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MANAGEMENT REPORT AND RECOMMENDATION
IN RESPONSE TO THE
INSPECTION PANEL INVESTIGATION REPORT

UGANDA

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

November 7, 2008

**MANAGEMENT REPORT AND RECOMMENDATION
IN RESPONSE TO THE INSPECTION PANEL INVESTIGATION REPORT
OF THE
UGANDA: PRIVATE POWER GENERATION (BUJAGALI) PROJECT
(IDA GUARANTEE NO. B0130-UG)**

Pursuant to paragraph 23 of the Resolution Establishing the Inspection Panel (IBRD Resolution 93-10 and IDA Resolution 93-6), attached for consideration by the Executive Directors is Management's Report and Recommendation in response to the findings set out in the Investigation Report No. 44977-UG, dated August 29, 2008, of the Inspection Panel on the Uganda Private Power Generation (Bujagali) Project, IDA Guarantee No. B0130-UG.

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ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AMSL	Above Mean Sea Level
APL	Adaptable Program Loan
APRAP	Assessment of Past Resettlement Activities and Action Plan
BP	Bank Procedures
BEL	Bujagali Energy Limited
BIU	Bujagali Implementation Unit
CDAP	Community Development Action Plan
CPMP	Cultural Property Management Plan
CO ₂	Carbon dioxide
DPL	Development Policy Loan
EA	Environmental Assessment
EAC	East African Community
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EPC	Engineering, Procurement and Construction
ERA	Electricity Regulatory Authority
GDP	Gross Domestic Product
GoU	Government of Uganda
GWh	Gigawatt hour
HPP	Hydropower Project
IA	Indemnity Agreement
IDA	International Development Association
IFC	International Finance Corporation
IPN	Inspection Panel
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
kWh	Kilowatt hour
LC	Local Council
LVEMP II	Lake Victoria Environmental Management Project II
MEMD	Ministry of Energy and Minerals Development
MIGA	Multilateral Investment Guarantee Agency
MW	Megawatt
NAPE	Ugandan National Association of Professional Environmentalists
NBI	Nile Basin Initiative
NBS	Net Basin Supply
NEMA	National Environmental Management Agency
NFA	National Forestry Authority
NGO	Nongovernmental organization
NWSC	National Water and Sewer Company
OD	Operational Directive
OP	Operational Policy
PAD	Project Appraisal Document
PAP	Project Affected Person
PEAP	Poverty Eradication Action Plan

PoE	Panel of Experts
PPA	Power Purchase Agreement
PRG	Partial Risk Guarantee
PSDO	Power Sector Development Operation
PSFM	Power Sector Financial Model
RAP	Resettlement Action Plan
RCDAP	Resettlement and Community Development Action Plan
REA	Rural Electrification Agency
SEA	Social and Environmental Assessment
SMP	Sustainable Management Plan
SSEA	Strategic/Sectoral Social and Environmental Assessment
SEAP	Social and Environmental Action Plan, equivalent to EMP
SWAp	Sector Wide Approach
UETCL	Uganda Electricity Transmission Company, Limited.
UJAS	Uganda Joint Assistance Strategy
UMEME	Uganda electricity distribution company
VCC	Village Consultation Committee

**LIST OF OPERATIONAL POLICIES/BANK PROCEDURES (OP/BP) AND
OPERATIONAL DIRECTIVES (OD)**

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/BP 4.10	Indigenous Peoples
OP/BP 4.11	Physical Cultural Resources
OD 4.30 / OP/BP 4.12	Involuntary Resettlement
OP/BP 4.37	Safety of Dams
OP/BP 7.50	Project on International Waterways
OP 10.04	Economic Evaluation of Investment Operations
World Bank Policy on Disclosure of Information	

EXECUTIVE SUMMARY

1. **Background.** On March 7, 2007, the Inspection Panel registered a Request for Inspection, IPN Request RQ07/1 (hereafter referred to as “the Request”), concerning the then proposed Uganda Private Power Generation (Bujagali) Project (“Bujagali Project”, or “the Project”), for which the International Development Association (IDA) is providing a Partial Risk Guarantee. The Request for Inspection was submitted by the Ugandan National Association of Professional Environmentalists (NAPE) and other local organizations and individuals (hereafter referred to as the “Requesters”).
2. The Executive Directors and the President of IDA were notified by the Panel of receipt of the Request. The Management responded to the claims of eligibility in the Request on April 5, 2007. The Project was approved by the Board of Executive Directors on April 26, 2007.
3. On August 29, 2008, the Panel issued its report outlining the findings of its investigation. The Panel reviewed the claims raised by the Requesters, and found areas of both compliance and non-compliance. A response by Management to the Panel’s findings is provided in Sections I-VI, and Annex 1 below.
4. **Importance of the Energy Sector.** Energy is a crucial input to Uganda’s development, and hydropower is an important option for meeting the country’s power needs. With less than 10 percent of the population connected to electricity, a long-term investment program is required in the energy sector to realize the country’s development aspirations. The energy program, developed by the Government of Uganda (GoU) in partnership with the World Bank Group (WBG) and other donors, includes regional interconnections, large-, medium-, and small-scale generation, new transmission lines, and extension of the power distribution network. It embraces conventional and renewable energy technologies, and supports extension of the main grid, development of independent grid networks, and deployment of dispersed options such as solar photovoltaics.
5. **The Bujagali Project.** The Bujagali hydropower station is a key part of this program. The Project includes the construction of a 250MW run-of-river hydropower station on the Nile River eight kilometers downstream from the existing Nalubaale/Kiira power station. A transmission line, financed by the African Development Bank (AfDB) and the Japan International Cooperation Agency (JICA), is also under construction to evacuate the power to the main grid in Kampala. This is the second effort to develop the Bujagali hydropower station, following an unsuccessful effort that ended in 2003 due to financial difficulties experienced by the sponsor. The current Project is the largest private sector investment in East Africa, and will provide stable baseload power which is needed to grow the economy and expand access to electricity.
6. In view of the Project’s history and its crucial importance to Uganda, Management at the outset has established enhanced due diligence for both Project preparation and supervision. This includes assignment of experienced staff with the necessary range of expertise, as well as recruitment of highly qualified consultants for specific tasks such as the financial analysis, economic analysis, hydrology review, etc.

7. **Next Steps.** As discussed in Section V below, Management will follow up on specific stakeholder commitments through implementation of a proposed Action Plan, including establishment of a project monitoring committee, implementation of a management plan for cultural resources, and disclosure of the reports prepared by the Independent Panel of Social and Environmental Experts. Table 3 presents key elements of the supervision program, covering, for example, the socio-economic survey, annual updates of the Community Development Action Plan, and afforestation activities. Management plans to report to the Board on the progress of its proposed Action Plan a year from now.

I. INTRODUCTION

1. On March 7, 2007, the Inspection Panel registered a Request for Inspection, IPN Request RQ07/1 (hereafter referred to as “the Request”), concerning the then proposed Uganda Private Power Generation (Bujagali) Project (“Bujagali Project”, or “the Project”), for which the International Development Association (IDA) is providing a Partial Risk Guarantee. The Request for Inspection was submitted by the Ugandan National Association of Professional Environmentalists (NAPE) and other local organizations and individuals (hereafter referred to as the “Requesters”).
2. The Executive Directors and the President of IDA were notified by the Panel of receipt of the Request. The Management responded to the claims in the Request on April 5, 2007. The Project was approved by the Board of Executive Directors on April 26, 2007.
3. On August 29, 2008, the Panel issued its report outlining the findings of the investigation. This report responds to the findings of the Panel. Section II provides background and the status of the Project; Section III summarizes the findings of the Panel; Section IV addresses special issues emerging from the Panel’s investigation report; Section V includes Management’s Action Plan; and Section VI contains the conclusion. The Panel’s findings, along with Management’s responses, are described in detail in Annex 1.

II. BACKGROUND AND STATUS OF THE PROJECT

4. **Context.** Over the last four years, Uganda has suffered serious power shortages arising from a combination of: (i) delays in developing additional generation capacity, in particular the World Bank Group supported private sector Bujagali hydropower plant, which initially was to have been operational by end 2005,¹ but is currently expected to be in service in 2011; (ii) a three year drought in the region (November 2003–October 2006), which has, in turn, reduced the generation output of the existing hydropower plants (i.e., Nalubaale and Kiira); (iii) the high level of technical losses in the distribution system; (iv) annual demand growth of about 8 percent which has placed additional pressure on the power system; and (v) increasing prices of petroleum products in the world market, which added upward pressure on already high tariffs on the public grid as well as on the cost of power generation from alternative thermal sources. The Private Power Generation (Bujagali) Project is aimed at providing the capacity needed to overcome the supply constraints in a least-cost and environmentally and socially sustainable manner.
5. Addressing the electricity crisis has been a major pre-occupation of the GoU over the past four years. Less than 10 percent of the population has access to power, most of which (70 percent) is distributed to the three largest cities of Kampala, Entebbe, and Jinja, where industrial activity has begun to develop. At its height in 2006, load shedding² resulted in an estimated 22 percent of demand from current customers going unserved. The increased load

¹ The initial Bujagali Hydropower Project, approved by IFC and IDA on December 18, 2001, failed to materialize (see paragraph 21).

² A procedure in which parts of an electric power system are disconnected in an attempt to prevent failure of the entire system due to overloading.

shedding threatened the already small, but steadily growing, manufacturing sector and had other indirect effects on economic activity, such as agriculture and local commerce.

6. On a human level, the cost has been substantial not only because of losses in livelihood and incomes, but also lost opportunities to establish and sustain local enterprises and institutions. Delays in realizing the Private Power Generation (Bujagali) Project have had other consequences for the Ugandan population at large, including the diversion of Government budgetary resources from health and education to partially subsidize the high cost of fuel imports for electricity purchased from emergency thermal power plants and higher electricity tariffs. The situation has been compounded by the growing unmet demand, the regional drought and the reduced generation at Nalubaale and Kiira noted above. The 250MW Bujagali hydropower plant is located downstream of Nalubaale and Kiira, and it would reuse the upstream water releases that pass through that water regulating structure at the mouth of the Nile. Had this Project come on stream in 2005 as originally envisaged, it would have averted the hardship to people and the economy caused by power outages and reduced growth and productivity; by providing adequate generation to meet Uganda's power requirements. It would also have avoided the current political/economic imperative to minimize load shedding by over-abstracting water for power generation. Instead, it would have allowed an accelerated recovery of the level of Lake Victoria.

7. ***Power Crisis Impacts on Uganda's Poverty Eradication Action Plan (PEAP).*** Uganda's development objectives are articulated in the 2004 PEAP, the third version of its poverty eradication action plan. The 2004 PEAP restates Uganda's ambitions of eradicating mass poverty and of becoming a middle income country in the next twenty years. It promotes a shift of policy focus from recovery to sustainable growth and structural transformation. The PEAP presents specific policies and measures to achieve its objectives, grouped under five pillars: (i) economic management; (ii) enhanced competitiveness, production and incomes; (iii) security, conflict resolution, and disaster management; (iv) governance; and (v) human resources development. The most direct impact of the power crisis was on pillar (i), economic management, and pillar (ii), enhancing competitiveness, production and incomes. Commencing in 2006/2007, the GoU embarked on a combination of short-term emergency measures to ease load shedding through thermal generation and longer-term programs to raise generation capacity, both of which required increased budgetary resources. This included a partial subsidy for imported fuel to reduce the cost of power generation both for the public grid and for private sector firms using generators. Largely as a result of these measures, the energy sector's share of the budget increased from 1.9 percent in 2005/2006 to 9.2 percent in 2006/2007. With this reallocation, shares of key social service delivery sectors such as education and health declined from 31 percent to 25 percent of the budget over this period.

8. ***Uganda Joint Assistance Strategy (UJAS).*** The World Bank's assistance to Uganda is set out in a Joint Assistance Strategy (UJAS) which was approved by IDA's Board of Executive Directors in January 2006 as the country assistance strategy. The strategy now guides the activities of eleven other development partners,³ as well as the Bank. The UJAS supports the GoU's efforts to achieve its Poverty Eradication Action Plan (PEAP) targets, and, ultimately, the Millennium Development Goals. It promotes increased collaboration and

³ Initially formulated by 7 partners, the UJAS now has 12 signatories: DFID (UK); African Development Bank; Austria; Belgium; Denmark; EC; Germany; Ireland; The Netherlands; Norway; Sweden; World Bank.

harmonization among development partners and with the Government, as well as a stronger focus on results and outcomes. As part of the UJAS harmonization agenda, development partners have worked in a coordinated manner to address the power crisis by supporting investments in power generation facilities to increase reliability and lower the cost of electricity, which is a major cost of doing business.

9. Power Crisis Impacts on Economic Growth and Structural Transformation.

Although economic growth and Uganda's external position have remained robust since 2005/2006, the ongoing electricity crisis has constrained growth and structural transformation of the economy. Following the onset of the power crisis, growth in manufacturing decelerated and exports remained driven by commodities. Over the past five years, growth has been driven by the service sector, which accounts for 60 percent of the average GDP growth of 8.3 percent per year. In the energy dependent sectors, businesses shifted production hours to avoid power outages, and many resorted to high-cost backup thermal generators⁴ at the height of the power crisis, all of which affected their investments. Manufacturing, high-value agriculture like flowers, and processing industries, like fish, have been most affected by power cuts, and have reported reduced profits. The manufacturing sector, albeit with a small contribution to total GDP growth (i.e., less than 1 percentage point), was growing at 9.5 percent in 2004/2005, but decelerated to 4.5 percent by 2006/2007.

10. Another macroeconomic consequence of the current power crisis is its impact on domestic price levels, exacerbated by the increasing price of petroleum products in the international markets and bad weather. This has kept inflation above target for three consecutive years. Oil imports were more costly not only because of rising international prices but also due to the high volume of diesel fuel needed to sustain thermal power plants. If the first effort to develop Bujagali had been commissioned on schedule in 2005, Uganda could have avoided about US\$6 million a month that it is currently spending on thermal power generation. The economic cost of unserved energy in 2006 was estimated at about US\$0.394/kWh, when oil was US\$68 per barrel.⁵ Oil prices continued to increase over 2007/2008, surpassing US\$100 per barrel, introducing an additional element of risk to a country that still relies heavily on diesel-powered electricity generation.

11. **Power Sector Strategy.** The power sector strategy of the GoU has been to: (i) maintain the legal, regulatory and structural sector reforms that are in place; (ii) leverage the role of private sector investment, management and operations in the sector's development; (iii) provide adequate, reliable and least-cost power generation, including potential imports through regional transmission interconnections, with the goal to meet urban and industrial demand and increase access; and (iv) scale up rural access to underpin broad based development.

12. Since 1999, the GoU has implemented a comprehensive power sector reform program and enacted a new Electricity Act; established an independent Electricity Regulatory Authority (ERA); and unbundled the State-owned Uganda Electricity Board into separate entities

⁴ The cost of running a generator was estimated to be 2 to 6 times as high as that of obtaining power from the public grid.

⁵ Source: "Bujagali II – Economic and Financial Evaluation Study" (hereafter called the Economic Study), Power Planning Associates Ltd., February 2007. The cost of unserved energy is estimated based on the cost of self-generation using diesel generators (for commercial and industrial customers) and consumer "willingness to pay" for residential customers. It is noted that as of November 2008, oil prices are again in this range.

responsible for generation, transmission and distribution. The GoU has promoted the efficient operation of the power sector by increasing the role of the private sector in concessions for generation and distribution facilities. The GoU has taken a broad view of potentially viable energy sources for power production, and is currently exploring/exploiting both conventional (e.g., hydro, petroleum, regional imports, etc.), and new/renewable options (e.g., solar, biomass, geothermal, etc.). New power projects are subject to due diligence including engineering, financial, social, and environmental assessments. The number of urban and rural households with direct access to electricity has grown⁶ and the GoU is addressing the need to provide adequate, reliable and least-cost power generation capacity to meet demand and pursuing regional power interconnections with the countries of the East African Community (EAC).

13. Notwithstanding Uganda's bold reforms, the power sector has been challenged by power shortages, as stated above. The increased cost of shifting from a primarily hydro-based system in 2005, to a situation in which 35 percent of generation is being supplied through expensive thermal plants in 2008, has been met through a combination of higher tariffs and subsidies. Once commissioned, the Bujagali Project will provide longer-term, lower cost power supply, mitigating the present crisis, and will be followed by new investments to ensure generation capacity remains ahead of demand. In addition to the short-term solution of expensive thermal generation through rapidly installed small capacity plants, the Government is pursuing more economical permanent thermal capacity to complement its hydropower facilities, as well as off-grid and grid connected rural electrification schemes.

14. In addition to the Bujagali Project, the Bank is currently supporting other aspects of the energy sector. This includes the Energy for Rural Transformation (ERT) Program, which is a three-phase Adaptable Program Loan (APL) aimed at assisting the GoU to reach its target of 400,000 new connections by 2010. ERT I will close in February 2009, having successfully supported the institutional creation of a private sector led, commercially-oriented access expansion program, including grid extension and independent grid networks, as well as solar photovoltaic and other renewable energy sources. ERT II will focus on the scale-up of investments, based on the foundation built in ERT I, and will be closely coordinated with the Sector Investment Plan being prepared under the Power Sector Development Operation (PSDO). The PSDO supports the GoU's objective of reducing short-term power shortages and financial imbalances, and facilitating orderly longer-term expansion of electricity service. The PSDO included a US\$80 million Development Policy Loan (DPL) component disbursed in 2006/2007 to partially offset the cost of thermal power generation. It also supports a 50MW short-term power station that is supplying power until Bujagali is fully commissioned in 2011. This operation also includes support for energy conservation, as well as capacity-building in the sector, such as support for the creation of an energy Sector Wide Approach (SWAp). The Privatization and Utility Sector Reform Project includes a Partial Risk Guarantee (PRG) supporting UMEME, which is the private sector operator of Uganda's interconnected distribution network. The Uganda energy sector also benefits from regional Bank-supported

⁶ The number of new annual connections has averaged about 21,000 since the concessioning of power distribution facilities in March 2005.

programs, including the Nile Basin Initiative,⁷ Lighting Africa,⁸ and proposed regional transmission interconnection investments in support of the EAC Power Pool.

15. **Private Power Generation (Bujagali) Project Objectives.** The Project's main objective is to provide least-cost power generation capacity that is expected to eliminate power shortages in 2011 when the plant is commissioned.⁹ The Project would represent an increase of 250MW of generation capacity on the national grid. In addition to mobilizing private investment and commercial bank lending, World Bank Group involvement in the Project is: (i) enhancing investor confidence in the sector (including sponsors, commercial lenders and development finance institutions); and (ii) leveraging critical access to long-term financing, leading to more affordable tariffs for the proposed Project. The World Bank Group also provided Project structuring guidance, based on international experience, to enhance Project bankability.

16. **Project Description.** The Private Power Generation (Bujagali) Project is a 250MW run-of-river hydropower plant with an adequate reservoir for daily storage, an intake powerhouse complex, and an earth filled dam 30 meters high, together with spillway and other associated works. The Project site is located on the Nile River, approximately 8 kilometers north of the existing Nalubaale and Kiira power plants.¹⁰ The powerhouse is being constructed to house 5x50 MW Kaplan turbines. The small reservoir will have an estimated surface area of 388 hectares, extending back to the tailrace areas of the Nalubaale and Kiira dam complex. The Project requires 238 hectares of land take for the Project facilities, of which 80 hectares are for new inundated areas adjacent to the Nile River. The land take includes 113 hectares for temporary and ancillary facilities, including temporary haul roads, coffer dams, storage and quarries. To support the Project, about 100 kilometers of transmission lines, construction of a substation at Kawanda, and extension of the Mutundwe substation, are being financed under a separate Interconnection Project supported by the African Development Bank (AfDB) and Japan International Cooperation Agency (JICA).

17. The improved efficiency of water use with the commissioning of the Bujagali hydropower project (HPP) will greatly expand the available generating capacity, such that, in combination with other hydro and thermal power plants, Uganda will be able to meet its electricity demand in line with water releases consistent with the Agreed Curve, the operating rule for water discharges through the regulating dam structure of Nalubaale and Kiira.¹¹ The Bujagali HPP will sell electricity to the Uganda Electricity Transmission Company Ltd. (UETCL) under a 30-year Power Purchase Agreement (PPA), signed on December 13, 2005. Project construction commenced on June 26, 2007 under a Limited Notice to Proceed, prior to full financial closure. This was facilitated by a bridge loan provided by the GoU. Financial

⁷ The Nile Basin Initiative is a collaborative effort by the 10 countries that share the Nile to jointly develop this shared resource to fight poverty, catalyze development, and promote regional peace and stability.

⁸ Lighting Africa is a World Bank Group initiative aimed at providing up to 250 million people in Sub-Saharan Africa with access to non-fossil fuel based, low cost, safe and reliable lighting products with associated basic energy services by the year 2030.

⁹ Additional investments will be required to ensure that future load shedding is avoided.

¹⁰ See Map 1 provided after the Annexes.

¹¹ The Agreed Curve functions as an operating rule for water discharges through the Nalubaale and Kiira dam complex, in which the volume of water released remains consistent with what would have occurred under natural conditions, thereby ensuring no change in downstream discharge (water releases are a function of the lake level at any given time).

closure of the Project occurred on December 21, 2007 at which point the Project sponsor, Bujagali Energy Limited (BEL), injected US\$190 million of equity into the Project.¹² The World Bank Group support consists of: an IDA PRG of US\$115 million, International Finance Corporation (IFC) ‘A’ and ‘C’ Loans of US\$130 million, and a political risk Guarantee from the Multilateral Investment Guarantee Agency (MIGA) of US\$115 million.

18. As of September 2008, construction of the Bujagali hydropower station is proceeding well, with progress slightly ahead of schedule. Cofferdams on the eastern side of Dumbbell Island are complete, and excavation for the civil works is well underway. BEL also has commenced implementation of the Community Development Action Plan (CDAP) as described below. The contract for the transmission line has been signed, and the contractor, Jyoti Structures (India), is mobilizing.

19. ***Previous Bujagali and Other Energy Projects and the Inspection Panel (2001/2002).*** On August 7, 2001, the Inspection Panel registered for inspection IPN Request RQ01/3 concerning the SDR 86.9 million (US\$125 million) Third Power Project (Power III) financed by IDA, the SDR 24 million (US\$33 million) Supplemental Credit for Power III, the SDR 48 million (US\$62 million) Fourth Power Project (Power IV), and the proposed Bujagali Hydropower Project for which IDA was providing a US\$115 million PRG. The Request was submitted by NAPE, the same group that has submitted the current Request, as well as another group, Uganda Save Bujagali Crusade, and other local institutions and individuals.

