural areas, and will allow industrial and commercial users to increase output and efficiency and, therefore, profits. Management also states that the Project will bring local job opportunities during construction and following tourism development in the Kalagala offset.

The Investigation Report and the Applicable Policies and Procedures

This Report concludes the Panel's investigation into the matters alleged in the Request for Inspection. Panel Chairperson Werner Kiene served as the Lead Inspector for the Panel's investigation. The Panel was assisted in its investigation by expert consultants Prof. Theodore Downing, anthropologist, Prof. Richard Fuggle, environmental specialist, Mr. Graham Hadley, economic and commercial consultant, Prof. Peter Pearson, economist, and Prof. Carlos Tucci, hydrologist.

The Requesters submitted their Request for Inspection to the World Bank Inspection Panel as well as the Compliance Review and Mediation Unit (CRMU) of the African Development Bank (AfDB). The Panel and the CRMU coordinated their field investigations of the Bujagali projects and shared consultants and technical information during this investigation in order to enhance the efficiency and cost effectiveness of each of their investigations. While this collaboration between the Panel and the CRMU worked to the mutual benefit of both parties, each Panel focused its compliance review on its own policies and procedures and each Panel has made its own independent judgments about the compliance of its Management and staff with its respective policies and procedures. The Panel wishes to express its appreciation to the CRMU for this fruitful and precedent-setting cooperation.

The Panel reviewed relevant Project documents and other relevant materials provided by the Requesters, Bank Staff, Government officials, local authorities, individuals and communities living in the areas affected by the Project, as well as scholarly literature. The Panel organized a site visit in collaboration with CRMU of the AfDB in November-December 2007. During its mission, the Panel met with Requesters and other individuals and communities, local and national government authorities, representatives of the Busoga Kingdom, spiritual and religious leaders, representatives of civil society, and representatives of inter-governmental organizations, relevant experts and others. The Panel also interviewed Bank Staff in Washington, D.C. and Kampala. The Panel wishes to express its sincere gratitude and appreciation to all those with whom it met for their time and cooperation.

With respect to this Project, the Panel assessed whether the Bank complied with the following applicable operational policies and procedures:

OP 1.00	Poverty Reduction
OP/BP 4.01	Environmental Assessment
OP/BP 4.02	Environmental Action Plans

OP/BP 4.04	Natural Habitats
OP 4.07	Water Resource Management
OP/BP 4.10	Indigenous Peoples
OP/BP 4.11	Physical Cultural Resources
OP/BP 4.12	Involuntary Resettlement
OP/BP 4.37	Safety of Dams
OP/BP 7.50	Project on International Waterways
OP/BP 10.04	Economic Evaluations of Investment Operations

World Bank Policy on Disclosure of Information

II. Context

Electricity and Power Needs in Uganda: The Power Supply Crisis

Uganda is experiencing serious power capacity constraints. Only five percent of the total population, less than one percent in rural areas, has access to grid-supplied electricity. **The Panel notes the critical importance of providing affordable electricity to the people of Uganda, as an integral element of national development and of Uganda's poverty reduction efforts.**

Uganda's main source of electricity currently is the Nalubaale/Kiira dam complex, located just below the source of the Nile River at Lake Victoria. The complex consists of two dams, Nalubaale and Kiira. Over recent years, however, the electricity produced by Nalubaale and Kiira has dropped substantially below capacity due to the hydrological limitations on the release of water into the Nile from Lake Victoria, and the interactions between the dams and the water levels of the Lake. Two additional large hydropower projects are being proposed and/or developed along the Nile in Uganda: the Bujagali Hydropower Plant and the Karuma dam, downstream from Bujagali Falls.

A critical issue raised by the Request is whether the Bujagali dam, if built, will meet its economic projections and provide affordable electricity to the people of the country, in comparison to other alternative means for doing so. **During its visits to the Project area, the Panel heard strong expressions of concern from local people and their representatives that they will not benefit from the Project but will, nevertheless, have to bear its social, economic and environmental costs. In addition, they are concerned that, if Project costs are not properly estimated and accounted, the burden of below-capacity production will be passed to the people of Uganda.**

Environmental and Social Setting

The Project area is home to several ethnic groups living in and around the Project site, including the Busoga and Busanga people whose lives and livelihoods will be affected. The Bujagali dam would create a reservoir that floods an area of 388 hectares, require the taking of 238 hectares of land and would require additional takings for transmission lines, all of which involve displacement and resettlement of people and family from their lands.

The dam's reservoir would inundate Bujagali Falls and other natural habitats, which are sites of cultural and religious significance to surrounding peoples.

Prior to the construction of the existing dams on the Victoria Nile, the amount of water flowing from Lake Victoria was naturally determined by the level of water in the Lake—the higher the level of the lake, the more water poured out from the Lake into the river. However, the successive development of the Nalubaale and Kiira dams at the entry point from the Lake to the upper Nile changed all that. At the time that Nalubaale dam started operating, it was agreed that it must be operated in accordance with the Agreed Curve (a mathematical relationship between Lake levels and outflow) that stipulated how much water should be released from the Lake. The Agreed Curve aims to ensure that the outflow from the lake mimics the natural conditions of the Lake before the Nalubaale dam (formerly Owen Falls dam) was constructed.

A significant question raised by the Request is the extent to which the proposed Bujagali Dam will or might create incentives to depart from the Agreed Curve, and contribute to a lowering of Lake water levels and corresponding serious impacts for the Lake's riparian states. An important related question is the extent to which the future hydrology of Lake Victoria may be influenced by climate change. Since the Lake's water balance is dominated by rainfall and evaporation over the surface of the Lake, the Requesters are concerned that even relatively small long-term decreases in rainfall and/or increases in temperature could have significant impacts on Lake levels and on outflows via the Victoria Nile and, in turn, on the economic and politics of operating the dams.

Another important element of the Request is the potential impacts of the Project on the economy of the area around the waterfalls, including through fishing and tourism. In addition, the Project is being proposed for an area long inhabited with strong, complex cultural and spiritual tradition. Although the peoples of other ethnic groups inhabit the project area, the Basoga claim spiritual dominion of both sides of the Nile, its islands, the water and its waterfalls. The Bujagali Falls dam would inundate places of high cultural and spiritual significance to local people

III. Environmental Issues

(1) Adequacy of the SEA

In the Requesters' opinion, the social and environmental studies supporting the Project are generally inadequate, based on old data that do not reflect the current situation of the Project area, in violation of the Bank Policy on Environmental Assessment OP/BP 4.01. Management responds that the Project is a new operation and, as a result, social and environmental aspects have been reassessed. It adds that the current Project was designed to build upon earlier data and additional studies were undertaken as needed, to confirm or update that baseline.

The Panel notes that the Project Sponsor contracted international consultants to prepare the required SEA for the Bujagali Hydropower and Bujagali Interconnection Project with appropriate input from Bank Management. **The Project has appropriately been classified as category "A", the category under Bank policy used for projects with the most serious level of impacts. This complies with OP 4.01.**

The Panel finds that, apart from the omission of an Environmental Management Plan (EMP), the SEA includes the elements required by Annex B of OP 4.01. The Project is fully described and set in an appropriate policy, legal and administrative framework. **However, the fact that the EMP is not an integral part of the SEA that has been disclosed is a deficiency. This is not in compliance with the requirements of OP 4.01.**

OP 4.01 also requires that when there is inadequate legal or technical capacity to carry out key EA-related functions (e.g., review of EA, environmental monitoring, inspections, or management of mitigatory measures), the Project includes components to strengthen that capacity. **This requirement to support needed capacity building, which is important in the implementation of the social and environmental aspects, has not been complied with in this Project**

The Panel also finds that an independent panel of internationally recognized environmental specialists has not been appointed for the Project (or a single panel to cover both the Hydropower and the Interconnection projects). **As the Project is contentious and involves complex multidimensional environmental concerns, appointment of an environmental panel of international experts is warranted and the lack of such a panel is not in compliance with OP 4.01.**

(2) Disclosure of Project Documentation

The Requesters contend that the Project SEA does not address significant issues relating to hydrology, climate change and cumulative impacts. The Management Response cites the Strategic/Sectoral Social and Environmental Assessment (SSEA) of the separate Nile Basin Initiative as the source of data and analysis on issues of climate change and cumulative effects of the Project.

The Panel notes that the Bujagali SEA makes only a passing reference to the SSEA, and the SSEA makes no mention of the Bujagali SEA. **It is clear from reading the two reports, and the lack of cross-references between them, that they do not form part of the same suite of documents.** The Panel is of the view that, in the interests of efficiency, an EA may, in principle, refer to and/or incorporate, as appropriate, other relevant studies. However, as the purpose of both the sectoral and project specific EA is to disclose information relevant to a decision, the fact that one study is reliant on another must be clearly stated and disclosed in project documentation. Without this, information important to a project is obscured even if it is disclosed independently, which weakens or undercuts the achievement of the key elements of OP 4.01 on informed decision-making, public consultation and disclosure.

The Panel finds justifiable the Requesters complaint that some aspects of the Project, i.e. effects of climate change and the cumulative effects, have not been properly addressed in the Project SEA. **The Panel acknowledges that the necessary studies have been conducted and disclosed, albeit independently, and considered by Management and referred to specifically in the PAD. However, the failure to disclose the SSEA or its relevant parts as an integral part of the Bujagali Hydropower Project's documentation in a timely manner is not consistent with OP 4.01.**

(3) Cumulative Impacts

In the Requesters' opinion, the SEA does not discuss cumulative impacts, and BEL did not attempt to identify issues arising from building a cascade of dams on the River Nile, especially with respect to the health of the Lake Victoria. Management argues that cumulative impacts of the currently proposed Bujagali project are addressed as part of the Project's SEA and in the SSEA.

The Bank's OP.4.01 Annex A states that a "[s]*ectoral EA pays particular attention to potential cumulative impacts of multiple activities*." The analyses in the SSEA allow a comparison amongst the various proposed portfolios of power development options in the Nile Equatorial Lakes Region. **They do not, however, provide a systematic examination of the potential consequences of the Nalubaale and Kiira facilities, the Bujagali Project, and the planned Karuma project all being situated on the Victoria Nile between Lake Victoria and Lake Kyoga.** In addition, there is no examination of the impact of additional transmission lines between the hydropower stations and Kampala. **Although section 14 of the SSEA is headed "Assessment of Cumulative Impact" the Panel finds that the analyses are not sufficiently backed by evidence and include opinions rather than careful fact-based examinations of the additive effects of impacts from present and foreseeable projects.**

The SEA seems to address cumulative effects in more detail. However, it makes statements that are not substantiated by data or factual analysis. There is no determinations of how many people stand to be affected, how much agricultural land is to be lost, the extent to which riverine forest habitat will be lost, or the extent to which tourism will be affected. **The Panel finds that neither the SSEA nor the SEA has addressed the cumulative effects of the existing and planned projects in a meaningful way. This is not in compliance with OP 4.01.**

(4) Transmission Lines

The transmission lines that will transport electricity from the hydropower site pass through areas where people live, wetlands, and the ecologically important Mabira Forest. As noted above, the SEA fails to address the cumulative effects of transmission lines; neither does it propose mitigation to reduce additive effects.

The Panel was not furnished with documentation indicating that the Project considered ways to mitigate or reduce the amount of land taken for the second (Bujagali) transmission line. Rather, the Project assumed that the size of the existing right of way needed to be doubled, which is technically incorrect. **The Panel finds that the failure to**

consider mitigation measures, which would reduce the social and environmental impacts of the transmission line, does not comply with OP 4.01 and OP 4.12.

(5) Environmental Impacts on Fisheries and Aquatic Systems

The Requesters express concern as to the accuracy of the surveys of endemic fish species and claim that the data on which the EA is based is flawed and outdated, in non compliance with OP 4.01 on Environmental Assessment and OP 4.04 Natural Habitats. Management responds that the Project builds on relevant work conducted for the prior Bujagali Project and on updated information gathered in further field studies and analysis, including studies on fisheries conducted for the prior project and updated for the current Bujagali Project.

Based on its review of relevant research studies, the Panel observes that the status of the fish species inhabiting both Lake Victoria and the Victoria Nile is disputed and that ongoing research is desirable. However, significant effort has been devoted to study these fish in the reaches of the Victoria Nile that will be affected by the Bujagali Hydropower Project.

Studies undertaken by the Ugandan National Fisheries Resources Research Institute (NAFIRRI, previously known as FIRRI) show that fish ladders suggested by the Requesters would not be scientifically justifiable because a barrier in the upper reaches up to Dumbbell Island would not significantly affect the stability of fish populations in Lake Victoria and neither would a fish ladder be relevant. The studies undertaken by, and the formal indicative position of, NAFIRRI are persuasive and the conclusions logically drawn. Bank Management exercised appropriate diligence in using these documents in its decision-making. **The Panel consequently finds Bank Management acted consistently with the provisions of OP 4.01 and OP 4.04 in so far as these relate to assessment of the likely consequences of the Bujagali Hydropower Project on fish stocks in the Upper Victoria Nile and Lake Victoria.**

(6) Mitigation Measures: The Kalagala Offset Agreement

Mitigation measures for the Project call for the Kalagala Falls to be established as an appropriate offset for the natural habitats that would be inundated by the Bujagali project. Kalagala Falls originally had been identified as the site of a potential future hydropower project. In 2006, however, the Government stated that: "*The Government position on the site is that it continues to be frozen for development purposes.*" This offset is now provided for in the Indemnity Agreement between the Bank and the GoU.

The Requesters express concerns about the agreement between the World Bank and the GoU because, in their opinion, this agreement is not a guarantee that Kalagala Falls will never be developed for hydropower. At the time of its Response, Management claimed that the offset provision related to the Kalagala Falls to be included in the Indemnity Agreement "*... will be binding throughout the life of the Indemnity.*"

The Panel found that that the "Kalagala Offset" has come to be accepted as a site to be used to "offset" a variety of the features that are to be lost by inundating the Bujagali rapids, but there is almost no mention of the core purpose of a conservation strategy for lost natural habitats as provided by Bank policy on Natural Habitats. During its investigation visit, the Panel observed uses at Kalagala Falls that are not necessarily consistent with this conservation purpose. The World Bank stance has been nevertheless clear in the sense that : "*...the long term protection of the Kalagala Falls and the preclusion of development of hydropower potential at Kalagala is a necessary offset for World Bank Group participation in the proposed project.*"

The Panel wishes to note and highlight the Bank's efforts in cooperation with the government to develop the commitment to set-aside and protect Kalagala Falls as an offset to impacts produced by the dam. Although certain important issues in this regard are noted in the Report, the Panel notes and appreciates that the action to develop and strengthen this commitment in light of issues raised in the Panel's previous investigation report and relevant Bank policy.

