

**ANNEX 1
FINDINGS, COMMENTS AND ACTIONS**

No	Issue/Finding	Para nos.	Comment/Action
ENVIRONMENTAL ISSUES			
1.	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>	119-123	Comment: Management acknowledges the Panel's finding of compliance with OP 4.01 regarding the environmental screening of the Project as Category A.
2.	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>	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.	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>	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>

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			<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>

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			<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>

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	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.		<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.

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			<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.

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	<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>

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			<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.	Safety of Dams <i>Panel finds that Management has complied with the procedures set forth in OP 4.37.</i>	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.	Appropriateness of Hydrological Data Series used in Project Design <i>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. Panel finds that this provides an appropriate baseline for analysis of environmental and economic issues, in compliance with OP 4.01.</i>	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.	Potential Impact of the Project on Lake Victoria <i>Panel notes importance of assessing changes in operating regimes and extending area of influence of the Project to Lake Victoria. Panel finds that 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. Panel notes the importance of making the structure for governance of water releases from Lake Victoria clear and transparent to all stakeholders.</i>	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>

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			<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>

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	<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. Panel notes the importance of continued attention and analysis to the effect of climate change on flows and hydropower generation on the Victoria Nile.</i></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. <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 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
	examined, in more detail, the potential of changes in damage from other pollutants than CO ₂ , even if it might have proved difficult to value them.		
16.	<p>Hydropower Location Alternatives within Uganda</p> <p>Panel finds that Management did not ensure that cultural and spiritual matters were properly considered when comparing the Bujagali and Karuma alternatives, as required by OP 4.01. This is especially relevant in light of the significant cultural and spiritual importance of 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</p> <p>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 "B1 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/UETCL 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>area may be regarded as a critical natural habitat for purposes of OP 4.04.</p> <p>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.</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>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.</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



Bujagali Energy Limited

**Bujagali Hydropower Project
Social and Environmental Assessment Report
Executive Summary**

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3.0 Existing Social and Environmental Conditions

3.1 Project Setting

The Bujagali HPP is located on the Victoria Nile in south-eastern Uganda. The Victoria Nile is the start of the longest branch of the Nile, known as the White Nile. The source of the Nile is Lake Victoria, Africa's largest water body and the second largest lake on Earth.

The Lake lies within an elevated plateau in the western part of Africa's Great Rift Valley, and straddles the equator. The location of the HPP itself is about 1,100 m above sea level and a few degrees north of the equator.

The discharge of Lake Victoria was dammed in 1954 by construction of the Owen Falls (now Nalubaale) hydro dam. In 2000, a second discharge point from the Lake was created by the construction of a second dam and power plant next to the Nalubaale dam. The Second dam and power plant, originally known as the Owen Falls Extension but later renamed Kiira, went into service in 2000. Page 2 of Figure ES-4 shows the side-by-side layout of the two facilities.

The reach of the Victoria Nile that flows between Nalubaale/Kiira and the Bujagali HPP site is located within a deeply incised, steeply sloped valley, and drops in a series of rapids. In recent years, rapids within this reach, as well as those downstream of the dam site, have been used for white water rafting, and several companies have been established that offer rafting tours to mostly foreign tourists. The river is also used for small scale fisheries and as a source of water for local villagers, and its many islands and rapids hold significant cultural/religious values for local persons and communities.

Jinja town, located on the east side of the river near Nalubaale is the closest large community. The city developed starting in the 1950's when power for industry became available from the Owen Falls project, and is now the second largest city in Uganda. Kampala, the largest city in the country, is located about 70 km to the west of Jinja.

The majority of the study area for the Bujagali hydropower facility is rural, with estate and small-scale or subsistence agriculture being the predominant land uses. Agricultural activity is primarily a labour-intensive, intercropping system with both cash and subsistence crops following the seasonal changes.

3.2 Biophysical Conditions

Within the project area, the Victoria Nile varies in width from 200 to 600 m, and drops over 20 m in a series of rapids between the Nalubaale power station and

Dumbbell Island. The area has moderate potential earthquake risk for hydropower development thus requiring the project be designed to withstand the Maximum Design Earthquake (MDE) and Operating Basis Earthquake levels.

Since 1954, water flow in the mainstem Victoria Nile has been controlled by the Nalubaale and (since 2000) Kiira power stations. Water flows from the dams have been designed to match the natural outflows from the lake that existed prior to the dams' construction according to the "Agreed Curve." BEL also adopted the Agreed Curve for its design and implementation of the Bujagali Hydropower facility. (This same approach was adopted previously by AESNP.)

Water quality in the river is believed to be acceptable for drinking, and good for aquatic life. There has been little change in water quality values from 2000 to 2006, other than slight increases in nutrients. The quality of borehole groundwater in the area meets World Health Organisation (1993) guidelines.

The northern region of Lake Victoria has an equatorial type of climate. Two rainy seasons can be distinguished from March-May and October-November. Most of Uganda receives between 1,000 and 1,500 mm precipitation. Mean daily temperature varies between 22°C in July and 24°C in February. The mean minimum varies from 17°C in April, with mean maximum varying from 26°C in June to 35°C in February (Bitarakwate *et al.*, 1967). The local meteorology is characterised by a very high frequency of southerly winds. Prevailing southerly winds occur for over 30 percent of the year. Winds from the west-northwest to the east are very infrequent.

The Victoria Nile supports a diversity of aquatic life including plants, phyto and zooplankton, micro and macro-invertebrates, and fish. Key aquatic species to consider from a human-health perspective as vectors of tropical diseases include snails transmitting schistosomiasis; river blindness (Onchocerciasis) transmitting *Simulium damnosum* flies; sleeping sickness (trypanosomiasis) transmitting Tsetse flies; and, female mosquitoes belonging to the genus *Anopheles*, which transmit malaria.

The Victoria Nile originally had a very rich assemblage of fish dominated by riverine species. Significant changes to the environment include the physical barrier to fish movement between the Victoria Nile and Lake Victoria introduced by the Nalubaale dam, and the introduction of Nile perch and Nile tilapia. Viable populations of many fish species continue to exist in the Victoria Nile despite the construction of the Nalubaale dam over 50 years ago. Nine keystone species from a fisheries and conservation perspective, have been identified in the upper Victoria Nile, the majority of which are classified as able to inhabit both lake and river habitats. This is likely due to the variety of micro-habitats offered in this section of the river – from deep, slow-flowing backwaters and 'pond' areas with silty sediments through to rapids with rocky substrates.

The lands within and surrounding the project area are intensively settled and cultivated. The vegetation generally forms an agro-ecosystem with bananas, coffee, maize and vanilla as the main crops. The remnant natural vegetation is characterised as moist semi-deciduous forests. The 2006 vegetation survey identified 298 species in total. Of those identified *M. excelsa* (Mvule) is categorised as “Low Risk/ Near Threatened” in reports published by the International Union for the Conservation of Nature. Other restricted range species include *Ficus cordata* and *Ficus ottonifolia* that have been recorded in only one floral region out of the four that occur in Uganda.

Most of the project area including the islands contains little native vegetation due to intensive agricultural activities. The main crops grown in the area are coffee, maize, sorghum, cassava, sweet potatoes, cabbages, yams, sugar cane and vanilla. Fruits include bananas, mangoes, jackfruit, avocados and pineapples. Eucalyptus is planted for building poles and firewood in Naminya, Malindi and Namizi. The weeds in agricultural areas, some of which are used for medicinal purposes, include woody and non-woody plants

The banks and islands of the Nile in the upstream part of the study area (Bujagali Falls and upstream) are within the Jinja Wildlife Sanctuary which includes the entire Municipality of Jinja as well as the Victoria Nile between Lake Victoria and Bujagali Falls. While the Sanctuary was established in 1953, development along the river has not been restricted and there is no management plan or management activities associated with the Sanctuary. Proposals for activities which may result in the destruction of habitat within a wildlife sanctuary must incorporate suitable mitigation measures, and this principal has been adopted for the HPP.

Kimaka Central Forest Reserve (CFR) is the only protected forest in close vicinity of the project area.

3.3 Socio-economic and Cultural Conditions

There is widespread poverty in Uganda, and the country is consistently ranked one of the poorest nations in the world. Approximately 85 percent of the population in Uganda reside in rural areas and depend mainly on agriculture for their livelihood. Literacy rates are low.

Agricultural activity is primarily a labour-intensive, intercropping system with both cash and subsistence crops following the seasonal changes. The main cash crops are coffee and sugar cane, coupled with more recent cropping of vanilla. Subsistence food crops include bananas, cassava, sweet potatoes, maize, beans, millet, and yams.