20. At that time, the Requesters stated that the failures and omissions of IDA in the design, appraisal, and implementation of the above-referenced projects materially affected the rights and interests of the Requesters and were likely to jeopardize their future social, cultural, and environmental security. More specifically, the Requesters stated that the Owen Falls Dam Extension¹³ and the construction of the proposed Bujagali HPP had resulted, or could have resulted, in social, economic and environmental harm to the local population. The Requesters also stated that they had been harmed or were likely to be harmed as a result of failure to undertake an Environmental Assessment (EA) of the Owen Falls Extension; the lack of a cumulative environmental assessment related to the dams already built, under construction and in the final stages of design; inadequate involuntary resettlement (including compensation arrangements); inadequate consultation, participation and disclosure of information; and insufficient economic and technical analysis, including lack of alternative economic analysis, especially in the case of the Owen Falls Extension.

21. The Inspection Panel recommended to the Board in October 2001 that it investigate the Request and the Board authorized the investigation. The Panel’s findings were sent to the Board on May 23, 2002. Key findings focused on the Bujagali Project and concerned: disclosure of information about the Project; preparation of a Sectoral Environmental Assessment; an assessment of the cumulative impacts of constructing multiple dams on the Nile River in Uganda; use and adequacy of an environmental offset (at Kalagala Falls);

¹² A portion of these funds were used to repay Government’s Bridge Loan.

¹³ The Owen Falls Dam, financed by the United Kingdom and constructed in the 1950s, is now called Nalubaale, and the Owen Falls Extension is now called Kiira. IDA financed emergency repairs to the Nalubaale dam in the early 1980s and the construction of Kiira in 1991. The 2001 Power IV Project provided financing for Units 14 and 15 at the Kiira powerhouse.

economic evaluation (including demand forecast and institutional, tariff and affordability risks); examination of power generation alternatives; issues surrounding the PPA (e.g., transmission, strategic risks, and affordability); social compliance (e.g., use of socio-economic surveys, community development action plans, compensation); and management of cultural property.

22. In its June 1, 2002 document entitled “Management Report and Recommendation in Response to the Inspection Panel Investigation report (Uganda – Third Power Project, Fourth Power Project and Bujagali Hydropower Project),” Management recommended a ten-point action plan, which was endorsed by the Board of Executive Directors on June 17, 2002. Table 1 below includes the ten points noted in Management’s Action Plan; this list explains how the various issues raised by the Inspection Panel have been addressed in the context of the current Bujagali Project.¹⁴

23. One of the key programs in the 2002 Management Action Plan was to “continue supervision to ensure that required Resettlement Action Plan (RAP) actions are met.” This continuity in RAP follow up was especially critical between the time AES Corporation, a United States power company, left the first Bujagali project in 2003 and BEL commenced preparation of the second Bujagali Project, starting in 2006. Based on the Bank’s advice, the UETCL retained the Bujagali Implementation Unit (BIU), a group from the previous AES project, located in Jinja near the Project site, which effectively maintained close liaison with the project affected persons (PAPs) and implemented “quick fix and quick impact” programs. In 2006, BEL hired some of the BIU staff to update and expand the livelihood support and CDAP.

Table 1. First Bujagali Project Inspection Panel Management Action Plan -- Update

Inspection Panel Findings	Status
POWER IV PROJECT	
1. Disclosure of Information: Environment: (Power III and IV Projects)	Full and comprehensive discussions of the Power III and Power IV Projects and their relationship to the reconfigured Bujagali HPP have been undertaken in connection with the design of the new Project. The Government has been actively involved with the EAC in discussions surrounding Lake Victoria, as well as current and future hydropower generation prospects. Moreover, stakeholder consultations concerning the Private Power Generation (Bujagali) Project have encompassed such topics as hydrology, reduced hydropower capacity from the existing Ugandan hydropower plants, the leasing of emergency thermal power generation, as well as other generation expansion projects, including geothermal, bagasse based cogeneration, and other hydro and thermal options.
BUJAGALI PROJECT	
2. Sectoral EA	In order to address the Panel’s concerns, Management agreed to undertake an inclusive, participatory and riparian-owned Strategic/Sectoral Social and Environmental Assessment (SSEA) under the strategic planning for the Nile Equatorial Lakes Subsidiary Action Program within the Nile Basin Initiative (NBI). The SSEA evaluates power generation options and associated transmission interconnections to meet the following multiple objectives: trans-boundary, economic and political cooperation; sub-regional integration; poverty reduction; dispute resolution; environmental sustainability; energy substitutions to reduce depletion of forestry resources; and sharing of mutual benefits in the context of multi-purpose projects. The outcome of the process

¹⁴ The first point of Management’s Action Plan refers to disclosure issues related to the Power III and IV Projects.

Inspection Panel Findings	Status
	features a power strategy that describes the power options, including their economic and engineering feasibility as well as environmental and social impacts, to facilitate informed and transparent decision-making in the selection of power investments by the Nile Basin riparian countries. The work commenced in October 2003 and the final SSEA report was disclosed in the InfoShop on February 23, 2007. The World Bank's Bujagali website includes a link to the NBI website where the report can be found.
3. Cumulative Impacts	The NBI has made considerable progress in bringing the Nile riparian countries together to identify potential power investments as well as investments in water resources management, agriculture, fisheries, and water hyacinth control. This initiative recognizes the need for early and upstream consideration of environmental and social impacts and public involvement in a program of collaborative action to promote cooperative management of the Nile River Basin. This includes the participatory SSEA discussed above. The SSEA analyzes and ranks potential future power options, based upon multiple criteria, including: assessment of direct, indirect/induced and cumulative impacts of multiple activities; additional costs and benefits through multi-purpose use of storage reservoirs; risk of rainfall variability; and sharing of benefits at the local and regional level. Previous studies undertaken in order to make the decision in December 2001 to proceed with the Bujagali project served as part of the information base for the SSEA. Cumulative impacts of the currently proposed Bujagali Project are also addressed as part of the Project's Social and Environmental Assessment (SEA), disclosed in the InfoShop and in-country in December 2006.
4. Kalagala Offset	The GoU has signed an Indemnity Agreement (IA) for the current Bujagali Project. The GoU continues to honor its agreement to set aside the Kalagala Falls site exclusively to protect its natural habitat and environmental and spiritual values and to develop tourism, and not develop the site for power generation. For more information, see Item 8 of Annex 1.
5. Load Forecast Scenarios	Three load forecasts were prepared for the current Project, taking into account actual data over the past several years and the comments made by the first Bujagali Inspection Panel with regard to ensuring an adequate range between the high and low load forecasts (see the Economic Study). By 2011, the base case generation requirement for the domestic market would be 2,208 GWh, with a spread around the base case of about 14 percent above (high case) and 18 percent below (low case). By 2015, the base case demand would be 2,959 GWh, with a spread around the base case of about 24 percent above (high case) and 30 percent below (low case).
6. Institutional, Tariff and Affordability Risks	These risks have been reassessed for the current Project. ¹⁵ In particular, it was estimated that despite higher tariff levels, electricity expenditures will be 5-6 percent of total household expenditures in 2011, which is within the affordable range. The concessioning of Uganda's distribution facilities to a private operator, and a strong track record of the ERA are helping to mitigate what had hitherto been perceived as public sector institutional, efficiency and performance risks (see the Economic Study).
7. Examination of Power Generation Alternatives	The Economic Study reviews all power generation options, including alternative hydropower, oil-based thermal power, small-scale renewable energy, and geothermal potential. Since other sources of funding for geothermal exploration and drilling have not been forthcoming, at the request of the GoU, IDA included additional studies and shallow drilling under the ongoing Power IV Project. These studies assessed geothermal prospects at several sites in Western Uganda. A key conclusion of the Economic Study is that, based on available analytical data, geothermal potential in Uganda for commercial development is about 40 MW, far less than the previously estimated potential of 450 MW (see the Economic Study).
8. Social Compliance	Management proposed in 2002 the following activities: (i) supervision of

¹⁵ The Economic Study was prepared by Power Planning Associates, Ltd, United Kingdom.

Inspection Panel Findings	Status
(RAP-Socio-economic Survey)	focused surveys during the construction phase; (ii) redesign of CDAP based on survey results; (iii) after financial close, resolution of crop payment issues (with PAPs, Witness NGO, local land commission); and (iv) monitoring of compensation problems. A new socio-economic survey was launched in 2007 (at start of construction phase); CDAP redesign is ongoing (based on updated survey results in 2006 and 2008, and a needs assessment); less than one percent of compensation contracts are pending; and 89 percent of land titles were resolved in 2007-2008. The Assessment of Past Resettlement Activities and Action Plan (APRAP) ¹⁶ is being implemented by BEL, including some follow up consultations with spiritual leaders. BEL sponsored an inter-denominational service and produced a Code of Practice for handling cultural and spiritual aspects during construction. Eleven IDA supervision missions (2003-2008) have been closely monitoring APRAP implementation.
9. Social Compliance (CDAP)	Management committed in 2002 to “continue supervision to ensure that required RAP actions are met and that the best practice objectives of the CDAP are achieved.” Through field missions in 2003-2005, Management monitored the impacts of the BIU team’s consultations and field visits, in particular, the livelihood restoration projects in the nine project affected communities, including the Naminya Resettlement Site. In addition to implementation of the livelihood restoration components in the APRAP, BEL increased its budget for the CDAP by 18 percent, to US\$3.81 million for a five-year period following the start of construction. These actions cover household electricity connections; health care facilities; new construction and repairs of schools; skills training and workshops to expand employment opportunities; piped in water supply, water boreholes, upgrading of water supply and sanitation; fisheries; education; small-scale business and tourism; training on money management and financial services; and special programs for vulnerable groups.
10. Compensation for Tourism	In 2002, the SEA for the first Bujagali project discussed in detail the potential impacts on tourism and recreational activities, as well as mitigation measures. As part of the separate Tourism Impact Study that was undertaken by BEL in 2006, key affected tourism related businesses were consulted through individual interviews. Subsequent discussions were held from 2006 to 2008 with tourism operators and employees and BEL regarding mitigation/compensation measures. Memoranda of Understanding are being negotiated between BEL and tourism operators to collaborate in restoring tourism activities that may have been affected by the Project. These tourism activities are being done in coordination with the Jinja Tourism Development Association. Cultural groups, including traditional healers, have agreed to participate in the creation of cultural centers and cultural exhibits. White water rafting companies will invest in the area, including small tourism operators (e.g., three wheel <i>boda boda</i> ¹⁷ and kayak renters, food vendors, small hotels, arts and crafts makers, and shops).

24. The World Bank and IFC’s Board of Directors approved the Bujagali project developed by AES on December 18, 2001. AES’s weakened financial position as the result of a downturn in the United States market eventually led to AES’ withdrawal from the previous project and to a termination by the GoU in September 2003. The GoU then initiated a transparent bidding process in adherence with the Government’s procurement guidelines, to seek a new project sponsor to develop the Bujagali Project in September 2003, with private sector participation and World Bank Group support. The feasibility of implementing the Bujagali HPP based on

¹⁶ Because there was no project sponsor after AES left in 2003 and until BEL took over in 2006, some aspects of the RCDAP that AES had initiated in 2000 had not yet been completed when the second Bujagali project was approved by the Board in 2007. In 2006, BEL undertook the APRAP as a continuation of the RCDAP process.

¹⁷ Bicycle taxi.

the new schedule was revalidated through an update of the least-cost investment plan for the sector. There have been extensive national and regional analyses of the Project’s environmental, social, and economic impact, and a detailed examination of generation alternatives, accompanied by numerous public consultations and disclosure of Project documents.

25. The preparation of the second Bujagali Project built on both the previous project as well as the recommendations of the Management Action Plan in response to the first Inspection Panel investigation. Where appropriate, Management has proceeded in the same direction on areas found compliant in the first investigation. For example, under the current Project, the treatment of Bujagali Falls’ cultural and spiritual value to local people builds on the compliant work previously undertaken. While the second Bujagali Project incorporates critical lessons learned from the first Project, the second Request for Inspection reiterates not only ongoing concerns about the dam’s economic, environmental, and social impact, but also a broader debate about development in Uganda. Bujagali is the largest private investment in Uganda and among the largest in the power sector in Sub-Saharan Africa, with potential long-term benefits for future private sector investment as well as economic development in the country. It may also serve to establish a standard that can be replicated by other countries and investors in the region.

III. FINDINGS OF THE PANEL

26. The Panel made the following findings regarding Bank compliance with its policies and procedures in relation to the issues raised by the Requesters. Responses to the findings are contained in Annex 1 in the form of a matrix that lists each of the Panel’s findings and observations along with Management’s comments and clarifications. Section IV provides additional information and context for the issues raised by the Panel.

OP/BP 4.01 – Environmental Assessment & Bank Policy on Disclosure	
IN COMPLIANCE	<ul style="list-style-type: none"> - The Project has appropriately been classified as category “A”, the category for projects with the most serious level of impacts. This complies with OP 4.01. - The Panel acknowledges that the necessary studies have been conducted and disclosed, albeit separately, considered by Management and referred to specifically in the PAD. - Management acted consistently with OP 4.01 and OP 4.04 as these relate to assessment of likely consequences of the Project on the fish stocks in the Upper Victoria Nile and Lake Victoria. - The Panel’s hydrology expert has concluded that hydrologic data sets used in the Project design constitute a reliable data series and that its variability over time is a natural condition, which can be observed in other hydrologic series elsewhere in 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. - The possible effect of climate change on hydropower projects on the Victoria Nile has been seriously considered in the SSEA. This is in compliance with OP 4.01.
NOT IN COMPLIANCE	<ul style="list-style-type: none"> - The fact that the Environmental Management Plan is not an integral part of the SEA that has been disclosed is a deficiency. This is not in compliance with OP 4.01. - As the Project is contentious and involves environmental concerns, appointment of the environmental panel of international experts is warranted and the lack of such a panel is not in compliance with OP 4.01. - Failure to disclose the SSEA or its relevant parts as an integral part of the Project’s documentation is not consistent with OP 4.01. - Analyses [in the SSEA] are not sufficiently backed by evidence and include opinions rather than careful fact-based examinations of additive effects of impacts from present and

	<p>foreseeable projects. The Panel finds that neither the SSEA nor the SEA has addressed cumulative effects of existing and planned projects in a meaningful way. This is not in compliance with OP 4.01.</p> <ul style="list-style-type: none"> - The failure to consider mitigation measures, which would reduce social and environmental impacts of the transmission line, does not comply with OP 4.01 and OP 4.12. - The SEA analysis did not comply with OP 4.01 in defining the area of influence of the Project because Project impacts on the changing levels of Lake Victoria were not assessed. The Panel notes the importance of making the structure for governance of water releases from Lake Victoria clear and transparent to all stakeholders. - 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. - The Panel is concerned that analysis unduly narrowed consideration of alternatives on the basis of <i>a-priori</i> judgments rather than exploring all technically feasible options—including those that would not involve flooding 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 full understanding of 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 social and environmental costs associated with flooding Bujagali Falls.
OP/BP 4.04 – Critical Natural Habitats	
IN COMPLIANCE	<ul style="list-style-type: none"> - Management acted consistently with OP 4.01 and OP 4.04 as these relate to assessment of likely consequences of the Project on the fish stocks in the Upper Victoria Nile and Lake Victoria.
NOT IN COMPLIANCE	<ul style="list-style-type: none"> - There is evidence that an offset has been created, to meet OP 4.04, but there is no evidence of the offset site 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. - 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. Monitoring of replacement plantings has not been included in the terms of reference of the witness NGO appointed to monitor Project compliance with IDA conditionalities. This is not consistent with OP 4.04. - The Bujagali Falls area may be regarded as a critical natural habitat for purposes of OP 4.04. 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. 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. 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.
OP/BP 4.10 – Indigenous Peoples	
IN COMPLIANCE	<ul style="list-style-type: none"> - The Panel did not find any evidence that Management violated provisions of the Bank policy on Indigenous Peoples, with regard to the Basoga people.
OP/BP 4.11 – Physical Cultural Resources	
NOT IN COMPLIANCE	<ul style="list-style-type: none"> - Management failed adequately to consider or implement alternatives to avoid Project-related impacts on Busoga spirituality and culture... The Project also failed adequately to consult with Busoga spiritual clan leaders associated with one or more high status Spirits about significant cultural patrimony of Bujagali Falls. Misidentifying 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. 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 OP 4.11. - Management assumed that what it called the "Bujagali spirits" were restricted to the Project

	<p>construction and flooding area, in contravention to the BP 4.11 requirement that it 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.</p> <ul style="list-style-type: none"> - The culturally and spiritually affected people were not adequately identified as required by Bank policy. - 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. Management is in non-compliance with OP 4.11, by misjudging the size, location, and scale as well as the nature and magnitude of the cultural and spiritual significance of Bujagali Falls. - Management did not consult with key stakeholders throughout Project cycle and is, therefore, in non-compliance with OP 4.11. Mitigation measures were not adequate because the scope of the impact and the consultation process were incomplete.
OP/BP 4.12 – Involuntary Resettlement	
IN COMPLIANCE	<ul style="list-style-type: none"> - The APRAP conclusion related to the necessity of issuing land titles to people resettled under the prior project is consistent with OP 4.12.
NOT IN COMPLIANCE	<ul style="list-style-type: none"> - The Panel finds that the failure to consider mitigation measures, which would reduce social and environmental impacts of the transmission line, does not comply with OP 4.01 and OP 4.12. - The Panel found no formal monitoring or evaluation report supporting the assertion that involuntary resettlement was “largely completed,” the reason stated for forgoing full RAP preparation, as required by OP 4.12. The hydropower APRAP failed to assess and update the previous 2001 RAP and provide additional new information as required to complete the RAP requirements to current standards. This does not comply with OP/BP 4.12. - 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, Management’s claim that the Project took the first Panel’s report findings into account in 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 approach to consultations with people who had moved and had been compensated is not consistent with the Involuntary Resettlement policy. - Overall, the Panel finds the Project in non-compliance with the mandate of the Bank policy on Involuntary Resettlement to improve or at least to restore, in real terms, the livelihoods and standards of living of people displaced by the Project. - Management did not assess and include in the APRAP a methodology for restitution of unintended socio-economic costs incurred by displaced persons resulting from Project stoppage/delay. This is not consistent with OP 4.12. - The Project failed to provide adequately for loss of livelihood associated with loss of fishing and agriculture, in non compliance with OP 4.12. - The Panel notes that the absence of focus on livelihood risks to the vulnerable is evident in that none of the proposed assistance measures addresses vulnerable tenants/sharecroppers or children. Additionally, proposed assistance measures do not address the question of sustainability beyond limited Project support. The Project [is] out of compliance with the vulnerable peoples provisions of OP 4.12. - With limited funding, broad criteria for eligibility, and lack of specificity, the CDAP programs do not assure compliance with OP 4.12.
OP/BP 4.37 – Safety of Dams	
IN COMPLIANCE	<ul style="list-style-type: none"> - The Panel finds Management has complied with the procedures set forth in OP 4.37.
OP/BP 10.04 – Economic Analysis of Investment Operations	
NOT IN COMPLIANCE	<ul style="list-style-type: none"> - 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 is not compliant with OP 10.04. - The Panel is aware of the limitation of 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 (Project Appraisal Document) 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 Project life. This failure to express climate change as a risk factor is not consistent with OP 10.04. - The Panel notes that information in the Economic Study and PAD relating to knowledge about and potential of smaller scale and/or distributed generation alternatives did not clearly

	<p>establish that available studies and data had been identified and evaluated to decide whether further consideration was required. The Panel finds that the Economic Study and PAD did not demonstrate full compliance with the OP 10.04 requirement to evaluate alternatives.</p> <ul style="list-style-type: none"> - 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 engineering, procurement, and construction (EPC) and transmission cost increases. - The limited presentation and discussion of the [external] costs in the Economic Study did not succeed in demonstrating full compliance with OP 10.04. In the Panel's view, to meet all requirements of OP 10.04, the Economic Study should have examined, in more detail, the potential of changes in damage from other pollutants than CO₂, even if it might have proved difficult to value them.
Other Findings	
<ul style="list-style-type: none"> - The requirement to support needed capacity building, which is important in the implementation of social and environmental aspects, has not been complied with in this Project. 	

IV. SPECIAL ISSUES

INTRODUCTION AND SUMMARY

27. The Special Issues section addresses several key themes in the Panel’s investigation report. This Introduction provides a summary of the Special Issues, which are further developed in the following pages. In addition to its findings of compliance, the Panel has noted several issues among many others raised by the Requesters. First, on the issue of over-abstraction of water from Lake Victoria, Management notes that the water flows arriving at the Bujagali HPP will continue to be completely controlled by discharges from the mouth of the Nile River at the Nalubaale/Kiira hydropower dam complex, eight kilometers upstream from the Bujagali dam site.¹⁸ Management acknowledges that pressure to override the Agreed Curve¹⁹ could still occur if Uganda experiences acute shortages of electricity supply. However, had the first Bujagali Project been commissioned in 2005, over-abstraction and the decline in lake levels would have ceased, leaving the lake at its then current level of about 1,135.50 meters AMSL.²⁰ While the additionally generated hydropower would primarily have replaced thermal power and reduced load shedding, it would also have allowed a reduction of releases, with a commensurate accelerated recovery of lake levels. One of the objectives of the run-of-river Bujagali HPP is to increase electricity production by re-using upstream water releases, thus optimizing water flows through the cascade of dams.

28. Management is working to assist Uganda’s efforts to return to the Agreed Curve by supporting both hydropower and other power generation investments. Also, through the proposed Lake Victoria Environmental Management Project II (LVEMP II), the Bank is supporting regional efforts by the EAC to address the myriad issues facing Lake Victoria, including water use for small-scale irrigation, power generation, domestic and industrial water supply, point and non-point pollution control, fisheries management, watershed management, etc. With respect to climate change and its impact on Lake Victoria, Management notes that suitable assessments were carried out in both the SEA and the SSEA, although cross-

¹⁸ See Map 1.

¹⁹ The rating curve that correlates the flow of the Nile at the source with Lake Victoria to the water level in the Lake. See footnote 11 above and paragraph 32 below.