The Panel finds that there is evidence that an offset has been created to meet the requirement of OP 4.04. On the other hand, the Panel finds that there is evidence that the offset site is not being subject to appropriate conservation and mitigation measures in conformity with sound social and environmental standards. The Project is thus not in compliance with OP 4.04 on this point.

Given present institutional weaknesses and lack of proper training arrangements, the Panel finds that the capacity of local institutions to plan and manage the Kalagala offset has not been developed and that no provision has been made to rectify this. As a consequence **the Kalagala offset may not achieve the purpose for which it was set aside, and this is not consistent with the provisions of OP 4.04.**

The Panel notes with concern that the proposed Environmental Mitigation and Monitoring Plan is silent on the need for monitoring of enhancement and offset plantings. Also, monitoring of replacement plantings has not been included in the terms of reference of the witness NGO that has been appointed to monitor Project compliance with IDA conditionalities. This is not consistent with the provisions of OP 4.04.

(7) Safety of Dams

The Request claims that safety issues possibly emanating from the existing Nalubaale dam at the Owen Falls are not taken into consideration in the Bujagali dam design. Management responds that a Dam Safety Panel has been established to provide advice through design, construction, filling, and start-up to ensure that the project is consistent with Bank policies.

The Panel visited the Nalubaale complex in December 2007 and was shown the cracks in the powerhouse as well as the routine measurements of structural movement and of porewater pressure that are undertaken and reported. The Panel is satisfied that Eskom (Uganda) is undertaking and reporting the monitoring of the Nalubaale complex that the Bank requires. The Panel notes that the cracks are in the powerhouse structure and not in the wall of the dam. **The Panel finds that Management has complied with the procedures set forth in OP 4.37.**

IV. Hydrological and Climate Change Risks

According to the Requesters, BEL's SEA does not adequately address the issues of possible hydrological changes affecting power production at the Nalubaale, Kiira and the proposed Bujagali facilities, especially at a time when Lake Victoria water levels are declining. In its Response, Management states that the impact of hydrological flow rates on the planned Bujagali dam has been addressed extensively in the SEA and in the Project Economic Study. According to these studies, "*the proposed 250MW project is not expected to significantly alter or affect the hydrology of Lake Victoria or the Victoria Nile.*" Analyses used to assess the hydrology of the Lake comprise 106 years of data, including several hydrological cycles.

Management acknowledges that in recent years the Government has over-abstracted water for power generation because of a general drought, lack of generation investments to use available water more efficiently, and a demand growth of eight percent. However, Management also states that the "*GoU has steadily decreased hydropower generation in an effort to return to the Agreed Curve operating regime.*"

(1) Appropriateness of Hydrological Data Series used in Project Design

Observers generally divide the history of Lake Victoria's water levels into three main periods. In general, the period before 1960 is characterized as a period of relatively low water levels. Between 1960/61 and 1999, Lake Victoria level rose, while starting in 2000 and until very recently, lake levels decreased to a level observed before the 1960s. The Project Economic Study concluded that the whole period of record from 1900 should be used to determine the future dependable flow for power generation at hydro power stations on the Victoria Nile.

The Panel's hydrology expert concluded that the hydrologic data sets used in Project design constitute a reliable data series and its variability over time is a natural condition, which can be observed in other hydrologic series of different parts of the world, when the hydrologic series is long enough. The Panel finds that this provides an appropriate baseline for analysis of environmental and economic issues, in compliance with OP 4.01.

(2) Lake Victoria Water Levels and Power Plant Operations on the Victoria Nile

The Agreed Curve has been used to specify the outflow that should be released from Lake Victoria down the Victoria Nile following the construction of Nalubaale dam. After 2000, the entry into operation of Kiira dam (in a side-channel constructed parallel to

Nalubaale dam) increased generation capacity. **Since these two dams operate in parallel, the system required more water to flow downstream and through the turbines to generate energy.** In the period 2001–2005, the increase of the water release of the Lake above the Agreed Curve has resulted in increased energy production downstream but had negative upstream effects of lake depletion and resulting impacts.

The Panel notes that the Agreed Curve constrains the ability to use the lake to store "excess" water for later use when inflow exceeds outflow. During its field visit in December 2007, the Panel was given documentation showing what appears to be a new release policy – the "Constant Release" rule. The Panel received information suggesting that this new rule, which allows for a constant release to be applied when the lake level fluctuates within a certain range, has been in effect since June 2006, and it is the basis for the analysis in the Economic Study.

(3) Impact of Hydrologic Risk on Energy Output

The Requesters and Management Response include contrasting statements as to whether the Economic Study adequately addresses the Project's economic viability in relation to hydrological risks.

The PAD states that the assessment of the energy output was based on the flow released from Lake Victoria through the Nalubaale/Kiira dam complex in accordance with the Agreed Curve, and that the Project is designed in accordance with the Agreed Curve release rule. The Economic Study states that it adopted the "Constant Release" rule to determine the energy generation capability of the hydro options considered. **This discrepancy between key Project documents brings into question the data basis for the Project's economic analyses, and is likely to have resulted in a more positive conclusion to the Economic Study than would have been the case under the Agreed Curve scenario. This is inconsistent with OP 10.04.**

In March 2007 an internal Management Review had proposed that the PAD should confirm that the plant would be operated under Lake Victoria's Agreed Curve release strategy, rather than under a constant release regime, "*and should confirm that this regime does not affect the conclusions of the economic evaluation of the project….*" **The PAD does not appear to have followed this latter recommendation. In the Panel's view, the provisions of OP 10.04 require Management to provide an accurate picture of the Economic Study (based on the Agreed Curve), and indicate whether this affects the relevant conclusions.**

The Panel notes that this contradiction in Project documents has a material implication not only for the economic viability of the Project and the provisions of OP 10.04, but also on the lake levels of Lake Victoria, since different operational rules result in different time-profiles and variance of water levels. While the Panel recognizes that, over a certain period of time, the mean outflow under the "Constant Release" rule may be identical to that under the "Agreed Curve" rule, the time-profile and variance in lake levels under the two regimes will be different.

(4) Potential Impact of the Project on Lake Victoria

The Requesters are concerned about over-draining of Lake Victoria, and believe that the issue of the long-term health of the Lake has not been addressed in Project documents. Management indicates that the operation of the Bujagali/Kiira/Nalubaale system is not expected to affect the hydrology of Lake Victoria because the water released from Lake Victoria and the timing of these releases will still be controlled by the operation of the Nalubaale and Kiira dams. Bujagali will use the same water already utilized by the parallel upstream dams of Nalubaale and Kiira.

The Panel notes that the SEA study was based on the assumption that the Project's upstream area of influence ends downstream of Kiira-Nalubaale dams. The SEA did not take into account the potential impacts of the Project on Lake Victoria. The SEA expected and the PAD stated that the Project would be operated in accordance with the Agreed Curve. The Panel notes that this approach does not take into account the contradiction between the PAD and the Economic Study regarding the Project's operation rule and the recent history of 2003–2005 when the Nalubaale-Kiira system was operated above the Agreed Curve, which contributed to a severe depletion of the Lake.

The Panel also notes that the operation policy of Lake Victoria could be other than the Agreed Curve, using the lake as reservoir regulating the flow. However, the Panel observes that such change in operating regime and its impact upstream and downstream need to have been assessed in the Project environmental assessment. **The Panel notes the importance of assessing such a situation and extending the area of influence of the Project to Lake Victoria.** This is also important because the lowering of water levels in Lake Victoria brings significant social and environmental impacts upon the Lake ecology and the people and countries that rely on it for resources and livelihoods.

The Panel notes that the SEA study considered that the Project's area of influence ends downstream of the Kiira-Nalubaale dams. As a result, the Panel finds that the SEA analysis did not comply with OP 4.01 in defining the area of influence of the Project because the Project impacts on the changing levels of Lake Victoria were not assessed.

In light of its relevance to the analysis of the Bujagali Project, the Panel notes the importance of making the structure for governance of water releases from Lake Victoria clear and transparent to all stakeholders.

(5) Climate Change Risks

The Requesters aver that the project preparation and assessment reports do not address climate change and its possible impact on power production at Bujagali. Management, on the other hand, claims that climate change aspects were addressed in different studies, such as the SSEA, which includes a detailed analysis of the impacts of climate change in the Nile Equatorial region comprising Bujagali.

The PAD states that both the Economic Study and the SSEA conclude that there will be "*no adverse effect on water release due to climate change during the life of the proposed project.*" The Economic Study states in the main text that the influence of climate change was not found to be significant enough in the medium term. Further brief discussion is included in Appendix B of the Economic Study. **In the Panel's view, the brevity of this discussion of a highly complex issue with the potential to influence significantly the Project's economic outcomes does not demonstrate compliance with OP 10.04's paragraph 5, which requires proper assessment of the robustness of the Project with respect to environmental risks.**

In contrast, the SSEA assesses potential impacts on hydroelectric generation and examines whether such impacts might affect new power options being evaluated. An independent review of the hydrology of Lake Victoria, financed under the Bank-Netherland Water Partnership (BNWP) which also peer-reviewed the Project Economic Study with respect to hydrological risk, states that "*there is considerable variability in the results of the individual models and caution should be used when applying these results to make operational decisions*."

The SSEA appraisal appears to be the result of a thorough, detailed study that draws on its own analysis and a range of other international studies. The Panel finds that the possible effect of climate change on hydropower projects on the Victoria Nile has been seriously considered in the SSEA. This analysis meets the requirements of OP 4.01. As noted above, however, the SSEA was not properly disclosed as a Project document. It is important to note that the results of the SSEA analysis show that there are few identifiable hydrological risks to the hydro-power options studied, and overall for the Northern and Central West regions of the Nile Equatorial Lakes there is a higher probability of increases in runoff, and thus power generation, than determined from historic flow data.

The Panel notes, however, that the Economic Study does not cite or draw on the results of the SSEA. **Management does not appear to have ensured that the Economic Study drew on the much more thorough analysis in the SSEA. The Panel finds that this does not comply with paragraph 5 of OP 10.04. Considering that the PAD draws on the authority of both studies, particularly the SSEA, the Panel finds it surprising that the PAD concludes that, "[...] *there will be no adverse effect on water release due to climate change during the life of the proposed project.*"**

The Panel is aware of the limitation of the known technology in evaluating climate change scenarios and that the analysis of climate change is an evolving science, where gaps remain. Indeed, **this situation makes all the more troubling the PAD's categorical assertion, without any reference to risk and uncertainty, that there will be no adverse effect on water release due to climate change during the Project life. This failure to express a risk factor is not consistent with OP 10.04. The Panel notes the importance of continued attention and analysis to the effect of climate change on flows and hydropower generation on the Victoria Nile.**

V. Economic and Environmental Analysis of Alternatives

The Requesters argue that energy alternatives to Bujagali were not adequately addressed in the SEA and that the Economic Study does not include an adequate assessment of the economic alternatives to support the statement that the Bujagali dam is the least costly option. Management believes that the economic, financial, safeguard, technical, governance, and other required analyses meet high professional standards and are in compliance with applicable Bank policies. Management adds that these analyses take into account the findings of the previous Bujagali Inspection Panel Report and result from the overall project due diligence, which adequately takes into consideration best practice.

Bank Economic Evaluation policies applicable to this Project are OP/BP 10.04 on Economic Evaluation of Investment Operations and OP 1.00 on Poverty Reduction. OP 10.04 provides that "*For every investment project, Bank staff conduct economic analysis to determine whether the project creates more net benefits to the economy than other mutually exclusive options for the use of the resources in question.*" The Policy then sets out specific provisions in seven areas: criterion for acceptability, alternatives, non-monetary benefits, sustainability, risks, poverty and externalities.

(1) Demand Forecasts and Electricity Tariffs

The forecasting of demand and its interaction with likely tariffs is a necessary element in the process of analysing project alternatives. Thus, the analysis of the future "expansion path" of an electric power system should explore both the likely evolution of the demand on the system and the least cost means of satisfying that demand through existing plant and new investments.

The Requesters argue that the demand forecast analysis for the Project is unrealistic, as only a small part of the population of Uganda can afford electricity that is unsubsidized. Management notes that the risks related to future uncertainties of variables have been evaluated.

The Inspection Panel Report on the first Bujagali project criticized aspects of the load forecasts used for that project, including the assumption of narrow ranges. **In the Panel's judgment, Management addressed demand forecasting for the current Project seriously, in that it commissioned a detailed, sophisticated review in 2004, which stressed the importance of a thorough revision of the load forecasts.** The forecasts for the current project show a much broader range between the high and the low cases. This reflects in particular significant variations around the base assumptions about residential connections and the rates of growth in household income and commercial and industrial GDP. All other assumptions remain the same as for the base forecast, however.

The economic study assumes that connections of new consumers will rise significantly in one year after Bujagali's commissioning. **The Panel notes that although the availability of reliable electricity supply at the time the Bujagali plant is commissioned might reasonably be expected to stimulate new connections, the**

Economic Study appears to assume a more sudden increase in connections than seems likely to occur. A more gradually phased trajectory of connections to the grid after 2011 would seem more plausible, both for the base forecast and the low and high variants.

Given the difficulties inherent in reducing commercial and technical losses in the electricity system in Uganda, and in particular in light of the challenges recently experienced by the electricity distribution company (UMEME), the Panel finds that the demand forecast should have varied the assumptions on losses and the collection ratio (i.e. the ratio between UMEME's billed sales collected and billed sales) as part of the sensitivity analysis and of a more complete appraisal of risks, in conformity with OP 10.04. Indeed, somewhat lower values might also have been appropriate for the base forecast, as an alternative to assuming that the targets set for the electricity distribution concession would be fully achieved.

(2) Economic Analysis: Alternatives Considered

The PAD states that major generation alternatives to Bujagali considered in the Economic Study include: small and medium-sized hydropower projects, large hydropower projects studied beyond the feasibility stage (i.e. Karuma), thermal options, bagasse based cogeneration and geothermal.

(a) The Geothermal Potential

The Request claims that Uganda potential for geothermal energy is up to 450MW but that hydropower generation studies took precedence over thermal energy. Management Response states that a "*detailed review of geothermal prospects was conducted as part of the project analysis of alternatives.*" The analysis concluded that only 10 percent of the potential 450MW claimed by the Requesters is feasible and a geothermal 40MW plant was assessed in the least-cost analysis. The Economic Study reaches its conclusion by questioning existing estimates of temperature for Katwe and Buranga contained in a 2005 paper, whose authors' affiliations include Uganda's Department of Geological Survey and Mines.