The City of Kampala is Uganda's political and commercial centre. The Town of Jinja, Uganda's second largest urban centre, serves as the administrative centre for Jinja

District and is the District's prime economic hub, housing industries such as textiles, beer, plastics, food processing, and flour milling.

Within the project area, there are several ethnic groups, mostly of Bantu origins. Busoga is the Kingdom the Basoga people, one of the largest of the five traditional kingdoms in present-day Uganda. The World Bank Group does not consider either group in the area of the project to be indigenous according to the definitions in its safeguard policy and performance standard on that topic.

Historically, the Basoga inhabited the areas of southern Uganda east of the Nile. Buganda is the Kingdom of the Baganda people, who historically inhabited the areas west of the Nile. This is still largely the case, although Basogans and Bangandans live on both banks of the river, today. Although the Busoga and Buganda languages vary, they are similar to one another and mutually understandable. Many people still practice traditional religions, although they are often practised in concert with Christianity and Islam. Several people have *amasabo* (roughly translated as shrines) on their properties where they can pay respect to their ancestors and commune with spirits.

Between Nalubaale and Dumbbell Island, there are groups of islands, some of which have become intensively farmed during the last few years. The rapids have been used to develop a tourist destination for white water rafting since the late 1990's, and the islands and rapids have significant cultural/religious value for local people. They also are reported to have been used for grave sites by local people.

Malaria and respiratory infections account for about half of all outpatient diagnoses in Uganda. The prevalence of HIV/AIDS is high, with HIV/AIDS-related illness accounting for over 30 percent of all hospital admissions, and increasing. In an effort to address the spread of HIV/AIDS, widespread public education campaigns have been established and condoms are readily available.

3.4 Recent Activities in the Project Area

The early stages of development, and subsequent abandonment, of the Bujagali Project by AESNP had effects on the local social baseline conditions that persist. Prior to its departure, AESNP aggressively pursued its resettlement programme which included the physical relocation of people from lands to be used by the project on both banks of the river Nile. While certain of those lands are currently guarded and fenced (west bank) and monitored, others are still being used for short-term agricultural activities (east bank) on the understanding that they will no longer be available for such uses when the project is re-started.

Since AESNP's departure in 2003, the Government of Uganda has maintained a presence in the project area through a small group of UETCL employees working as

the Bujagali Implementation Unit (BIU). The BIU has maintained contact with local people, monitored their issues and concerns, and done its best in the face of very limited funding and resources to at least be aware of the local socio-economic conditions. In the absence of a private sector sponsor with the necessary permits and financing to pursue the project actively, the BIU's activities on behalf of the GoU have helped maintain a certain presence and contact with local people while the project was re-bid and re-started.

As a result of the project hiatus, certain of AESNP's commitments to regulators and the communities under its resettlement and community development plans were not completed. In recognition of these issues and their currency with affected stakeholders, BEL has undertaken to document the situation, and in selected instances began immediate action programmes to respond. Those BEL actions, as well as its commitments to its own resettlement and community development activities, are presented to the level of detail consistent with the present status of the project in the SEA documentation. The ongoing, increasingly detailed plans and activities will be documented on a regular basis in the project's Social and Environmental Action Plan (SEAP). The revisions to the SEAP will be consulted upon with affected stakeholders and publicly disclosed as they are prepared on a regular basis.

4.0 Project Need and Alternatives

Historical and ongoing analyses of the power supply options for Uganda confirm that the Bujagali HPP is needed, and that it is the preferred and least cost solution to addressing the long standing power shortages in Uganda. A summary of the need and rationale for the HPP, and the extensive analyses of alternatives that has been completed as part of the design of the HPP, follow.

4.1 Need and Rationale for the Project

Uganda has suffered for many years from shortages of electricity and this situation has been exacerbated in recent times due to the drought in the region that has contributed to the lower level of Lake Victoria.

Throughout the 1990s the electricity demand was greater than generating capacity, and therefore load shedding was required to balance the system. In 2000 the increased capacity provided by the commissioning of the first two 40 MW units at Kiira power station relieved the load shedding. However, the drop in water levels in Lake Victoria due to the drought and to increased flows through the two dams has led to reductions in the availability of water for power generation, forcing more severe load shedding.

The demand for electricity has steadily increased in step with the strengthening and expansion of the economy, and it is possible that a shortage of capacity could occur even with the Bujagali project in service.

To address the short term load shedding the government is implementing a costly emergency thermal generation program using high-speed reciprocating engines fuelled with diesel oil to generate 100 MW of power. This power will be costly due to the need to import relatively expensive diesel fuel, and the high operating cost of high-speed units. Therefore, the high-speed units are only planned to operate until 2010 when more economical, renewable and clean power becomes available from the Bujagali HPP.

Even so, the Bujagali HPP will not address the full shortfall of energy, thus the GoU is pursuing additional generation from medium-speed reciprocating engines fueled with heavy fuel oil (100 MW), cogeneration at sugar works (15 MW), and mini hydro (41 MW).

4.2 Alternative Power Generation Technologies

The alternatives to developing Bujagali are to do nothing, or to develop an alternative source or sources of power. The do nothing alternative would mean that the up to 250 MW 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 long term significant effect on the economy and the people of Uganda.

Given the large, and growing, gap between electricity supply and demand in Uganda, a number of electricity generation alternatives studies over various planning horizons has been completed and options examined and prioritised for the country. The generation alternatives for the next 20 years in Uganda include:

- Wind-generated electricity;
- Geothermal electricity;
- Solar-generated electricity;
- Small scale hydroelectric development;
- Co-generation facilities;
- Biomass-generated electricity;
- Thermal power plants;
- Large scale hydroelectric development; and,
- Demand management measures which reduce the need for the above-noted types of projects and bring more efficiency to the national system.

The general conclusions from the evaluation of these generation alternatives is that large-scale hydroelectric development remains the most economical way forward for the country in the short-medium term. The Victoria Nile is the primary hydrological resource available in Uganda to meet the growing electricity demand in the country.

An ongoing study by Power Planning Associates is reassessing the various alternative power generation technologies currently available to Uganda. Preliminary unpublished results from that study which is expected to be published in Q1 2007, confirms that large-scale hydroelectric development provides the least cost option for the country in the short-medium term.

4.3 Alternative Hydropower Development Sites

Six potential hydropower sites along the Victoria Nile have been examined in some detail by a number of studies in recent decades. One of those sites (at Kalagala Falls downstream of Bujagali) is no longer an option as the Government of Uganda has committed to the preservation of the falls and its environs as an 'offset' for social and environmental impacts incurred with the development of the Bujagali project. Overall, two projects – Bujagali and Karuma – emerge as the preferred hydropower options for Uganda based on a range of criteria and a variety of comparative methodologies.

The above-mentioned report in preparation by Power Planning Associates for the World Bank Group is an Economic and Financial Evaluation Study to determine the viability of the Bujagali HPP, including a comparison with the Karuma project. The

preliminary results from that study indicate that Bujagali is the least cost option compared to Karuma by a significant margin.

Another recent report prepared as part of the Nile Basin Initiative examined the “Strategic/Sectoral, Social and Environmental Assessment of Power Development Options in The Nile Equatorial Lakes Region” (SSEA). One objective of the study was better definition of the actions that must, in the advancement and approval of new generation and transmission projects, be taken to improve electricity supply, in terms of reliability of supply, cost, environmental and social acceptability, and regional integration.

The SSEA report states that, of all the electricity supply options studies and evaluated across the ten countries that are within the Nile Equatorial Lakes Region, Bujagali was one of three projects that “should be implemented as soon as possible,” as Uganda is suffering from serious power outages. It identified Bujagali as a project that could be installed in the short to mid-term, at low cost and with acceptable environmental and social impacts.

4.4 Evaluation of Alternative Hydropower Configurations

Alternative project configurations at, and around, the Bujagali HPP site have also been investigated. The objective was to compare and evaluate possible options to provide the rationale for selection of the preferred design approach. Key considerations in the comparison are the potential power output of the different options, their financial costs and their relative environmental and socio-economic implications.

An initial 1998/1999 assessment considered five configurations for the dam. In addition, two further configurations were identified, one a diversion canal at Bujagali to avoid the inundation of Bujagali Falls and the other a dam and reservoir configuration at Busowoko Falls with a lower full supply level, again to preserve the falls and the river downstream to Dumbbell Island.