²⁰ Above Mean Sea Level.

referencing between the two assessments could have been stronger. Further, the risk of low water flow to the power station is covered in the Economic Study and specifically identified in the Project Appraisal Document (PAD) as a Project risk.²¹ The agreements concerning the Kalagala Environmental Offset are detailed in the IA that the GoU has signed with the Bank. The cross default provisions allow, in the extreme, for suspension of the entire portfolio and provide a strong recourse should this be needed.²²

29. Second, the Project addressed cultural and spiritual issues in light of OP 4.11, which addresses *physical* cultural resources, as well as OP 4.04, which addresses critical natural habitats. The first Bujagali Inspection Panel Report in 2002 found Management compliant in its treatment of cultural and spiritual values associated with Bujagali Falls, and found Management’s response at that time to have been substantial in ensuring that these values are built into the first Bujagali project. Management notes that culturally acceptable appeasement ceremonies took place, including more than 60 consultations with traditional spiritual leaders, local government officials, affected villagers, and experts from academic and research institutions, during the period 1998 to 2002. Cultural values were also included as one of the criteria for site selection of Bujagali (SSEA, Appendix J, 1998). At present, BEL continues to follow through, as required, with implementation of the Cultural Property Management Plan (CPMP), which was included in the 2002 Resettlement and Community Development Action Plan (RCDAP). In addition, the EPC contractor developed a separate CPMP in 2007, prior to the start of construction, which included a Code of Practice for “chance finds” procedures. The Ministry of Energy and Minerals Development (MEMD), in coordination with Local Councils (LC1 and LC3) and BEL, is updating the 2001 CPMP, focusing on building capacity for addressing cultural and spiritual aspects, and ensuring that feedback from spiritual leaders continues to be taken into account in the design of appropriate mitigation measures, as needed (e.g., appeasement and reconciliation ceremonies).

30. Third, resettlement, compensation, and livelihood restoration at the generation site were essentially completed during the first Bujagali project, and the current Project builds on the work started by AES. At the Bank’s urging, the GoU retained the BIU, which provided continuity during the gap period. In fact, less than 5 percent of PAPs had issues regarding compensation and land titling, and these are now being resolved by GoU district officials. Work on enhancing the socio-economic baseline (established in the 2006 APRAP) began in January 2007 and is being updated.

31. Fourth, a comprehensive environmental and social analysis was undertaken for the Project. This includes a robust cumulative impacts assessment that takes account of other potential Nile-based initiatives up to Lake Albert. A complementary assessment was undertaken in the SSEA, from a regional viewpoint (including several countries in the Nile Basin). In both cases, Bujagali’s run-of-river design was found to have a low impact. Similarly,

²¹ See PAD, page 24.

²² Specifically, in Section 4.01, the Indemnity Agreement provides that in the event of default, “...the Association shall be entitled, in addition to any other rights and remedies it may have, to suspend or cancel in whole or in part Uganda’s right to make withdrawals under any development credit agreement or financing agreement between the Association and Uganda or under any loan or guarantee between the Bank and Uganda, or to declare the outstanding principal and interest of any such credit or loan due and payable immediately.”

from both a project and a cumulative perspective, the selected transmission line routing was judged to have a low impact on terrestrial ecology.

32. Lastly, the economic and financial analyses were thorough and complete. The use of a “Constant Release” approach for analytical assessment of water usage was shown by the consultant to have no appreciable impact on the analysis results. Hence, the incorporation of a more complex Agreed Curve release module would not have materially changed the conclusions of the economic model. Treatment of realistic baseload generation alternatives was appropriate, as was the decision not to consider the then-unproven oil discovery. The actual EPC cost variations, while outside the range anticipated in the Economic Study, were well within the Project’s “least-cost” range. In spite of several concerns raised by the Panel, the Project’s financial analysis was not found out of compliance, and Management is convinced that the PAD’s presentation of the financial analysis was conducted in a thorough, professional manner by a highly qualified international consultant and accurately conveys the methodology and results of the analysis. Management also notes some misinterpretations in the Panel’s analysis and report which appear to have led to its conclusions about the financial analysis. Similarly, with regard to the PPA, the Panel’s assertion of a high risk allocation to the GoU ignores the counterfactual case of public sector implementation, in which all risk would have been borne by GoU. The Panel’s comparison with the first Bujagali PPA also does not reflect the fact that the current Bujagali Project was competitively bid, compared to the single-source award of the first Bujagali project. Hence, the current Project is reflective of current market conditions, which have changed greatly in the years between the two projects.

LAKE VICTORIA, CLIMATE CHANGE, AND THE KALAGALA OFFSET

33. ***Regulating Water Flows from Lake Victoria.*** Among the primary concerns of the Requesters is the impact of the Bujagali dam on water outflows from Lake Victoria. Water flow arriving at the Bujagali Hydropower Facility has been and will continue to be completely controlled by discharges from the mouth of the Nile River at the Nalubaale/Kiira hydropower dam complex, upstream of the Bujagali dam site. Hence, the operators of the Bujagali facility will have no control on releases from Lake Victoria. Since 1954 (when the Nalubaale dam was completed), water flow from Lake Victoria into the Victoria Nile has been regulated in order to mimic the natural outflows from the Lake using what has become known as the Agreed Curve, a rating curve that correlates the flow of the Nile at the outlet of Lake Victoria to the water level in the Lake.

34. The pattern of water flows of the Victoria Nile is of major importance to the planning and operation of the Bujagali HPP, and one hundred and six years of existing hydrology data for Lake Victoria were reviewed. Due to unusually heavy rains, lake levels rose between 1961 and 1964 outside the range of the water levels contemplated for the Agreed Curve. In the period 1900-1960, the Net Basin Supply²³ (NBS) of water to the Lake Victoria Basin fluctuated between annual average values of -500 and 2000 cubic meters per second (m³/s). However, for three consecutive years (1961-1963 inclusive), heavy rainfall in the basin caused the NBS to exceed 2,200 m³/s, resulting in an increase in both the water level in Lake Victoria and the annual average outflow. Since that period, the hydrology of the Lake Victoria Basin

²³ Net Basin Supply equals the net inflows (from rivers and lake rainfall) minus outflows (from lake evaporation, power production, and other uses).

and the natural outflow at the Nalubaale and Kiira dams have been studied extensively (e.g., Acres, 1991; Sutcliffe and Parks, 1999; Tate et al, 2004; WREM International, 2005).

35. Historic outflows from Lake Victoria reflect the historic patterns in NBS. The average outflow from Lake Victoria during the period 1900-1960 was approximately 660 m³/s, while the average outflow in the period 1961-1990 was approximately 1,200 m³/s. For most of the 1990s the outflow leveled at approximately 1,000 m³/s, but in 1997-1998, it rose significantly, due to severe rains from October to December 1997 (El Niño). It should be noted that Lake Victoria's levels have been as low as 1,133.15 m (1923) and as high as 1,136.25 m (1964). At present, the Lake's level hovers around 1,134 m.

36. ***Electricity Shortages and Over-Abstraction from Lake Victoria.*** Up until 2004, Uganda's power generation was 99 percent from one source – the dam complex at Nalubaale and Kiira. Increased economic activity and electrification has caused domestic peak power demand to grow from about 250MW in 2001 to about 390MW in 2008.²⁴ Due to a number of factors, including inadequate investment in new capacity, the magnitude of load shedding began to affect economic development in 2004. At the same time, a regional drought (2004-2006) began to affect Lake Victoria's water levels. In order to minimize load shedding and support economic growth, over-abstraction of water for power generation was allowed in the period 2003–2005. By February 2006, GoU acted to reduce power output from Nalubaale/Kiira from its 265MW peak capacity in 2004 to 130MW in 2006 and 150 MW in 2007, in an effort to return to the Agreed Curve. The typical daily load curve shows that peak demand is currently about 360 to 390MW, compared to peak generating capacity, which until recently stood at about 200MW. Overall, the level of load shedding in recent years has been about 175 to 190MW during peak hours, 70 to 90MW during shoulder hours, and 60 to 120MW during off-peak hours. Significant power rationing has been a daily occurrence since 2005, affecting the daily lives of all consumers. Very recent commissioning of additional thermal capacity has reduced load shedding to about 50MW at peak.

37. To address the short-term load shedding, the GoU implemented a costly emergency thermal generation program in 2005 using high-speed reciprocating engines fuelled with diesel oil to generate up to 150MW of power, with plans to operate until 2010 when more economic, renewable and clean power becomes available from the Bujagali HPP. In parallel, in consultation with the EAC and Lake Victoria riparians, the GoU agreed to gradually return to the Agreed Curve. As of July 2008, abstraction was still above the Agreed Curve, but much closer than July 2007. These emergency actions and stepped up measures to bring permanent thermal, co-generation and mini-hydropower projects on line, along with the Bujagali Project, are expected to help meet the steady increase in electricity demand in step with the strengthening and expansion of the economy.

38. As noted above, in recent years Lake Victoria has experienced dramatic fluctuations in its water level due to a combination of factors, including regional drought, abstraction of water, as well as releases of water from Lake Victoria via the Nalubaale/Kiira hydropower complex. The increase in electricity demand, the lack of sufficient generation capacity and the deleterious impact of the significant power shortages sustained by the economy, led to GoU pressure to release water from Lake Victoria in excess of the Agreed Curve. The WREM

²⁴ Actual demand can be difficult to assess in a load shedding context.

International study²⁵ indicated that in 2004-2006, releases of water from Nalubaale and Kiira in excess of the Agreed Curve accounted for approximately half of the reduction in water levels in Lake Victoria, the drought accounting for the other half. Independent modeling assessed the impact of over-abstraction on the decline of lake levels at 62 cm on January 1, 2007. In total, the Nalubaale/Kiira facility includes 15 separate hydropower turbines, with a combined capacity of 380 MW.²⁶ These turbines are being operated in parallel, although not all at the same time. The operating regime of the Nalubaale/Kiira hydropower dam complex was designed to be consistent with the Agreed Curve.

39. ***Bujagali's Relationship to Lake Victoria Water Levels.***²⁷ Water levels in Lake Victoria will continue to be determined by rainfall, evaporation, inflow from upstream rivers, and the releases at the Nalubaale/Kiira dam complex. Since the Bujagali HPP is downstream, it will reuse the water coming from the upstream complex. Specifically, the water passing through Nalubaale and Kiira and subsequently through Bujagali will produce more than twice the amount of energy that Nalubaale and Kiira would produce alone, and this is expected to lead to a more efficient use of water for power generation in line with the Agreed Curve. To quote from the WREM (2004) report: "If Bujagali were on line, the release required to meet the power targets would be less than that according to the Agreed Curve, reducing annual lake drawdown to about 0.17 meters without load shedding; Thus, during droughts, Bujagali would enhance lake management as well as power production." A 2006 study by dam expert Peter Mason goes further, stating that: "Unless another major rainfall event occurs, such as the one which occurred in the 1960s, it is inevitable that the power availability of the Jinja power stations (Nalubaale and Kiira) will revert back to long-term output of around 150MW. The only solution would appear to be another station further downstream, which can make use of the same water again, such as that currently planned at Bujagali."

40. Water use for power generation is but one of several complex and intertwined aspects of Lake Victoria preservation, which includes water usage, pollution control, fisheries management, watershed management, transportation, tourism, etc. The GoU's power development strategy recognizes that timely, least-cost power generation investments help Uganda to meet electricity demand and diversify its sources of supply, thereby avoiding the emergency situation that led to over-abstraction for power generation—the first step of which is to finalize the Bujagali Project. Other investments such as permanent thermal plants, continued development of mini-hydro facilities, cogeneration, and additional downstream hydropower stations on the Nile are underway to support this objective, and will provide an economic and financial incentive for the GoU to operate the power system in line with economic dispatch principles and the Agreed Curve. The GoU recognizes that while the Bujagali HPP will address most of the power shortages by the time it is commissioned, the Nalubaale/Kiira dam complex needs to be run in accordance with the agreed operating regime, while after commissioning at least one 50 MW thermal unit will also remain in operation.

41. ***Addressing Lake Victoria Resource Management.*** Lake Victoria is an important natural resource and source of economic activity for many inhabitants of its riparian countries

²⁵ Water Resources and Energy Management (WREM) International is the engineering firm that prepared the Lake Victoria Water Management Study.

²⁶ Nalubaale has 10 units totaling 180MW; Kiira has 5 units totaling 200 MW.

²⁷ For a discussion of Climate Change, please refer to paragraph 46 below.

(Burundi, Democratic Republic of Congo, Egypt, Kenya, Rwanda, Sudan, Tanzania, Uganda). The LVEMP II Project is supporting the Lake Victoria riparians to: (i) implement their joint commitment to harmonize policies, legislation, and standards for shared natural resources and environmental management in the Lake Victoria Basin; (ii) further strengthen the capacity of regional, national, local, and community-level institutions responsible for lake basin management, developed under LVEMP I; (iii) update information on ecosystem health, especially on the water and fishery resources, which underpins resource management decisions; (iv) refine analytical tools for ecosystem monitoring developed under LVEMP I; (v) implement infrastructure projects on pollution control and prevention, and safety of lake navigation, based on the existing feasibility studies; (vi) scale up successful community-driven pilot interventions to control point and non-point sources of pollution; and (vii) mobilize new communities and build their capacity to prepare Community-Driven Development natural resources management and income generating subprojects. Under the terms of the Bank-supported Power Sector Development Operation, Uganda has committed to provide monthly reports to the EAC on abstraction from the lake.²⁸ This is consistent with Uganda’s obligations under the Protocol for Sustainable Development of Lake Victoria Basin,²⁹ ratified by Kenya, Tanzania and Uganda in 2003.

42. ***Alternatives to Bujagali, including Thermal Power.*** The alternatives to developing Bujagali are to do nothing, or to develop an alternative source or sources of power with similar characteristics (e.g., baseload capability, available within a similar time frame). The “do nothing” alternative would mean that the up to 250MW to be provided by Bujagali would be supplied by extending indefinitely the operation of the expensive high-speed emergency thermals, and by increased load shedding. This would have a significant long-term effect on the economy and the people of Uganda, and it would continue to place pressure on the Government to choose between load shedding and over-abstraction of water from Lake Victoria for power generation.

43. In the immediate term, the only feasible alternative for large scale hydropower generation in Uganda is thermal power. However, thermal power is not only more costly than hydro due to the price of imported fuel, it also has negative environmental effects including air pollution, noise, potential for spills, and greenhouse gas emissions (CO₂). Details on the alternative to large scale hydropower generation technologies, including wind, solar, geothermal, and thermal, are analyzed in the SEA report, sections from the summary of which are attached in Annex 2.

44. The technical reports (e.g., SEA, Economic Study, etc.) demonstrate why Bujagali is the preferred next large hydropower project on the Victoria Nile, and why the proposed configuration at the site is the preferred design for the facility. In particular, the Economic Study assessed all realistic options for providing baseload power to Uganda within the Project timeframe. This included hydropower (from large scale to mini-hydro), oil-based thermal, geothermal, and biomass. Some of these smaller scale alternatives are indeed retained in the least-cost expansion plan for power generation in Uganda as identified in the Economic Study. The least-cost expansion plan includes all of these options and clearly shows that Bujagali is the next in-line baseload power station for Uganda.

²⁸ Management is following up with GoU to ensure compliance with this commitment.

²⁹ This protocol was ratified by Kenya, Tanzania and Uganda in 2003, and entered into force in 2004.

45. It bears noting that Uganda is at a very early stage of electrification, with less than 10 percent of the population connected. Therefore, off-grid options are important for populations unlikely to receive grid power in the near future. With donor and World Bank support, Uganda is pursuing both grid based power (e.g., Bujagali) and off-grid solutions (since 2001, through the Bank-supported Energy for Rural Transformation Program). While off-grid solar PV systems are being used where they are most effective (small, isolated loads) solar PV is not considered a baseload option since it is non-dispatchable and only available during daylight hours. Moreover, to produce the same daily electricity as Bujagali (under low hydrology) would require a solar PV array of about 625MW (roughly 8 square kilometers), making it one the largest PV systems anywhere in the world, costing over US\$3 billion, or about 27 percent of GDP³⁰ and more than 240 percent of GoU's annual capital expenditures for 2007/2008, and producing electricity at a levelized cost of about US\$0.30/kWh – not a reasonable alternative to Bujagali. With respect to concentrating solar thermal electric options, Management notes that the climatic conditions in Uganda are not suitable for this technology; hence, it was not considered as an alternative.

46. ***The Impact of Climate Change on Lake Victoria.*** A detailed review of Lake Victoria hydrology was conducted for the Project. This encompassed an assessment of the risks, including risks posed by climate change, on Lake Victoria water levels and flows in the Victoria Nile. These risks have been thoroughly analyzed. Significantly contrasting values of Net Basin Inflows have been observed between the periods 1900 to 1960 and 1961 to 2000, and the somewhat lower inflow situation observed since 1999. The approach to hydrological risk analysis has been to adopt two separate hydrological flow release scenarios corresponding to a low hydrology scenario and a high hydrology scenario. The high hydrology scenario is based on the period 1961 to 2000 and the low hydrology scenario on the period 1900 to 1960. For the immediate future the likelihood of the low hydrology occurring has been assessed as substantially higher than the high hydrology.

47. The Economic Study concluded that the whole period of record from 1900 should be used to determine the future dependable flow for power generation at hydropower stations on the Victoria Nile. Sensitivity studies indicate that the Project's Economic Internal Rate of Return is robust against all key risk factors, including hydrology.

48. ***Accounting for Significant Risk Factors.*** Management is convinced that the Economic Analysis appropriately accounted for significant risk factors to the Project, including those of climate change risks. The Economic Analysis relied on published analyses of climate change impacts on the Nile River hydrology by Tate, Sutcliffe et al (Appendix B4 of Economic Study). This approach concluded that no significant reduction in hydrological flow is expected as a result of climate change during the life of the Project and was independently reviewed by hydrologist Professor Juan Valdes of the University of Arizona, who also did not find evidence of downside risk of climate change on Nile river hydrology. During this period, the SSEA was also under preparation, and the Project team noted that its conclusion agreed with the Tate, Sutcliffe study. Both indicated that, taking into account the uncertainties associated with any prediction, climate change is likely to increase the availability of water and runoff in the Lake Victoria Basin. Climate change would therefore potentially bring upside benefits rather than downside risks to the economics of the Project. Given all the available evidence, there was no

³⁰ At the official exchange rate.

basis for identifying climate change as a significant risk factor for the Project. Nonetheless, the adequacy of water flows on the Nile River was specifically addressed in Section E of the PAD on Critical Risks and Possible Controversial Aspects.

49. **Kalagala Offset.** World Bank OP 4.04 on Natural Habitats requires an offset in case a project will convert a substantial part of a natural habitat and after studies have indicated that no feasible alternatives exist. For this reason the World Bank Group has agreed with the GoU in the IA, dated July 18, 2007, on the Kalagala Offset (see Annex 3 for the IA).

50. Management acknowledges the Panel’s finding that an offset has been created to meet the requirements of OP 4.04. The IA for the Kalagala Offset also provides for the preparation and implementation of a Sustainable Management Plan (SMP) acceptable to IDA. This plan is currently under preparation by the National Forestry Authority (NFA) with the consulting assistance of the International Union for the Conservation of Nature (IUCN). It is being prepared in a consultative manner to ensure stakeholder concerns are adequately taken into account. In the meantime, under BEL’s SEA, enhancement planting is now ongoing in the Nile River Corridor from Nalubaale/Kiira dam complex to downstream of the Kalagala Falls, with tens of thousands of seedlings planted to date (up to 400 hectares, of which 79 have been completed, and another 125 hectares to be reforested by the end of 2008). NFA is carrying out enhancement planting, involving communities in joint forest management and establishing demonstration forest plots in order to recover degraded forest areas from the communities in the Mabira Central Forest Reserve. Additional plantings to reforest currently cleared areas of the forest reserves will be covered under the SMP.

51. An important provision of the IA is the Government’s commitment to “set aside the Kalagala Falls Site exclusively to protect its natural habitat and environmental and spiritual values in conformity with sound social and environmental standards acceptable to the Association. Any tourism development at the Kalagala Falls Site will be carried out only in a manner acceptable to the Association and in accordance with the aforementioned standards. Uganda also agrees that it will not develop power generation that could adversely affect the ability to maintain the above-stated protection at the Kalagala Falls Site without the prior agreement of the Association.” In a recent exchange, the President of Uganda reaffirmed the commitment to maintain the Kalagala offset. The importance of Bujagali is so significant for the country that it is foregoing the 450MW capacity that can be obtained from Kalagala. In addition, the GoU agreed to conserve through the SMP and a budget mutually agreed by the Government and the Association both the Kalagala area and other areas nearby (IA Section 3.06(a)). The cross default provisions of the IA, which would in the extreme allow the Bank to suspend its lending program, including the existing portfolio in the case of a default, provide powerful recourse should this be required.³¹

CULTURAL AND SPIRITUAL ISSUES

52. In its Investigation Report of the first Bujagali Project, the Panel noted that “the (Project) sponsor has acted responsibly in consulting local people, religious specialists and leaders, and has acted in good faith in attempting to mitigate the cultural consequences of losing the Bujagali Falls” (paragraph 323, Investigation Report). In addressing cultural and

³¹ See Footnote 19 for additional detail.

spiritual issues for the second Bujagali Project, Management drew on the Panel's findings and observations, including positive comments about the CPMP and the need for inclusive discussions with all religious leaders. Management believes that Project preparation has addressed cultural and spiritual issues in three ways. First, Management notes the distinction between physical and non-physical values of Bujagali Falls while also recognizing that they are linked to culture and spirits. In this regard, Management supported the Project's consultative appeasement approach. Second, the Project consistently applied culturally acceptable "closure" practices, including "appeasing the spirits," based on feedback from professional advice and extensive consultations. More than 60 consultations took place with spiritual leaders who represented wider cultural constituencies, local governments from both banks of the river, and project affected villages. Third, in 2001, the Project prepared a CPMP and BEL has continued to implement its provisions. In addition, prior to construction in 2007, the EPC contractor also prepared a separate CPMP to incorporate such issues as a Code of Practice for "chance finds."³²

53. **Physical and Non-Physical Values of Bujagali Falls.** The Panel addresses physical and non-physical values in both OP 4.11 and OP 4.04. The definition of critical natural habitats in OP 4.04 refers to "sites identified on supplementary lists prepared by the Bank or an authoritative source determined by the Regional environment sector unit." The definition goes on to say that "such sites may include areas recognized by traditional local communities (e.g., sacred groves)..." The list in the definitions of critical natural habitats, drawn from sources such as IUCN, was meant to be illustrative and to highlight the fact that certain biological assets, because of their special associations to local communities, could be considered critical natural habitats. The policy definitions in OP 4.04 do not include non-biological assets, such as rocks and waterfalls. In this context, Management notes that the *Budhagali* spirit was said to inhabit the rapids at Bujagali Falls. Indeed, project preparation activities in 1998 carefully incorporated these aspects, and included them as one of the site selection criteria. Furthermore, Management considers that OP 4.04, if triggered, allows for significant conversion of natural habitats and provides guidance on mitigation and offsets. As a result, the first Bujagali project's approach of appeasing the spirits from Bujagali Falls and other areas, based on professional advice from spiritual leaders and culture experts, was undertaken. A broad consultation process was used during the first and into the second Bujagali Project. These consultations included one on September 5, 1999 with the spiritual leader, *Nabamba Budhagali*, who, in turn, consulted with the spirits and reported that they would accept the Project, including the inundation, by completing appeasement ceremonies.