The Panel notes the statement in the Management Response that additional studies and shallow drilling are included under the ongoing Power IV Project, to assist the Government in assessing geothermal prospects at several sites in Western Uganda. The additional information resulting from this work would help resolve conflicting views regarding geothermal potential in Uganda, and may have a significant bearing on the economic analysis of alternatives.

(b) Small and Medium Scale Alternatives

In the Requesters' view, only a limited energy potential at various hydropower sites has been developed. Management responds that the Bank is supporting development of mini-hydro potential and states that projects providing power to the grid or suitable for grid connection were considered in the economic study. However, the ToR for the Economic Study encouraged a focus on relatively large grid-connected plants and did not draw attention to the evaluation of smaller scale or off-grid alternatives. The Economic Study does not discuss any other renewable sources of electricity, such as municipal solid waste, solar or wind. **In a country where only 5 percent of the population is connected to the grid and there is widespread poverty, it would be reasonable to expect attention to be paid to small and/or distributed generation options (not only hydro) which might in theory more directly address local and rural poverty.** It is noteworthy that the Management Response to the Request contains a much fuller discussion and appraisal of the smaller scale and/or distributed generation options than was contained in the Economic Study and the PAD.

The Panel notes that the information in the Economic Study and the PAD relating to knowledge about and the potential of smaller scale and/or distributed generation alternatives did not clearly establish that the available studies and data had been identified and evaluated in a way that would have enabled decision-makers to decide whether further consideration was required. **The Panel finds that the Economic Study and the PAD did not demonstrate full compliance with OP 10.04's requirement in paragraph 3 to evaluate alternatives.**

(c) Oil Resources

In January 2006, an oil company announced "*the existence of a working petroleum system in the Albertine Basin,*" while warning that it was too early to determine its size or potential commerciality. Other reports convey more scepticism about the scale of the discoveries. **While the oil resource discovery was at a very early and unproven stage at the time when the Economic Study Final report was completed (February 2007), the Panel finds that the existence and potential of this resource should have been reviewed in the discussion of alternative supply options.**

(3) Project Costs

(a) Bujagali Project Costs

The PAD acknowledges that by the time of its publication, estimates of Bujagali's Engineering Procurement and Construction (EPC) costs were substantially higher than those for the prior Bujagali project. The Panel notes that power plant costs have increased in real terms internationally. Nevertheless, **because EPC costs form a key element in determining the Project's economic and financial viability, the Economic Study and the PAD should have supplied fuller explanations of the details of this cost increase, supported by appropriate analysis and quantitative evidence.**

In addition to the cost increase noted above, there is evidence of significant cost increase during and after the appraisal process for the current Project. Management responded to a question from the Panel about differences between the cost estimates used for the Economic Study and the PAD, stating that: "*it was not practical to consider restarting* *this analysis when each new/refined estimate of project costs became available, since the new estimates were such that all parties involved in the study considered that they would not [to] alter the conclusions of the study.*" **The Panel finds that, although certain parts of the analysis were carried out thoroughly, to meet all of the requirements of OP 10.04, the PAD should have included an explanation and supporting evidence of why the substantial project cost variations would not alter the conclusions of the Economic Study.**

(b) Karuma Project Costs

The Requesters claimed that the Karuma construction costs were inflated to gear the analysis of alternatives in favour of Bujagali. Management stated that the analysis has in fact shown that Bujagali has lower construction costs than Karuma.

Project documents estimate costs for Karuma and Bujagali as of 2001 and as of 2007. A comparison of the rate of increase in the EPC cost estimates during this period suggest that Karuma's EPC cost estimates grew by a smaller percentage than those of Bujagali. Therefore, **the Panel observes that the updating of the EPC cost figures in the PAD does not obviously disadvantage Karuma relative to Bujagali.**

At the same time, the Panel found conflicting and incomplete reports on cost estimates for Karuma at the time of the prior project. Thus, the Panel could not fully assess these estimates.

(4) Assessment of Least Cost Options for Expanding Power Generation and Supply

The Economic Study devised and compared alternative generation expansion plans with and without Bujagali as a candidate plant. **The process of testing the sensitivity of the least cost expansion plans with and without Bujagali appears to have been carried out thoroughly. The assumed increase of 10 percent for the "high Bujagali capital cost scenario" compared with the "base scenario", with an assigned probability of only 20 percent, was inappropriately low. Nevertheless, a sensitivity test suggested that the Economic Study's conclusions that Bujagali was the least-cost option were robust for an increase of almost 50 percent in capital costs.**

The PAD states that the Economic Study for the power system as a whole suggested that, when compared with the assumed tariff underlying the demand forecast, "[...] *the tariff may drop by up to 10% in real terms after the commissioning of the proposed project.*" The Economic Study suggests that from 2011 the average long term cost of supply, 16 c/KWh, is 1.2 c/KWh lower than the assumed constant tariff level (a 7 percent difference).

The PAD's statement simply asserts that the Economic Study shows that the tariff may drop by up to 10 percent, without qualifying the statement in light of the increases in EPC and transmission costs after the Economic Study was prepared and that were recorded in the

PAD. The issue of electricity tariffs and affordability is of high importance to the people and communities. **The Panel finds that, in order to comply with the requirements of OP 10.04, the PAD should have qualified its statement about the projected drop in tariffs to take into account the impact of EPC and transmission cost increases.**

The PAD presents its own estimates of the projected levels of the weighted average retail tariff path, based on a financial analysis that is different, and presumably later, from that of the Economic Study. The PAD does not compare these figures with those in the Economic Study; neither does it explain why they differ. It also does not comment on any implications.

The Panel notes that the Project's impact on tariffs and their affordability was known to be a key concern. In this light, the Panel considers that the relationship between the estimates in the Economic Study and those from the PAD's financial analysis should have been presented more clearly and transparently in the PAD.

(5) Externalities

Paragraph 8 of OP 10.04 requires the economic evaluation to take into account domestic and cross-border externalities, which are in large part environmental. The Economic Study states that a field mission to Uganda in July 2006 was carried out to collect data on the environmental and social costs of the Bujagali and Karuma projects. It adds that the Economic Study for Bujagali also used data gathered in the preparation of the SEA. **The Panel finds that the limited presentation and discussion of these costs in the Economic Study did not succeed in demonstrating full compliance with OP 10.04. In the Panel's view, to meet all the requirements of Paragraph 8 of OP 10.04, the Economic Study should have examined, in more detail, the potential of changes in damage from pollutants other than CO_2, such as sulphur and nitrogen oxides, particulates and noise, even if it might have proved difficult to value them.**

(6) Environmental Analysis of Alternatives

The discussion below reviews the analysis of alternatives to the proposed Bujagali hydropower facility by looking into the evaluation of these options with a focus on environmental and social considerations and the decision-making process that led to the selection of the Project design.

(a) Hydropower in Comparison to other Technologies Within the Region

An analysis of power options within the Nile Equatorial Lakes Regions, funded under the Nile Basin Initiative and done as part of the SSEA, indicated that among four options considered for Ugandan base-load supply, the most appropriate was large-scale hydropower. This conclusion put a focus on large-scale options in the analysis of alternatives, both within Uganda and at Bujagali Falls in particular.

(b) Hydro-power Location Alternatives within Uganda

Twelve alternatives at seven different sites in Uganda were considered for large-scale hydroelectric projects in the Nile Equatorial Lakes Region study. Only two alternatives—Karuma and Bujagali—were found to be both cost-effective and socially and environmentally acceptable. **The Panel finds that Management did not ensure that cultural and spiritual matters were properly considered when comparing the Bujagali and Karuma alternatives, as required by OP 4.01. This is especially relevant in light of the significant cultural and spiritual importance of the Bujagali Falls to the Busoga people. The lack of proper consideration of cultural and spiritual matters in this comparison had important consequences, in that it appears to have led to the conclusion that there was little difference between the Bujagali and Karuma sites and that therefore the economic and financial aspects of the options should become the determining factor in selecting the preferred option.**

(c) Alternative Project Configurations at Bujagali

The SEA undertaken for the prior Bujagali project included an analysis of alternative impoundments to utilize the drop provided by the falls at Kyabirwa, Bujagali, Buyala and Busowoko. For each alternative the power that could be generated, costs, and both socio-economic and environmental impacts were evaluated. This analysis was revisited for the SEA in 2006 for the second Bujagali project. The SEA for both the prior and current Bujagali project conclude that the optimal least-cost option for generating large-scale hydro-power at the Bujagali site, without major socio-economic or environmental consequences, would be to construct a 30m high dam across Dumbbell Island.

The Panel notes that a range of alternatives have been considered in these studies. The Panel is concerned, however, that the analysis unduly narrowed its consideration of alternatives on the basis of *a priori* judgments rather than exploring all technically feasible options, including those that would not involve flooding the Bujagali falls and thus have lower social and environmental costs, and laying them out in a systematic way along with their economic, social and environmental benefits and costs, so that judgments on optimal alternatives could be made with a full understanding of the trade-offs involved. This is not consistent with OP 4.01's provisions that feasible alternatives should be explored systematically to meet the basic Project objectives, and may have led to inadequate consideration of alternatives that met Project objectives while avoiding the social and environmental costs associated with flooding the Bujagali Falls.

VI. Economic Evaluation: Poverty Reduction and Risks

The Requesters believe that the Project is economically risky, a risk that has been worsened by changing hydrology. They are concerned that because of the cost increase in the Project, the majority of Ugandans will not be able to afford unsubsidized electricity from the Bujagali dam and, as a result, the Project will undermine Uganda's efforts for poverty eradication. In addition, the Requesters indicate that the population living in rural areas is far from the national grid and will not benefit from the Project. Management claims that the Project is expected to *"have positive impacts on poverty alleviation in Uganda"* directly through the availability of power and indirectly through employment creation. It adds that the Project will help Uganda to continue its broad based growth in support of poverty reduction.

(1) Affordability and Poverty Reduction

The Economic Study provides quantitative assessments of both costs and benefits, which suggest that the Project would have largely positive direct impacts on Uganda's economy and enhance national economic activity. **In this sense, and bearing in mind the reservations about the cost estimates of the Economic Study, from a macroeconomic perspective, the analysis appears to have complied with the requirement in OP 1.00 to show that the Project is likely to contribute to "broad based growth."**

In terms of the affordability of electricity generated under the Project for the people of Uganda, Management Response acknowledges that "*end-user tariffs in Uganda almost doubled in 2006*" and that the "*increased price still does not fully cover the cost of generation, transmission and distribution, estimated at US¢25/kWh, requiring government subsidies for the difference.*" Still, Management claims that, with the Project, the cost of power would fall to US¢16/kWh in 2006 money.

The Panel notes, however, that the US¢16/kWh figure provided in the Economic Study is likely to be an underestimate of the cost of electricity with the Project. As explained in this Report, the Bujagali Engineering-Procurement-Construction (EPC) costs used in the Economic Study were nearly a fifth below the EPC values cited in the PAD. Further, the transmission cost estimates used in the Economic Study were low. **The Management Response does not mention these differences in cost estimates or make clear their implications for the tariff estimates of the Economic Study, on which the estimate of US¢16/kWh and Management's above statement about improved affordability are based.**

Much of the expected direct benefit from Bujagali especially in the early years, is likely to be experienced by the better-off urban households and particularly the industrial and to a lesser extent the commercial sectors and their stakeholders. As noted previously, the Project supplies to the grid but only five percent of the population, and less than one percent in rural areas, is connected. Existing poorer households that could afford to connect would benefit from the delivery of a more reliable and possibly relatively cheaper service. Nevertheless, the electricity would still be very costly for poorer households and too costly for many.

The ToR for the Economic Study discuss the calculation of the ERR for Bujagali, outline the broad range of benefits and costs to be included, and say that "*the direct impact of the project on poverty alleviation will be identified by estimating the economic impact of the project on low income households.*" **The Panel did not find evidence in the Economic Study or the PAD of any estimates of the economic impact of the Project on low-income households. The Panel considers that such analysis, in addition to the broader macroeconomic analysis undertaken in the Economic Study, should have**

been made during appraisal to provide a better understanding of whether the objective of poverty reduction envisaged by OP 1.00 would be achieved.

(2) Revenue Projections and the Institutional Framework

Sensitivity tests were performed on the base case financial projections to 2016. The tests cover five "downside risks" and three "upside potentials" scenarios. The PAD states, however, that, "[e]*ach of the sensitivities is considered in isolation, with all other assumptions in the base case remaining unchanged.*" It would have been helpful to have applied these tests using a more comprehensive probability-based analysis (e.g. the "Monte Carlo procedure"), which would have enabled wider distributions of the values of each variable and their simultaneous variation to be taken into account, along with other variables such as changes in the USh/US$ exchange rate.

More specifically, the PAD projects specific amounts of GoU support to power utilities that will be needed over the period 2005-2016, and indicates that the government is projected to collect net revenues of $US217 million over this period. The PAD states that *"[t]he power sector will be a drain on the Treasury until the proposed project is commissioned but a net contributor after.*"

The Panel notes that this statement in the PAD appears misleading and seriously at odds with the projected revenue stream of the Bujagali Project, given a large shortfall until 2022 between revenue to be raised by the tariff for Bujagali proposed in the PAD, and the requirements of the capacity charge, as also indicated in the PAD. **The Panel Report provides additional detail on the revenue gap that UETCL, in particular, will face, which may lead to large, urgent demands on the GoU Treasury and potentially on the Bank via its Guarantee.** The possibility of both higher Project costs and significantly lower revenues will have a major bearing on whether the GoU guarantee of capacity payments under the PPA agreement is likely to be triggered.

The likely tariff variations and the possible revenue shortfalls or surpluses and their implications for UETCL, UMEME and government net revenues are key sustainability concerns; they matter for the future of the power sector, for electricity consumers, actual and potential, and for the GoU's ability to invest in other key sectors and services.

On the institutional side, the PAD recognises as a critical risk the possibility that UMEME terminates its concession. The PAD further notes that following large increases in tariff rates, UMEME billing collection rates declined. The decline in fee collection rates suggests that UMEME's actual performance is likely to remain potentially vulnerable to tariff increases from a variety of causes, both external and internal. There are also risks that the technical and commercial losses will not be reduced as projected in the PAD.

The Project revenue forecasts assume recovery rates will rise from 54 percent of the energy sent out in 2006 to 75 percent by 2013 and thereafter. **The Panel expert considers that it would have been realistic to use a lower forecast recovery rate.**

Bank Management lists various approaches taken to address the potential risks to UMEME, including a restructuring of its concession contract to protect it from the impact of power shortages and reduced revenue streams. It remains to be seen, however, whether the requirement of OP 10.04, to verify that the institutional framework is or will be in place to ensure that the Project functions as designed, can be met. As noted above, UMEME faces vulnerabilities, and the restructuring might have weakened their incentives to achieve the targets for reduced losses, enhanced collection rates and new connections envisaged in the load forecast and economic evaluation in the Economic Study.