Further reviews of alternative configurations at Bujagali were carried out in 1999/2000 and again in 2005/2006. They included two additional options at Busowoko Falls and further consideration of the differences in environmental impact between the two options at Dumbbell Island. The review concluded that the now-preferred option at Dumbbell Island is more favourable not only on technical and economic grounds, but also from an environmental and social perspective. These analyses re-confirm the hydropower facility configuration that BEL is now seeking approval for.

7.0 Impact Identification and Management

This SEA adopts a project life cycle assessment format. It focuses on the development of specific management initiatives for all phases of the project to ensure that: i) the people closest to the project receive the projected benefits; ii) potentially negative environmental and socio-economic impacts are minimised; and iii) potentially negative health and safety impacts are kept to a minimum. To optimise the life cycle assessment, linkages between potential impacts (i.e., key environmental issues), mitigation measures (i.e. management actions), net effects (i.e. residual effects); and monitoring programmes (i.e. management decision tools) are explicitly made.

This section summarizes:

- Compliance screening of the project against Government of Uganda Legislation, International Treaties and Conventions Ratified by Uganda, and project applicable safeguard policies, performance standards and guidelines;
- Identification and analysis of community benefits and economic and developmental benefits; and,
- Identification and analysis of key project issues, and net effects analysis.

7.1 Compliance Screening

A screening exercise, the details of which are presented in the SEA Report, confirms that the project complies with:

- GoU statutes and regulations;
- Relevant international environmental treaties and conventions; and,
- Project applicable standards as determined from the concordance analysis of the social and environmental policies, performance standards and guidelines applicable to the project.

7.2 Project Benefits and Community Development

7.2.1 Project Benefits

The HPP will generate a number of economic and developmental benefits at both the macro-economic level and the local level, and is expected to make a major contribution towards the GoU goal of poverty eradication. The key macro-economic benefits that are expected include:

- Reducing electricity rationing and the associated costs of alternative self-generation;
- Create conditions to attract direct foreign investment to Uganda;

- Increase productivity and lower costs for government, education, health, business and industry;
- Facilitate rural electrification; and,
- Minimise cost of electricity for consumers.

Overall, it has been estimated in some reports that every month that the Bujagali project is delayed costs the economy approximately 10 to 15 million dollars. The project is also expected to help reduce noise and air emissions generated by the numerous small generators that are used to provide electricity during blackout periods.

Local economic benefits from the project are those which accrue to employees and the wider community over and above the benefits accruing from alternative income-generating activities. These include:

- Direct employment of Ugandans during construction (600 to 1,100 persons) and operation (50 persons) of the project;
- Induced employment (an estimated 9,000 to 16,500 jobs during construction and 250 during operations) and increased trade in service industries, particularly during the dam construction period; and,
- Benefits from indirect employment and trade, in industries and commercial activities, which become established as a result of the greater availability of electricity.

7.2.2 Community Development Program

BEL has developed a Community Development Action Plan (CDAP) which sets out proposed actions that will benefit the wider communities in the project area, beyond those individuals and households who have been or will be directly affected, such as by loss of land, crops or other assets.

The area that will benefit from the CDAP consists mainly of the eight directly-affected villages: four on the West Bank (Mukono District): Naminya, Buloba, Malindi, Kikubamutwe; and, on four the East Bank (Jinja District): Bujagali, Ivunamba, Kyabirwa and Namizi.

The following criteria were considered when the CDAP was developed:

- Programmes should be based on local conditions and the needs of directly affected communities, identified using culturally appropriate means of consultation;
- Programmes are to be sustainable; and,
- Partnerships are to be established with credible local NGOs.

The objectives of the CDAP are as follows:

- To improve opportunities for higher incomes or living standards of Project-Affected Persons and the affected area as a whole;
- To improve quality of life in the affected area; and,
- To provide a safety mechanism for vulnerable persons.

BEL proposes to support long-term sustainable development initiatives, rather than to generate them. The CDAP was developed, based on the following strategy:

- Construction of the hydropower facility will provide direct sources of employment to directly-affected persons;
- Local communities should benefit from indirect employment opportunities;
- Water supply within the directly affected communities will be improved;
- Improved marketing of farm produce can improve farm incomes;
- New sources of non-agricultural income are needed for women and young people, given the current land scarcity;
- Financial services and training to directly-affected persons is required in order that sudden access to cash compensation is handled wisely;
- Better access to credit is critical for development of small-scale businesses;
- Recreational facilities are important for a good quality of life; and,
- A social safety mechanism is needed for those Project-Affected Persons who may have difficulties due to the displacement/compensation/resettlement process.

The key areas where benefits are expected include:

- Health care facilities;
- Employment opportunities;
- Water supply;
- Electricity;
- Fisheries;
- Training and financial services;
- Education;
- Tourism; and,
- Community resources.

7.3 Key Project Issues and Net Effects Analysis

Table ES-3 highlights the key project issues, as well as the corresponding avoidance, protective and mitigative measures relevant to the construction and operational phases of this project.

Table ES-3: Summary of Project Effects, and Impact Mitigation and Effects Monitoring Activities

Project Issue	Summary of Mitigation and Net Effects
Resettlement and Land Compensation	<p>Corrective actions will be undertaken to ensure those resettled by the previous project sponsor are no worse off as a result of the project. Land required for the construction and operation of the hydropower facility totals 238 ha. Landowners were either resettled or provided cash compensation for loss of land by the previous project sponsor. Eighty-five households were displaced. An assessment survey of the resettled villagers was undertaken by BEL as part of this SEA process to confirm whether any unresolved issues remained. BEL has initiated an Assessment of Past Resettlement Activities and Action Plan (APRAP) to resolve these remaining issues. Immediate corrective activities being undertaken by BEL include: provision of new water supply hand pumps at 17 existing bore hole locations in the surrounding communities; improvements to education facilities in the 8 affected communities; and, improvements to the health facilities at the Naminya resettlement site.</p>
Effects on Land	<p>There will be permanent and temporary loss of agricultural land. Temporary land take areas will be reinstated to a condition that will make it possible for the land to be used for agriculture, forestry or industry.</p> <p>To minimise impacts to terrestrial habitat, BEL will:</p> <ul style="list-style-type: none"> • Do enrichment planting to regenerate forest vegetation on island land not inundated but previously logged or cleared for agriculture, as well as land along the mainland shore. • Plant native and medicinal tree species in areas of the riparian strip that are currently bare or planted with cash and/or subsistence crops, in order to control erosion and to provide (in the long term) roosting sites for birds and bats. <p>The portion of the quarry that will remain above water level, i.e. form the new riverbank, will be profiled and planted such that it has a similar landscape to equivalent areas above the water line prior to construction, and blends in with the profile of undisturbed areas.</p>
Effects on Hydrology	<p>The HPP is not expected to significantly alter or affect the hydrology of Lake Victoria or the Victoria Nile. The quantity and timing of water released from Lake Victoria will continue to be controlled by the operation of the Nalubaale and Kiira facilities. Because the reservoir for the HPP is small it can only hold back a few hours of flow, and therefore it will essentially pass-through whatever flows are released by Nalubaale and Kiira.</p> <p>The only significant concern related to hydrology is concern for public safety from fluctuating water levels immediately downstream of the dam. Further analyses, and a stakeholder engagement program, are proposed to address those concerns through a management plan to be developed. Fluctuations further downstream are not expected to be problematic, and not expected to be significant in Lake Kyoga or beyond.</p>