54. Management considers that the two policies address physical assets or resources that may be affected by a project and thus, if triggered, require that these be assessed for environmental impact in the EA process. Management expected that the areas of compliance noted by the first Inspection Panel report of May 2002 would be reviewed by the second Inspection Panel investigation team using the same methodology. However, there appears to be a divergence of opinions and some inconsistencies, which also reflect the diversity of views on these issues among local leaders and followers, as demonstrated in each of the Inspection Panel analyses pertaining to Busoga spirituality and culture. In fact, the first Inspection Panel investigation report, citing findings from professional studies, found no fault with the approach of appeasing the spirits.

³² "Chance finds" are unexpected discoveries encountered during the construction process.

55. With respect to the inclusion of cultural resources considerations (including those linked to natural habitats) in the identification of alternative project sites, Management learned from local experts that major segments of the Nile River with hydropower potential have spirits associated with them.³³ Thus, as noted in Appendix J of the SSEA, “impacts on historical and religious sites” was one of the site selection criteria. During the Third Stakeholder Consultation in 1999, the Project Steering Committee retained this criterion, and although it was not measured in quantitative terms, the analysis of alternatives took into consideration cultural and religious values. Following professional advice, Management also believes that the Project could not rank one site’s spiritual values above or below another’s, so all sites were considered to have similar spiritual values, as well as corresponding culturally appropriate solutions.³⁴

56. While the Panel questions Management’s focus on appropriate “closure,” it should be noted that existing documentation puts the Panel’s claims in full perspective. Chief among these are documents that chronicle the events around the September 28, 2001 appeasement ceremony. First, an extensive consultative process preceded the appeasement. Four major consultations in 2001—on June 25, July 6, July 13, and July 25—with recognized spiritual leaders and advisors (diviners) took place. AES insisted on working with these diviners, precisely because it understood that their spiritual leadership was essential to appeasing the spirit. Second, the appeasement ceremony was facilitated by the same local NGO that the Panel credits with the successful reconciliation of the spiritual attachments found in other natural sites (and resources) in the Project area (paragraph 582 of 2008 Panel investigation report). Lastly, the Project codified the appeasement ceremony in the form of a mutual agreement. On August 21, 2001, *Nabamba Budhagali* signed an Agreement for the Mitigation of Cultural Impacts and Appeasement of the *Budhagali Spirit* (“the Agreement” with AES). Among the key provisions of this 2001 Agreement were:

“For the avoidance of doubt, after providing the agreed facilitation for the appeasement ceremonies, the Company [AES] shall deem and *Nabamba Budhagali* hereby asserts that all requisite cultural ceremonies associated with the interest of *Nabamba Budhagali* within the Project Site have been satisfied, the spirits have been appeased, acquisition of the Project Site[,] construction of the Project[,] and inundation of the Culture site have been accepted by the spirits.

“*Nabamba Budhagali* shall have no more claims for re-consulting or re-appeasing the Budhagali spirit.”

57. **Closure Regarding the Budhagali Spirits.** The various diviners consulted from 1998 to 2002 agreed that “closure” was possible as a result of three actions that AES undertook based on their advice. First, the Project provided four payments for carrying out an appeasement ceremony. While the Panel correctly states that the diviners did not accept a payment of one million Uganda Shillings at the end of the ceremony, this was the fifth and final payment for the ceremony, the previous four payments to carry out various rituals, totaling 12.25 million Uganda Shillings, having been accepted. Second, the Agreement was clear that the impact from the Project would include inundation of Bujagali Falls. It should be noted that the other

³³ Richard Kayaga Gonza, *Traditional Religion and Clans Among the Basoga*, Jinja, Uganda: Cultural Research Centre, Volume I, 2002.

³⁴ Cultural Research Centre, *Ritual Gestures in Busoga*, Jinja: 2001.

religious practitioners who carried out ceremonies at about the same time signed similar agreements. The diviners clearly knew the Project impacts prior to the ceremony, even if, as the Panel asserts, the 75 followers were not as clear on this impact. Third, the documented evidence shows that one purpose of the earlier payments was to bring the 75 followers from all over Uganda, which raises questions about the Panel's statements that the Project did not reach out to a much larger group of Busoga religious stakeholders.

58. Management found that all participants in the appeasement ceremony believed it was successful, including the expert source cited by the Inspection Panel. Management also agrees with BEL's observation and commitment: "Bujagali Falls is of spiritual significance to the Kingdom of Busoga as it is a place inhabited by spirits. Cultural ceremonies were conducted by the previous project sponsor to relocate the spirits, although recent meetings with Kingdom representatives indicate that additional activities may be required to address the spiritual significance of the area prior to flooding. The Kingdom has expressed support for the Project and BEL is committed to continuing and undergoing consultations with them to determine what needs to be done prior to the flooding of the Falls" (APRAP, Appendix H, p 4, 2006). Management has understood since the ceremony that this issue was and is related to the spiritual and political issue of who truly represents the *Budhagali* spirit, as well as questions about additional resources for performing further appeasement ceremonies. Thus, BEL supported a further ceremony on August 19, 2007, two days prior to the official groundbreaking ceremony for the Project, in which the *Budhagali* spirits, appeared in 2001, were perceived to have been placed in a "permanent home."

59. In the future, the GoU, in coordination with BEL, will work with the various stakeholder groups to develop mitigation measures, including additional ceremonies, as necessary and based on experts' advice, prior to the filling of the reservoir. These measures will be reviewed by cultural specialists, and more importantly, will be implemented in consultation with recognized local and spiritual leaders (see paragraph 57). Management will ensure that the GoU, in particular MEMD, and in coordination with BEL, will update the design of the mitigation measures, based on feedback from the affected persons themselves, including the local and spiritual leaders. Some of these mitigation measures are already included in BEL's community development programs, such as establishing a cultural resource center; supporting a network of cultural and spiritual experts; and government sponsored kingdom-wide or nation-wide dialogues. Throughout the period of construction, Management will follow up with BEL to ensure cooperation on "chance finds" procedures, and cultural and spiritual matters between BEL and the GoU. Finally, with respect to individual shrines and other physical cultural resources, Management wishes to point out that these were addressed under the original project, which the Panel acknowledges in the current investigation report (paragraph 582).

60. **Consultative Approach to Cultural Property Management.** The Panel's assessment of partial compliance does not take into account the multi-layered and extensive consultations and follow up undertaken throughout preparation. Annex H of the HPP SEA lists the extensive consultations, including ceremonies, to specifically discuss cultural and spiritual issues. These consultations not only addressed archaeological aspects, but also identification and preservation of religious objects, shrines, gravesites, or buildings. For example, AES consulted, in 1999-2001: (i) specialists from the Department of Sociology and Institute of

Language at Makerere University (Uganda), who submitted a special report on cultural and spiritual significance of Bujagali Falls; (ii) members of the Traditional Healers and Herbalists Association, Malindi Wakisi Branch; and (iii) villagers and various local spiritual leaders (e.g., *Ssenkulu-Mandwa*, the diviner; *Akuba Ensaasi*, gourd rattle player; healers such as *Asandagga*, *Ayambulula*, *Agaba eddagala*, *Alumika*, *Anoga eddagala*, *Anoga era*, *Asekula eddagala*; *Mukongozzi*, the medium; *Ayunga*, the bone setter; diviners such as the *Abamayembe*; and *Abalogo*, a traditional doctor).

61. Consultation feedback and expert advice are incorporated into the Project’s two completed CPMPs. The first CPMP was prepared by Ugandan cultural experts (Synergy), who also completed several consultations with spiritual leaders and villagers. Management will follow up with GoU (MEMD and other government agencies), in coordination with BEL, to ensure that measures are added to address any additional institutional capacity building needs beyond those already committed within the CPMP; and to implement a monitoring program to ensure that mitigation measures and procedures are fully effective. In addition to OP 4.11, several lenders follow the IFC’s Performance Standard 8, which specifically requires that the cultural resources management provisions be incorporated into the overall Social and Environmental Action Plan (SEAP) for the Project. The second CPMP was prepared by the contractor, *Salini Costruttori*, in 2007, as part of the SEAP, and specifically refers to the “chance finds” procedures during the construction phase.

INVOLUNTARY RESETTLEMENT

62. ***Resettlement Activities Between the First and Second Bujagali Projects.*** Management notes that the bulk of resettlement activities for the Bujagali HPP were completed by end 2001 (except for the Kawanda substation; also, no resettlement activities were undertaken for the transmission line right of way at that time).³⁵ However, some aspects of the 2001 RCDAP had not been thoroughly completed when the Bujagali Project was approved by the Board in 2007. The APRAP was carried out by BEL in 2006 as a continuation of the resettlement, compensation, and livelihood restoration process. What remained to be finalized, as identified in the APRAP, were: (i) resolution of 24 pending contracts (out of 4,565 contracts, or less than one percent) related to land, crop, and other payments; (ii) issuance of 11 land titles (out of 101), which were still being processed by the District Land Registry; and (iii) implementation of some of the elements of the livelihood support programs under the CDAP. The first Inspection Panel findings in 2002 noted that, except for some cases of crop valuation and payments, “the RCDAP was generally in compliance with OD 4.30 on Involuntary Resettlement” (paragraph 260, p. 80).³⁶

63. Even prior to withdrawal of AES in 2003, Management and the GoU focused on ensuring that appropriate institutional arrangements remained in place for continuing support to PAPs, and that these were followed up during various field visits by Bank staff between 2001 and 2006. UETCL retained the BIU in Jinja near the dam site, which provided continuity

³⁵ The transmission line RAP was updated, reviewed, and found acceptable by IDA, and is being implemented under the separate AfDB/JICA funded Interconnection Project.

³⁶ In the associated Interconnection Project, which is funded by AfDB and JICA, there are 2,148 project affected households along the 100 kilometer transmission line corridor and right of way. The BIU estimates that of these, 209 households will be physically displaced. More than 55 percent of compensation contracts have been negotiated and signed.

between the two projects and remained in contact with PAPs. Management continuously assessed the work of the BIU during the interim period and found it to have performed adequate short-term activities using “quick fix and quick impact” approaches. Management observed that the BIU was able to: effectively resolve most of the compensation and land titling grievances; monitor service-oriented activities in the Project area (e.g., water wells); implement small-scale community development programs; secure the right of way for the hydropower facility and transmission line; and maintain an informative relationship with PAPs through monthly village consultations. In addition, the BIU was able to: establish local ownership of the community water wells through agreements with District Water Authorities for maintenance of the village water borehole pumps; complete several training sessions in business development and agriculture for women; and upgrade some secondary and tertiary roads. While these did not constitute the intended livelihood support programs outlined in the 2002 RCDAP, they nonetheless represented reasonable best efforts by the GoU/UETCL to ensure continuity in assisting PAPs until the Project restarted in 2006.

64. **Implementing Resettlement and Compensation.** Management supports BEL’s view that, although incomplete, the core elements of the resettlement and compensation components of the RCDAP as it relates to the dam site were completed prior to the time AES left the Project in 2003. First, AES finalized the cadastral and land survey, indicating a land take of 238 hectares comprised of 80 hectares (33 percent of total land take) to be inundated; 45 hectares for construction of facilities; and 113 hectares to be used during the construction period (but later reverted to agricultural and forestry uses). These are in the villages of Kikubamutwe, Namizi, and Malindi.³⁷ Second, the process of identifying PAPs was extensive. The RCDAP identified 1,288 households (8,700 PAPs) that would be directly affected by the Project. Of these, 101 households (714 persons) were physically displaced and, except for 16 households who moved to another part of their land, the remaining 85 households were moved to another location. The 1,187 non-physically displaced households were compensated for lost land, crops, trees, and other assets.

65. Third, the Naminya Resettlement Site was completed and located within 5 to 7 kilometers of the Project site, with good road and vehicular access. The replacement houses were adequately built with functional latrines; rain water harvesting systems; and other amenities like a drilled well with Orbit handpump, sub-county level 3 health center, and progress in establishing a nursery or primary school. Each resettler household was given one acre of land and land title, including an agricultural plot. The remaining 51 households were given resettlement assistance and relocated on their own. Fourth, cash compensation payments were 99 percent completed (4,539 out of 4,565 contracts). The valuation method was based on market value, plus an “uplift,” reflecting full replacement cost. Compensation covered land, permanent houses, non-permanent houses, other structures (gravesites, granaries, latrines), perennial crops, annual crops, moving costs, and communal assets (foot paths, access to the river, and communal gardens). Fifth, some livelihood support programs were undertaken, including training on money management; farm practices and cultivation methods; garden agriculture; and animal husbandry. In addition, based on the RCDAP, BEL has been able to implement the following: (i) public consultation and disclosure plan; (ii) labor force management plan; and (iii) the CPMP.

³⁷ A small land take for quarrying is in the village of Buloba.

66. **Enhancing the Socio-Economic Baseline.** Prior to the Request, Management already had identified deficiencies in the socio-economic baseline. Management concurs with the Panel’s observation that the APRAP could have obtained better updated socio-economic information on PAPs. In fact, actions have been taken to comply more strictly with OP 4.12. Specifically, in early 2007,³⁸ Management set in motion with BEL two proactive steps to enhance the socio-economic baseline. The first is through an updated socio-economic survey and needs assessment that will be completed by BEL in March 2009. The findings from this survey and needs assessment supplement the existing 2006 socio-economic database.³⁹ Management agrees with BEL that the relatively small sample size in the 2006 survey will need to be expanded, and after completion of the updated survey in 2009, BEL will use this series-data for measuring income and livelihood outcome indicators.

67. The second corrective measure is strengthening the existing socio-economic monitoring system. BEL currently prepares a quarterly Social and Environmental Monitoring report which contains a separate section on impacts of livelihood restoration and community development programs on PAPs. Based on updated 2009 socio-economic survey results, BEL will be able to monitor: (i) “before-and-after” (2004-2006) changes in income and livelihood indicators of original PAPs who were surveyed as part of the APRAP; and (ii) future impacts from a larger sample of PAPs and indirectly affected people. In this regard, MIGA’s technical assistance, which was provided in March 2008, will fund development of the database of household survey information. It will also provide capacity building for monitoring and evaluation of impacts of livelihood restoration (through records of what was done, where, how many people were involved, what materials were provided, etc.). MIGA will also support BEL in establishing a mechanism for compiling feedback from PAPs.

68. **Resolving Minimal Compensation Gaps.** As of 2006, less than 2 percent of payment contracts were unresolved. In fact, the APRAP found payments, at a rate of US\$1,235 per hectare, to be higher than the 2002 national average. The total cost of compensation was US\$9.6 million or 82 percent of the total budget. It represented an average cost of almost US\$9,600 per household, which was equivalent in 2002 to four years of a household’s yearly income, and among fishing households, which had much lower income levels, it was equivalent to twelve years of income. In addition to the need to urgently resolve the compensation claims, the large infusion of cash did cause some problems. For example, around one-third of households spent their cash on non-livelihood related expenses. Learning from this experience, BEL contracted a business oriented NGO to provide training to PAPs on money management and development of small enterprises.

69. **Completing Land Titling.** Management acknowledges the Panel’s agreement with the APRAP assessment of issuing land titles as consistent with OP 4.12. As noted in the 2006 APRAP, initially there was confusion among PAPs about resettlement plots and replacement lands purchased as part of the land-for-land exchange and cash compensation for lost crops, trees, and other assets. Despite these problems, currently only 5 percent of land titles remain

³⁸ Prior to receipt of the Request.

³⁹ In fact, this socio-economic information gap was already discussed with BIU and GoU. It was decided in 2003 that a new survey would be launched once a new sponsor was identified. However, a new socio-economic survey did not take place until 2006, under the APRAP, and by this time, BEL had difficulty locating the original resettlers.

unresolved and Management notes that this was due to delays by the District Land Registry in issuing land titles. While BEL continues to work on this issue, it has minimal control over the timetable for resolving the land titling disputes.

70. **Expanding Livelihood Support.** Management notes the Panel's concerns about the effects on PAPs of delays in providing extensive livelihood support due to delays in realizing the Project, but these have already been addressed by the Project in three ways. First, agricultural livelihood support was started during the interim period from 2003 to 2005. Resettlers were provided with selected crops, tree seedlings, and backyard animals. Starting in 2006, the program was expanded to include agricultural extension support and was accelerated at a scale of three times the original coverage, including the provision of high value crops and assistance in marketing them. As of July 2008, more than 84 percent of PAPs had participated in the program. Second, under the APRAP, BEL contracted a local NGO, Team Business College, to provide training workshops on business opportunities. These workshops covered: use of village banks; group savings among fishermen's associations; and group financing (e.g., capitalization of small fishing boats, gear, and other materials). Lastly, BEL's business resource centers on the east and west banks of the Project area will support small businesses for agricultural enhancement; fisheries improvement; and micro credits. To support these businesses, two agricultural and fish markets will be constructed by BEL.

71. More than one half (57 percent) of project affected households relied on agricultural income sources in 2006, compared to the baseline in 2001 (46 percent), so BEL continues to emphasize agricultural extension and construction of a market near the affected villages. The average annual household income from agriculture increased from US\$2,300 in 2001 (see the APRAP, page 58) to an estimated US\$4,200 in 2007 (Socio-Economic Survey, BEL Quarterly Report, July 2008). However, because the households surveyed in 2007 are not the same as those who responded in 2001, the results are not conclusive, although they do indicate positive income change.

72. **Addressing the Needs of Vulnerable Groups.** Management shares the Panel's concern about providing sustainable support to vulnerable groups. In June 2008, BEL completed a census of vulnerable people in the eight affected villages and Naminya, and found a total of 230 households, or 1,357 individuals, classified as vulnerable. BEL already identified specific programs for vulnerable people in the APRAP. First, BEL provided additional support to them beyond what they have received from compensation payments (APRAP, page 32). Priorities were given to villages with larger percentages of vulnerable people (Namizi, 25 percent; Kyabirwa, 15 percent; Ivunamba, 12 percent; and Bujagali, 11 percent). Second, BEL set up "village consultation committees" composed of local government (LC1) officials, elders or religious authorities, NGOs, and representatives from the GoU social services units. The committees have proposed activities for vulnerable households, such as counseling on matters like family, health, money management, and livelihoods adapted to their conditions. Some committees have proposed regular food support and health monitoring. BEL has also focused on orphans, especially in resolving compensation problems that arose when payments were given to their custodians.

73. **Enhancing Community Development and Benefit Sharing.** Management notes the Panel's concerns about the CDAP, and observes that BEL has already addressed these concerns in six ways. The first is the increase in the CDAP budget from US\$2.084 million in

2001 to US\$3.817 million in 2006. Coverage beyond PAPs includes four villages on the west bank (Mukono District) – Naminya, Buloba, Malindi, Kikubamutwe; and four on the east bank (Jinja District) – Bujagali, Ivunambe, Kyabirwa, and Namizi. The second is sustainability of CDAP sub-projects by involving local authorities to ensure long-term operation and maintenance arrangements, including partnerships with local NGOs. The third aspect is the focus on employment opportunities. A minimum of 10 percent of the unskilled workforce in the construction site will be recruited from local villages. More jobs are expected when tourism businesses expand, including work in small-scale tourism development.

74. Fourth, BEL continues to construct new roads and access trails and upgrade existing social services and facilities. For example, BEL rehabilitated the access road from the Naminya Resettlement Site to make the area more accessible. BEL’s support for schools and health centers covers: (i) rehabilitation of facilities, new construction or upgrades; (ii) provision of equipment or materials; and (iii) provision of incentives for operating and maintaining the facilities. Rehabilitation in five schools started in 2007-2008 (2 on the west bank and 3 on the east bank). In the Naminya site, BEL allotted one house for a resident teacher as an incentive to ensuring that the school had a qualified teacher to run the primary school. The Budondo Level 2 Health Center on the east bank was rehabilitated and another Level 2 Health Center will be constructed on the west bank. Health professionals are being provided by their respective district health agencies. Next year, BEL will construct more access trails and two community resource centers on each side of the river. These centers will provide library services; classroom training facilities; financial information and services; resettlement information and services (as part of the continuing disclosure plan); services to vulnerable people; health information; and communications access (fax, phone, internet/email, and photocopying).

75. Fifth, BEL will provide electricity connections to approximately 900 households through connections to the local electricity grid by 2012. BEL will supervise construction of low-voltage lines and subsidize connection costs for PAP households willing to pay the electricity tariffs, using supplemental financing of US\$345,000 from the *Agence Francaise de Developpement*. The electricity connections will cover the nine affected villages, including Naminya. Once the system is installed, the electricity distribution company, UMEME, will take ownership and be in charge of the operation and maintenance of the grid, metering, and billing of customers. This makes the program sustainable over the long term. BEL will sensitize the communities about the electricity grid and the meaning of the tariff, and explain that although the connection charge is subsidized, households will still be expected to pay a minimal usage fee per month. By the end of next year, it is estimated that at least 870 private connections in PAP households will be completed; the remaining 30 households, due to their location, may take a few more months to complete. BEL is coordinating this work with the Rural Electrification Agency (REA) and utilizing a New External Distribution Agreement, which REA has developed with UMEME.