(3) Infrastructure Funds

The Country Economic Memorandum cited in the PAD states that, "*Special or extra-budgetary infrastructure funds have increasingly been started as a means to "protect" public funds from funding specific targets.*" Of the five funds listed, three are in the electricity sector. The Memorandum then says, "*In general the proliferation of Extra-budgetary funds poses a serious fiscal threat in a poor country with weak governance systems and capacity.* [...] *Uganda is no exception: the Tariff Stabilization Fund which was designed to smooth tariffs until the Bujagali hydropower project comes on stream is already being utilized to subsidize higher tariffs from thermal power generation. This Fund is also being used to fund selective rural electrification projects, despite the existence of a separate Rural Electrification Fund. Fiscal liabilities and contingencies created through extra-budgetary funds are not accounted for in the Government's budget.*"

In light of these comments and of the scale of the revenue requirements, the financial risks accepted by UETCL and the Government, and the scale of the subsidies and guarantees involved in Bujagali, the Panel notes that Management should have explored further ways of managing and addressing these financial and governance risks, in the interests of project sustainability in accordance with OP 10.04.

(4) The Power Purchase Agreement and Associated Risks

Physically and in its electrical, economic and social impacts, the Project closely resembles the prior Bujagali project. Although there are some changes in the loan and guarantee structures, the key contract documents (PPA and Implementation Agreement) are similar in many respects, but with some important differences highlighted below.

In the Panel's opinion, a meaningful analysis of the adequacy of the current financial arrangements requires a comparison with those established under the prior Project. This section examines the current PPA, signed in December 2005 and amended and restated in 2007 (the 2005 PPA), and associated documents, and compares it in certain aspects with the PPA for the prior project (the 1999 PPA).

(a) Terms of the PPA

In general terms, a power purchase agreement is a long-term contract between a generator of electricity and a purchaser. In the present Project, the PPA is a 30 year contractual arrangement between the Project Sponsor, BEL, and the GoU's entity in charge of transmission, UETCL. Under the PPA, the Sponsor is to sell the contracted capacity of 250 MW exclusively to UETCL.

The terms of the PPA are critical in understanding how financial and economic risks of the Project are allocated, including who would bear the risk of low water flow and, correspondingly, low energy output (below capacity) of the hydropower facility.

In the Panel's opinion, the introduction of a cost-based formula in the 2005 PPA, instead of the maximum capacity charge specified in the 1999 PPA, is probably the single largest adverse contractual change for the power purchaser (UETCL) and its guarantors. The new contractual basis for the Project represents a significant shift in risk away from the project investors and lenders to the power purchaser.

In short, the cost provisions and their effects can be described as follows. The formula for determination of the **monthly capacity payment (charge)** is in Annex D to the 2005 PPA. It is very complex, since the components are defined rather than assigned a specific price, and all are subject to variation. In broad terms, the components are: development costs; engineering, procurement and construction (EPC) costs; tariff debt service reserve; working capital, taxes and fees payable by the Sponsor- all of these constituting "Tariff Project Costs" (TPC)—plus equity repayment and return; debt repayment; GOU Equity (representing past development costs), and Operation and Maintenance (O&M) fees.

Some of these components are treated as pure pass-through (fees, and elements of the O&M charge). Others are carefully defined as to the make-up of their "base" cost, and in some cases – including EPC costs - increases on the base are subject to a quantified percentage "cap". The costs are subject to accountants' inspection. However, the fact remains that, leaving aside debt repayment, the Sponsor has considerable scope to shape the base costs and in some cases the increases also, to deliver a higher capacity charge. In addition, potential for considerable delay is built in to the determination of the capacity charge (before which payments are to be made on an interim basis). In fact, up to 26 months may elapse after the start of operations before there is a determined capacity charge and, curiously, there are no specific provisions for dispute resolution for this particular item.

As was the case with the 1999 PPA, **the capacity charge is not related to output, so the payment will be the same under low hydrology (when the output may be halved) as with high hydrology**. Of course, hydrology is outside the Sponsor's control. But the payments also remain relatively invariable in cases of reduced plant availability, which is under the Sponsor's control. A percentage reduction in availability (say, 5 percent) would have to be sustained for an entire year before there was an equivalent reduction in the monthly capacity charge.

The Panel finds that for the Sponsor and its lenders, the terms and conditions of the 2005 PPA, especially those set forth in Annex D, seem to represent a low-risk (though potentially disputatious) means of managing and recovering costs which are, by definition, subject to uncertainty. For UETCL, the power purchaser, and its guarantors, by comparison, it means that there is no ceiling on capital costs and whether or not the Project delivers the direct economic benefits offered over 30 years, in terms of costs and tariffs, is to a significant extent, outside their hands.

(b) Risks and Consequences Associated with the PPA

The increased risk borne by the power purchaser and its guarantors (the GoU and the World Bank); discussed above, has significant consequences. Although some matters are discussed elsewhere, it is important to highlight them succinctly in this section. The risks to which the Project is exposed, how the risks are shared, mitigation measures and possible consequences, are summarized below.

Capital cost escalation. If the capacity payment is set higher than present estimates, or rises subsequently, either tariffs must increase or additional subsidies are to be paid by GoU to UETCL, as discussed elsewhere in this Report.

Currency depreciation. For the current Project as for its predecessor, capacity payments are denominated in US dollars. As noted in the Inspection Panel's 2002 Investigation Report on the prior Bujagali project, a 10 percent *per annum* depreciation of the Uganda Shilling (USh) against the US dollar (USD) would double the price of the Project to Uganda in seven years. This would lead to tariff increase or additional GoU subsidies to UETCL.

Prolonged low hydrology. Substantial uncertainty remains about future hydrological conditions, as discussed in detail in this Report. The PAD illustrates how the cost of a unit from Bujagali rises dramatically in a "low-water" year. A "levelized" tariff may be set *ex-ante*, but if the actual hydrological pattern falls below that assumed for the "levelized" tariff, then the capacity payment shortfall will widen and the consequences will be those described above.

Lower demand growth. Demand growth projections rest both on continuing growth of demand from existing customers, and a high rate of new connections/customers, such that the number of customers almost doubles by 2012. If this growth does not occur, UETCL's revenues would fall, with the already discussed consequences.

Lower or static proportions of supply costs recovered from customers. It has been assumed that this ratio will have risen to 75 percent by 2013. If it were to remain at the 2006 rate (54 percent), sector revenues would be 28 percent lower.

Affordability. While the capital costs and total costs for the power plant have increased significantly in real terms (including 8 percent since the PAD was issued and the final price was fixed), the Economic Study of the Project assumes that Bujagali's introduction will allow a reduction in (real) retail tariffs of at least 5 percent compared with current levels. As noted above, this tariff reduction may prove to be too optimistic.

Collection rates. As described previously, there are risks as to whether the distributor (UMEME) will be able to reach and maintain high collection rates and to reduce the technical and commercial losses. The Economic Study forecasts that by 2012, UMEME will have reduced its technical losses to 16 percent and its commercial losses to five percent. Failure to achieve these reductions in losses may impair the GoU's ability to fully cover the costs of new energy investments through the tariff system. If the risks noted above arise, this may (in the absence of subsidies) result in a tariff increase which would affect the affordability of electricity.

Construction Delay. Despite Liquidated Damages provisions penalizing the contractor, the costs of delay would likely in practice be shared via the 2005 PPA with the power purchaser, UETCL. The main consequence of delay would be to defer expected consumers' benefits from the Project. In the Panel's opinion, overall, this may be regarded as one of the lesser, or more manageable, economic risks.

Withdrawal of the Developer/Operator. This risk has been mitigated when compared with the 1999 PPA. The contractor is bound for the construction phase, and subsequently would be replaceable as operator if not so easily as investor. The Panel notes that the 2005 PPA provides for the Project to be bought out if necessary.

Poor Plant Performance. Although when compared with international best practice, the 2005 PPA seems generous to the owner-operator in the scale of penalties for low availability, this may be regarded as a low-risk. In the extreme, existing provisions for Company Default provide a safety net.

(c) Risk Mitigation Measures

As described in the previous section, there have been important changes between the 1999 and 2005 PPAs that have had the effect of increasing the risk on the purchaser as compared to the project sponsor. In the Panel's opinion, however, some other changes represent potential improvements regarding reduction of risk. Some of the changes most relevant for project costs and risks are:

Award of the Project by Competition. The Panel acknowledges Management's statements that competitive solicitation of Independent Power Producer (IPP) projects is an international best practice aimed at ensuring the lowest market price consistent with technical fitness to carry out a project. This procedure is a marked improvement over the prior project. In this case, however, the benefits of competition were largely lost by post-bid negotiations, which allowed the price to rise by at least 28 percent before it was established. Further, the recent amendments to the PPA provide specific contractual scope for further upward revision.

Buy-back in case of Low Hydrology. Both the 1999 and 2005 PPAs and Implementation Agreements provide for a buy back of the plant by UETCL under default conditions and certain *force majeure* events. In general terms, these provisions follow international norms. However, the 2005 PPA adds a new provision: UETCL may terminate the PPA and buy back the plant in the event of 30 consecutive months of "low water". In this scenario, the cost of power from Bujagali, per unit, may become prohibitively high, and it may be preferable for the public authorities to assume control, stop paying the fixed capacity charge, smooth tariff effects and ensure that funds were available for alternative generation.

While this new provision is to be welcomed, the Panel notes two areas of concern: first, the low water trigger may have been defined too restrictively from the power purchaser's perspective. Second, the terms and conditions for the buy-out, which appear to allow the Sponsor to set the price broadly to equate to capacity payments foregone, seem relatively generous to the Sponsor, given that the plant will be in real trouble if this scenario occurs.

(d) Conclusions—Distribution of Risks

It is clear from the review of the Project documents that the greatest share of economic risks lies with the power purchaser. The capacity charge may be adjusted upwards if the developer/operator hits unforeseen costs, but not downwards if demand or supply conditions deteriorate for the purchaser. The Panel notes that in fact the lenders especially but also the investors are held harmless against all or most eventualities. However, in a crisis of non-affordability in Uganda such as might be produced by currency devaluation or very low hydrology, the investors and lenders may also be at risk, if the money to pay the capacity charge is not available. In these circumstances, buy-out may provide the best solution.

The Panel observes that the high allocation of risk to the UETCL, the power purchaser, and eventually the GoU increases the possibility that the Project may not achieve the broad objective of sustainable development and poverty reduction embodied in Bank Operational Policies and Procedures. This also increases the possibility of the Bank (IDA) Guarantee being called. **The Panel is concerned that any additional GoU resources that are spent in the financing of the development and operation of this Project may lead to decreased resources available for social and other priority development programs.**

VII. Involuntary Resettlement

The Requesters claim that resettlement under the Project is not complete. They raise multiple, interrelated involuntary resettlement issues, including loss of livelihood, under-compensation, inability to obtain secure land titles, lack of consultation, and request to share in Project benefits. Management believes that this Project has been well prepared in accordance with Bank policies. At the same time, Management in its Response "*agrees with the Requesters' contention that past resettlement is incomplete.*"

(1) The Assessment and Action Plan

The Panel notes that this Project involves the rather unusual circumstance of an ongoing, incomplete resettlement program which was developed under a previous Bank-financed operation and was based on a policy that is no longer applicable, OD 4.30 on Involuntary Resettlement. The policy now applicable to the Project, OP/BP 4.12, nevertheless has the same overall objectives, and both the old and new policy call for the preparation of a Resettlement Action Plan (RAP) consistent with the policy objectives and in compliance with specific policy and procedural requirements.

In the current Project, Management chose to develop and build on an "Assessment of Past Resettlement Activities and Action Plan" (APRAP), rather than to develop a new RAP. The justification for this approach was that affected people had already been relocated and others had already received compensation under the prior project.

The Panel observes that such an "Assessment" is not a resettlement instrument referenced in Bank policy. Setting aside questions of terminology, the Panel considers that the overriding issue is whether the ToR and subsequent Action Plan meet the objectives and requirements of Bank policy on Involuntary Resettlement. Accordingly, to achieve compliance, the APRAP should have included the elements of a RAP as defined in the policy (and used by Management in the T-Line part of the Project).

The way an Assessment and Action Plan was substituted for a full RAP had far ranging consequences. Following the TORs, BEL prepared an assessment of the progress in the execution of the Bank-approved old RAP, and recommended recovery activities where it observed gaps. The assessment did not include an evaluation of the impact of the delay on the socio-economic conditions of the Project or an assessment of whether or not the previous Sponsor's complied with either the former or current Bank's resettlement policy objectives. Consequently, the new Sponsor's resettlement responsibility to the people who were in the process of being resettled was circumscribed to certain outstanding commitments that the new Sponsor wished to recognize.

As reviewed below, the critical policy requirement to census all displaced persons as of the project baseline was neglected—a decision undermining much of the policy objectives. The public consultation process, an integral part of a RAP, was truncated, predefining the consultations to on-going issues, rather than including all aspects of the Project. The Panel also found that the approach to consultations with people who had moved and had been compensated is not consistent with Bank policy on Involuntary Resettlement.

(2) Baseline Socio-Economic Data

One central requirement of Bank Policy on Involuntary Resettlement is to develop socio-economic data on affected communities and households, as a basis to assess risks of impoverishment and develop measures to safeguard affected people, including vulnerable groups, against these risks. The assessment of risks and related mitigation measures should be based on an accurate census survey with details on current occupants, displaced households, livelihood, expected loss (total and partial) of assets, and vulnerable groups.

The Panel could not find an adequate "*socio-economic survey of the project-affected area at the hydropower site to characterize the socio-economic conditions and livelihoods of the people living in the eight project-affected communities*" as required by the SEA's TOR. Situations not adequately considered at the time of the prior project, or that arose in the interim period, were not appropriately dealt with because of the lack of an adequate baseline assessment. **This does not comply with OP 4.12. This led to action plans that did not meet the policy objectives and requirements.**

The Panel notes that the survey conducted by BEL cannot be considered a census of economic or social conditions as defined in OP 4.12. In this sense, the Management's claim that the Project took the first Panel's report findings into account in the preparation of the current Project is not accurate because significant weaknesses in the process of gathering baseline data information were similarly identified in the 2002 Panel Investigation Report.