Project Issue	Summary of Mitigation and Net Effects
Effects on Water and Aquatic Life	<p>The project is not expected to have any significant long term detrimental impacts on water quality or aquatic life.</p> <p>During construction there will be an increase in suspended solids resulting from coffer dam and other construction activities. These effects will be minimised by avoiding disturbance of soils during the clearing activities. Site drainage systems will include sedimentation basins to trap sediments in runoff prior to release to the river.</p> <p>Indigenous aquatic grasses will be planted to control erosion that might occur as a result of the fluctuating water levels during the initial operation period. In the long term the banks are expected to stabilize and no significant erosion is expected.</p> <p>Trees and shrubs will be harvested prior to the reservoir being filled, to minimise water quality effects associated with rotting vegetation, and to prevent fouling of fishing gears.</p> <p>It is expected that fish stocks will naturally increase in the reservoir compared to the existing condition. For Nile tilapia habitat enhancement will be carried out as part of the quarry and river bank restoration. Stocking is not expected to be needed.</p> <p>The abundance of "Haplochromines" fish are also expected to increase as a result of the conversion of faster-flowing habitats to the slower-flowing habitats that are preferred by these species</p> <p>Entrapment and entrainment of aquatic organisms is not expected to have a significant effect on fish or other populations. Fish screens will be installed on the water intakes reduce the rate of entrainment by fish. Access points will be provided to the river to ensure there is access to the river by local persons for washing, fishing or other purposes during the construction period.</p>
Air Quality and Greenhouse Gases	<p>The project will not involve significant emissions of pollutants to air. Dust will be generated during construction but is not expected to result in any significant offsite impacts. Industry good practice will be used to limit dust, including grassing stockpiles to prevent wind raised dust, using wetting agents on roads, and using covering loads of friable materials on trucks using public roads. Vehicles and motors will be regularly maintained to minimise exhaust emissions and black smoke.</p> <p>Bujagali will generate about 250 times less greenhouse gas emissions compared to generating the same amount of electricity from burning of fossil fuels.</p>
Noise	<p>Noise generated during construction is not expected to have any significant off-site nuisance effects. The main offsite noise will be short term noise related to blasting during quarrying. A notification procedure will be developed to ensure surrounding communities are informed about the procedures and timing of blasting.</p>

Project Issue	Summary of Mitigation and Net Effects
Access Roads and Traffic	<p>An existing two-lane, paved, public highway provides access to the site. The existing roads are of sufficient capacity to accommodate project related traffic. A Traffic Management Plan (TMP) will address all aspects of project related traffic including speeding, maximum loads on trucks, abnormal loads; and, management of connection points between access roads and main public highways. Consultations are planned with community leaders to identify measure to ensure safety for pedestrians, including school children, that use the road as a walkway.</p>
Environment Protection Areas	<p>The project will result in disturbance and loss of land that falls within the Jinja Wildlife Sanctuary. Consultations with the management authority for the Sanctuary indicate that planned enhancement planting will offset the losses. The sponsor will assist in the further development of the Kalagala Falls and Nile Bank CFRs to help offset impacts on Bujagali Falls and Jinja Wildlife Sanctuary.</p>
Tourism, White Water Rafting and Aesthetics	<p>The project will result in flooding of Bujagali Falls and associated rapids. Consultations with WWR operators indicate that the operators are generally well-advanced in their preparations to re-orient their operations downstream and expand operations beyond rafting. To facilitate the move BEL will provide new raft launching facilities downstream of the dam, the specific locations to be agreed upon with the operators. BEL is involved in ongoing consultations with the WWR operators as to how it can further offset the impacts on their activities, and support the relocation process.</p> <p>BEL will construct a visitor's centre at the HPP and a cultural centre near Bujagali Falls, and work with Jinja Tourism Development Association (JITDA) on sustainable tourism activities for the new reservoir recreationally.</p>
Effects on Cultural Property	<p>Dwelling sites of spirits important to the local community are being addressed through transfer and resettlement ceremonies. Ceremonies for the Bujagali Rapids have been carried out, although additional activities are being discussed with the Busoga Kingdom.</p> <p>The project will result in flooding of household graves and amasabo (shrines). Where possible these have been relocated as part of the resettlement programme or through compensation payments. Remembrance services to commemorate those buried in the area will be completed. A structure or monument may be erected, either at site of remembrance or elsewhere, in accordance with wishes expressed by local communities.</p>
Community Health, Safety and Security	<p>BEL has developed public health related programs to combat spread of HIV/AIDS and other sexually transmitted diseases (STDs) and vector-borne diseases such as malaria amongst workers and the local communities. An emergency program is being developed specifying actions to be taken in the event of an outbreak of Ebola, or other highly infection disease. Improvements to health care in local communities is being addressed in the CDAP.</p>

Project Issue	Summary of Mitigation and Net Effects
Dam Safety – Risk Assessment	<p>An independent Panel of Experts will be commissioned to review and advise BEL on matters relative to dam design and safety. The Bujagali Dam Safety Panel (BDSP) is expected to consist of three technical experts who will provide advice through final design, construction, initial filling, and start-up phases of the dam. The BDSP is also expected to examine the potential safety implications raised by NGOs regarding the upstream Nalubaale facility.</p>
Labour and Working Conditions	<p>The potential risks have been identified which have a regional prevalence and which have arisen from analysis of similar projects include:</p> <ul style="list-style-type: none"> • Worker health and safety; • Forced labour and freedom of association; • Payment of minimum wage; and, • HIV impact. <p>BEL is committed to implementing various processes, business commitments and measures to address the various labour risks identified and additional issues required in lender policies.</p> <p>The contract and terms of reference to be agreed between BEL and the EPC contractor (which will employ the majority of construction workers) will specify labour and occupational health and safety commitments to be observed by the contractor and sub-contractors, as well as responsibilities for monitoring the implementation of these commitments, which will lie primarily with the EPC contractor. BEL is committed to establishing its own procedures and reviewing the EPC contractor's procedures, and assessing the performance of both parties on these issues, including ensuring that sub-contractors' contracts commit them to compliance with relevant labour and health and safety legislation and guidelines.</p>
Associated Facilities	<p>A separate SEA has been completed for the Bujagali Interconnection Project (IP). That SEA addresses the following key issues:</p> <ul style="list-style-type: none"> • Resettlement and Compensation for the projected affected persons; • Impacts on Central Forest Reserve Lands; • Impacts on Lubigi Swamp and other wetlands; • Impacts on public health, including HIV/AIDS and Electric and Magnetic Fields (EMFs); • Aesthetics; • Labour Force Management; • General construction related issues; and, • Cumulative effects <p>That SEA has been prepared in parallel with the SEA for the HPP, and in line the HPP SEA included extensive stakeholder consultations.</p>

Project Issue	Summary of Mitigation and Net Effects
Other Construction Related Issues	<p>A number of construction-related issues were identified that are common to many large-scale construction projects, and for which potential effects are well-known and effective mitigation available. The issues identified are:</p> <ul style="list-style-type: none"> • Public and Worker Health and Safety; • Management of Hazardous and Contaminating Material; • Management of Solid Waste; • Soils and Agriculture; • Air quality; and, • Archaeological Sites. <p>The EPC Contractor will be responsible for measures to mitigate and manage the potential effects related to construction activities. These measures will be specified in the Contractor's plans, which will be incorporated into the SEAP.</p>
Other Operations Related Issues	<p>A number of operational-related issues were identified that are common to most large-scale hydro projects and for which the potential effects are well documented and effective management measures available. These issues identified are:</p> <ul style="list-style-type: none"> • Public and worker health and safety; • Management of hazardous and contaminating material; and, • Management of solid waste. <p>BEL, as operator of the facility, will be responsible for the implementation of measures to protect, mitigate, and manage the potential effects related to the operation of the hydropower facility. Project specific plans and programmes to be developed by BEL for the operations phase will be incorporated into the SEAP.</p>

7.4 Cumulative Effects

The potential cumulative effects of the Bujagali hydroelectric project have been evaluated in the context of other existing and proposed hydroelectric projects on the mainstem Victoria Nile in Uganda. The timeframe is on the order of 20 years, though conceptually, the timeframe extends to the end of the operational life of the projects under review, more on the order of 50 years, at least.

The projects assessed are Nalubaale (Owen Falls), Kiira (Owen Falls Extension), Bujagali, and Karuma. A Kalagala scheme is not included as the Kalagala offset agreed by the Government of Uganda to offset the residual impacts of the Bujagali project precludes such development there.

Overall, the significant and positive cumulative effects of Bujagali have been determined to include:

- Developmental benefits at the local, regional and national levels, including Economic benefits associated both with:
 - the project's construction (short term), and;
 - the operation of the project (medium and long term).
- Increased supply of electricity, including poverty alleviation benefits to the extent that the new electricity be accessible to those living with poverty;
- 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 terms.

Project cumulative impacts of a negative nature are considered to be of minor significance. These include:

- Relocation of people with compensation to accommodate the project's construction, facilities and operations;
- Aesthetic impacts from the presence of another dam with the potential for knock-on tourism impacts (potentially positive, as well, however);
- Some disruption of the natural flow regime over an ~8-km stretch of the river Nile downstream of and as a result of Nalubaale and Kiira (see Section 7.5.3):
 - with associated impacts on aquatic organisms and communities (also potentially positive if productivity of reservoir increased);
 - and 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.

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 hydroelectric project are addressed in the companion SEA.