76. Sixth, community development will address the PAPs’ priority for secure water supply. From 2002 to 2006, AES and BEL provided 17 water boreholes with Orbit pumps and water tanks. By 2011, 50 percent of PAP households will benefit from private water connections. As part of the supplemental funding covering electricity and water, BEL has an agreement with the National Water and Sewer Company’s (NWSC) local water agency. The NWSC plans to

construct standpoints (water kiosks) to be managed by small-scale providers who will sell water using 20 liter jerrycans at a low unit cost of US\$0.03. Long-term operation and maintenance of these water kiosks will be the responsibility of NWSC. The kiosks will be provided to communities on the condition that: (i) the community pays for the cost of water, including operation and maintenance (with the initial capital costs being subsidized); (ii) the community organizes itself to maintain and operate the pump; and (iii) women are involved in managing the facilities, including collection of water charges. BEL will assist in training local communities in maintenance, including purchase of spare parts and repair skills. The existing agreements with District Water Authorities for operation and maintenance of the water pumps in Naminya and the other eight affected villages will be updated to reflect the above conditions. In addition, BEL added the villages of Kikubamutwe, Malindi and Buloba since the Project is expected to block their access to the river during the construction period. BEL will install an additional 16 water boreholes equipped with handpumps and piped-in water supply at an affordable domestic water tariff in these villages.

77. **Supporting Tourism Related Activities.** Local authorities and BEL have agreed to implement tourism development activities. On the community level, these include specific support to cultural groups, such as traditional healers, who are participating in the creation of cultural centers which will provide a venue for cultural exhibits and performances. On the enterprise level, white-water rafting companies have submitted proposals to BEL and the National Environmental Management Agency (NEMA) indicating their planned tourism activities after the dam is constructed. Memoranda of Understanding are being finalized between BEL and tourism operators. Hoteliers and tour operators in the Project area have also agreed to collaborate to revive the local tourism association, Jinja Tourism Development Association. In the future, several programs supported by BEL are planned for smaller tourism operators (for example three-wheelers, *boda boda*, and kayak renters, food vendors, small hotels, arts and craft makers, shops). These programs, supported by BEL, include access to micro credits, training in business management, and development of alternative tourism activities and sites, in addition to infrastructure and facilities. The infrastructure will include: construction of a “Bujagali Visitor Dam/Interpretation Center,” to be completed by around 2010; a museum and cultural center (in coordination with the NFA and other operators); a main tourism site with picnic area, car park and visitor center, a campsite and an upscale hotel facility; a community museum and cultural heritage center with residences (*bandas*) to be constructed on a chosen site in the Project area (including a showcase garden with traditional and medicinal plants, a picnic, camping and relaxation area, an area for meetings and retreats, a landing site for fishermen to display their catches, and display and sale of traditional arts and crafts); and a Bujagali Picnic Site situated close to Jinja. All of these initiatives are covered in BEL’s Tourism Strategy, which includes cost estimates for financing the above mentioned activities. Implementation of the strategy will be carried out in cooperation with local communities, tourism organizations such as the Uganda Tourism Board, Uganda Tourist Association, and the Ministry of Tourism, Trade and Industry.

ENVIRONMENTAL ISSUES

78. **Comprehensive Environmental and Social Analyses.** Environmental and social analyses and programs for the Bujagali HPP and the Interconnection Project are founded on the information and guidance accumulated during the extended development period of the Project.

Consistent with the Bank’s policies and the recommendation of the previous Panel report, the Bank supported preparation of the SSEA to address the broader power development issues in the Nile Equatorial Lakes Region, and BEL conducted Project-specific SEAs. Practical considerations have led to some relevant analyses being included in both the sectoral SSEA and the Project-specific SEAs, among these, assessments of cumulative impacts and alternatives. Management agrees with the Panel’s concerns that the presentation of issues could have been strengthened by more clearly showing the inter-relationships and entire suite of documents that constitute the studies. That said, Management considers the overall analysis to be substantive and comprehensive.

79. ***Adequate Analysis of Cumulative Impacts.*** BEL responded to the Bank’s OP 4.01 requirements by expanding the assessment of cumulative impacts which would normally be conducted for a private sector project beyond the Project area, to encompass the 320 kilometer reach of the Victoria Nile River between Lake Victoria and Lake Albert. The analysis took into account other initiatives such as the Kalagala Offset and the other foreseeable hydropower project, Karuma, also on the Victoria Nile but physically separated from Bujagali by Lake Kyoga. Lake Kyoga’s location 110 kilometers below Bujagali was found to limit any downstream cumulative effects from Nalubaale and Kiira and Bujagali. Thus, Management believes that its analysis addressed cumulative impacts in a meaningful way, while acknowledging that inclusion of additional detail and cross-referencing to analyses elsewhere in the SEA would have strengthened the presentation.

80. The general configuration of the Bujagali Project and the interconnecting transmission lines to Kampala have been known for many years, and many governmental and individual planning decisions have been made on that basis. While recognizing this reality in its planning of the Project, BEL nonetheless conducted a thorough review of technical needs and current conditions in the Project area of influence. Changes in local land use and electricity load requirements dictated minor changes to the transmission line route in the Kampala area from the one selected by the previous sponsor in 2001. Based on the updated analysis undertaken, expansion of the existing power line wayleave⁴⁰ through the buffer zone of the Mabira Central Forest Reserve remained the best option.

81. The Panel has expressed concern that the Interconnection Project SEA does not adequately address the cumulative effects of the transmission lines, and that the cumulative loss of forest habitat from the Project’s transmission line has not been determined. Because of security reasons for the country’s power supply and constraints on the construction of the new Transmission Line, UETCL does not allow overlapping wayleaves. However, in order to minimize impacts on protected forest areas the wayleave for the new Transmission Line was reduced from 40 to 35 meters (total wayleave width including wayleave width of existing transmission line will be 65 meters). In its use of locally available expertise, BEL engaged researchers at Makerere University in Kampala to examine the new transmission line alignment in the context of an expansion of the existing wayleave in the Mabira Central Forest Reserve. These researchers concluded that the forest loss is not expected to result in major impacts on terrestrial ecology, and that improved management of Mabira could actually compensate for the loss. Based on this advice, UETCL has offset the impact through payments

⁴⁰ The wayleave is the 40 meter wide corridor in which the new Transmission Line will be constructed, while the right of way is the 5 meter wide strip used for maintenance and in which no economic activities are allowed.

– covering both ground rent and incremental costs – to the NFA to support its programs as part of the broader management plan for Mabira. In addition, the World Bank Group is currently working with the NFA in its development of a SMP for the Reserve that is expected to result in a net improvement in the extent and quality of forest within the Mabira Central Forest Reserve.

82. **Environmental Management Plans.** Timing considerations related to the selection of EPC contractors restricted the level of detail regarding Environmental Management Plans (EMPs) that could be presented in the SEAs. Under a private sector EPC arrangement, responsibility for environmental and social management during construction is primarily the responsibility of the EPC contractors, with oversight by the Project owner. The SEAs included framework programs and details of management, mitigation, and monitoring actions to the extent that they were known at the time (December 2006). Detailed EMPs have since been prepared, and have been reviewed and accepted by the Bank. The approach taken fulfills the intent of the Bank’s OP 4.01.

83. In addition, BEL’s management team includes professional Ugandan specialists who were key participants in SEA preparation to oversee and monitor the EPC contractors’ implementation of the EMPs. BEL has also maintained the Project’s long-term relationship with the Ugandan National Fisheries Resources Research Institute to conduct the regular monitoring of water quality, aquatic ecology, fisheries and public health included in the EMP. This continuity of key in-country experts is expected to extend into Project operation.

ECONOMIC AND FINANCIAL ANALYSIS

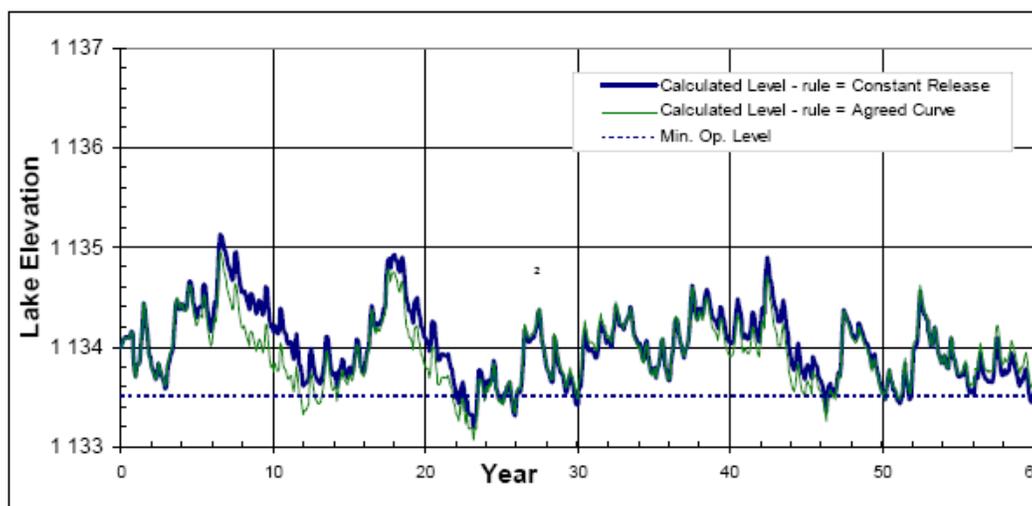
84. **Thorough and Complete Economic Analysis.** Management believes that a thorough and comprehensive Economic Analysis was carried out for this Project in accordance with OP 10.04 and OP 4.01. Annex 1 deals with questions regarding small and medium scale project alternatives, and climate change risk under Items 12 and 13.

85. **Constant Release Analytical Approach and the Agreed Curve Implementation.** The Panel has opined that there is a discrepancy between the PAD and the Economic Study with regard to the water release rule to be applied at the Nalubaale/Kiira dam complex: whereas the former relies on the Agreed Curve for its analysis, the latter uses a “Constant Release” analytical approach, which the Panel contends could have material implications for the Lake Victoria levels and for the Project’s economic viability. With regard to the Lake levels, the analysis determined that both the “Constant Release” and Agreed Curve methodologies come to analogous conclusions. As shown in the diagram below, lake levels are similar when using the “Constant Release” approach for analysis of the Project under the most likely scenario (low hydrology, which is also the base case for the Project). Neither is the Project’s long run average energy generation changed significantly. It is only under the high hydrology scenario that a significant difference emerges between the two release rules, and this is only beyond 20 years of Project operation (see page 48 of the Economic Study).⁴¹ Therefore, the Economic Study has adopted the “Constant Release” as an analytical tool that simplifies long-term projections of the Project’s energy output. The PAD and the Economic Study are consistent in using the two hydrology scenarios developed for the purpose of the Economic Study.

⁴¹ Note that 1900-1960 is the reference period for the low hydrology scenario, whereas 1961-2000 is the reference period for the high hydrology scenario, in accordance with the findings of the Economic Study.

Management reiterates that the “Constant Release” is used only as a simplifying analytical tool and neither the Government nor the Bank has advocated the use of “Constant Release” instead of the Agreed Curve regime.

Figure 1. Lake Victoria Level in the Case of Low Release – Low Hydrology Scenario (Reference Period 60 years from 1900 to 1959)



Source: Economic Study, page 48.

86. **Climate Change Risk.** The Panel acknowledges that the SSEA has thoroughly assessed climate change risk in hydropower projects on the Victoria Nile, but states that the SSEA has not been properly disclosed as a Project document. However, this overlooks the Management Action Plan response to the Panel investigation of the first Bujagali project, wherein it was explicitly indicated that the SSEA would be a freestanding document, addressing the entire sub-region, not just Bujagali. The SSEA was made public in April 2007; it is referred to in the PAD and there is a link on the Bank’s Bujagali website to the Nile Basin website where the SSEA can be found. (www.worldbank.org/bujagali).

87. **Treatment of an Unproven Oil Resource Discovery.** The Panel states that 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 existence and potential of this resource should have been reviewed in the discussion of alternative supply options. Management notes that at the time of the Economic Study, the GoU had not yet disclosed the extent of the oil discovery. Management considers that it would have been inappropriate to compare an unproven domestic oil resource to proven hydropower and other energy resources. Oil-based thermal generation candidates were included in the analysis; but it was assumed that the associated oil products would be imported. In the PAD, the Project team noted that the probability of some domestic oil production in Uganda had increased (see page 86, footnote 5 of the PAD). However, the key point from an economic perspective is not the source of the fuel, but its price. The comprehensive economic risk analysis conducted in the Economic Study indirectly addresses the risk of substitution of imported fuel with domestically produced and refined fuel oil, under the low oil price scenario.

88. **Impact on Low Income Households.** The Panel states that it 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. Management considers that the impact of the Project, both direct and indirect, on low-income households is covered implicitly in the Project documents. Less than 10 percent of Uganda's households currently have access to electricity and these consumers tend to be the better off. Through willingness to pay analysis, the Economic Study shows that households that are currently not connected to the main power grid usually pay more for substitutes such as batteries or petrol generators. Therefore, by providing incremental power generation, the Project will enable more households to be connected to the grid, spreading the benefits of electricity access down the social pyramid. Furthermore, over 60 percent of electricity sales are destined to commercial and industrial users. By meeting their needs for electricity, the Project will help to create jobs and stimulate economic activity, which ultimately benefits low-income households. Management wishes to highlight that the objective of this Project is "to add least-cost power generation capacity that will eliminate power shortages." The Government is pursuing other projects specifically aimed at expanding both off-grid and grid-based rural access to electricity to commercially viable consumers (the Energy for Rural Transformation Program). Similarly, UMEME has intensified its efforts to connect commercially viable consumers, though this program has been hindered by the lack of adequate and reliable electricity.⁴²

89. **Financial Analysis.** Management has taken note that the Inspection Panel report has not raised any issues of non-compliance with OP 10.04 concerning the PAD's Financial Analysis, though it has expressed opinions to which Management would like to respond.

90. The Panel Investigation Report in paragraph 385 suggests that two statements made in the PAD's Power Sector Financial Analysis Section⁴³ "*appear(s) misleading and seriously at odds with the projected revenue stream of the Bujagali project.*" Management believes that the financial analysis undertaken for this Project has been conducted in a manner consistent with OP 10.04. Management considers that the Panel's analysis contained in paragraphs 387-389 of the Investigation Report is inaccurate, and thus leads to incorrect conclusions. The reasons for Management's views are discussed below.

91. In paragraph 112 on page 34 of the PAD, the financial analysis and projections carried out for the Ugandan power sector state that, "Electricity tariffs would be fully cost reflective by [2011] and subsidies would be removed, except for duty exemptions on generation fuel and transmission investments," based on the Base Case assumptions and as documented in the PAD. With regard to the overall direct support by the GoU to the sector, the PAD (paragraph 115 on page 36) demonstrates that in the Base Case, "the power sector will be a drain on the Treasury until the Project is commissioned, but a net contributor thereafter." These statements are based on calculations performed by the Power Sector Financial Model (PSFM), which simulates the financial situation and prospects of the Ugandan power sector during 2007-2016.

⁴² Management continues to assess poverty and social impacts in the energy sector by financing the Ministry of Finance, Planning and Economic Development and Uganda Bureau of Statistics survey of 1,500 businesses and 17,500 households. The objectives of these surveys are to analyze the implications of the energy crisis on Ugandan businesses and poor households. The survey results will be submitted to Parliament in March 2009 as part of a planned discussion of energy policies and programs.

⁴³ PAD, page 34, paragraph 112 and page 36, paragraph 115.

The PSFM takes into account all current and future revenue requirements of the entire power sector, including the revenue requirements for the Bujagali hydropower plant and the Interconnection Project (transmission line) at the time of Project appraisal. Consistent with least-cost power planning principles, the calculation of total annual sector revenue requirements also includes all sector costs arising from other transmission and distribution investments that are needed to ensure that power can be evacuated efficiently and effectively throughout the grid, as well as assumptions on the future levels of annual losses and collections. Furthermore, the PSFM has calculated several sensitivities, including one scenario which assumes lower improvement levels of the future collection rates and levels of technical and non-technical losses. Those sensitivities and their impact on the projected end-consumer tariff path have been described in the PAD (Section F of Annex 12).

92. ***Bujagali Financial Model.*** The annual revenue requirements for the specific Bujagali hydropower plant were calculated in a separate second financial model (the “Bujagali Financial Model”). This model assesses the investment costs and financing needs that arise from the Project’s structure and is based on the Project’s contractual agreements. The Base Case revenue requirements for the Bujagali HPP have been presented in the PAD in the form of lump sum annual figures (PAD Annex 11, paragraph 10) and in the form of an average annual nominal price per kWh (“*Nominal Tariff*,” see PAD, Section IV.B, Table 5), to provide the reader with a cost comparison analysis. This Nominal Tariff should neither be confused with the Bulk Supply Tariff that UETCL will charge the distribution company for sale of power, nor with the sector’s overall end-consumer retail tariff. The Bujagali Financial Model also calculated the overall discounted 30 year average price that is based on the individual annual Nominal Tariffs for the Bujagali Project to provide a standardized cost benchmark for the Project. This discounted average figure is the “*Levelized Tariff*” which is also documented in the PAD, page 30, Table 5.

93. Based on the different revenue requirement input parameters, the PSFM in the Base Case simulates a financing plan for all those revenues. One part of the revenue requirements would be financed by direct and indirect subsidies committed by the GoU to the power sector. The remaining balance is to be financed by end consumers through the electricity retail tariffs. The required level of annual average end consumer retail tariffs was derived from that analysis and led to a projected tariff path as documented in PAD Figures 3 and 12.2.

94. ***Financial Foundation of the Electricity Sector.*** On the basis of those annual average electricity tariffs and with the direct subsidies committed by GoU until the Bujagali HPP is commissioned, the electricity sector would be financially whole under the assumptions of the Base Case as simulated for the period 2007-2016. These calculations and their outcomes are the foundation upon which the conclusions presented in PAD paragraphs 112 and 115 are based, and Management believes that the calculations performed in both financial models are correct and the conclusions are accurate. In March 2007, the region undertook an independent “Quality Enhancement Review”⁴⁴ of the Project, including the financial analysis, which concluded that the analysis was robust.

⁴⁴ Management placed extraordinary emphasis on this project’s Quality Enhancement Review. An external consultant was retained to chair a nine member Review Panel, under Terms of Reference prepared by the Task Team and approved by Management. Panel members were drawn from throughout the Bank, based on their

95. **Calculation of the Base Case.** Management considers that the Investigation Report applies an incorrect calculation to verify whether, in its opinion, the Project would be financially sustainable in the Base Case. This is discussed below.

96. In paragraph 388 of the Panel’s Investigation Report, the Inspection Panel states that the “PAD also shows that in a high hydrology scenario, Bujagali’s lifetime (30 years) capacity charges could be recovered through a levelized bulk supply tariff.” Management wishes to clarify that nowhere in the PAD has it been suggested that the estimated hydropower electricity tariff in *levelized* terms would be sufficient to recover Bujagali’s lifetime *nominal* revenue requirements, nor does the PAD suggest that “a levelized tariff will be set” (as stated in paragraph 389 of the Panel’s Investigation Report) over the lifetime of the PPA. As described in PAD Annex 6, paragraph 7, “the monthly payments for available capacity on the basis of a capacity payment, [will] be calculated in accordance with the terms of the Power Purchase Agreement (PPA).” In that same paragraph the PAD also makes it clear that “the PPA does not include specific amounts for the capacity charge since this will be based on certain variables which can only be determined upon the commissioning of the Project (e.g., allowed Project costs), while others will need to be established on a monthly basis (e.g., availability).”

97. Thus the Inspection Panel’s analysis assumption that a “*tariff will be set*” (paragraph 389 of the Panel’s Investigation Report) for the lifetime of the PPA is incorrect, because only a capacity payment formula has been established for the lifetime of the PPA which “*clearly defines the costs which will be passed through to the tariff*” (PAD Annex 6, paragraph 7). Also, the *Nominal Tariff* required in any given year is not necessarily the same as the *Levelized Tariff* estimated for the life of the Project as shown in the PAD, Figure 2 and Table 5 (page 30). Specifically, the *Nominal Tariff* is higher than the *Levelized Tariff* in the early years of the Project while debt is being repaid and decreases to less than the *Levelized Tariff* in the later years.

98. Despite the detailed explanations in the PAD, including a description of the contractual agreements pertaining to the PPA, the Inspection Panel’s Report sought to calculate the “*annual payments [...] which UETCL would need to recover through the Bulk Supply Tariff*” (Panel’s Investigation Report, paragraph 387) by multiplying the estimated annual GWh output of the plant with the *Levelized Tariff*. Based on this incorrect assumption, the discounted average revenue figures were netted with the annual nominal *Revenue Requirements* documented in PAD Annex 11, paragraph 10—and the mathematical outcome leads to an erroneous conclusion of revenue shortfalls in several early years of the Project.

99. On the basis of the above explanations, Management believes that the financial models of the Bujagali Project and of the integrated power sector and their outcomes described in the PAD, Section IV as well as Annexes 11 and 12 are accurate and appropriate.

POWER PURCHASE AGREEMENT

100. The Inspection Panel has commented on the risk allocation under the PPA and its potential impact on the Project’s ability to achieve the broad objective of sustainable

recognized expertise and experience. The Panel chair coordinated the Panel’s work to ensure complete coverage at the Review Meeting, chaired by the Africa SDN Sector Director, as well as preparation of a summary report.

development and poverty reduction sought in Bank policies. Management would like to respond to these concerns which it believes are unfounded.

101. The Inspection Panel in paragraph 420 of the Investigation Report summarizes its opinions, raising the following concerns: (i) high allocation of risk to UETCL, the power purchaser, and eventually the GoU, which increases the possibility that the Project may or may not achieve the broad objective of sustainable development; (ii) increased possibility of a call on the IDA guarantee; and (iii) any additional resources spent by GoU on the development and operation of the Project possibly leading to decreased resources being available for social and other development priorities.

102. **Private vs. Public Sector Project.** Management believes that the Panel’s criticism, described in paragraphs 397 to 420, does not consider that the counterfactual to undertaking the Project in the private sector would be to undertake the Project in the public sector. This would imply full financing from the GoU, thereby diverting a significant order of magnitude of financial and human resources from other sectors (e.g., social sectors) that are unable to attract private sector resources, and yet are key to sustainable development. More importantly, a public sector project would have fully transferred all the Project risks (i.e., development, financing, construction⁴⁵ and operation) to the GoU.