The Panel also found no formal monitoring or evaluation report supporting the assertion that the involuntary resettlement was "largely completed," the reason stated for forgoing a full RAP preparation, as required by OP 4.12. **The Panel finds that the hydropower APRAP failed adequately to assess and update the previous 2001 RAP and provide additional new information as required to complete the RAP requirements to current standards (OP/BP 4.12). This does not comply with OP 4.12.**

(3) Livelihood restoration

The restoration of livelihoods of displaced people is a core objective of OP 4.12 on Involuntary Resettlement. The policy provides that "*displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.*"

In its investigation, the Panel learned that livelihoods of affected people have been disrupted for some seven years, stemming back to the beginning of relocation and resettlement actions under the prior Bujagali dam project. During this period, many of the people that were originally displaced were essentially left in limbo, and did not receive key elements of the resettlement process to which they were entitled under Bank policy. Also, as a consequence of the project's "hiatus", certain of AESNP's commitments to regulators and the communities under its resettlement and community development plans were not fulfilled

The Panel observes that the effects on the people of the original displacement, and of the ensuing delay, have not been fully reflected in the APRAP. Specific issues relating to livelihood restoration are reviewed in more detail below.

(a) Method to Assess Livelihood Restoration and Address Project Delay

The Panel notes that the methodology used to assess livelihood restoration did not compare the 2006 livelihood status of the resettlers to their previous conditions. Nor did it set a new 2006 baseline for future actions. This methodology was ambiguous as to what was and was not being measured and, as a result, it produced only a list of unfulfilled promises left over by the prior project. **In the Panel's view the methodology used to assess livelihood restoration in the context of this Project, while suggestive of issues, cannot substitute for an economic analysis of the livelihood risks and restoration. The Panel also finds that Management did not assess and include into the APRAP a methodology for restitution of the unintended socio-economic costs incurred by displaced persons resulting from project stoppage/delay. This is not consistent with OP 4.12.**

(b) Real or Perceived Unfulfilled Promises in the Prior Bujagali Project

At the hydropower site, the APRAP survey found that the people believe that a number of promises made by the previous Sponsor were left unfulfilled. Management claims that BEL and the BIU "*are now resolving all outstanding issues*" and have committed to address the issues left unfulfilled by the previous sponsor. The Panel notes a lack of method for deciding what promises were or were not made, which would or would not be honored and the timeframe for completing the resettlement activities, while the Bank's safeguard policies require that the resettlement plan define clearly these activities and provide a schedule for their implementation. **The Panel notes that lack of clear communication with affected people to address the concerns of the displaced persons with regards to the commitments made by AESNP, risks leaving the Bujagali project with contentious, unresolved issues.**

(c) Specific Livelihood Risks: Fishing and Agriculture

During its investigation, the Panel learned that fisherman who were relocated at the time of the prior project have faced severe obstacles to restoring and maintaining their livelihoods. Among other problems, they were settled much farther from the fishing areas, lacked transport to get there, and have had their access even to these areas restricted by fencing connected with Project activities. There are also questions as to whether they were paid for fish ponds that were taken. There is a strong belief that promises to restore their livelihoods were not kept, and feelings of great frustration.

The Panel notes that the 2006 APRAP contains a two-page "plan" to address livelihood restoration in fishing, developed by BEL, sets laudable general goals such as training that will address preparation of fisherman for change in the river characteristics following impoundment. However, this planning is not associated with any studies on the economics and nutritional importance of fishing despite being called for in TORs of the SEA. Moreover, no additional support was allocated to what was called an underestimated, critical activity: the 2006 budget for fishing activities remains at the 2001 level.

During its investigation, the Panel also learned of productive and locational disadvantages for relocated farmers, e.g.: land fertility was not considered in livelihood restoration planning, but surfaced as a major concern in subsequent consultations; diminished ability to cultivate cash crops (coffee, vanilla); far distances between residences and agricultural land.

The Panel observes, however, that the approach taken to restore damaged agricultural livelihoods, set forth in the APRAP, follows a pattern similar to that for fishing. No baseline census of the displaced persons and a socio-economic analysis was carried out. The Panel has found that insufficient information was available to permit the new Sponsor to assess whether or not landlessness increased or decreased under this strategy. The Panel further notes that the 2001 RAP lacked any livelihood restoration plan or budget for agricultural activities. The Panel finds that the 2006 APRAP attempts to mitigate this situation, but its provisions will most likely be insufficient to meet Bank policy requirements.

Management failed to ensure that the Project would institute or assure financing to mitigate these losses, exposing the displaced to on-going impoverishment risks that are now approaching eight years. **The Panel finds that the Project failed to provide adequately for loss of livelihood associated with the loss of fishing and agriculture, in non compliance with OP 4.12.**

(d) Compensation

The Panel notes that the agro-economic analysis of livelihood restoration is weak, particularly with reference to compensation. Underestimation of the establishment periods for coffee and other crops, including vanilla and cocoa, made it economically unfeasible for the displaced to reestablish their lost incomes. **The Panel concurs with the APRAP's findings, which validate the claims of the project affected peoples (PAPs), that full replacement value compensation may have not taken place in the prior project.**

(e) Land Titles

Most of the displaced lacked security of land titles before displacement, but they may have had established, informal security with usufruct rights recognized by others. According to the APRAP, while many people who were interviewed stated that they received land titles, it also appeared that some Project affected persons (PAPs) did not receive the titles. During its visit to the Project area, the Panel team witnessed Project-generated insecurity among displaced persons as a consequence of resurveying and proposed readjusting of the boundaries within the settlement. The Panel expects that this situation will be dealt with during the implementation of the APRAP. **The Panel finds that the APRAP conclusion related to the necessity of issuing land titles to people resettled under the prior project is consistent with OP 4.12. The Panel notes however that there seems to be no agreed timetable for the issuance of these titles.**

(f) Vulnerable Peoples

The APRAP determined that there was no proper identification of vulnerable people up until 2007. The Panel notes that a group of vulnerable people, the landless tenants and sharecroppers, may have been left out from receiving compensation as a result. The APRAP notes that "*the situation of tenants and sharecroppers (who were compensated only for crops as they did not own land) appears to be worse in this respect than that of landowners*)." **The Panel notes that the absence of a focus on livelihood risks to the vulnerable is evident in that none of the proposed assistance measures addresses the vulnerable tenants/sharecroppers or children. Additionally, the proposed assistance measures do not address the question of sustainability beyond the limited Project support. The Panel finds the Project is out of compliance with the vulnerable peoples provisions of OP 4.12.**

(g) Housing and Electricity for Affected People

Housing: The APRAP states that the houses built for the resettled population met with the design criteria that were set out in the 2001 RAP and were therefore generally compliant with the commitments made. It states that the resettlers felt that the houses were better than the ones they had, but still complained about deficiencies in the buildings. **During its field visit, the Panel verified that the standard of living of the displaced households who resettled in Naminya and Nansana has improved with respect to housing.** On the other hand, the APRAP discovered some shortcomings in housing condition and the Panel observed physical problems and deterioration with some of the houses and structures. **The Panel is concerned that no physical action is planned with regard to houses at the resettlement site (apart from repairing the taps from the rain water harvesting system).**

Electricity: A high voltage line crosses Naminya. Throughout the process to conduct the Assessment, numerous displaced persons, those who took cash compensation, and local leaders stated that they believed AESNP made a commitment to provide electricity to Naminya and other communities. The APRAP says that "*it does not seem*" that such a commitment was planned under the 2001 RAP. On this point Management Response states that "*BEL together with UMEME is exploring possibilities for the provision of electricity. BEL will also finance a feasibility study for electrical distribution to the resettlement community, which may convince UMEME to provide a supply.*"

However, during its visit, the Panel learned that AES had made the following commitment to affected communities in 2001: "*AES Nile Power is committed to provide step-down transformers in eight villages in the affected area and in the new resettlement land allowing for access to power by residents who have never had the opportunity.*" The Panel has found evidence that displaced persons were also told that "*you have a right to electricity as do all Ugandans.*" **Given the context and previous expectations, this broad statement may have reasonably been interpreted as a promise to deliver**

electricity connections to affected households. The Panel notes that this is an outstanding controversy of high importance to the affected communities.

(h) Investment Resources for Livelihood Restoration

The Panel's review of the limited scope of the livelihood restoration programs indicates that they may be under-budgeted. As information on livelihood conditions of the displaced persons, including those who were economically or physically displaced but took cash compensation, has yet to be determined, the costs of livelihood recovery are unreliable. As livelihood restoration instruments develop, Bank policy provides that Management is to monitor the resettlement budget to ensure sufficient resources.

(i) Overall Conclusions on Livelihood Restoration

The Panel's review of the livelihood assessment method and other Project data shows that the Bujagali Project is facing substantial problems in measuring, monitoring, and mitigating livelihood risks, especially among vulnerable peoples. **The Panel finds that the Project is in non-compliance with the mandate of Bank Policy on Involuntary Resettlement to improve or at least to restore, in real terms, the livelihoods and standards of living of the people displaced by the Project.**

(4) Sharing in Project Benefits and Community Development

Sustainable development, the sharing of project benefits, is one of the principal objectives of the Policy on Involuntary Resettlement. The Panel believes that it is likely that the community development programs, once executed, will provide positive benefits for Uganda. However, the Panel identified compliance issues related to the Community Development Action Plans (CDAP).

Lack of Focus on Displaced Persons: The Panel notes that the CDAP, though an important demonstration of the Sponsor's corporate social responsibility, is not necessarily related to benefit sharing for displaced persons as required by the objectives of OP/BP 4.12.

Lack of Program Specificity: The problem identified by the first Inspection Panel Report over five years ago persists. The Panel finds that in the area of sustainable development and benefit sharing, the CDAP focuses almost entirely on short-term exercises; its targets are poorly laid out; and it makes no significant or systematic effort to ensure that resources are directed to institution building or social fundamentals rather than only short-term construction projects.

Imbalances in Allocations between the T-line and HPP: CDAP budgets show sharp differences. The T-line has a higher number of physically and economically displaced peoples than the HPP, but a smaller proportion of the resources devoted to CDAP activities. **The Panel finds that budget of the two components were not properly coordinated and this may lead to social discord among the displaced.**

Decrease in Investment Resources to this Effort. The previous Panel also found that *"the net present value of the resources to be contributed over a 35-year period seems very low."* While the decision to reduce investment resources is not a compliance issue, the current Panel does not understand why Management decided to further reduce its effort. Even discounting for inflation, eliminating the second phase raises questions as to Management's responsiveness to the previous Panel's findings. **The fact that the same problems are surfacing with two different sponsors is of concern to the Panel. The Panel finds that with limited funding, broad criteria for eligibility and lack of specificity, the CDAP programs do not assure compliance with OP 4.12.**

(5) Indigenous Peoples

The Requesters claim that the provisions of OP 4.10 on Indigenous Peoples have not been applied to the Project because the SEA does not consider the Basoga inhabitants of the Project area as indigenous people, in spite of the fact that the Third Schedule of the Constitution of the Republic of Uganda expressly considers the Basoga as such.

The Response states that Management respects local legislation but draws a distinction between the definition of indigenous people according to the Constitution of Uganda and that provided in OP 4.10. Under the Ugandan Constitution, in order to be considered an Ugandan citizen by birth—**regardless of socio-economic status**—one must belong to one of the 56 "indigenous communities" listed in the above-referred Third Schedule (or have a parent or grandparent who does); while under the Bank Operational Policy, the term indigenous is used "in a generic sense to refer to **a distinct, vulnerable, social and cultural group"** (emphasis added) possessing "in varying degrees" the characteristics listed in paragraph 4 of the OP 4.10.

Although the Basoga people meet some of the criteria necessary to be regarded as indigenous people in the context of Bank-financed projects pursuant to OP 4.10, they are a large and influential group with political, social and economic standing in Uganda's society, and the Panel did not find any indication that they are regarded as a *"marginalized and vulnerable segment"* of the population that is unable to *"participate in and benefit from development."* **The Panel did not find any evidence that Management violated the provisions of the Bank's policy on Indigenous Peoples, with regard to the Basoga people.**

VIII. Cultural and Spiritual Values

In its earlier Investigation report, the Panel indicated the efforts of the Bank to address the cultural and spiritual issues that the project raises, and Management's good faith attempts to mitigate these issues. At the same time, the Panel also noted the importance of including all key stakeholders in consultation and taking steps to minimize the possibility of disturbance to the local communities that might arise from excluding any faction from such consultations as the project went forward. For the purpose of the present Investigation Report, the Panel conducted a careful research and analysis of relevant materials, including numerous studies by the Cultural Research Center in Jinja, which focuses on Busoga culture.

The studies prepared in 2001 for the prior Bujagali Project mapped individual and community level spirits. These studies also identified a general protocol for moving spirits according to the tradition of the Busoga. The 2001 Cultural Properties Management Plan (CPMP) sets out a six month, US$125,000 program of consultation, compensation of individuals for disturbed graves and shrines (*amasabo*), appeasement and relocation of the Bujagali spirits. Three individuals were identified as stakeholders for consultation about the spirits at Bujagali Falls. Problems, however, emerged with the so-called "*appeasement of community spirits*." Later, the implementation of the CPMP stopped for the next four years.

During the preparation of the present Project, BEL committed to detailed consultation with locally affected communities regarding cultural properties management work undertaken by the prior project, with follow-up and a revised CPMP, as necessary. BEL's consultations led it to conclude that, rather than a localized cultural site, the Bujagali Falls are of spiritual significance to the Kingdom of Busoga as they are considered a place inhabited by spirits. The Kingdom's leadership expressed support for the Project and BEL committed to continue consultations to determine what needs to be done prior to the flooding of the Falls. For the Basoga, the traditional religious structure is distinct from the cultural structure.

Busoga Spiritual Domain

Although the peoples of other ethnic groups inhabit the Project area, the Basoga claim spiritual dominion of both sides of the Nile, its islands, the water and its waterfalls. Their language, Lusoga, predominates in this area, on the East bank of the River Nile. The Basoga share a common dialect and ideological, spiritual history, sharing a cluster of eight or more high status spirits, including *Budhagaali*, the spirit residing at the Bujagali Falls site. To the Basoga, the project area—like their entire region—is inhabited by ancestral spirits and living humans who are constantly interacting – from birth to death and beyond.

The key elements of Busoga spiritual cosmology are: (a) the spirits are innumerable, powerful and frequently cross over into the world of the living and may do both good and bad; (b) they inhabit the same world as the living and are associated with animate and inanimate objects throughout the landscape; (c) they can move freely without the need for human permission; (d) they have differential power, influence, and interests; (e) they are hierarchical, somewhat comparable to the ancient Greek Pantheon; (f) they influence the health, well-being and the livelihood of the living; (g) more powerful spirits communicate through mediums who do not view themselves as capable of negotiating or predicting spirit behavior—they are mediums of the spirit who possesses them; and (h) the mediums are selected by the spirits, not by the cultural (political) leaders.