Other cumulative effects of the Bujagali HPP could include:

- Disruption of fish migrations in the river Nile in the vicinity of the project, given Nalubaale's impacts on fish movements between Lake Victoria and the river Nile since 1954;
- Insignificant changes in the levels of Lake Kyoga and in flows downstream of it (Section 7.5.3); and,
- Reduced operational need to increase flows through Nalubaale and Kiira due to efficiencies from Bujagali HPP (a positive cumulative effect, should it occur).

With respect to cumulative effects with other non-hydroelectric projects in the Ugandan energy sector, there could be a reduced need to dispatch thermal and emergency sources of electricity to the Ugandan grid and by individual consumers (generators) with cost savings, air emissions reductions, and likely human health benefits (another positive effect). Another such effect could be some reduced demand for other fuels (including firewood) where access to electricity is available and cost-competitive.

There are no changes (including cumulative effects) anticipated in the 'Agreed Curve' hydrological regime for the river Nile.

BEL intends to consult with key stakeholders in Uganda and elsewhere, as appropriate, on the preliminary conclusions reached in the cumulative effects analysis and report on the results and any associated mitigation or monitoring implications, as appropriate, in the SEAP update documentation to be released on a regular basis.

In addition, the final version of the Strategic/Sectoral, Social and Environmental Assessment of Power Development Options in the Nile Equatorial Lakes Region commissioned by the Nile Basin Initiative is expected to become available after the disclosure of this SEA report. The update of this cumulative effects analysis of preliminary conclusions will include any implications for this analysis from the final version of that report, as well as modifications resulting from consultations with key stakeholders.

8.0 Social and Environmental Action Plan

The SEA provides a framework for the Social and Environmental Action Plan (SEAP) that will be developed for the project. At the time the SEA was written, certain detailed planning and design activities relevant to the SEAP were still to be completed. Thus, the SEAP is described at the level of detail available at the time of writing. When the detailed activities are completed, they will be integrated within the framework of the SEAP and an update will be prepared and released by BEL. Currently, the SEAP framework addresses the following key components:

- Social and environmental management policies and systems;
- Mitigation plans, procedures, and programmes;
- Monitoring activities;
- Implementation schedules and cost estimates; and,
- Plans for integrating the SEAP within the overall development plan for the project.

8.1 Environmental Management

BEL is the project sponsor and will have overall responsibility for design and building of the hydropower facility. BEL will own and operate the hydropower facility for a 30 year period, after which time ownership will be transferred to the GoU. BEL is in the process of selecting a contracting consortium, which will construct the hydropower facility on an Engineer, Procure and Construct (EPC) basis.

As project sponsor, the ultimate responsibility for the project's compliance with Ugandan and international lender legislation and guidelines for environmental and social performance will lie with BEL. However, day-to-day responsibility for implementing environmental and social mitigation, compensation and monitoring actions will in many cases be devolved to the EPC Contractor or to third parties.

The SEAP addresses both the construction and operational phases of the hydropower facility for a 30 year period, until UEGCL, or its successor, assumes ownership and responsibility of the hydropower facility.

BEL is committed to the creation and implementation of programmes to reduce the probability of occurrence of deleterious environmental incidents. Contingency plans will be developed for dealing with such adverse incidents, if they occur.

BEL will expect the same level of environmental performance from its agents, suppliers, and sub-contractors and will stipulate this in any legally binding agreements it enters with these parties.

8.2 Relationship of the SEAP to Other Project Plans

The SEAP is an umbrella plan that is comprised of several components that are to be integrated and implemented by BEL and the EPC Contractor with regard to the Bujagali Hydropower Facility. These components are shown in Figure ES-6.

While this SEA includes working versions of three of the Sponsor's Action Plans (namely the PCDP, the APRAP and the CDAP), those which are the responsibility of the EPC Contractor, and those of the sponsor not included herein will be developed after the EPC Contractor has been appointed at the appropriate level of detail for that stage of project development. The overall objective is to have final versions ready as needed for their implementation. Consultations and disclosure of the various plans will occur throughout the process of their development and implementation.

8.3 Implementation of the Social and Environmental Action Plan

8.3.1 BEL's Commitments and Resourcing

In order to discharge its commitments with respect to management of biophysical impacts of the project, BEL will designate a suitably qualified and experienced Environmental Manager.

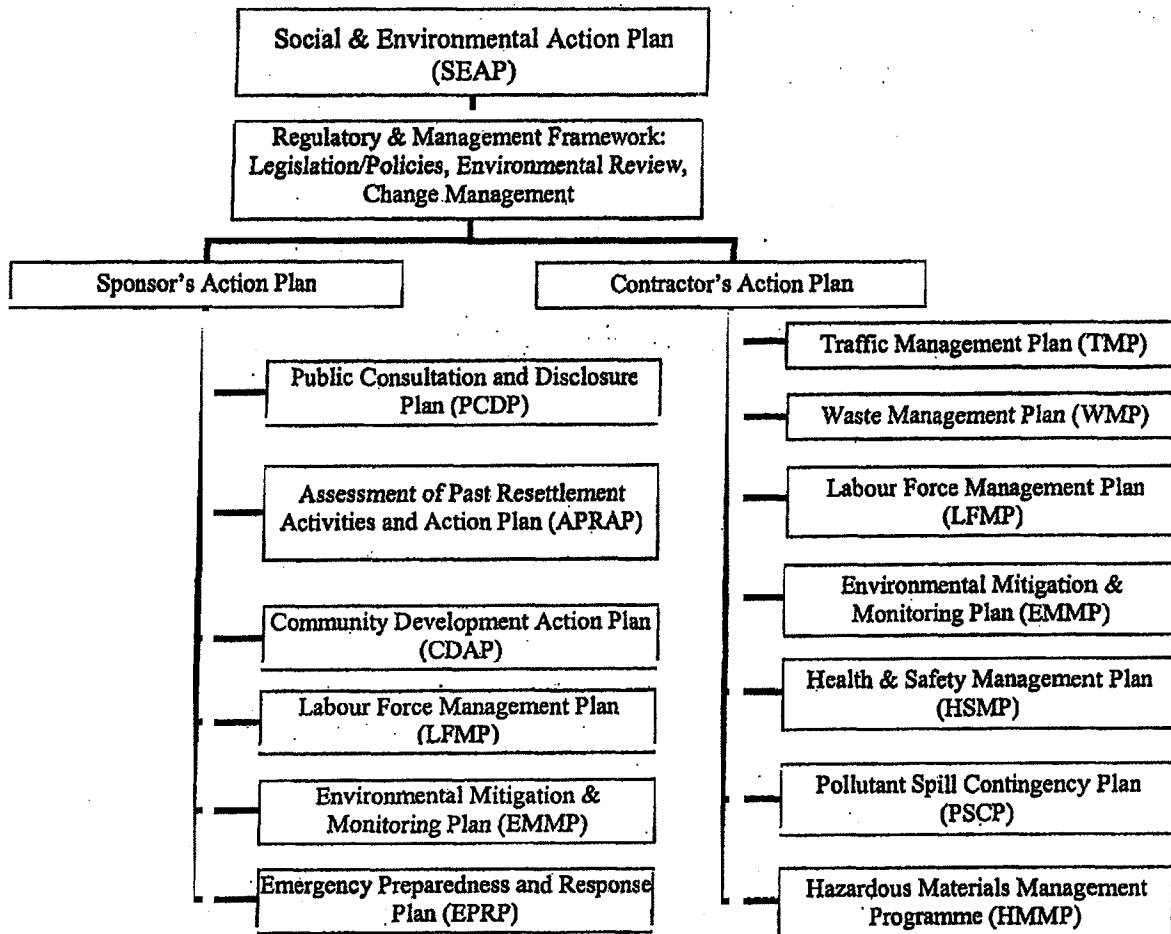
The Environmental Manager shall report directly to BEL's Implementation Manager, and will be provided with sufficient support staff and facilities to allow all of BEL's environmental commitments to be discharged appropriately. The Environmental Manager and his team will be members of the overall Implementation Team for the project.

8.3.2 EPC Contractor's Commitments and Resourcing

The EPC Contractor will designate an appropriately experienced and qualified Site Environmental Officer (SEO), who will be responsible for implementation of the measures set out in the Contractor's EMMP.

The Environmental Field Inspectors will be appointed during the mobilisation phase, and will be local staff with relevant environmental/engineering experience, who are fluent in local languages. The number of field inspectors may be adjusted according to the environmental issues on-site.