103. **Risk Allocation Framework.** The GoU has used an overall risk allocation framework consistent with international practice for private project financing, which allows it to transfer key project risks to the private sector, following the principle that the risk should be borne by the entity best able to manage it. Therefore, the general principles followed in the structuring of the Project were: (i) all key contracts and services were competitively bid, and paid at the prices received through the competitive bidding process; (ii) any changes in the competitively bid prices would need GoU concurrence and were a part of the lenders’ oversight; future changes (if any) would result in a penalty borne by the Project company; (iii) key areas of expenditure that were not competitively bid, such as the Project development costs incurred by the sponsors, were capped at the outset for tariff purposes; and (iv) under the agreed PPA and EPC contract, financial penalties are to be levied to ensure optimal performance. These are consistent with current international market practices for projects of this nature.

104. **EPC Costs.** In comparing the “cost basis” and risk allocation in paragraphs 400 and 405, the Panel seems to have overlooked some distinct differences between the first and second Bujagali projects. While AES was given a sole sourced contract and was not required to procure the EPC through a competitive bidding process, the process initiated by GoU in 2005 was a two stage competitive process. In the first stage, the developer was selected competitively on the basis of the amounts bid for key cost elements such as: (i) a cap on the Project company’s development costs allowed in the Project tariff; (ii) the return on the equity component of the Project tariff, which could not be changed thereafter; and (iii) the annual operation and maintenance costs for the life of the Project. In the second stage, the selected developer conducted a competitive bidding process for the selection of the EPC contractor. In

⁴⁵ While private sector limited recourse projects have generally been constructed on schedule, historically, public projects, especially hydropower projects, have generally had substantial cost and time overruns (World Bank Technical Paper No. 325 (Energy Series) – Estimating Construction Costs and Schedules, Experience with Power Generation Projects in Developing Countries, August 1996).

this respect, it should be noted that the EPC costs represent approximately 65 percent of the total Project costs. Also, the equity remuneration component, a key component of the tariff in addition to the cost of debt, was competitively bid. Therefore, the competitive bidding process addressed key cost parameters of the Project. It is also important to note that the selection of the EPC contractor was carried out according to EIB guidelines and under its oversight. Hence, unlike in the case of AES, there was no need for a cap as these costs were established through a transparent bidding process.

105. Paragraph 402 of the Panel’s Investigation Report states that “*BEL has considerable scope to shape the base costs and in some cases the increases too, to deliver a higher capacity charge.*” The paragraph also alludes to the pass through of EPC cost increases. Per the requirements of the PPA, the EPC cost was firmed up at financial closure and includes full adjustments for changes in costs that are outside the control of BEL or the EPC contractor. These are: (i) increases or decreases in costs due to changes in ground/subsurface conditions; (ii) costs resulting from ‘force majeure’ events; and (iii) costs on account of modifications to plant and civil works specifications (which are primarily provided by the GoU). In case of any other increases in EPC costs, 70 percent of such increases would be passed through in the tariff and the remaining 30 percent would have to be absorbed by BEL. This provides adequate incentive for BEL to ensure that such changes to the EPC costs are minimal since the contractor would get the full benefit of such an increase while BEL would have to absorb 30 percent of the costs against its equity return. Schedule D of the PPA (pages D-6 and D-7), defines the categories of costs which are treated as full pass through items for tariff purposes. These are primarily costs that are not defined upfront (e.g., the costs related to financing, licenses, etc.) or non-EPC costs beyond BEL’s control.

106. Paragraphs 406 through 415 of the Panel’s Investigation Report refer to a variety of risks and their consequences. These are discussed below.

107. **Capital Cost Escalation.** The capital cost for the purposes of the tariff is calculated based on parameters defined in the PPA. The intent of the Panel’s comments is not clear. The impact of the capacity charge on the sector revenues has been thoroughly assessed and discussed under the financial analysis section of the PAD.

108. **Currency Depreciation.** It is normal in private sector projects for the price of power produced at the power station to be denominated in hard currency. Unless there are long-term hedging arrangements available in the country, which allow projects of this nature to obtain long-term financing (e.g., 15 to 20 years, as in this case) in local currency terms or a sufficiently deep local financial market that can provide these maturities, this risk has to be passed to the off-taker through the tariff. This is because neither the Project companies (which are generally special purpose vehicles), nor the contractor or lenders are in a position to manage or absorb such a risk. Availability of long-term financing for projects of this nature (i.e., projects with a long gestation) is key in order to allow for the long-term recovery of Project costs and an affordable and sustainable tariff. Furthermore, if the GoU were building this Project as a public sector operation, it would bear all the foreign exchange risks of the Project.

109. **Low Demand Growth and Affordability.** The aspects of demand growth, sector financials as well as affordability have been presented in detail in the PAD (Sections IV.B,

IV.C, Annexes 9, 11 and 12). As explained in the section of this report dealing with economic and financial analysis, Management believes that these analyses are consistent with the requirements of OP 10.04.

110. **Construction Delays.** The Panel’s statement in paragraph 413 of the Investigation Report warrants reconsideration as under the contractual arrangements, Project cost increases only on account of construction delays would not be passed through the PPA. While the Project company would be protected should there be construction delays caused by the actions of the GoU or its entities, delays caused for any other reasons would result in penalties being paid by BEL to UETCL (which, in some cases, BEL may be able to recover from the contractor through the EPC contract). Therefore, a delay in itself (without a corresponding change in the scope of work of the EPC) does not necessarily translate into additional Project costs for tariff purposes. However, if a delay were to occur due to a BEL-approved change order in EPC, then such EPC costs would only be partially passed through in the tariff, as described above. Also, if such increased costs were, for example, due to a change in ground/subsurface conditions, such costs would be fully passed through in the tariff.

111. **Plant Operation.** The PPA defines the level of availability at 95 percent in the first year of operation and 96 percent from the second year of operation onwards. The PPA in section 5.4 spells out the methodology for adjusting the payment in case of any shortfalls in plant availability.

V. MANAGEMENT’S ACTION PLAN IN RESPONSE TO THE FINDINGS

112. In light of the foregoing, Management has prepared an Action Plan (Table 2) to address key past and ongoing problems, in particular with respect to institutional capacity, social and cultural aspects, and environmental mitigation measures of the Project. A World Bank mission discussed the broad features of the Action Plan with the Requesters on October 3 and 24, 2008. The Requesters welcomed the establishment of the Project Monitoring Committee as well as the GoU’s commitment on the CPMP, while at the same time reiterating the full extent of their original Request for Inspection. Representatives of the Naminya Resettlement Areas also participated in the consultations on October 24th. In general, these representatives expressed strong appreciation to BEL, and confidence that BEL will satisfactorily and consultatively address outstanding issues. For example, with respect to the impacts of blasting and associated mitigation measures, BEL has commissioned a study that was publicly discussed on October 26, 2008 prior to its finalization and submission to NEMA. The Requesters raised the following main points at the meeting: the environmental impacts of Bujagali, notably its effects on aquatic life and the fishing industry; possible costs to Ugandans if electricity output from Bujagali is below projections; and the ethical dimensions of Bujagali as a development model.

113. With respect to fisheries, BEL noted that there has been considerable study of fish populations in the upper reaches of the Nile that will be affected by the project, and that major impacts are not expected. Nevertheless, BEL will continue monitoring of impacts on the aquatic ecosystem, fisheries, and public health in the Project area. BEL also described the support being provided to the fishing industry, including the supply of a boat, nets, and other equipment. With respect to the unit cost (i.e., cost per kWh) of Bujagali power under low hydrology, it is acknowledged that the unit cost will vary with the hydrology. However, it is

reasonable to expect that over the life of the hydropower station, hydrology patterns will continue as in the past 100 years or, if climate predictions prove accurate, that water flows will increase. Therefore, extended low hydrology/high unit cost periods are unlikely. In the event such an extended event does occur, the Project legal agreements include provisions for the GoU to buy out BEL. On the question of ethics, it was noted that virtually all development investments invoke ethical and moral choices. Uganda’s dynamic democratic system provides an appropriate forum for debate and decision making incorporating the ethical and moral dimensions of the issues. In the case of Bujagali, the GoU has decided to proceed with development.

Table 2. Proposed Plan of New Actions	
ISSUES	ACTION
General	
Institutional Capacity	<ul style="list-style-type: none"> Management will follow up on NEMA’s commitment to establish a Project Monitoring Committee; and will follow up on strengthening of capacities of BEL’s Environment and Social Unit (ongoing).⁴⁶
Social Impact Assessment and Mitigation Measures	
Vulnerable Groups (OP 4.12)	<ul style="list-style-type: none"> Management will follow up on BEL’s programs, with timetable and targeted activities, to address needs of vulnerable groups (ongoing).
Cultural and Spiritual Values	
Physical Cultural Resources and Cultural Property Management Plan (OP 4.11)	<ul style="list-style-type: none"> Management will follow up on GoU commitments to ensure that the required capacities and resources are in place for the Government (coordinated by MEMD, and including Local Councils) to update the CPMP (which was part of the 2002 RCDAP) by June 2009; and BEL will incorporate into this update the EPC contractor’s Code of Practice (which is covered in the 2007 CPMP developed by the contractor) for “chance finds” procedures.
Environmental Assessment and Mitigation Measures	
Independent Panel of Experts (OP 4.01 and OP 13.05)	<ul style="list-style-type: none"> BEL will review the Environment and Social Independent Panel of Experts (PoE) reports and disclose them by end-2008.

114. **Supervision.** Management notes that an intense supervision regime has been established for this Project, including semi-annual Lenders’ Supervision Missions (March and October) in which all Project lenders may participate. At least two more Uganda energy missions are conducted annually during which Bujagali issues are addressed as required. Management has also fielded additional targeted missions on an as-needed basis to address specific issues as they arise. Moreover, the Kampala country office is staffed with both a social specialist and an environmental specialist, whose work programs include Bujagali. Management notes that in most instances, the concerns raised by the Requesters and Panel are areas in which Management, GoU, and BEL have already invested analysis, resources, and actions to address these issues. As a result, the response to these concerns commenced prior to the Request and, where appropriate, have been embedded in ongoing Project supervision. Therefore, in addition to the actions listed above in Table 2, Management wishes to ensure that

⁴⁶ See Item 3 of the Matrix in Annex 1.

the full record also shows key actions that are already part of ongoing supervision. These key actions are in Table 3 below.

Table 3. Ongoing Actions and Supervision	
ISSUES	ACTION
General	
Institutional Capacity	<ul style="list-style-type: none"> Management will follow up on coordination arrangements of the MEMD Project Inter-Agency Coordination Committee; and NFA's implementation capacity for the SMP for the Kalagala Offset and Mabira Central Forest Reserve.
Social Impact Assessment and Mitigation Measures	
Remedial Steps for Updating and Completion of Baseline Socio-economic Information (OP 4.12)	<ul style="list-style-type: none"> Management will ensure that findings from the socio-economic survey (which will be completed by March 2009) are integrated into the CDAP by BEL in its design of sub-project activities; and reported in BEL's Quarterly Environment and Social Monitoring. BEL will enhance its database of household survey data and capacity building for monitoring and evaluating impacts of livelihood restoration and community development (ongoing); and through technical assistance (from MIGA) to BEL, will improve the socio-economic database.
Sharing of Project Benefits (OP 4.12)	<ul style="list-style-type: none"> Management will follow up with BEL on yearly updated needs assessments that are used to adjust CDAP activities, responding to PAP priorities (ongoing).
Environmental Assessment and Mitigation Measures	
Environment Management Plan and Kalagala Offset (OP 4.01)	<ul style="list-style-type: none"> Management will monitor progress of BEL's ongoing afforestation activities (79 hectares completed; additional 125 hectares by end-2008; 196 hectares by end-2009) as part of the EMP jointly implemented by BEL, District Environmental Officer, District Forest Officer, and LC1 (ongoing). Management will follow up on completion by NFA of the SMP for the Kalagala Offset, which includes the Mabira Central Forest Reserve, by June 2009, including tourism development program (ongoing).
Cumulative Impacts; Climate Change and Hydrology Risks; Potential Impacts on Lake Victoria; Alternative Project Configurations (OP4.01)	<ul style="list-style-type: none"> Management will follow up on GoU's commitment to disclose the Lake Victoria hydrological (water releases) information and make it available to the EAC (ongoing).

VI. CONCLUSION

115. Management believes that the Bank is making every effort to apply its policies and procedures and to pursue its mission statement in the context of the Project. Management notes the Panel's findings and is committed to fulfilling the Management Action Plan described above and to supervise and monitor the implementation of environmental and social policies

and procedures. Management believes that the proposed Action Plan addresses the Panel's concerns. Management plans to report to the Board on the progress of its proposed Action Plan a year from now.

**ANNEX 1
FINDINGS, COMMENTS AND ACTIONS**

No	Issue/Finding	Para nos.	Comment/Action
ENVIRONMENTAL ISSUES			
1.	<p>Adequacy of the Social and Environmental Assessments Project has appropriately been classified as category “A”, the category for projects with the most serious level of impacts. <i>This complies with OP 4.01.</i></p>	119-123	<p>Comment: Management acknowledges the Panel’s finding of compliance with OP 4.01 regarding the environmental screening of the Project as Category A.</p>
2.	<p>Environmental Management Plan The fact that the Environmental Management Plan is not an integral part of the SEA that has been disclosed is a deficiency. <i>This is not in compliance with OP 4.01.</i></p>	124-125	<p>Comment: Management notes that detailed EMPs are not included in the SEAs; however, this is consistent with the approach taken in private sector projects and with the timing of key planning elements. In large private sector infrastructure projects, the SEA report contains a comprehensive framework EMP. A detailed EMP can only be prepared when the EPC contractors, who have the main responsibility for environmental management, have been selected and the contract signed (in December 2007 for BEL).</p> <p>At the time of SEA preparation, in December 2006, BEL, the Project sponsor, had not yet selected the EPC contractor for the hydropower project, nor had UETCL selected the contractor for the transmission line component. The December 2006 SEA included comprehensive framework EMPs, called Social and Environmental Action Plans (SEAPs) in this case; the details of management, mitigation, and monitoring actions were to be subsequently reviewed and updated by the EPC contractors and subject to review. The SEAPs also included estimated budgets for planned implementation and capacity building measures. Once the EPC contractors were engaged contractually, they worked in parallel with BEL to develop detailed SEAPs. These were reviewed and found acceptable by World Bank Group staff and NEMA.</p> <p>Management believes that the approach taken – framework EMPs in the EA document, followed by detailed EMPs once contractors were selected – fulfills the intent of OP 4.01 and is consistent with global best practice.</p> <p>Action: No action is planned beyond ongoing supervision.</p>
3.	<p>Institutional Capacity The requirement to support needed capacity building, which is important in the implementation of social and environmental aspects, <i>has not been complied with in this Project.</i></p>	126	<p>Comment: Management has assessed and adequately accounted for NEMA’s capacity building needs through another Bank-supported operation. BEL and UETCL have recruited qualified staff to ensure they have satisfactory social and environmental capacity. These actions meet the capacity building needs identified at the concept stage of the Project.</p> <p>A stand-alone Partial-Risk Guarantee will normally not provide financing for environmental and social management capacity building. However, since 1994, the World Bank has provided financial support through the Environmental Management and Capacity Building Project to NEMA for capacity building in environmental legislation/regulations and in environmental and social management. This program continues to perform satisfactorily, and the Board has recently approved Additional Financing to deepen its positive impact. While a stand-alone technical assistance project had been anticipated in 2002, given the ongoing technical and operational support to NEMA, further strengthening of the agency in the context of the Bujagali Project was not required. Capacity building for the MEMD and other energy sector stakeholders is also being financed through Bank-supported operations such as the Power Sector Development Operation and the Energy for Rural Transformation Program. Moreover, through the Nile Basin Initiative, Uganda and its riparian partners are receiving considerable support for capacity building, for</p>

No	Issue/Finding	Para nos.	Comment/Action
			<p>example through the Shared Vision Program, the Nile Transboundary Environment Action Project and the Confidence Building and Stakeholder Involvement Project.</p> <p>BEL has hired a highly qualified Ugandan environmental and social manager, who is supported by one professional environmental manager, one social manager and 10 field environmental/social staff. UETCL also has a professional environmental and social management team of 12 staff in the office and 16 staff in the field. The EPC contractor has its own environmental manager. Management considers the complement of specialists to be adequate.</p> <p>Action: Management will follow up on NEMA's commitment to establish a Project Monitoring Committee, and follow up on strengthening the capacity of BEL and BIU's Environmental and Social unit. In the course of normal supervision, Management will follow up on coordination arrangements of the MEMD Project Inter-Agency Coordination Committee.</p>
4.	<p>Independent Panel of Experts As Project is contentious and involves environmental concerns, appointment of environmental panel of international experts is warranted and the lack of such panel is <i>not in compliance with OP 4.01.</i></p>	127	<p>Comment: An Environment and Social Independent Panel of Experts was established in 2006 for the current Project. It follows a similar panel that served for the first Bujagali project. This satisfies the requirements of OP 4.01.</p> <p>For the first Bujagali project, a three-member independent Environmental and Social Panel of Experts was convened by AESNP in November 1997 and its first report was submitted in February 1998. This panel reviewed the EIA, and submitted its fifth and last report on February 26, 1999.</p> <p>For the second Bujagali Project, BEL set up a two-member Independent Panel of Experts (PoE) in 2006 (prior to submission of the Request) composed of an environmental and a social specialist. The Terms of Reference for the Panel of Experts was disclosed as part (Appendix G.4) of the SEA (December 2006). There was a delay in the appointment of the PoE by the World Bank Group.</p> <p>The PoE completed its first visit to the Project site immediately after the SEA was submitted, in January 2007 and has provided timely and welcome reviews, inputs and advice to the Project team. It is expected to provide advice on and oversight of the implementation of the SEA and conduct "public and agency consultation activities and make recommendations on how the Bujagali project should proceed;" in addition, it will "review environmental and social issues related to the transmission and hydropower generation components of the Project."</p> <p>Action: BEL will review the PoE's reports and disclose them by the end of 2008.</p>
5.	<p>Disclosure of Project Documentation Panel acknowledges that the necessary studies have been conducted and disclosed, albeit independently, and considered by Management and referred to specifically in PAD. However, <i>failure to disclose SSEA or its relevant parts as an integral part of Project's documentation is not consistent with OP 4.01.</i></p>	128-135	<p>Comment: Management acknowledges that the SSEA was not disclosed as an integral part of the Project's documentation. The circumstances of the first Bujagali project (which was not completed) led to "reports from one project/program being used to fulfill the requirements of another project" as the Panel notes in paragraph 135 of its current Investigation Report. While this situation may not have been anticipated by the drafters of OP 4.01, who envisioned a single borrower with responsibility for all EA documents, Management agrees with the Panel's view (also in paragraph 135) that "in the interests of efficiency, an EA may, in principle, refer to and/or incorporate, as appropriate, other relevant studies."</p> <p>Management also agrees with the Panel that presentation of the Project to stakeholders (e.g., in the Executive Summary of the SEA) could have been strengthened in ways such as those suggested by the Panel ("clear statement and graphic showing the inter-relationships and entire suite of</p>

No	Issue/Finding	Para nos.	Comment/Action
			<p>documents that constitute the studies making up the SEA”). However, the approach taken in the Project documentation is consistent with the requirements of OP 4.01.</p> <p>Management completed a freestanding SSEA of Power Development Options in conformance with the Action Plan found in the Management Report in response to the Inspection Panel investigation of the first Bujagali project (2002). This study is regional in scope and extends well beyond Bujagali, and thus was disclosed under the NBI, consistent with Management’s undertakings as explained in the 2002 Action Plan. References to the SSEA have been included in key Bujagali documents as well as on the Bujagali website. Hence, the documents were properly cross-referenced and publicly available, with ample time for public review and comment.</p> <p>Having taken the findings and recommendations of the first Inspection Panel report into account, Management launched the SSEA prior to finalization of the preparation of the new Project. The SSEA offers an overview analysis of major regional power development options and regional transmission interconnections in the Nile Equatorial Lakes Region in Eastern Africa. It also provides a solid foundation for planning the development of the region’s power sectors until 2020.</p> <p>The Bujagali Project is only one of the many options considered in the SSEA. Since the SSEA is a planning tool and linked to all planned power projects in the region, it would not be logical to consider the SSEA only as an integral part of the Bujagali safeguard documents suite. However, reference to the SSEA has been made in the Bujagali safeguards documents and in the Integrated Safeguard Data Sheet.</p> <p>It is worth noting that World Bank Group staff met with the Requesters in Uganda in March 2007, shortly before the Request was submitted to the Inspection Panel, and specifically described the suite of sectoral and Project documents and where each of their key concerns was addressed.</p> <p>Action: No action is planned.</p>
6.	<p>Cumulative Impacts of Bujagali and Existing and Future Hydro Projects</p> <p>Cumulative Impacts of Transmission Lines</p> <p>Analyses in SSEA do not provide systematic examination of 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. <i>Panel finds that analyses are not sufficiently backed by evidence and include opinions rather than careful fact-based examinations of additive effects of impacts from present and foreseeable projects. Panel finds that neither SSEA nor SEA have addressed cumulative effects of existing and planned projects in meaningful way. This is not in compliance with OP 4.01. Panel finds that the failure to</i></p>	136-143, 146-147	<p>Comment: Management first wishes to clarify that the Karuma project is north of Lake Kyoga, upstream from the border of Murchison Falls National Park, and not located between Lake Victoria and Lake Kyoga.</p> <p>The cumulative impact assessment undertaken for the Project is found in the SEA. The SSEA also provided a parallel cumulative impact assessment in fulfillment of Management’s commitment under the first Panel investigation of Bujagali. Management believes that in both cases, suitable qualitative and quantitative methodology was applied to take account of potentially significant cumulative impacts of past and potential future projects on the Nile River in Uganda.</p> <p>In carrying out the cumulative effects assessment, the SEA consultants examined all previous reports including that of ESG International (ESG 2000). To ensure that the methodology was not highly quantitative or statistical in nature, and that it was easy to convey to a variety of stakeholders, the SEA adapted the “Limits of Acceptable Change” approach to cumulative effects assessment, which requires a clear definition of spatial and temporal boundaries. It also requires selection of key criteria that reflect people’s social, economic, and environmental priorities for the study area.</p> <p>For this Project, the study area was the existing development in the Victoria Nile Basin in Uganda, with a 20-year planning horizon, including</p>

No	Issue/Finding	Para nos.	Comment/Action
	<p><i>consider mitigation measures, which would reduce social and environmental impacts of the transmission line, does not comply with OP 4.01 and OP 4.12.</i></p>		<p>existing hydropower facilities. The projects assessed were Nalubaale (Owen Falls), Kiira (Owen Falls Extension), Bujagali, and Karuma, and the study accounted for the benefits that Bujagali would bring to an operating regime that would efficiently manage and use water flows for power production in line with the Agreed Curve. A Kalagala scheme was not included as the Kalagala Offset agreed by the GoU to offset the residual impacts of the Bujagali Project precludes such development there.</p> <p>Overall, the significant and positive cumulative effects of Bujagali have been determined to include:</p> <ul style="list-style-type: none"> • Developmental benefits at the local, regional and national levels, including economic benefits associated with the Project's construction (short-term) as well as with its operation (medium and long-term), covered in the Labour Force Management Plan that was disclosed in November 2007, which anticipated local job creation for 1,000-2,000 local workers, including skills training, completed in February 2008. With the dam's operation (medium- to long-term), additional job growth could result from associated tourism benefits estimated in the SEA to increase from a baseline of 4,500 visitors per year in 2006 to 6,000 visitors per year after the Project (SEAP, December 2006), as well as a subsequent increase in small businesses and job creation from tourism and service industries. • Increased supply of electricity, including poverty alleviation benefits to the extent that new electricity services are accessible to the poor; specifically, the increased supply will facilitate implementation of GoU's program to add 400,000 new customers by 2010. • Compensation to people economically affected or physically relocated by the Project; and • Employment and small business opportunities for Ugandans in the short, medium and long-term. <p>Project cumulative impacts of a negative nature include:</p> <ul style="list-style-type: none"> • Relocation of people with compensation to accommodate the Project's construction, facilities and operations;¹ • Aesthetic impacts from the presence of another dam with the potential for enhanced tourism; • Some disruption of the natural flow regime over an ~8-kilometer stretch of the Nile downstream of and as a result of Nalubaale and Kiira, with associated impacts: <ul style="list-style-type: none"> ○ on aquatic organisms and communities (also potentially positive if productivity of reservoir increased); ○ and on river users (fishers) – also potentially positive if increased productivity in reservoir is reflected in fishers' catches; and • Losses of wildlife populations and habitats, as well as agricultural lands, due to inundation of terrestrial habitats. <p>(See Annex 2, SEA Summary from the SEA.)</p> <p>It is unknown, based on currently available data and information, whether cumulative effects on health and educational services or on cultural/spiritual sites might be identified. It seems unlikely that there are cumulative effects on white-water rafting, as these activities are not believed to have been commercially available at the time of Kiira's approval. The cumulative effects of transmission system infrastructure associated with the Bujagali Project are addressed in the companion SEA.</p> <p>In accordance with the Management Action Plan commitment on cumulative impacts under the first Bujagali project, the SSEA has been completed, including a Cumulative Impacts Assessment. This analysis was</p>

¹ See paragraphs 72-86.