Busoga Cultural Domain

In terms of cultural structure, the Busoga Kingdom is a cultural institution that promotes popular participation and unity among the people of Busoga through cultural and development programs for the improved livelihood of the people of Busoga. Unlike the typical monarchies in Africa, the Busoga did not have a central authority at the advent of British rule. Nevertheless, it had developed small principalities, each with its own hereditary ruler. These principalities where later to be consolidated under a King called "*Isebantu Kyabazinga*" who ruled the Busoga Kingdom. This secular institution, which is a stakeholder on Busoga cultural issues, makes no claims to hold spiritual power. **The Panel finds that Management and the Sponsor have increasingly recognized and involved the Kyabazinga Institution as an important guardian of the Busoga cultural tradition.** The Panel also recognizes that the Kyabazinga Institution is not empowered to speak as surrogates in consultations for the Basoga spiritual stakeholders.

Panel's Analysis—Physical Cultural Resources

During Project design, BEL's consultations led it to conclude that, rather than a localized cultural site, Bujagali Falls is of spiritual significance to the Kingdom of Busoga as it is a place inhabited by spirits. A CPMP, in compliance with OP/BP 4.11, should have identified Bujagali Falls as a significant cultural resource, triggering rigorous safeguards for specific avoidance, consultation and mitigation as required under the Bank's Policy. In terms of avoidance, the Panel can find no evidence, since the initiation of the Bujagali Project of Management considering avoidance of the significant cultural resource impacts at Bujagali Falls. **The Panel finds that Management failed adequately to consider or implement alternatives to avoid the project-related impacts on Busoga spirituality and culture in violation of OP/BP 4.11.**

As for consultation, the Panel considers that the consultation methodology used in the Resettlement and Community Development Action Plan (RCDAP) was detailed, but structurally flawed. First, the survey included mostly laymen many of whom were not sufficiently knowledgeable of the traditional religion. Second, it excluded key spiritual leaders (*baswezi abadhagaali*) of the Busoga clan. The consultations did not recognize that mediums of the Nabamba Budhagaali spirit derive their power through recognition by the traditional clan priests (*muswezi*) as agents of their believers. A medium of the high Busoga spirits is incapable of commanding his/her followers, meaning that the appropriate consultation strategy is participatory, as this is common among traditional religions.

Third, the survey was limited to the people in the project area, many of whom were non-Busoga migrants who had moved into the area following a disease-linked depopulation. **Most of those who believe in the significance of the Bujagali Falls spiritual site do not live in the immediate vicinity of the Project.** The terms of reference for the cultural consultations were not revised after interviews discovered that the spiritual sites in the project area were of major significance to a religious tradition that extended beyond the immediate area of the study.

The limited consultation creates on-going uncertainties as to affected people's acceptance of the project's cultural resource impacts. **The Panel finds that the Project failed adequately to consult with the Busoga spiritual clan leaders associated with one or more high status Spirits about the significant cultural patrimony of the Bujagali Falls. This is not in compliance with OP 4.11.**

The Sponsor's approach had been to identify three interested "stakeholders" in the "Bujagali spirit(s)" and fund either appeasement or relocation ceremonies. The Sponsor focused on obtaining written consent from three stakeholders that compensation had been adequate and that construction of the dam at Dumbbell Island and the resulting inundation could proceed.

Following a ceremony financed by the first Sponsor on September 28, 2001, to relocate the Bujagali spirits, Management claims that all three interested mediums acknowledged in writing that compensation had been adequate and construction of the dam could proceed with the partial inundation of Bujagali Rapids as a result. The witness NGO contradicts this account; they claim that the October 2, 2001 negotiations with the Nabamba Bujagali withheld his endorsement.

Another medium, Lubaale Nfuudu, felt the spirits had been moved to a temporary location, on his property and will be relocated again nearby the project site. The Nabamba Bujagali medium seems to have remaining claims over the site. The Panel notes that 2001 Project documents identify the Lubaale Nfuudu as a diviner (*muswezi*) who asserts that the spirit Lubaale is the father of Nabamba Budhagaali spirit. He conducts occasional ceremonies with *busweszi* at the Bujagali Falls to communicate with Lubaale, one of the highest spirits within Busoga cosmology, but different from the Bujagali spirit. This opens the possibility that Bujagali Falls, as a cultural property may be the site of two high spirits of the Busoga, not one.

Panel interviews with the Nabamba Bujagali, cultural experts, the Sponsor, and Management show that the consultation process has not yet led to satisfactory outcomes for all and that mitigation efforts cannot be considered completed.

Misidentifying the Bujagali Falls as a local cultural resource, misaligning its consultation strategy, and failing to prepare a new Cultural Property Management Plan compounded errors and muddled mitigation. Resultant problems included loss of objectivity of the Sponsor, impatience, assignment of pecuniary motives to stakeholders, cost cutting, culturally inappropriate mitigation efforts, and most importantly, a misunderstanding that the Bujagali Project is ensconced in a long-term relationship with its new neighbors and their spirit world.

The Panel finds that Management unnecessarily and inappropriately took sides in a spiritual controversy of a religion in which millions of Ugandans believe. The Panel finds this action by Management to be non-compliant with the OP 4.11.

With reference to the islands, the Sponsor felt it was impossible to locate graves located there with certainty and, therefore also impossible to exhume and relocate remains. The new Sponsor took over the mitigation strategy developed by the previous one to hold an inter-denominational remembrance service to honor the memories of those buried in the islands. No consultation or ethno-archaeological work had established the provenance of the remains to determine the culturally appropriate mitigation. The Panel obtained information that the islands may be the location where previous spiritual media are buried. Noting that appropriate consultation and mitigation has yet to be done for the Bujagali Falls spiritual site, the Panel observes that the island areas must be included in the mitigation strategy to reach compliance with OP/BP 4.11.

The Panel finds that Management assumed that what they called the "Bujagali spirits" were restricted to the Project construction and flooding area, in contravention to the BP 4.11 requirement that they work with and assist the Borrower to identify the spatial and temporal boundaries of the cultural resources affected by the project. This did not comply with avoidance and mitigation requirements of OP/BP 4.11.

Narrowing its size, location, and scale, Management discounted the significance of what should have been identified as the Bujagali Falls spiritual site to all of the Busoga, not just to those living in close proximity to the Project area. It appears that Management defined the project-affected-people under OP 4.11 on Physical Cultural Resources as those covered under OP/BP 4.12 on Involuntary Resettlement. In the case of the Bujagali project, the groups are distinct. **Consequently, the Panel finds that the culturally and spiritually affected people were not adequately identified as required by Bank policy.**

Critical Natural Habitats

Given the importance that the Requesters attach to the spiritual aspects of the Falls, the Panel examined in detail the Bank's consideration of this issue in light of different policies. In the Project, these issues have mainly been considered under the Bank policy on Physical Cultural Resources (OP/BP 4.11). However, OP 4.04 also contains provisions that are relevant to these issues, as discussed below.

Project documents recognize that the inundation of the Bujagali Falls will destroy a natural habitat of significance to the people of Uganda, and identify specific actions to offset this impact. At the same time, Management takes the view that the Project is not significantly converting or degrading a "*critical natural habitat*" as defined in OP 4.04. The Panel analyzes the various dimensions of that decision in light of provisions contained in the Bank policy.

Since OP 4.04 states that the "*Bank does not support projects that, in the Bank's opinion, involve the significant conversion or degradation of critical natural habitats,*" the Panel reviewed what constitutes a critical natural habitats. Annex A of OP 4.04 defines "critical natural habitats" as "*(i) existing protected areas and areas officially proposed by governments as protected areas (e.g., reserves that meet the criteria of the World Conservation Union [IUCN] classifications* [footnote omitted]*),* ***areas initially recognized as protected by traditional local communities (e.g., sacred groves)*** *and sites that maintain conditions vital for the viability of these protected areas (as determined by the environ-mental assessment process; or, ...*

(ii) sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit (RESU). ***Such sites may include areas recognized by traditional local communities (e.g., sacred groves).***" (Emphasis Added)

Thus OP 4.04 indicates that socio-cultural factors do have a bearing on the assignment of "*criticality*" to a natural habitat. The Panel further observes that there is substantial literature and practice recognizing the important relationship between sacred places and the conservation of natural habitats and protected areas, a subject of much attention in recent years. IUCN Guidelines for Protected Area Management Categories, referred to in the definition of Critical Natural Habitat under OP 4.04, state that a Category III Protected Area is an "*[a]rea containing one, or more, specific natural or natural/cultural feature which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities* ***or cultural significance.***" (emphasis added).

The Panel notes that "*areas initially recognized as protected by traditional local communities (e.g. sacred groves)*", as referred to in OP 4.04, include areas recognized as protected for their cultural significance and ecological functions by traditional peoples. In the Bujagali Falls area, Project studies and the Panel have identified islands, sacred groves, rocks, waterfalls, and numerous Busoga spiritual sites. The persistent resistance to disturbance of the site by the Busoga spiritualists and the expressed concerns of the Kyabazinga Institutions is evidence that Bujagali Falls are a natural habitat of great importance to the Basoga that is being protected by them, as provided in OP 4.04. The Panel found evidence and documents describing the cultural and spiritual significance of the Bujagali Falls site to the Busoga people. In addition, studies conducted by AESNP for the prior Bujagali project suggest a strong ethno-botanical use of the Bujagali Falls project area, in particular the islands, for healing and mental well-being. These studies include an ethno-botanical survey with these numerous healers to identify the flora associated with their practices.

As mentioned above, OP 4.04 states that the Bank does not support projects that, in the Bank's opinion, involve the significant conversion or degradation of critical natural habitats. The Panel notes that this aspect of the text ("*in the Bank's opinion*") indicates, *inter alia*, the need for and importance of the considered judgment of the Bank on this crucial question. This phrasing does not imply or give Management a blank check to apply or not certain policy provisions to a specific project but rather requires Management to form and provide expressly an opinion on the issue in question, which must be consistent with the objectives of the applicable policy. This is particularly relevant in view of the controversy surrounding these issues in the present Project. The Panel did not find sufficient documentation that would have permitted Management to make such a considered judgment.

The Panel finds that the Bujagali Falls area is a sacred place, like a sacred grove, recognized by the Basoga, a traditional local community, for its high cultural and spiritual significance and inter-related ecological features and values. **In this context and for the reasons described above, the Panel finds that the Bujagali Falls area may be regarded as a critical natural habitat for purposes of OP 4.04.** The Project entails flooding of the Bujagali Falls area. Bank policy regards inundation as a form of significant conversion or degradation.

In light of the above, the Panel finds that the Project record does not provide sufficient discussion as to why the area was not considered a critical natural habitat. Nor do Project documents explain the Bank's "opinion" that the Project would not involve significant conversion or degradation of a critical natural habitat. **Considering the known spiritual importance of the Project area, without such an explanation, one could also arrive at an opposite conclusion, i.e. that the inundation may be regarded as resulting in the significant conversion of a critical natural habitat which would be in violation of OP 4.04. The Panel finds that omitting the reasons behind an opinion of not declaring the Falls a critical natural habitat is not consistent with the objectives of OP/BP 4.04. The Panel finds that there is an overriding need for the Bank to address these issues in a coherent and well-founded manner to ensure compliance with Bank policies.**

The Cultural Property Management Plan (CPMP)

It remains uncertain whether or not key stakeholders (consulted and as yet to be consulted) in the spiritual community comprehend the fact that their sacred site will be inundated and inaccessible for their traditional ceremonies. This issue extends well beyond the two spiritual mediums.

Management was also on untested grounds by substituting an abbreviated procedure, not provided for in Bank Policy whereby the new Sponsor would find out what remains to be done from the previous plan, which was assumed to be correct. The prior Sponsor's plan was designed under OPN 11.03, a policy framework that had been replaced by 2006. **The Panel finds that insufficient competence was dedicated to an examination of this issue for the Appraisal.**

There are livelihood impacts directly associated with the disruption of the cultural resources sites that were ignored. Contemporary ethnographic accounts and the RCDAP 2001 describe many categories of traditional practitioners (diviners, interpreters, gourd players, immunizers, exorcists, dispensers, herbalists, caretakers/mediums, bone sitters, and more) who require payment in money or in-kind for their services, as in any other religion. Within the context of a traditional society, these transactions are substantial, and they should have been included in the CPMP as specified in OP 4.11. **The Panel finds**

that Management failed to prepare a Cultural Properties Management Plan, assuming that the work of the previous Sponsor was sufficient to meet OP/BP 4.11 guidelines.

In summary, the Project misidentified the Bujagali Falls spirits as localized, with Project impacts limited to people nearby the Project site. The TOR for the Cultural Properties Management Plan omitted the need for consultation with the spiritual leaders (*baswezi*) of approximately 340 Busoga clans with spiritual ties to the cultural property that was to be affected by the Project. **The Panel finds that Management is in non-compliance with OP 4.11, by misjudging the size, location, scale as well as the nature and magnitude of the cultural and spiritual significance of Bujagali Falls. The Panel also finds that Management did not consult with key stakeholders throughout the Project cycle and is, therefore, in non-compliance with OP 4.11. The Panel also finds that mitigation measures were not adequate because the scope of the impact and the consultation process were incomplete.**

Opportunities to Address Cultural and Spiritual Issues

The Panel observes that there are important opportunities available to address the cultural and spiritual issues within the context of the Busoga and the specifics of OP/BP 4.11. The Panel's investigation of Busoga culture suggests that the task ahead is one of restoration of cultural harmony and developing an appropriate consultation process, not simply of appeasement. Management's cultural resource strategy of the prior project has focused on closure, relocating, or appeasing the spirits, compensating when necessary, documenting spiritual appeasement through signed certificates, and setting a finite timeline (originally six months in 2001). The current Project continued this strategy of appeasement by honoring the memories of those buried on the island. Such a service might prove valuable for some residents in the project area, but does not appear to have been developed through consultations with the Busoga spiritual stakeholders.

Similarly there does not exist yet a long-term strategy for sustaining a relationship between believers and the Project, nor have arrangements been negotiated allowing worship at alternative sites in the future. Panel interviews with Basoga cultural experts revealed that an outcome of a spiritual consultation may be for the spirits to stay in place and permit the project to proceed. **The Panel finds that Management has thus far failed to support negotiations that would allow enduring coexistence with spiritual elements of Busoga traditional religion and the Bujagali dam.**

IX Systemic Issues Affecting Policy Compliance

This investigation, like some earlier ones, has revealed certain systemic issues that have affected the Bank's overall compliance with its Policies and Procedures. The first of these, noted at the beginning of this Report, is the need for considerable care to apply Bank policies in the complex area of energy production, to promote sound development practices and ensure Project costs, including social and environmental costs, do not exceed benefits. Others are summarized below.