The SEO will have overall responsibility for the activities of the Contractor's Environmental department. On a day-to-day basis the emphasis of his work will be upon liaison with BEL's Environmental Manager, and with relevant authorities, local residents and NGOs on environmental issues (i.e. external liaison). The responsibility for day-to-day management of the field team will be devolved to the Environmental



Project Name: BUJAGALI HYDROPOWER PROJECT SEA	Date: December, 2008	10045-H-ES-6	Figure ES-6
Prepared for: BUJAGALI ENERGY LIMITED	SEAP COMPONENT PLANS		

Prepared by:  **BURNSIDE**

Field Co-ordinator. The field team will comprise Field Inspectors, supported by drivers and labourers. The Field Inspectors will maintain a permanent presence on-site, carrying out routine checks of operating procedures and environmental monitoring.

8.3.3 Reporting Lines and Decision-Making

On a quarterly basis, the SEO will provide the Environmental Manager with a report containing monitoring results (and a summary of these), a synopsis of environmental issues encountered, and the efficacy of solutions to these issues. The Environmental Manager will use these as the basis for BEL's quarterly environmental reports. BEL's quarterly reports will also include commentary on the implementation and efficacy of environmental mitigation actions implemented by BEL.

The Environmental Manager will develop annual environmental reports suitable for submission to NEMA (as a requirement of the Ugandan Environmental Impact Assessment Regulations) and to other stakeholders as appropriate. This will provide an opportunity for NEMA and stakeholders to comment both on the impacts of the project itself and the efficacy of the SEAP. Where necessary, the SEAP will be updated.

8.3.4 Social and Environmental Auditing and Reporting

Auditing of the environmental compliance of the project will be carried out at two levels: internal and external.

BEL will carry out annual internal audits of its compliance with the requirements of the SEAP, and any other environmental requirements, such as those imposed by NEMA and/or the international lenders. The responsibility for implementing these audits will lie with the Environmental Manager, who may elect to employ external consultants.

External audits of the EPC Contractor's environmental compliance will be carried by BEL, and potentially by representatives of NEMA and the international lenders.

8.3.5 Social and Environmental Oversight

The project will have ongoing accountability to, and will be monitored by, both the lenders and NEMA (the latter via the District Environmental Officers for Jinja and Mukono). However, in order to ensure that issues are identified early, and resolved in an equitable fashion, BEL undertakes to support independent oversight of the project at several levels, as follows:

Social and Environmental Panel of Experts

It is a requirement of lender policies that the Project Sponsor engages a Social and Environmental Panel of Experts (PoE), to provide ongoing oversight of compliance with the relevant Safeguard Policies and Performance Standards. BEL is in the process of engaging the PoE for the Bujagali project.

Dam Safety Review Panel

Under World Bank Group policies, BEL is required to assemble a Dam Safety Review Panel (DSRP) acceptable to the World Bank Group. At financial close, BEL will develop a Terms of Reference and assemble a 3-member DSRP, the main functions of which will be to review and advise BEL on dam safety matters and other critical aspects of the dam, its structures, catchment area, reservoir surroundings and downstream areas. BEL may request the panel to provide expert review of associated issues such as the safety of the power generation facilities, river diversions during construction, the implications on safety of the upstream dams – Nalubaale and Kiira, and potential effects of a failure at either of these facilities on the Bujagali Dam.

Environmental Monitoring Committee

At the time of writing, an EU country was considering supporting an independent Environmental Monitoring Committee which would provide social and environmental oversight of the Bujagali HPP as part of its bilateral aid to Uganda. This Committee would support NEMA and would be independent of the sponsor group. Thus, the implementation of this Committee, if it eventuates, would be the responsibility of GoU.

8.3.8 Change Management

During the implementation of the project, change may be required to address unforeseen or unexpected conditions or situations. A change management process will be applied to ensure environmental and social issues are addressed as part of any significant changes to project procedures, processes, design or activities. Both BEL and the EPC Contractor will be responsible for managing changes within their respective areas of responsibility.

8.4 Responsibilities and Costs for Environmental Mitigation Measures

Table ES-4 below outlines the overall package of environmental mitigation measures that will be implemented in relation to the Bujagali hydropower facility. The table also assigns general responsibilities for implementing each group of mitigation measures. A detailed implementation schedule will be developed once the EPC Contractor is selected, and it will be submitted as an SEA update.

Consistent with the Bujagali Project's contracting strategy of integrating environmental protection and mitigation activities into the EPC Contractor's Scope of

Work, the specifications for many of the activities were included in the bid package upon which the EPC Contractor is developing its base rates. Therefore, since many of the costs associated with environmental protection and mitigation activities are included in the EPC Contractor's base rates, it is not possible to present a detailed accounting of all the monies devoted to the project's construction phase environmental protection and mitigation activities. These costs are therefore described as 'Within EPC contract price' in the table.

Table ES-4: Responsibilities, Timing and Budgets for Social and Environmental Action

Issue	Action/s	Timing	Responsibility	Estimated Cost (USD)
Staffing for SEAP Implementation	Recruit SEAP Implementation Team	Months 1-3 after Financial Close	BEL - Implementation Manager	1,125,000
Social and Environmental Oversight – International Lenders	Appoint S&E Panel of Experts	Prior to Financial Close	BEL - Implementation Manager	300,000
Dam Safety	Appoint DSRP	Prior to Financial Close	BEL - Implementation Manager	450,000
Resettlement Corrective Actions	Implement APRAP	Year 1 after Financial Close	BEL – Social Unit	497,000
Community Development	Implement CDAP	Throughout Construction Phase	BEL - Social Unit	3,817,000
Public Consultation/Community Liaison	Implement PCDP	Throughout Construction Phase	BEL - Community Liaison Manager	Included in salary for SEAP implementation team
Labour Force Management	Develop Sponsor's LFMP	Months 1-3 after Financial Close	BEL – H&S/HR Managers	20,000
Labour Force Management	Develop EPC Contractor's LFMP	Months 1-3 after appointment	EPC Contractor	Within EPC contract price
Mitigation of biophysical impacts not construction-related	Implement Sponsor's EMMP	Preconstruction	BEL (Environmental Manager)	321,000
		Construction Phase	BEL (Environmental Manager)	1,476,200
		Operations Phase (first 2 years)	BEL (Environmental Manager)	361,880
Mitigation of biophysical impacts construction-related	Implement Contractor's EMMP	Throughout Construction Phase	EPC Contractor (SEO)	Within EPC contract price

Issue	Action/s	Timing	Responsibility	Estimated Cost (USD)
Institutional Strengthening (Plant and Environmental Management within UEGCL)	Assess need prior to handover to UEGCL.	Years 29 and 30 of BEL's concession.	BEL	TBD (funded from Bujagali HPP operating budget)

8.5 Responsibilities for Environmental Monitoring Measures

The SEAP describes the overall package of environmental monitoring that will be carried out in relation to the Bujagali hydropower facility. The EMMP also assigns responsibilities for each monitoring activity, and proposes parties who are capable of carrying out the monitoring, on behalf of the responsible body.

It should be noted that, consistent with the strategy of integrating social and environmental protection and mitigation activities into the EPC Contractor's Scope of Work, the specifications for many of the construction-related monitoring activities were included in the bid package upon which the EPC Contractor is developing its base rates. Therefore it is not possible to present a detailed accounting of all the monies devoted to the project's environmental monitoring activities during the construction phase.

8.6 Institutional Strengthening

Several governmental agencies at both the local and national levels will be responsible for ongoing monitoring of construction and operational conditions and activities. In general, BEL will consult with the applicable agencies to establish the extent of each agency's 'in house' capability for managing such activities, and identify any shortfalls.

Preliminary information about the institutional strengthening needs of the key government agencies involved, based on preliminary consultations during the SEA process, is provided in the SEA documentation.

ANNEX 3
INDEMNITY AGREEMENT

CONFORMED COPY

NUMBER B-0130-UG

INDEMNITY AGREEMENT

(Partial Risk Guarantee for the Private Power Generation (Bujagali) Project)

between

INTERNATIONAL DEVELOPMENT ASSOCIATION

and

REPUBLIC OF UGANDA

Dated July 18, 2007

INDEMNITY AGREEMENT

INDEMNITY AGREEMENT, dated July 18, 2007, between the REPUBLIC OF UGANDA ("**Uganda**") and INTERNATIONAL DEVELOPMENT ASSOCIATION (the "**Association**").