No	Issue/Finding	Para nos.	Comment/Action
			<p>undertaken on a basin or sub-region basis depending on the groupings of options which would potentially lead to cumulative impacts. For example, cumulative hydropower impacts are viewed from a basin perspective, while thermal options are clustered on an “airshed” basis. The exercise proved to be challenging due to the highly variable nature of the data available on the options under consideration. For some projects, social and environmental assessments had been prepared. For others, very little information was available. The analysis of cumulative impacts in the SSEA provides basic qualitative information on cumulative impact issues to be accounted for in the analysis of the power development portfolios under study. With respect to the Victoria Nile Basin, including the Bujagali and Karuma options, the SSEA² identified the following potential environmental impacts:</p> <ul style="list-style-type: none"> • Virtually no change in flow regime as only the Rusumo Falls option would cause small localized changes in flow regime, which would be absorbed by Lake Victoria; all other options are run-of-river; • Possible slight reduction in sediment and nutrient flow would lead to improved water quality; • Virtually no change in evaporation/ evapotranspiration rates; and • Some localized loss of habitat. <p>With regard to socio-economic impacts, it was noted that “some socio-economic impacts of hydropower options (such as waterborne diseases or economic spin-offs during construction) are generally quite local and do not really generate cumulative effects with other activities elsewhere in the target area. On the other hand, a geographical concentration of multiple options might affect the regional socio-economic dynamic and therefore will generate some impacts that may accumulate in time and space” (SSEA Section 14.7.2).</p> <p>With respect to the Victoria Nile Basin, “the only significant negative cumulative socio-economic impact in this region (including Karuma and Bujagali options) will be on aesthetics and tourism concerns. In contrast, it should be taken into account that a more reliable supply of energy will improve infrastructure and services, an essential factor to attract tourism and promote economic growth. Even though the region is highly densely populated, it is not expected that the resettlement that will take place for Bujagali will deteriorate socio-economic conditions in the region. In the entire region, it is the only project with involuntary resettlement and thus the impact will not cumulate with other options proposed” (SSEA Section 14.7.2.3).</p> <p>Management believes that the cumulative effects assessment was carried out within a strategic social and environmental framework for existing and future hydropower development in the Victoria Nile Basin, and thus with an eye to facilitating decision-making on the timing and selection of the next project for development.</p> <p>Action: No action is planned beyond ongoing supervision.</p>
7.	<p>Environmental Impacts on Fisheries and Aquatic Systems Based on its review of relevant research studies, Panel observes that the status of fish species</p>	148-159	<p>Comment: Management acknowledges the Panel’s finding of compliance with OP 4.01 and OP 4.04 as these relate to the assessment of likely consequences of the Project on fish stocks in the Upper Victoria Nile and Lake Victoria.</p>

² Rusumo falls is located on the Kagera River upstream of its outflow into Lake Victoria. A feasibility study is under preparation for an ~80MW hydropower station. The project is being prepared through a collaborative effort of Burundi, Rwanda and Tanzania.

No	Issue/Finding	Para nos.	Comment/Action
	<p>inhabiting both Lake Victoria and 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.</p> <p><i>Panel finds that Management acted consistently with OP 4.01 and OP 4.04 as these relate to assessment of likely consequences of Project on fish stocks in the Upper Victoria Nile and Lake Victoria.</i></p>		<p>Action: No action is planned beyond ongoing supervision.</p>
8.	<p>Kalagala Offset Agreement</p> <p><i>Panel finds that there is evidence that an offset has been created, to meet OP 4.04, but there is no evidence of the offset site being subject to appropriate conservation and mitigation measures in conformity with sound social and environmental standards. Project is thus not in compliance with OP 4.04. Panel finds that 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. Panel notes with concern that proposed Environmental Mitigation and Monitoring Plan is silent on the need for monitoring of enhancement and offset plantings. Monitoring of replacement plantings has not been included in the terms of reference of the witness NGO appointed to monitor Project compliance with IDA conditionalities. This is not consistent with OP 4.04.</i></p>	160-172	<p>Comment: Management acknowledges the Panel’s finding that an offset has been created to meet the requirements of OP 4.04. Management further notes that the GoU has signed an IA (IA), as part of the Partial Risk Guarantee arrangements, including provision to create and implement an SMP acceptable to IDA. This plan is currently under preparation. Moreover, under BEL’s SEA, enhancement planting is now ongoing, with tens of thousands of seedlings planted to date (up to 400 hectares; of which 79 hectares completed; additional 125 hectares by end-2008; remainder in 2009).</p> <p>An important provision of the IA is the Government’s commitment to “set aside the Kalagala Falls Site exclusively to protect its natural habitat and environmental and spiritual values in conformity with sound social and environmental standards acceptable to the Association. Any tourism development at the Kalagala Falls Site will be carried out only in a manner acceptable to the Association and in accordance with the aforementioned standards. Uganda also agrees that it will not develop power generation that could adversely affect the ability to maintain the above-stated protection at the Kalagala Falls Site without the prior agreement of the Association.” In addition, the GoU agreed to conserve through a SMP and budget mutually agreed by the Government and the Association both the Kalagala area and other areas nearby” (IA Section 3.06(a)).</p> <p>Management notes the concerns of the Panel with regard to agreements being considered “permanent.” As with other Agreements signed with IDA, the IA is subject to cross-default conditions which in the extreme would allow the Bank to suspend the Bank’s entire program and ongoing portfolio of projects in an event of default. The IA therefore provides a powerful remedy.</p> <p>With respect to enhancement planting, Management notes that the Panel visited the site prior to financial closure. In conformance with the SEA, BEL will implement afforestation activities within the area covered by the SMP. The afforestation activity within the area covered by the SMP is part of a larger afforestation program undertaken by BEL to cover up to 400 hectares, of which 79 hectares have been completed and an additional 125 hectares are expected to be completed by end-2008. This activity complements the SMP currently under preparation by the NFA, with the assistance of IUCN. This Plan includes Mabira Central Forest Reserve, the Kalagala Forest Reserve and the Nile Bank Central Forest Reserve. The preparation and implementation of the SMP is participatory and includes the local communities. Additional reforestation activities beyond those by BEL and NFA will be part of the SMP in order to offset the lost trees in the reservoir area and re-establish forest in currently cleared forest reserve areas.</p>

No	Issue/Finding	Para nos.	Comment/Action
			<p>The SMP will also assess the capacity of NFA and other organizations involved in implementing and managing the SMP and capacity building will be included as appropriate. BEL will continue to be a partner in the implementation of the SMP in accordance with its SEA. Implementation of the SMP will be monitored by BEL, NFA and the World Bank. OP 4.04 does not require that a witness NGO monitor the replanting of trees; this is the responsibility of NFA, the District Forest Officer, the District Environmental Officer and LC1.</p> <p>Action: In the course of ongoing supervision, Management will monitor progress of BEL's ongoing afforestation activities as part of the EMP jointly implemented by BEL, District Environmental Officer, District Forest Officer, and LC1. Management will also follow up on completion by the NFA of the SMP for the Kalagala Offset, which includes the Mabira Central Forest Reserve, by June 2009, including tourism development program. Such follow up will include an assessment of NFA's implementation capacity for the SMP. If the SMP is not completed by the agreed deadline, Management reserves the right to take action similar to that set out in the IA.</p>
9.	<p>Safety of Dams <i>Panel finds that Management has complied with the procedures set forth in OP 4.37.</i></p>	173-179	<p>Comment: Management acknowledges the Panel's finding of compliance with OP 4.37 regarding the safety of dams.</p> <p>Action: No action is planned.</p>
HYDROLOGICAL AND CLIMATE CHANGE RISKS			
10.	<p>Appropriateness of Hydrological Data Series used in Project Design Panel's hydrology expert has concluded that 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 hydrologic series is long enough. <i>Panel finds that this provides an appropriate baseline for analysis of environmental and economic issues, in compliance with OP 4.01.</i></p>	187-195	<p>Comment: Management acknowledges the Panel's finding of compliance with OP 4.01 regarding the appropriateness of hydrological data series used in the Project.</p> <p>Action: No action is planned.</p>
11.	<p>Potential Impact of the Project on Lake Victoria Panel notes importance of assessing changes in operating regimes and extending area of influence of the Project to Lake Victoria. <i>Panel finds that SEA analysis did not comply with OP 4.01</i> in defining the area of influence of the Project because Project impacts on the changing levels of Lake Victoria were not assessed. Panel notes the importance of making the structure for governance of water releases from Lake Victoria clear and transparent to all stakeholders.</p>	221-230	<p>Comment: Management notes that as a run-of-river facility downstream of Nalubaale and Kiira, Bujagali will have no control over releases from Lake Victoria. Nonetheless, the SEA reviewed the cumulative impacts of the Project in the Victoria Nile Basin, and thus the area of influence of this Project was correctly identified as including the Nalubaale/Kiira dam structure. Moreover, Management acknowledges the critical importance of sustainable management of Lake Victoria (including water usage (e.g., energy, water supply, etc.), fisheries management, pollution control, tourism, transport, and many other interrelated issues), and is supporting collaborative efforts by the EAC in the context of the LVEMP.</p> <p>Management believes it has adequately described the current hydro operating regime, the Government's efforts to return to the Agreed Curve operating regime, and the benefits that the Bujagali Project will bring through more efficient use of water for hydropower generation. The Project does not create an incremental draw on Lake Victoria: it reuses the water released for the operation of the Nalubaale/Kiira dam complex. With the joint operation of the existing hydropower facilities and the proposed Project, the same energy output generated by Nalubaale and Kiira in 2007 would only require 45 percent of the current water release from Lake</p>

No	Issue/Finding	Para nos.	Comment/Action
			<p>Victoria (see PAD, paragraph 123). Furthermore, the GoU is taking a number of measures to diversify power supply, including procuring permanent thermal generation capacity, adopting demand side management measures, as well as accelerating mini-hydro and co-generation prospects in the short term, and geothermal prospects in the long term (see PAD, page 24).</p> <p>Management also believes that it has properly assessed the area of influence of the Project on Lake Victoria. This includes an assessment of the hydrology of the Victoria Nile and hydrological risks (PAD, paragraphs 118-131 and Annex 10), along with the potential effects of climate change on the long-term viability of the Bujagali Project (PAD, paragraph 160 and Annex 15, paragraphs 100-102).</p> <p>Management acknowledges that there are two opposing views of the Project's potential impact on Lake Victoria. Project opponents contend that as demand continues to rise, it could add to pressure for over-abstraction of Lake Victoria, since Uganda will be increasingly reliant on Nile-based hydropower. As Management has explained above, the Bujagali dam itself will not result in greater abstraction from Lake Victoria. By more efficiently using the water for both hydropower facilities through a joint operating regime of water flows, such pressure will be lessened. Furthermore, ongoing planned investments in new generation, including thermal power, along with regional interconnections, will allow the GoU to stay ahead of demand and thus reduce reliance on the Nile for power generation.</p> <p>On balance, Management believes that with ongoing support from the GoU, private sector, and donors, investment plans can be realized, which will support maintenance of water releases on the Nile that are consistent with the Agreed Curve. In particular, the GoU, Bank and other donors are establishing a Sector Wide Approach to support the investment plan and stay ahead of demand growth. In addition, should demand growth be lower than expected, as the Panel suggests (see paragraph 254 of the Panel's Investigation Report), the pressure would be reduced. Moreover, over-abstraction would be less of an issue if climate predictions prove correct, and the water inflows to Lake Victoria are higher than today.</p> <p>Nevertheless, Management stresses the importance of supporting sustainable use of Lake Victoria, including water use, biodiversity, fisheries, water quality, watershed management, tourism, transportation, and other issues. This complex web of issues cannot be resolved on the basis of a single hydropower project. For this reason, the Bank is supporting the LVEMP II, one objective of which is to strengthen regional and national institutions for coordination of sustainable management of the transboundary Lake Victoria Basin resources, including establishing suitable and inclusive governance structures for water usage. To accomplish this, the Project will establish and/or strengthen regional and national institutions that regulate, monitor and enforce sustainable utilization of natural resources and environmental standards. Mechanisms for resolving disputes over natural resources management and environmental impacts will also be developed.</p> <p>Action: In the course of normal supervision, Management will follow up on GoU's commitment to disclose the Lake Victoria hydrological (water releases) information and make it available to the EAC. The LVEMP II under preparation will also address a broad range of environmental issues affecting Lake Victoria.</p>
12.	<p>Climate Change Risks <i>Panel finds that the possible effect of climate change on hydropower projects on the Victoria Nile has</i></p>	231-246	<p>Comment: Management acknowledges the Panel's finding of compliance regarding the consideration in the SSEA of the possible effect of climate change on hydropower projects on the Victoria Nile. Management agrees that the PAD's language might have been more appropriately moderated;</p>

No	Issue/Finding	Para nos.	Comment/Action
	<p><i>been seriously considered in the SSEA. This is in compliance with OP 4.01. Management does not appear to have ensured that Economic Study drew on the much more thorough analysis in SSEA. Panel finds that this is not compliant with OP 10.04.</i></p> <p>Panel is aware of the limitation of 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 Project life.</p> <p><i>This failure to express climate change as a risk factor is not consistent with OP 10.04.</i> Panel notes the importance of continued attention and analysis to the effect of climate change on flows and hydropower generation on the Victoria Nile.</p>		<p>however, the Economic Analysis correctly accounted for significant risk factors to the Project in accordance with OP 4.01.</p> <p>Given all the available evidence, there was no basis for identifying climate change as a significant risk factor for the Project and no evidence has emerged since then that would alter that assessment. Nonetheless, the adequacy of water flows on the Nile River was specifically addressed in Section E of the PAD on Critical Risks and Possible Controversial Aspects. The Economic Study relied on published analysis of climate change impact on Nile River hydrology by Tate, Sutcliffe, et al. (Appendix B4 of Economic Study). This approach concluded that no significant reduction in hydrological flow is expected as a result of climate change during the life of the Project. A further assessment was carried out by an independent and renowned international hydrologist, Prof. Juan Valdes of the University of Arizona, who also did not find evidence of downside risk of climate change on Nile River hydrology, although he did state that caution should be used when applying results of the climate change models to make operational decisions. During this period, the SSEA was also under preparation, and the Project team noted that its conclusion indicated that, taking into account the uncertainties associated with any prediction, climate change is likely to increase the availability of water and runoff in the Lake Victoria Basin. Climate change would therefore likely bring upside benefits rather than downside risks to the economics of the Project.</p> <p>Action: See Action under Item 11 above.</p>
ECONOMIC AND ENVIRONMENTAL ANALYSIS OF ALTERNATIVES			
13.	<p>Small and Medium Scale Alternatives</p> <p>Panel notes that information in Economic Study and PAD relating to knowledge about and potential of smaller scale and/or distributed generation alternatives did not clearly establish that available studies and data had been identified and evaluated to decide whether further consideration was required.</p> <p><i>Panel finds that Economic Study and PAD did not demonstrate full compliance with OP 10.04 requirement to evaluate alternatives.</i></p>	282-290	<p>Comment: The Economic Study assessed all realistic options for providing baseload power to Uganda within the Project timeframe. This included hydropower (from large scale to mini-hydro), oil-based thermal, geothermal, and biomass. The least-cost expansion plan includes all of these options and clearly shows that Bujagali is the next in-line baseload power station for Uganda. The analysis of alternatives in the Economic Study conforms with OP 10.04.</p> <p>The Economic Study assessed existing data and collected its own information about the cost of small-scale off-grid generation in Uganda. This analysis, which was used for calculating consumers' willingness to pay and cost of unserved energy, includes seven studies and surveys listed in Appendix E1 and shows that none of these options (including solar power) is competitive with the Bujagali Project.</p> <p>Based on the information available during Project evaluation, the Economic Study and PAD took into consideration the technological options that are suitable in Uganda for grid-based generation including: hydropower (conventional and small-scale – down to 3MW), geothermal, biomass and oil-based thermal options. Some of these smaller scale alternatives are indeed retained in the least-cost expansion plan for power generation in Uganda as identified in the Economic Study. There are no available studies sufficient to assess realistic prospects for grid-connected wind-power in Uganda. Moreover, there are few if any places in Uganda known for sustained, high winds throughout the year. Hence wind power is currently not viewed as a near-term realistic option for grid-connected generation and was not considered in the Economic Study.</p> <p>It bears noting that Uganda is at a very early stage of electrification, with less than 10 percent of the population connected. Therefore, off-grid options are important for populations unlikely to receive grid power in the</p>

No	Issue/Finding	Para nos.	Comment/Action
			<p>near future. With donor and World Bank support, Uganda is pursuing both grid-based power (e.g., Bujagali) and off-grid solutions (since 2001, through the Bank-supported Energy for Rural Transformation Program). While off-grid solar PV systems are being used where they are most effective (small, isolated loads) solar PV is not considered a baseload option since it is non-dispatchable and only available during daylight hours. Moreover, to produce the same daily electricity as Bujagali (under low hydrology) would require a solar PV array of about 625MW (roughly 8 square kilometers), making it one of the largest PV systems anywhere in the world, costing over US\$3 billion, or about 27 percent of GDP³ and more than 240 percent of GoU's annual capital expenditures for 2007/2008, and producing electricity at a levelized cost of about US\$0.30/kWh – not a reasonable alternative to Bujagali. With respect to concentrating solar thermal electric options, Management notes that the climatic conditions in Uganda are not suitable for this technology; hence, it was not considered as an alternative. As solar power generation technology matures and becomes commercially viable, Uganda could certainly explore adding such capacity to its overall energy portfolio.</p> <p>The Bujagali Project is conceived to meet the needs of the main electricity grid in Uganda and the Economic Study fulfilled its key objective for identifying the least-cost technology for doing so.</p> <p>Action: No further action is required.</p>
14.	<p>Tariffs and Affordability <i>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.</i></p>	328-330	<p>Comment: Both the Economic Study and the PAD used the latest Project cost information available at the time they were being finalized. Negotiations continued beyond that point and the EPC cost was not fixed in US\$ until BEL issued the notice to proceed, following financial close in December 2007. Management acknowledges that the Project team could have explained better this uncertainty regarding ultimate Project cost in the PAD. However, at the time, Management anticipated financial close shortly after Board approval in April 2007. As pointed out by the Panel, the Project's least-cost status is robust to such cost variations, as the Project cost would have to increase by 49 percent while the Karuma dam remained unchanged before the Bujagali Project ceased to be the least-cost option. Under risk analysis, the Economic Study did cover the case where the Project had a higher cost by 10 percent compared to the base case (as it turned out this was the right order of magnitude in terms of Project cost at financial close, although the attributed probability of such an outcome at 20 percent appears <i>with hindsight</i> to have been low). It was demonstrated that Project economics remain robust under such a high cost scenario. End user tariff projections are covered extensively in Annex 12 of the PAD – Financial Performance of the Uganda Power Sector, including downside and upside risk. Variations in Project cost could have been added as an additional downside risk, while recognizing that other risk factors, such as oil prices, which were included, may well turn out to have a larger impact on end-user tariffs.</p> <p>Action: No further action required.</p>
15.	<p>Externalities <i>Panel finds that the limited presentation and discussion of the [external] costs in Economic Study did not succeed in demonstrating full compliance with OP 10.04. In the Panel's view, to meet all requirements of OP 10.04, Economic Study should have</i></p>	344-349	<p>Comment: The pollutants noted by the Panel are normally associated with thermal power projects; to the extent that the Bujagali Project reduces the need for thermal generation, the avoided environmental cost of such emissions would in fact improve the economic viability of the Project. Management considers that, given that the Project's economic viability was already well demonstrated, this additional analysis would not have materially changed the conclusions.</p> <p>Action: No further action required.</p>

³ At the official exchange rate.