Legacy Issues from Preceding Projects

This investigation encountered a situation of adverse effects on people due to a failure to assess, correct and complete resettlement actions initiated in the previous effort to develop the Bujagali dam. When the implementation of this earlier project was halted, following withdrawal of the sponsor, many of these people were essentially left in limbo, and they did not receive key elements of the resettlement process to which they were entitled under Bank policy.

The experience with the Bujagali Dam highlights the significant problems that may arise when actions of previous projects are not carried to completion or corrected in accordance with Bank policy. The Panel notes the importance to affected people of timely actions to address any such situations that might arise.

Incorporating Climate Change into Project Design

The Panel Report indicates that important studies were done to analyze the question of climate change. At the same time, the Panel discovered that the conclusion was drawn from this analysis, as presented to the Board of Directors in the PAD, was that "*[. . .] there will be no adverse effect on water release due to climate change during the life of the proposed project.*"

The Panel is troubled by this conclusion - - it failed to include a risk or uncertainty factor, was inconsistent with the underlying analysis, and appears to provide an overly optimistic reading of the potential effects of climate change. The Panel considers that climate change requires a change in mindset towards thinking in probabilistic rather than deterministic terms, recognizing the inherent uncertainty that surrounds climate related issues, and avoiding categorical, deterministic statements. The approach noted above is not in line with the objectives of Bank policies in support of informed decision-making.

The Panel notes, in this regard, the Bank's increased role in supporting action to address climate change, and its systems-level efforts to ensure that climate change risks are mainstreamed and integrated into Bank's strategic analysis and project decision making. The proper reporting of risks is of central importance in this larger context.

Timely Disclosure of Information within the Project Cycle

The Requesters have expressed concern that it was not possible for them to bring the Request at an earlier time because of the lack of transparency and disclosure during the discussions of reviving plans for a second round of investment in the Bujagali dam project.

This point finds support in the record of disclosure of Project documents. Project files show that the Bank was involved in the preparation of this Project since early 2005. However, the Project Information Document, which is supposed to be issued early in the

Project cycle to provide factual information to the public about a project as it evolves, was not issued until January 30, 2007. The Project appraisal took place shortly thereafter in March 2007, and the Board approved the Project on April 26 of the same year. **While the Panel notes ongoing efforts to streamline procedures, this should not be at the expense of providing adequate information to the public in a timely way.**

Related to this, the Requesters have also raised concerns about the implications of the Project moving forward to such a degree during the investigation of their claims, which they note might result in significant issues of non-compliance and harm.

The Panel observes that these concerns have given the impression to affected people that the Project is a *fait accompli*, notwithstanding the possibility of findings of non-compliance and harm. The Requesters have expressed concern that this could prevent the Project from addressing significant findings in this regard. **The Panel notes that this is an important process and systemic issue raised by the present Request, particularly in projects where it is alleged that irreversible harm may occur as a result of Bank's non compliance.**

Transparency Issues and Public-Private Partnerships

During its field investigation, the Panel noted considerable concern among Ugandan citizens and a number of their representatives about the lack of transparency on the economic impacts of the project. While realizing the complexity of this project, and the resulting agreements that were made between private and public partners, it is of concern to the Panel that so little is known about the impact of these agreements not only by the average Ugandan citizen, but also by persons in position to comprehend the implications of the various arrangements made.

Given the increase in private-public partnerships, and issues relating to access to information in this context, IBRD and IDA might incur reputational risks that are thus far not adequately handled. Similar issues were raised with regard to the prior Bujagali project and other projects reviewed by the Panel in the past. **In this regard, the Panel notes the importance of clarifying Bank policy concerning the disclosure of all project-related documents. This is of particular relevance in public-private partnership projects where some of the documents may be concluded among private parties relying on Bank financial support.**

In the present context, the Panel found that there was an unduly optimistic assessment of the costs, benefits and risks of the Project, including under-estimation of its capital costs, of its likely impact on tariffs, and of key risks. In each case, Bank Management was substantially dependent on the work of others. The Panel also found that the assessment of alternatives was insufficiently transparent, making it difficult for Bank Management authoritatively to address claims that it was inadequate and biased in favor of the Project. **As it stands, the net benefits of the Project could be substantially less than Bank Management has claimed.**

Critical Natural Habitats and Sacred Places – Guidance to Staff

As described above, OP.4.04 defines critical natural habitats to include existing and proposed protected areas, "***areas initially recognized as protected by traditional local communities (e.g., sacred groves)***" and sites that maintain conditions vital for the viability of these protected areas. Internal guidance to staff for the application of the Natural Habitats policy, by comparison, describes "*critical natural habitats*" as "*those Natural Habitats which are either legally protected, officially proposed for protection, or unprotected but of known high conservation value.*"

In practice, this particular guidance seems to suggest a more limited interpretation and application of the policy than a plain reading of its terms would warrant. As a result, areas recognized as sacred and protected by traditional local communities, but considered to be lacking a unique biodiversity and/or official protection, may not have been regarded as "*critical natural habitats.*" As described in the Panel's Report, the Project provides an illustration of an overly restrictive application of the Policy that puts the Bank at risk of a serious violation of its policy.

The Panel notes that, in contrast to this apparently narrow application of the Policy, there is a strong and increasing recognition over the years, for example through the IUCN process, of the importance of sacred places both for their spiritual and cultural values, and for and as part of broad conservation objectives, both individually and collectively. The Panel also addressed these same provisions of OP 4.04 in its recent investigation of the Cambodia forest project. In that Investigation Report, the Panel noted the presence of spirit forests and spirit trees important to the cultural identity of local people, and stated that ". . . *Thus, there are many areas within the general forest estate that* ***need to be considered as critical natural habitats****...*" [emphasis added] The Management Response to the Panel's Report does not dispute the Panel's finding.

The Panel considers that such internal guidance given to staff working in Bank-financed projects involving natural habitats and possibly critical natural habitats, like the current Project, may have sent an inadequate and overly-narrow signal on the application of the Policy. Project stakeholders would benefit from clarification on these matters.

Chapter I

Introduction

A. Events Leading to the Investigation

1. On March 5, 2007, the Inspection Panel (the "Panel") received a Request for Inspection (the "Request") dated March 1, 2007, related to the Uganda: Private Power Generation Project, also known as the Bujagali Hydropower Project (the "Project" or the "Bujagali Project") (Guarantee No.B-0130-UG). The Ugandan National Association of Professional Environmentalists (NAPE) and other local organizations and individuals (collectively, the "Requesters") submitted the Request to the Panel.[2]

2. The Inspection Panel registered the Request and notified it to the World Bank Board of Executive Directors and to Management on March 7, 2007.[3] On April 5, 2007, Management submitted its Response to the Request (the "Management Response").[4]

3. The Project provides for the construction of the Bujagali hydropower plant on Dumbbell Island on the Nile River, which has its headwaters in Lake Victoria. The Bujagali Dam will be located about 8km downstream from the existing Nalubaale and Kiira Hydropower Plants. The Project is to be implemented by Bujagali Energy Limited (BEL), a private sector company.[5] The Project's main objective is to provide least-cost power generation capacity that will eliminate power shortages at the time of its commissioning. The Project would represent an increase of 250 MW of installed power generation capacity to the national grid.

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[2] Request for Inspection Re: Lodging a Claim on the Proposed Bujagali Hydropower Dam and Interconnection Projects in Uganda, March 1, 2007, (hereinafter "Request"). The Request is available at the Panel's website: http://www.inspectionpanel.org.

[3] The Notice of Registration is available at http://www.inspectionpanel.org.

[4] Bank Management Response to Request for Inspection Panel Review of the Uganda: Private Power Generation Project (Proposed), April 5, 2007, (hereinafter "Management Response"). The Management Response is available at http://www.inspectionpanel.org.

[5] The Project Appraisal Document (PAD) describes BEL as "*a special purpose company incorporated under the laws of Uganda by the project sponsors, who will be responsible for financing, building and operating the proposed project on a Build-Own-Operate-Transfer basis. BEL will sell electricity to UETCL under a 30 year PPA. The project sponsors are: (a) Industrial Promotion Services (Kenya) Ltd. (IPS (K)) 7, the Kenya subsidiary of IPS, the industrial development arm of the Aga Khan Fund for Economic Development (AKFED); and (b) Sithe Global Power LLC (US) (Sithe Global), an international development company formed in 2004 to develop, construct, acquire and operate strategic assets around the world, which is controlled by Blackstone Capital Partners, an affiliate of the Blackstone Group. Reservoir Capital Group, LLC, a privately held investment firm, and Sithe Global's management are also Sithe Global's shareholders.*" Project Appraisal Document for the Private Power Generation (Bujagali) Project in the Republic of Uganda. Report No 38421-UG, April 2, 2007 (hereinafter "PAD"), p. 29.

4. This is the second effort of the Government of Uganda (GoU) to develop the Bujagali Hydropower Plant. As described in more details below, in 2003 the earlier Bujagali Project was abandoned and the Government terminated its agreements with the World Bank Group, the other financiers and the sponsor AES Nile Power (AESNP)[6], a US company.

5. The dam would create a reservoir that floods an area of 388 hectares, requiring the taking of 238 hectares of land to construct the dam, 52 hectares for transmission lines, all of which will involve displacement and resettlement of people and family from their lands.[7] The dam's reservoir would also inundate the Bujagali Falls and other natural habitats, which are sites of cultural and religious significance to the Busoga peoples.

6. The Request raises a number of environmental, hydrological, social and economic concerns related to the Project as designed, and contends that a failure of the Bank to follow its own operational policies and procedures in the design and appraisal of the Project will result in serious harm to the people living in the Project area and to the environment, in particular the Nile River and Lake Victoria. Management indicates in its Response that it takes seriously the Requesters' concerns. It also states that the Project was well prepared and the Requesters' concerns properly addressed in compliance with the applicable Bank policies.

7. The Requesters' claims and Management Response are briefly summarized below and thoroughly examined in the following chapters of this Investigation Report.[8]

1. The Request

8. The Request raises a number of concerns regarding the Project, in relation to: hydrological risks and climate change; environmental assessment, cumulative impact assessment and terrestrial and aquatic fauna; the proposed Kalagala Falls offset; economic analysis, options, and affordability assessment; information disclosure, transparency and openness regarding the Project; dam safety; indigenous peoples, cultural and spiritual issues; compensation, resettlement and consultations.

9. According to the Requesters, the claims they present in the Request constitute a violation of several Bank Operational Policies and Procedures, including OP/BP 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitats), OP/BP 4.02 (Environmental Action Plans), OP 4.07 (Water Resource Management), OP/BP 4.10 (Indigenous Peoples), OP/BP 4.11 (Physical Cultural Resources), OP/BP

[6] Also referred to as "AES" in this Report.
[7] The process of resettling these people commenced in 2001 at the time of the previously proposed Bujagali dam project, as discussed in Chapter VII (Social Compliance—Involuntary Resettlement, pp. 137–8) even though the dam was not constructed and no flooding had yet occurred.
[8] The Panel notes that in August 2005 NAPE published a report restating its concerns about the Project. This report can be found at http://www.ifitransparency.org/doc/napereport.pdf.

4.12 (Involuntary Resettlement), OP/BP 4.37 (Safety of Dams), OP/BP 7.50 (Projects on International Waterways), OP/BP (Economic Evaluations of Investment Operations), OP 1.00 (Poverty Reduction), and World Bank Policy on Disclosure of Information.

10. In December 2001, the Board of Executive Directors approved an IDA Guarantee to support an earlier proposal for the Bujagali Hydropower Project.[9] In July 2001, before Board approval, NAPE submitted a Request for Inspection to the Inspection Panel in relation to this previous Bujagali proposal and the Owen Falls Extension (Kiira). After approval on a non-objection basis by the Board of Directors, the Panel conducted an investigation of the issues raised in the 2001 Request.[10]

11. The Bank cancelled the IDA Guarantee after AESNP pulled out of the Project. The Requesters noted, *inter alia*, that "*performance shortfalls, controversies related to social, economic and environmental aspects, evidence of corruption*"[11] had contributed to the cancellation. The Requesters claim that due to increased electricity demands and the inability of Nalubaale and Kiira to supply enough electricity to meet those demands, the GoU "*has revived and is in the process of fast-tracking the Bujagali hydropower dam project under different proponents...this has resulted in many shortcuts being taken to ensure that the project is approved as fast as possible, ignoring outstanding and new concerns raised on the project.*"[12]

12. The Requesters raise several concerns related to hydrological risk, climate change, and cumulative impact assessments. They claim that the Project's Social and Environmental Assessment (SEA) does not address hydrological changes and their effect on power production. The Requesters claim that Kiira has contributed to an over-drawing of water from Lake Victoria and that the SEA does not address the long-term health of Lake Victoria. They claim that changing hydrology may be a major limitation on Bujagali's power production and that the SEA does not examine the potential impacts of climate change, which they claim, will lead to drier conditions, lower lake levels, and therefore lower power production. The SEA also lacks an analysis of the cumulative effects of having a cascade of dams along the Nile. Finally, the Requesters claim that because the analysis is based on "*flawed assumptions and computations*"[13] related to hydrological risks, the Project's economic viability is at risk. In addition to these concerns, they claim that the guarantee that the Kalagala Falls will be put aside as an offset and not be developed for hydropower is not binding on the GoU.

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[9] Also referred to as the "prior Bujagali Project."

[10] Inspection Panel Investigation Report, Uganda: Third Power Project (Credit No. 2268-UG), Fourth Power Project (Credit No. 3545-UG), and Bujagali Hydropower Project (PRG B 003-UG), 23 May 2002. The Report is available at the Panel's website: http://www.inspectionpanel.org.

[11] Request, p. 1.

[12] Request, p. 1.

[13] Request, p. 4.

13. The Requesters also claim that the SEA does not adequately consider, *inter alia*, Project alternatives such as small hydro, the Karuma Dam, geothermal, efficient lighting, and wind power. In their view, the analysis of alternatives was overly pessimistic while the hydrological data for the Bujagali Project was overly optimistic. The Requesters also raise concern that the electricity from Bujagali will not be affordable, will not meet the needs of the majority of Ugandans, and will reduce the money available for rural electrification.