(A) WHEREAS pursuant to a loan agreement dated on or about the date hereof (the "**IDA Guaranteed Facility Agreement**"), between Bujagali Energy Limited, a limited liability company organized under the laws of Uganda (the "**Company**") and the financial institutions named therein as lenders (the "**IDA Guaranteed Lenders**") and Absa Bank Limited as agent (the "**Agent**") for the IDA Guaranteed Lenders, the IDA Guaranteed Lenders have agreed to make a loan to the Company of up to one hundred fifteen million United States Dollars (US\$115,000,000) (the "**Guaranteed Loan**") to support a portion of the financing of the Bujagali Project (the "**Project**"), as defined in the Implementation Agreement dated December 13, 2005 between the Government of Uganda (the "**Government**" or "**GOU**") and the Company (as it may be amended and restated with the Association's consent) (the "**Implementation Agreement**").

(B) WHEREAS the Government has undertaken certain obligations (including payment obligations) to the Company with respect to the Project pursuant to the Implementation Agreement and the Government Guarantee, which guarantees certain of UETC's payment obligations under the PPA and agrees to compensate the Company for certain losses arising from Political Force Majeure Events, GOU Events of Default and UETC Events of Default (as each of the foregoing terms is defined herein and/or in the Implementation Agreement);

(C) WHEREAS at the request and with the agreement of Uganda, on or about the date hereof, the Association and the Agent (on behalf of the IDA Guaranteed Lenders) entered into an agreement (the "**IDA Guarantee Agreement**") pursuant to which the Association agreed to guarantee (the "**IDA Guarantee**") to the IDA Guaranteed Lenders the payment of interest and the repayment of the principal amount of the Guaranteed Loan on the terms and conditions set forth in the IDA Guarantee Agreement, but only on condition that Uganda agrees to reimburse to the Association all amounts paid by the Association in relation to or arising from the IDA Guarantee Agreement and to undertake such other obligations to the Association as are set forth in this Indemnity Agreement; and

(D) WHEREAS, in consideration of the Association providing the IDA Guarantee pursuant to the IDA Guarantee Agreement, Uganda has undertaken the obligations to the Association set forth in this Indemnity Agreement,

NOW THEREFORE the parties hereto hereby agree as follows:

ARTICLE I

Incorporation of General Conditions and Modifications

Section 1.01. (a) The following provisions of the "General Conditions Applicable to Development Credit Agreements" of the Association, dated January 1, 1985 (as amended through May 1, 2004) (hereinafter the "**General Conditions**"), with the modifications set forth in paragraph (b) of this Section 1.01, constitute an integral part of this Indemnity Agreement:

- (i) Article I;
- (ii) Sections 2.01(1), (2), (3) and (4) both as modified below, (7), (8) as modified below, (9), (10) and (12) both as modified below, and (14);
- (iii) Sections 2.02 and 2.03;
- (iv) Sections 3.04(c) and 3.05;
- (v) Sections 4.05 and 4.06;
- (vi) Section 8.01;
- (vii) Sections 9.01, 9.02 and 9.08;
- (viii) Sections 10.01, 10.02 as modified below, and 10.03; and
- (ix) Article XI.

(b) The General Conditions, unless the context otherwise requires, shall be modified as follows:

- (i) the term "Borrower" wherever used in the General Conditions, means Uganda;
- (ii) the term "development credit" or "Credit" wherever used in the General Conditions, means the amounts payable by Uganda under this Indemnity Agreement, save as used in Section 9.01 of the General Conditions where it shall mean the Project;
- (iii) the term "Development Credit Agreement," wherever used in the General Conditions, means this Indemnity Agreement;
- (iv) the term "Effective Date," wherever used in the General Conditions, means the date specified in Article V of this Indemnity Agreement;
- (v) the term "Project," wherever used in the General Conditions, means the Project as defined in the Preamble to this Indemnity Agreement; and

- (vi) in Section 10.02 the phrase "the IDA Guarantee Agreement, the IDA Guaranteed Facility Agreement, the Transaction Documents or any other related document" is added immediately after the phrase "the Development Credit Agreement."

Section 1.02. Unless the context otherwise requires,

- (a) the several terms defined in the General Conditions and in the Preamble to this Indemnity Agreement have the respective meanings therein set forth;
- (b) the following terms shall have their respective meanings set forth in the Implementation Agreement: "Change in Law," "Company Action or Inaction," "Company Event of Default," "Force Majeure Event," "GOU Action or Inaction," "GOU Event of Default," "Land Licence," "Laws of Uganda," "Lease Agreement," "Liquidity Facility Agreement," "Other Force Majeure Event," "Political Force Majeure Event," "Power Station EPC Contracts," "UETC Action or Inaction," "UETC Event of Default," "UETC Line," and "UETC Line EPC Contract."
- (c) the following additional terms shall have the following meanings:
 - (i) "Bank" means the International Bank for Reconstruction and Development;
 - (ii) "Demand" means a demand on the Association for payment under the IDA Guarantee Agreement, made by means of a Demand Notice;
 - (iii) "Demand Notice" means a demand presented to the Association by the Agent in accordance with Article 6 of the IDA Guarantee Agreement;
 - (iv) "Dispute" means a "dispute" as that term is used in Article XVI of the Implementation Agreement;
 - (v) "Environmental Management Plans" or "EMPs" means the two Social and Environmental Assessment ("SEA") reports in respect of the Project and the UETC Line being financed and constructed for the benefit of UETC (the "UETC Line Project"), both dated December 2006, adopted by the Company and approved by the Association; the EMPs also set out the actions, measures, monitoring arrangements and other activities to be undertaken by the Company, as well as UETC and the Government, during implementation of the Project and the UETC Line Project, to mitigate adverse environmental and social impacts, offset them, or reduce them to acceptable levels, as such plans may be amended from time to time with the prior agreement of the Association;
 - (vi) "GOU Direct Agreement" means the agreement among the Government, the Company and the intercreditor agent (or agents) representing the lenders (including the IDA Guaranteed Lenders) to the Project dated on or about the date hereof;

- (vii) "Government Guarantee" means the agreement between the Government and the Company dated May 25, 2007 providing for GOU's guarantee to the Company of UETC's payment obligations under the PPA;
- (viii) "Guaranteed Obligation" means any obligation of the Government with respect to making a compensation payment or other payment upon termination of (or at any other time under) the Implementation Agreement or the Government Guarantee by reason of:
 - (a) any GOU Event of Default pursuant to Sections 15.2 (a), (b), (c), (d), (f), (g) or (h) of the Implementation Agreement;
 - (b) any UETC Event of Default pursuant to Sections 4.3(a), (b), (c) or (f) (but excluding any breach by UETC of the Liquidity Facility Agreement of the PPA; or
 - (c) any Political Force Majeure Event pursuant to Sections 14.1(a)(i), (a)(ii), (a)(iii) or (a)(v) of the Implementation Agreement;
- (ix) "IDA Agreements" means the IDA Guarantee Agreement, this Indemnity Agreement, and the IDA Project Agreement;
- (x) "IDA Project Agreement" means the agreement dated on or about the date hereof between the Association and the Company;
- (xi) "Kalagala Falls Site" means the area designated as such on the map attached hereto;
- (xii) "Mabira Central Forest Reserve" means the area designated as such on the map attached hereto, including all use classifications set forth on such map as agreed with the Association;
- (xiii) "O&M Contractor" means the onshore and offshore operators who are parties to the Operation and Maintenance Agreements;
- (xiv) "Operation and Maintenance Agreements" means the offshore and onshore operations and maintenance services agreements between the Company and the O&M Contractor;
- (xv) "PPA" means the Power Purchase Agreement between UETC and the Company dated December 13, 2005 (as it may be amended and restated with the Association's consent), providing for the long-term off-take arrangements between UETC and the Company;
- (xvi) "Prohibited Activities" means Corrupt Practices, Fraudulent Practices, Collusive Practices, Coercive Practices or Obstructive Practices in any way connected to the Project, as each of those terms is defined in Annex 1 hereof;

(xvii) "Public Sector Entity" means:

- (a) the Government, the Parliament of Uganda, any governmental department or ministry, agency, body, instrumentality or public authority, whether national, state, regional or local (or any subdivision thereof), or any State Company or other entity subject to the overall control or direction as to matters of policy of the Government or which is otherwise controlled by the Government (including UETC);
- (b) any court with jurisdiction over the Company or the Project or any part thereof; or
- (c) any person having or asserting authority to issue a license, approval or consent required or necessary in connection with the Project, or otherwise having jurisdiction over any aspect of the Project;