No	Issue/Finding	Para nos.	Comment/Action
	<p>examined, in more detail, the potential of changes in damage from other pollutants than CO₂, even if it might have proved difficult to value them.</p>		
16.	<p>Hydropower Location Alternatives within Uganda <i>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.</i> This is especially relevant in light of the significant cultural and spiritual importance of Bujagali Falls to the Busoga people. 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 economic and financial aspects of the options should become the determining factor in selecting the preferred option.</p>	359-365	<p>Comment: The Project took into account the cultural and spiritual values associated with Bujagali Falls and treated these as part of the assessment of Project location and anticipated impacts, as noted in Appendix J of the SSEA. During the Third Stakeholder Consultation in 1999, the Project Steering Committee retained the criterion “impacts on historical and religious sites.” Although this was not measured in quantitative terms, the analysis of alternatives took into consideration the traditional practices and the value attached to “unseen, free moving, spiritual forces associated with ancestors (personal spirit forces) or with nature (impersonal spirit forces)” (RCDAP, pages 95-96). This was evident in the appeasement ceremony, facilitated by AES, and which took place in August 1998, with the spiritual leader, <i>Nabamba Bujagali</i>, who found the Project to be “culturally acceptable.” On this basis, and following advice from several academic and local cultural experts, as well as feedback from more than 60 consultations with spiritual leaders, local officials, and other PAPs, the Project proceeded with the selection of Bujagali, with the knowledge that the cultural and spiritual aspects were sufficiently taken into account in its site selection.</p> <p>Action: No further action is required.</p>
17.	<p>Alternative Project Configurations at Bujagali Panel notes that a range of alternatives have been considered in these studies. Panel is concerned, however, that analysis unduly narrowed consideration of alternatives on the basis of <i>a-priori</i> judgments rather than exploring all technically feasible options, including those that would not involve flooding 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 full understanding of trade-offs involved. <i>This is not consistent with OP 4.01’s provisions</i> that feasible alternatives should be explored systematically to meet basic Project objectives, and may have led to inadequate consideration of alternatives that met Project objectives while avoiding social and environmental costs associated with flooding Bujagali</p>	366-370	<p>Comment: The SEA describes the alternative configurations considered for the Project. These included options which might have preserved the Bujagali Falls. However, these were rejected on technical, environmental, and social grounds. The selected alternative includes an environmental offset (Kalagala). This conforms with the requirements of OP 4.01.</p> <p>Section 4.4, page 184 of the main SEA Report for the hydropower plant (December 2006) provides the details of the configurations studied. The Inception Report (WS Atkins, 1998) and scope of work for the EIA included a requirement that alternative options at, and around, the Bujagali site also be investigated. The objective of the study was to “compare and evaluate options that have been developed for Bujagali, in order to provide the rationale for the selection of the preferred scheme. The key considerations in the comparison are the potential power output of the different schemes, their financial costs and their relative environmental and socio-economic implications.”⁴ A review of this report was undertaken in connection with the Economic Analysis of the new Project.</p> <p>Five configurations for the dam had previously been considered by the engineering firm Acres in 1990 in connection with the feasibility of expanding the Owen Falls power station at: Kyabirwa Falls; Bujagali Falls (the “BI Configuration”); Buyala Falls (two alignments); and Busowoko Falls. These configurations were re-examined and costed during the Economic Analysis performed for the new Project. In addition, two further configurations were identified, one a diversion canal at Bujagali to avoid the inundation of Bujagali Falls (the “B2” configuration); and the other at Busowoko Falls with a lower full supply level, again to preserve the falls and the river downstream to Dumbbell Island.</p>

⁴ The assessment was undertaken by WS Atkins, in association with engineering consultants Knight Piesold, and was completed in June 1998. The report was included in Volume 2 of the EIS submitted to NEMA (WS Atkins, 1999).

No	Issue/Finding	Para nos.	Comment/Action
	Falls.		<p>As the above summary indicates, these configuration studies included alternatives to preserve Bujagali Falls. The diversion canal and lower supply levels that were considered were rejected on technical (lower power output, increased construction time) and on environmental, social and economic grounds.</p> <p>Management considers that the present configuration with the Kalagala Offset provides a more environmentally sound development option for the Victoria Nile. Instead of two additional dams on a short stretch of the river, only one additional dam (Bujagali dam) will be built, which allows for alternative environmentally sound development on that stretch of the Victoria Nile.</p> <p>On cultural/spiritual issues, please see Item 23 below.</p> <p>Action: No action is planned beyond ongoing supervision.</p>
SOCIAL ISSUES-- INVOLUNTARY RESETTLEMENT			
18.	<p>Assessment and Action Plan Panel found no formal monitoring or evaluation report supporting the assertion that involuntary resettlement was “largely completed,” the reason stated for forgoing full RAP preparation, as required by OP 4.12. <i>Panel finds that the hydropower APRAP failed to assess and update the previous 2001 RAP and provide additional new information as required to complete the RAP requirements to current standards. This does not comply with OP/BP 4.12. This led to Action Plans that did not meet the policy objectives and requirements.</i></p>	447-454	<p>Comment: The second Bujagali Project built as appropriate on the work undertaken for the first Bujagali project. In the case of resettlement, under its RCDAP, AES had already concluded the cadastral survey; paid 99.4 percent of the contracts related to land, crop, and other payments; completed 84 percent of the land titling; constructed the Naminya Resettlement Site; physically relocated all 101 households which required displacement; implemented major elements of livelihood support; and other actions. Management considers that these actions by AES show that resettlement and compensation at the dam site were largely completed for the Project. Management finds that BEL’s preparation of an APRAP was an appropriate means of evaluating past actions and remaining requirements, consistent with OP 4.12. In fact, the first Inspection Panel findings in 2002 noted that, except for some cases of crop valuation and payments, “the RCDAP was generally in compliance with OD 4.30 on Involuntary Resettlement” (see the Panel’s investigation report for the first Bujagali project, paragraph 260, page 80).</p> <p>Management supports BEL’s view that, although some aspects of the RCDAP required follow up, the bulk of the resettlement and compensation components of the RCDAP was completed by the time AES left the Project in 2003. First, AES finalized the cadastral and land survey, indicating a fairly substantial land take of 238 hectares. Second, the process of identification of PAPs was extensive — 1,288 households (8,700 PAPs) directly affected by the Project; of these, 101 households (714 persons) were physically displaced and, except for 16 households who moved to another part of their land, the remaining 85 households were moved to another location; and 1,187 non-physically displaced households compensated for lost land, crops, trees, and other assets. Third, the Naminya Resettlement Site was completed, with replacement houses adequately built. Fourth, cash compensation payments were 99 percent completed (except for 26 out of 4,565 contracts). The valuation method was based on market value plus an “uplift,” reflecting full replacement cost. Fifth, some livelihood support programs were completed, including training on money management; farm practices and cultivation methods; garden agriculture; and animal husbandry. In addition, based on the RCDAP, BEL was able to complete the following: (i) public consultation and disclosure plan; (ii) labor force management plan; and (iii) the CPMP.</p> <p>Action: No action is planned beyond ongoing supervision.</p>
19.	<p>Baseline Socio-Economic Data Panel notes that the survey conducted by BEL <i>cannot be considered a census of economic or</i></p>	455-465	<p>Comment: A socio-economic baseline was completed by AES in 2001, and updated by BEL in 2006. However, in January 2007, prior to the submission of the Request for Inspection, Management found deficiencies in the baseline and initiated corrective action. Management has agreed</p>

No	Issue/Finding	Para nos.	Comment/Action
	<p><i>social conditions as defined in OP 4.12. In this sense, Management's claim that the Project took the first Panel's report findings into account in 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. Panel also finds that the approach to consultations with people who had moved and had been compensated is not consistent with involuntary resettlement policy.</i></p>		<p>with BEL on a plan for an OP 4.12-compliant baseline to be completed by March 2009.</p> <p>As a corrective measure, Management already set in motion with BEL, in early 2007, proactive steps to enhance this baseline in two ways. The first is through an updated socio-economic survey and needs assessment that will be completed by BEL in March 2009. The findings from the survey and needs assessment supplement the existing 2006 APRAP socio-economic database. The second is strengthening the existing socio-economic monitoring system. BEL currently prepares a quarterly Social and Environmental Monitoring report which contains a separate section on impacts of livelihood restoration and community development programs on PAPs. Based on the updated socio-economic survey results, BEL will be able to monitor "before-and-after" changes in income and livelihood indicators for specific PAPs who were surveyed in 2001 and 2006; enhance the baseline data coverage to all PAPs and vulnerable households; and follow up changes in the income and poverty indicators through panel surveys (every two years).</p> <p>Action: Management will ensure that findings from the socio-economic survey (which will be completed by March 2009) are: integrated into the CDAP by BEL in its design of sub-project activities; and reported in BEL's Quarterly Environment and Social Monitoring. BEL will enhance its database of household survey data and capacity building for monitoring and evaluating impacts of livelihood restoration and community development, and through technical assistance (from MIGA) to BEL, improve the socio-economic database.</p>
20.	<p>Livelihood Restoration Panel observes that effects of the original displacement and of the ensuing delay have not been fully reflected in the APRAP. Overall, <i>Panel finds Project in non-compliance with the mandate of Bank Policy on Involuntary Resettlement</i> to improve or at least to restore, in real terms, the livelihoods and standards of living of people displaced by the Project.</p> <p>Method to Assess Livelihood Restoration and Address Project Delay In Panel's view the methodology used to assess livelihood restoration in the context of Project, while suggestive of issues, cannot substitute for an economic analysis of livelihood risks and restoration. Panel also finds that Management did not assess and include into the APRAP a methodology for restitution of unintended socio-economic costs incurred by displaced persons resulting from project stoppage/delay. <i>This is not consistent with OP 4.12.</i> Real or perceived unfulfilled promises in the prior Bujagali Project</p>	466-469, 470-473, 474-476, 477-490, 513-516, 517-521	<p>Comment: Management took proactive measures to mitigate the effects of the gap period between the two projects, consistent with OP 4.12 requirements. The gap was addressed by the Project in three ways. First, during the interim period, resettlers were given agricultural livelihood support, including crop and tree seedlings and backyard animals. In 2006, this program was expanded to include agricultural extension and provision of high value crops and assistance in marketing them. As of July 2008, 84 percent of PAPs participated in this ongoing program. Second, under the APRAP, BEL contracted a local NGO, Team Business College, to provide training workshops on business opportunities. These workshops covered: use of village banks; group savings among fishermen's associations; and group financing (e.g., capitalization of small fishing boats, gear, and other materials). Lastly, BEL's business resource centers on the east and west banks of the Project will support small businesses for agricultural enhancement; fisheries improvement; and micro credits. To support these businesses, two agricultural and fish markets will be constructed by BEL.</p> <p>Management notes that the Panel visited the Project affected villages during the "gap period." Management had already undertaken proactive measures with BEL to mitigate the effects of this gap period between the two projects with the previous AES BIU and with BEL, consistent with OP4.12 requirements. For example, UETCL retained the BIU in Jinja near the Project site, thus ensuring continuity between the two projects and maintaining contact with PAPs. Management continuously assessed the work of the BIU during the interim period and found it to have performed adequate short-term activities using "quick fix and quick impact" approaches. Management observed that the BIU was able to: resolve most of the compensation and land titling grievances; monitor service-oriented activities in the Project area (e.g., water wells); implement small-scale community development programs; secure the right of way for the hydropower facility and transmission line; and maintain an informative relationship with PAPs through monthly village consultations. In addition, the BIU was able to: establish local ownership of the community water</p>

No	Issue/Finding	Para nos.	Comment/Action
	<p>Panel notes that lack of clear communication with affected people to address concerns of displaced persons with regards to the commitments made by AESNP, risks leaving the project with contentious, unresolved issues.</p> <p>Specific Livelihood Risks: Fishing and Agriculture <i>Panel finds that Project failed to provide adequately for loss of livelihood associated with loss of fishing and agriculture, in non compliance with OP 4.12.</i></p>		<p>wells through agreements with District Water Authorities for maintenance of the village water borehole pumps; complete several training sessions in business development and agriculture for women; and upgrade some secondary and tertiary roads. While these did not constitute the intended livelihood support programs outlined in the 2002 RCDAP, they nonetheless represented reasonable best efforts by the GoU/JETCL to ensure continuity in assisting PAPs until the Project restarted in 2006.</p> <p>The APRAP completed eight focus group discussions in the Naminya Resettlement Site, host communities, Kukubamutwe (West Bank) and Namizi West (East Bank) to inform PAPs on livelihood restoration programs. Producer groups were organized for agriculture and fisheries, and through the monthly meetings of these groups, BEL held consultations and needs assessment discussions, which were the focus of meetings in 2006 to 2007. Two Village Consultation Committees (VCC) were formed in each district in March 2007 to facilitate information exchange. BEL reported in its APRAP Update of October 15, 2007 that the Community Liaison Officer documented 165 meetings of the VCC. Transcripts of these meetings indicate that PAPs were not only informed about the livelihood programs but also participated in the design of its components.</p> <p>Action: No action is planned beyond ongoing supervision.</p>
21.	<p>Land Titles <i>Panel finds that APRAP conclusion related to the necessity of issuing land titles to people resettled under prior project is consistent with OP 4.12. Panel notes however that there seems to be no agreed timetable for issuance of these titles.</i></p>	495-498	<p>Comment: Management acknowledges the Panel's finding that the APRAP's assessment of issuing land titles is consistent with OP 4.12. As noted in the APRAP, there was confusion among PAPs about resettlement plots and replacement lands (land-for-land exchange) purchased by AES as part of the in-kind compensation for lost land. But despite these problems, currently only 5 percent of land titles remain unresolved; BEL is working to complete the land titling process. Management has raised with GoU counterparts the importance of resolving land titles in a timely and effective manner.</p> <p>Action: There are no additional actions required.</p>
22.	<p>Vulnerable Peoples Panel notes that the absence of focus on livelihood risks to the vulnerable is evident in that none of the proposed assistance measures addresses vulnerable tenants/sharecroppers or children. Additionally, proposed assistance measures do not address the question of sustainability beyond limited Project support. <i>Panel finds Project out of compliance with vulnerable peoples provisions of OP 4.12.</i></p>	499-503	<p>Comment: The APRAP already provides specific programs for the vulnerable, including additional compensation payments and organization of "village consultation committees" to ensure sustainable support. BEL completed a recount of vulnerable people (230 households) and provided additional support to them beyond what they have received from compensation payments (see APRAP, page 32). BEL's coordination with village committees constitutes a more sustainable institutional set up. Each committee is comprised of local government (LC1) elected officials, elders or religious authorities, NGOs, and representatives from the GoU social services units. A special group prepares the proposed activities for the vulnerable people, especially orphans and women's groups.</p> <p>Action: Management will follow up on BEL's programs, with timetable and targeted activities, to address needs of vulnerable groups.</p>
23.	<p>Sharing in Project Benefits and Community Development <i>Panel finds that with limited funding, broad criteria for eligibility and lack of specificity, CDAP programs do not assure compliance with OP 4.12.</i></p>	522-532	<p>Comment: Prior to the Request for Inspection, BEL increased the CDAP budget by 83 percent, which provides sufficient funds for this important activity. In addition, BEL is seeking to involve local authorities, utilities, and service providers to enhance the sustainability of their interventions. Also, BEL has committed to hire at least 10 percent of the unskilled workforce from local villages. Finally donor co-financing will expand electricity and water supplies to the area.</p> <p>Action: In the course of ongoing supervision, Management will follow up with BEL on yearly updated needs assessments that are used to adjust CDAP activities, responding to PAP priorities.</p>
24.	<p>Indigenous Peoples Panel did not find any evidence that</p>	533-535	<p>Comment: Management acknowledges the Panel's conclusion.</p>

No	Issue/Finding	Para nos.	Comment/Action
	Management violated provisions of Bank policy on Indigenous Peoples, with regard to the Basoga people.		Action: No action required.
CULTURAL AND SPIRITUAL VALUES			
25.	<p>Physical Cultural Resources <i>Panel finds that Management failed adequately to consider or implement alternatives to avoid project-related impacts on Busoga spirituality and culture. Most of those who believe in the significance of the Bujagali Falls spiritual site do not live in the immediate vicinity of the Project. Project also failed adequately to consult with Busoga spiritual clan leaders associated with one or more high status Spirits about significant cultural patrimony of Bujagali Falls. Misidentifying 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. 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.</i></p> <p><i>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.</i></p> <p><i>Panel finds that the culturally and spiritually affected people were not adequately identified as required by Bank policy.</i></p>	566-597	<p>Comment: Management considers that the Project was prepared in light of Bank policies on physical cultural resources (OP 4.11) and natural habitats (OP 4.04). Management notes that, in fact, it has addressed cultural and spiritual issues in three ways. First, Management notes the distinction between physical and non-physical values of Bujagali Falls while also recognizing that they are linked to culture and spirits. Second, the Project consistently applied culturally acceptable practices, such as appeasement ceremonies, based on sound professional advice and feedback from extensive consultations. Lastly, in 2002, the Project prepared a CPMP and, in 2007, the EPC prepared a second CPMP (focused on “chance finds” procedures. BEL has made arrangements for its update and implementation, starting with the construction phase.</p> <p>The various diviners consulted from 1998 to 2002 agreed that “closure” was possible as a result of three actions that AES undertook based on their advice. First, the Project provided four payments for carrying out an appeasement ceremony. While the Panel correctly states that the diviners did not accept a payment of one million Uganda Shillings at the end of the ceremony, this was the fifth and final payment for the ceremony, the previous four payments to carry out various rituals, totaling 12.25 million Uganda Shillings, having been accepted. Second, the Agreement was clear that the impact from the Project would include inundation of Bujagali Falls. It should be noted that the other religious practitioners who carried out ceremonies at about the same time signed similar agreements. The diviners clearly knew the Project impacts prior to the ceremony, even if, as the Panel claims, the 75 followers were not as clear on this impact. If there was confusion, AES may not have clarified the situation because it was its understanding that informing the other 75 followers was the responsibility of the diviners. Third, the documented evidence shows that one purpose of the earlier payments was to bring the 75 followers from all over Uganda, which raises questions about the Panel’s claims that the Project did not reach out to a much larger group of Busoga religious stakeholders.</p> <p>With respect to the inclusion of cultural resources considerations (including those linked to natural habitats) in the identification of alternative project sites, Management learned from local experts that major segments of the Nile River with hydropower potential have spirits associated with them. Following professional advice, Management also believes that the Project could not rank one site’s spiritual values above or below another’s, so all sites were considered to have almost similar spiritual values, as well as corresponding culturally appropriate solutions.</p> <p>The Project completed multi-layered and extensive consultations and follow up throughout preparation. As noted by the first Inspection Panel Report (2002): “The sponsor has acted responsibly in consulting local people, religious specialists and leaders, and acted in good faith in attempting to mitigate the cultural consequences of losing the Bujagali Falls (page, 97, 2002).” Annex H of the SEA shows the extensive consultations, including ceremonies, and a national meeting in Kampala, to specifically discuss cultural and spiritual issues. These consultations not only addressed archaeological aspects, but also identification and preservation of religious objects, shrines, gravesites, and buildings.</p> <p>Action: See Item 25 below.</p>
26.	<p>Critical Natural Habitats <i>Panel finds that the Bujagali Falls</i></p>	598-607	<p>Comment: The list in the definitions of critical natural habitats in OP 4.04, drawn from sources such as IUCN, was meant to be illustrative and to</p>

No	Issue/Finding	Para nos.	Comment/Action
	<p><i>area may be regarded as a critical natural habitat for purposes of OP 4.04.</i></p> <p><i>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.</i></p>		<p>highlight the fact that certain biological assets, because of their special associations to local communities, could be considered critical natural habitats. The policy definitions in OP 4.04 do not include non-biological assets, such as rocks and waterfalls. In this context, Management notes that the <i>Budhagali</i> spirit was said to inhabit the rapids at Bujagali Falls. Indeed, project preparation activities in 1998 carefully incorporated these aspects, and included them as one of the site selection criteria. Furthermore, Management considers that OP 4.04, if triggered, allows for significant conversion of natural habitats and provides guidance on mitigation and offsets. As a result, the first Bujagali project's approach of appeasing the spirits from Bujagali Falls and other areas, based on sound professional advice from spiritual leaders and culture experts, was undertaken. The Project took the approach of appeasing the spirits from Bujagali Falls and other areas, based on professional advice received, and following feedback from more than 60 consultations during the first and into the second Bujagali Project. These consultations included an appeasement ceremony on September 5, 1999, with the spiritual leader, <i>Nabamba Budhagali</i>, who reported that the spirit would accept the Project, including the inundation, by completing this appeasement ceremony.</p> <p>Action: No action required.</p>
27.	<p>Cultural Property Management Plan</p> <p><i>Panel finds that Management failed to prepare a Cultural Properties Management Plan, assuming that work of previous Sponsor was sufficient to meet OP/BP 4.11 guidelines. 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 cultural and spiritual significance of Bujagali Falls. Panel finds that Management did not consult with key stakeholders throughout Project cycle and is, therefore, in non-compliance with OP 4.11. Panel finds that mitigation measures were not adequate because the scope of the impact and the consultation process were incomplete.</i></p>	608-613	<p>Comment: AES completed a CPMP, which was part of the RCDAP. The CPMP was prepared by Ugandan cultural experts, based on more than 60 consultations with spiritual leaders, local officials, and villagers. The Project has met the basic requirements for a CPMP, including mitigation measures, managing "chance finds," and a monitoring system. As noted, possible enhancement of the 2002 CPMP would be strengthening government institutional capacity with respect to cultural resources. In addition: (i) the Code of Practice as part of the EPC contractor's 2007 CPMP will monitor "chance finds" during construction; (ii) GoU will sponsor meetings and ceremonies, in coordination with local spiritual leaders, to determine location of other physical sites, preservation of artifacts, etc., of cultural and historical importance; and (iii) any additional appeasement and reconciliation rituals will be held, based on recommendations of culture specialists and local spiritual leaders, and feedback from local consultations.</p> <p>Action: Management will follow up on GoU commitments to ensure that the required capacities and resources are in place for the Government (coordinated by MEMD, and including local councils) to do an update of the CPMP (which was part of the 2002 RCDAP) by June 2009; and BEL will incorporate into this update the EPC contractor's Code of Practice (which is covered in the 2007 CPMP developed by the contractor) for "chance finds."</p>

ANNEX 2
SEA SUMMARY – EXCERPTS

**ANNEX 3
INDEMNITY AGREEMENT**

MAP 1