14. The Requesters raise other concerns as well. They claim that the Power Purchase Agreement (PPA), a key agreement related to the Project's economic viability, was only recently released and they allege that the public version in Kampala was not the actual version used to negotiate loans for the Project. The Requesters say that no evidence exists that the PPA was debated and approved by the Ugandan Parliament. Related to safety, the Requesters claim that the Sponsor has failed to adequately address dam safety issues or determine whether Bujagali would be able to withstand a failure of the Nalubaale dam. Furthermore, the Requesters claim that the Project did not recognize the presence of indigenous peoples in the Project area nor did the Project deal sufficiently with cultural and spiritual issues. The Requesters say that the compensation and resettlement frameworks need to be updated to reflect the current economic situation and that the Sponsor needs to create a detailed compensation and detailed community development action plan. Furthermore, the Requesters raise concern over the consultation process, the use of data, which they claim is old and inconsistent, and the quality of the Environmental Impact Assessment (EIA) related to fauna. The Requesters also complain that the World Bank failed to respect the Constitution of Uganda because it did not consider the Busoga people living in the Project area as Indigenous Peoples for purposes of this Project, and thus did not apply the provisions of OP 4.10, which is aimed at protecting vulnerable minorities in Bank-funded Projects.

15. In addition to the letter from NAPE, the Request also includes a letter from the people who were displaced by the prior Bujagali Project and resettled in the Naminya area. The Naminya residents claim that they were promised many things as part of the terms and conditions of their resettlement, but that many of those promises remain unfulfilled. They outline unfulfilled promises and problems related to land titles, a primary school, a health center, water, housing, latrines, electricity, sources of income and food, a community center, a market, environmental protection, employment, and infrastructure maintenance.

2. Management Response

16. Management submitted its Response to the Request for Inspection on April 5, 2007. Management maintains that the Project is being developed to provide needed power generation capacity in a least-cost manner. In the past three years, Uganda has been suffering severe power shortages due to lack of generation capacity, prolonged drought in the region, increases in annual electricity demand,

and technical losses in the distribution system. Management indicates that currently the country's growth is strained by the electricity crisis, which has caused routine power cuts affecting small and large businesses. Management maintains that the Project is expected to eliminate power shortages by 2011 by providing an additional 250MW of generation capacity to the national grid.

17. With respect to the Inspection Panel's 2002 investigation of the prior Bujagali Project, Management notes that an action plan was prepared and approved by the Board on July 17, 2002. The action plan related to the sectoral EA, cumulative impacts, the Kalagala offset, load forecast scenarios, affordability risks, power generation alternatives, a socio-economic survey, the community development plans, and compensation for tourism aspects of the Panel's investigation. The response includes a matrix describing the 2002 Panel's investigation findings and the status of implementation of the action plan. Management notes that if the Bujagali Project had been constructed under the prior Project, the reduction in Lake Victoria water levels due to over-drawing may not have happened and power would have been produced at a lower cost than Uganda is currently paying for supply from thermal plants. In Management's view, the Project is overdue and Uganda is paying a high price for the delay brought about by the failure of the prior attempt. However, Management maintains that the GoU has learned lessons from the prior experience and the GoU is better able to understand the concerns of stakeholders.

18. In response to the issues raised by the current Request, Management states that they take the Requesters' concerns seriously and that they believe the Project "*adheres closely to Bank policies and more importantly, that the project developers and financiers have been conscientious in pursuing the welfare of project affected persons as well as Uganda as a whole.*"[14] Related to Kalagala Falls, Management claims that the GoU has reiterated a commitment to the offset as part of the Indemnity Agreement and that Management will engage with the GoU prior to the termination of the Indemnity Agreement about identifying mechanisms or instruments to continue the GoU obligation for the Kalagala offset. Management also reports that a Dam Safety Panel was created to provide advice and ensure consistency with Bank policy and that the Project's legal agreements require the preparation of an Emergency Preparedness and Response Plan (EPRP), which includes failure scenarios for Nalubaale, Kiira and Bujagali dams.

19. On the social concerns raised, Management acknowledges that the past resettlement program was not completed. To address these issues, the Assessment of Past Resettlement Activities and Action Plan (APRAP) and Community Development Action Plans (CDAP) were undertaken to assess and address the current conditions. Management indicates that BEL and the Bujagali

[14] Management Response, ¶47.

Implementation Unit (BIU)[15] were resolving outstanding issues. In response to the claims that the Busoga people in the Project area should be considered indigenous people, Management asserts that the Busoga are not considered indigenous people under the Bank's Indigenous Peoples Policy definition.

20. Management maintains that experienced Bank staff and consultants were engaged to work on the preparation of this Project and that economic, financial, safeguard, technical and other analyses were done to a high standard. Project analysis considered a wide range of electricity demand scenarios and the impacts of both low and high hydrology scenarios. Management regards the environmental and social work carried out thus far to have appropriately considered the issues that emerged in the previous Bujagali investigation and the new issues outlined in the current Request related to resettlement, cumulative impacts, and consultations. They note that the environmental and social documents were disclosed along with the economic and financial analysis on December 21, 2006. Additionally, Management claims that Project preparation took into account the Inspection Panel's investigation findings of the issues raised in the 2001 Request for Inspection.

21. Management claims that the Project will bring several benefits. Providing least-cost power is expected to increase the number of connections of residential users to the national grid, including in rural areas, and will allow industrial and commercial users to increase output and efficiency and, therefore, profits. The Project will bring local job opportunities during construction and tourism development in the Kalagala offset. Additionally, the Project is expected to have environmental benefits since the same water already released through Nalubaale and Kiira dams will be used for Bujagali, thereby reducing the pressure to over-extract water from Lake Victoria.

3. Eligibility of the Request

22. To determine the eligibility of the Request and the Requesters, as set forth in the 1993 Resolution establishing the Panel[16] and the 1999 Clarifications,[17] the Panel reviewed the Request for Inspection and Management Response. The Panel Chairperson at the time, Prof. Edith Brown Weiss, together with Executive Secretary Peter Lallas and expert consultant Eduardo Abbott visited Uganda from April 18–25, 2007. During their visit, the Panel Team met with the Requesters, other members of civil society and locally affected communities, Bank staff, national and local authorities, Project authorities, members of Parliament and others.

[15] The BIU is a unit of the Uganda Electricity Transmission Company Limited (UETCL), the country's national transmission company. The BIU is responsible to monitor the resettlement program under the Project.
[16] International Development Association (IDA) Resolution 93-6, dated September 22, 1993.
[17] Conclusions of the Board's Second Review of the Inspection Panel, April 1999.

23. The Panel determined that the Request fulfilled the eligibility requirements for inspection. The Panel recommended an investigation to the Board of Executive Directors because the Request and the Management Response contained conflicting assertions and interpretations of the issues, facts, compliance with Bank policies and procedures, and actual and potential harm.

24. On May 18, 2007, the Board approved the Panel's recommendation to conduct an investigation into the matters alleged in the Request for Inspection. The Request, Management Response, and the Panel's Report and Recommendation were made public shortly after the Board authorized the inspection sought by the Requesters.

4. The Investigation

25. The purpose of the investigation was to establish whether the Bank complied with its own policies and procedures in the design, appraisal and implementation of the Project, and whether, if instances of non-compliance were found, they caused, or were likely to cause, harm to the Requesters and the people they represent.

26. The Panel conducted a two-part investigation. The first part involved detailed research into Bank records related to the Project, interviews with Bank Staff both in Washington DC and in Kampala, Uganda, and a review of relevant documents and scholarly literature. The second part took the form of an in-country fact-finding visit. To assist in the investigation, the Panel retained five consultants, who are internationally recognized experts on the environmental, social, economic and technical issues raised in the Request. The Panel was assisted in its investigation by Prof. Theodore Downing, anthropologist, Prof. Richard Fuggle, environmental specialist, Mr. Graham Hadley, economic and commercial consultant, Prof. Peter Pearson, economist and Prof. Carlos Tucci, hydrologist.

27. Panel Chairperson Werner Kiene, Panel Members Tongroj Onchan and Roberto Lenton, Executive Secretary Peter Lallas, Operations Officer Serge Selwan, and the expert consultants Ted Downing, Richard Fuggle, Peter Pearson and Carlos Tucci visited Uganda from November 27 until December 7, 2007. During its mission, the Panel met with Requesters and other individuals and communities, local and national government authorities, representatives of the Busoga Kingdom, spiritual and religious leaders, representatives of civil society, and representatives of inter-governmental organizations, relevant experts and others. The Panel also interviewed Bank Staff in Washington, D.C. and Kampala. In addition to Kampala, the Panel visited the towns of Entebbe and Jinja, the villages and areas of Mutundwe, Kigwanya, Nakuwade, Nansana, Wasiko, Nimanye, Naminya, Kalagala, and Bujagali falls, the dams of Kiira and Nalubale, and Mabira forest.

28. This Report presents the results of the Panel's investigation regarding the issues the Requesters raised in their submission to the Panel.

29. **Collaboration with the Compliance Review and Mediation Unit (CRMU) of the African Development Bank (AfDB):** The Requesters submitted their Request for Inspection to the World Bank Inspection Panel as well as the CRMU of the AfDB, as the AfDB is co-financing the Project. The Panel and the CRMU coordinated their field investigations of the Bujagali Project and shared consultants and technical information during this investigation in order to enhance the efficiency and cost effectiveness of each of their investigations. This collaboration between the Panel and the CRMU worked to the mutual benefit of both parties. Each Panel focused its compliance review on its own policies and procedures and each Panel has made its own independent judgments about the compliance of its Management and staff with its own policies and procedures. Accordingly, while there may be common elements and language in the respective reports, the findings in this report are based on the independent judgment of the Panel and exclusively on the World Bank's Operational Policies and Procedures.

Picture 1 Panel - CRMU Meeting with Requesters

30. The Panel wishes to express its thanks and appreciation to the CRMU for this fruitful and precedent-setting cooperation.

5. Bank Operational Policies and Procedures Applicable to the Project

31. With respect to this Project, the Panel assessed whether the Bank complied with the following applicable Operational Policies and Procedures:

OP 1.00	Poverty Reduction
OP/BP 4.01	Environmental Assessment
OP/BP 4.02	Environmental Action Plans
OP/BP 4.04	Natural Habitats

OP 4.07	Water Resource Management
OP/BP 4.10	Indigenous Peoples
OP/BP 4.11	Physical Cultural Resources
OP/BP 4.12	Involuntary Resettlement
OP/BP 4.37	Safety of Dams
OP/BP 7.50	Project on International Waterways
OP/BP 10.04	Economic Evaluations of Investment Operations
World Bank Policy on Disclosure of Information	

B. Request for Inspection related to the prior Bujagali project

32. In 2001 the Panel received a Request for Inspection related to the prior Bujagali Hydropower project. The Request for Inspection related to the Uganda: Bujagali Hydropower Project concerned three Projects: the Third Power Project, the Fourth Power Project and the then proposed Bujagali Hydropower Project.[18] The Third Power Project, referred to as the Owen Falls Extension (now known as Kiira), supported by IDA, included the construction of a powerhouse, the installation of two 40-megawatt generating sets, the provision of remedial works at the Owen Falls Dam, and the provision of technical assistance to the Uganda Electricity Board. The Owen Falls Extension is now known as Kiira and with the Owen Falls dam, known today as Nalubaale, forms the Nalubaale–Kiira system addressed in various parts of this Report. The Fourth Power Project, financed by IDA as well, aimed at expanding Uganda's power supply to meet the country's electricity demand and to strengthen its capabilities for managing the energy reform and privatization process. The Bujagali Hydropower Project involved the joint participation of the IDA and the International Finance Corporation (IFC) to develop a 200-megawatt run-of-the-river power plant at Bujagali Falls, a small reservoir, and a rock fill dam spillway, as well as the construction of approximately 100 kilometers of transmission lines and associated substations.

33. At the time the Request was filed, the World Bank Group's package of financial assistance had not been approved. The Bujagali Project's financing plan envisioned an equity contribution of US$111.3 million from a private sponsor, the AES Corporation, as well as contributions from other financiers such as the AfDB (US$55 million) and export credit agencies (US$219.5 million). The proposal envisioned that a privately owned and operated Project company, AES Nile Power (AESNP), would construct the hydropower plant on a build-own-operate-transfer basis and would sell electricity to a fully state-owned company under a 30-year power purchase agreement.

34. Project preparation raised strong concerns from parts of the country's civil society because of the cultural and spiritual significance of the Bujagali Falls to the Busoga peoples, the involuntary resettlement of people living on the shore of the

[18] These projects, subject to the 2002 Investigation Report, are hereinafter referred to as the "prior Bujagali project" or the "prior project".

falls and along the transmission lines, and other reasons. In this environment, the Request for Inspection was submitted to the Panel on July 27, 2001.

35. **The Request:** The Requesters claimed that the Bank's failures in the design, appraisal, and implementation of the prior projects had materially affected their rights and interests and were likely to jeopardize their future social, cultural, and environmental security. More specifically, they alleged that the Owen Falls Extension and the proposed implementation of the Bujagali Hydropower Project had resulted—or were likely to result—in social, economic, and environmental harm to the local population, such as negative effects on tourism activities, adverse impacts on fisheries, and increased electricity tariffs. The Request cited the failure to require an environmental assessment of the Owen Falls Extension, the lack of a cumulative environmental assessment related to the existing and proposed dams, and an inadequate involuntary resettlement plan (including inadequate compensation arrangements). The Request questioned the Bank's supervision of the involuntary resettlement of people in the project area. Some of the displaced people claimed that they had been intimidated so as to help guarantee their support for the project. Moreover, the resettlement process had already started in 2000 and it was not brought into compliance when the Bank approved financing for the project. The Request also claimed that the economic and technical analysis, especially the analysis of economic alternatives, and particularly with respect to the Owen Falls Extension, was inadequate. They also alleged inadequate consultation and disclosure of information. According to the Request, the World Bank was not in compliance with its own policies and procedures on Environmental Assessment (OD 4.01), Involuntary Resettlement (OD 4.30), Natural Habitats (OP/BP 4.04), Safety of Dams (OP 4.37), Poverty Reduction (OD 4.15), Indigenous Peoples (OD 4.20), Forestry (OP 4.36), and World Bank policy on Disclosure of Information.

36. After determining the eligibility of the Request and Requesters, the Panel recommended that the Board of Executive Directors authorize an investigation of the matters raised in the Request. On October 26, 2001 the Board approved the Panel's recommendation. On December 28, 2001, while the ongoing investigation was underway, the Board approved a guarantee facility not to exceed US$115 million to support the Bujagali Hydropower Project.

37. **The Panel Investigation Report:** The investigation focused on environmental, economic, social, and spiritual issues regarding the prior projects to determine whether the Bank followed its own policies and procedures.

38. The Panel's investigation covered issues related to cultural property, particularly in relation to recognized spiritual forces in the project area. The Panel acknowledged the Bank's efforts at consulting local people and religious leaders, as well as the good faith attempts to mitigate the cultural consequences of losing the Bujagali Falls, which have a highly religious significance for Uganda's Busoga people. However, the Panel expressed concern that no arrangements had