(xviii) "Relevant Project Agreements" means the Government Guarantee, the Implementation Agreement, the PPA, the UETC Line EPC Contract, the Power Station EPC Contracts, the Liquidity Facility Agreement, the GOU Direct Agreement, the UETCL Direct Agreement, the Land Licence, the Lease Agreement, and the Operation and Maintenance Agreements;

(xix) "Resettlement Action Plans" means the plans titled "Assessment of Past Resettlement Activities and Action Plan" in respect of the Project and the "Resettlement and Community Development Action Plan" for the UETC Line, both dated and disclosed in December 2006 as part of the SEAs, for the Company's as well as UETC's and the Government's implementation of the involuntary resettlement of displaced persons in conjunction with the development of the Project and the UETC Line Project;

(xx) "State Company" means a legal entity which is directly or indirectly controlled by the Government. For the purpose of this definition, the Government will be deemed to have control if it:

- (a) holds an absolute majority of the votes in a shareholder meeting or equivalent corporate body; or
- (b) holds more than fifty percent (50%) of the rights and interests which confer the power of management and control; or
- (c) has the power to appoint a majority of the members of the governing body of such legal entity;

(xxi) "Transaction Documents" means the Relevant Project Agreements and the IDA Agreements; and

- (xxii) "UETC" means Uganda Electricity Transmission Company Limited, a limited liability company held and controlled by the Government, and organized under the laws of Uganda;
- (xxiii) "UETCL Direct Agreement" means the agreement among UETC, the Company and the agent (or agents) representing the lenders (including the IDA Guaranteed Lenders) to the Project dated on or about the date hereof;
- (xxiv) "UETC Line EPC Contractor" means the contractor engaged by the Company or UETC to carry out the work under the UETC Line EPC Contract; and
- (xxv) "United States Dollars" or "US\$" or "US Dollars" means the lawful currency of the United States of America.

ARTICLE II

Indemnity by Uganda to the Association

Section 2.01. In consideration of the Association providing the IDA Guarantee on the terms and conditions set out in the IDA Guarantee Agreement, Uganda hereby irrevocably and unconditionally agrees:

(a) to reimburse the Association in US Dollars immediately upon written demand or as the Association may otherwise direct in writing for any amount paid by the Association under the IDA Guarantee Agreement together with interest thereon at the rate per annum determined by the Association and notified to Uganda (which rate shall not exceed the Bank's prevailing lending rate for Fixed-Spread Loans denominated in US Dollars, as shown from time to time on the Bank's external website) from the date such payment is made by the Association until such amount is paid in full;

(b) to indemnify the Association on demand in respect of all actions, proceedings, liabilities, claims, losses, damages, costs and expenses brought against, suffered or incurred by the Association which are reasonable and documented in relation to or arising out of the IDA Guarantee Agreement (except as otherwise provided in Section 10.03 (i) of the General Conditions);

(c) that (i) the Association is authorized to comply with any Demand Notice served on the Association pursuant to the IDA Guarantee Agreement and make any payments which are due or claimed from the Association under the IDA Guarantee (*provided* that the Association shall promptly notify Uganda of any such demand, but failure to give such notice shall in no way affect the Association's obligation to make payment under the IDA Guarantee or Uganda's obligation to reimburse or indemnify the Association pursuant to this Indemnity Agreement); and (ii) it shall not be incumbent on the Association to confirm whether or not any statements in such Demand Notice are in fact correct; and

(d) that any such Demand Notice shall, as between Uganda and the Association, be conclusive evidence that the demand is properly made and payment is due. Following the

notification to Uganda of the receipt by the Association of any Demand Notice, Uganda may investigate the validity of the statements in such Demand Notice and take such actions as Uganda may see fit against the Company, the Agent and the IDA Guaranteed Lenders in respect thereof, all without prejudice to the Association's obligations under the IDA Guarantee Agreement to make a payment in respect of such Demand Notice and to Uganda's obligations under this Indemnity Agreement in relation to its indemnity and payment obligations to the Association. The obligations of Uganda hereunder shall apply notwithstanding that Uganda, UETC or any Public Sector Entity disputes the validity of any such Demand Notice or the accuracy or correctness of any documentation, fact or figures relied upon or stated therein.

Section 2.02. (a) The obligations of Uganda under this Indemnity Agreement are irrevocable, absolute and unconditional irrespective of the value, genuineness, validity, regularity or enforceability of Uganda's obligations under the Implementation Agreement, the Government Guarantee, or any other Public Sector Entity's obligations under other Transaction Documents, and shall not be discharged except by performance and then only to the extent of such performance. Such obligations shall not be subject to any prior notice to, demand upon or action against the Company, the Agent, the IDA Guaranteed Lenders or any other person, or any prior notice to or demand upon Uganda with regard to any failure by the Company or Uganda to pay any amount in respect of which a Demand Notice is served on the Association pursuant to the IDA Guarantee Agreement. Such obligations shall not be impaired by any of the following: (i) any extension of time, forbearance, concession or other indulgence given to the Association, the Company, the Agent, the IDA Guaranteed Lenders or any other person; (ii) any variation of the IDA Guaranteed Facility Agreement, or any Transaction Document or any other related agreement; (iii) any assertion of, or failure to assert, or delay in asserting, by any party to a Transaction Document, any right, power or remedy against Uganda, UETC, the Company or any other person, or in respect of any security created or purported to be created for the Guaranteed Loan (or any part thereof or interest thereon); or (iv) any other circumstances which would or might (but for this provision) constitute a release, discharge, defense or waiver for Uganda.

(b) The Association may at any time, without thereby discharging, impairing or otherwise affecting any rights, powers and remedies hereby created or conferred upon it by any IDA Agreement, the IDA Guaranteed Facility Agreement, or any other related agreement or by law: (i) offer or agree to or enter into any agreement for the extension or variation of the IDA Guarantee Agreement, the IDA Guaranteed Facility Agreement (other than, without Uganda's consent, any such extension or variation that would materially increase the obligations of Uganda under this Indemnity Agreement), any Transaction Document or any other related agreement; and (ii) offer or give or agree to give any time or other indulgence to any person or entity other than Uganda from whom it may seek reimbursement (at law or otherwise) in respect of sums paid out or liabilities incurred by the Association under the IDA Guarantee Agreement.

(c) Any rights conferred on the Association by this Indemnity Agreement shall be in addition to, and not in substitution for or derogation of, any other right that the Association may have at any time to seek from Uganda, UETC, the Company or any other person or entity, reimbursement of or indemnification against payments made or liabilities arising from or in connection with the IDA Guarantee Agreement.

(d) The Association shall not be obliged before or after taking steps to enforce any rights conferred on it by this Indemnity Agreement or exercising any of the rights, powers and

remedies conferred upon the Association by the IDA Agreements, the IDA Guaranteed Facility Agreement or any other Transaction Document, or any other related agreement or by law: (i) to take action or obtain judgment or award in any court or tribunal of competent jurisdiction against any other person (including persons from whom it may seek reimbursement in respect of sums paid out or liabilities incurred pursuant to the IDA Guarantee Agreement); or (ii) to enforce or seek to enforce any other rights it may have against Uganda or its rights against or security given by any other person including, but not limited to, security provided by the IDA Guaranteed Lenders to the Association.

Section 2.03. Any payment required to be made by Uganda pursuant to the terms of this Indemnity Agreement shall be applied first, to pay all interest and other charges due to the Association and second, after such interest and other charges are paid, to pay all other amounts then due to the Association under this Indemnity Agreement.

ARTICLE III

Project-Related Covenants

Section 3.01. Without limitation or restriction upon any of its other obligations under this Indemnity Agreement, Uganda hereby undertakes to the Association to punctually perform all of its obligations under the Transaction Documents and to cause UETC and each relevant Public Sector Entity to punctually perform all of its obligations under the relevant Transaction Documents to which it is a party or which are otherwise applicable to each of them respectively, to the extent the breach of or failure to perform any such obligation could lead to a Demand under the IDA Guarantee Agreement.

Section 3.02. Uganda shall not take, or permit UETC or any other Public Sector Entity to take, any action which would prevent or interfere with the performance by Uganda or any such Public Sector Entity of any of its material obligations under the Transaction Documents (or any other related agreement) to which it is a party, and Uganda shall notify and cause UETC and each such Public Sector Entity to notify the Association prior to agreeing to any material amendment, waiver, termination or other change to any Transaction Document to which Uganda, UETC or any Public Sector Entity is a party, and shall obtain the written consent of the Association (not to be unreasonably withheld) prior to agreeing to any such material amendment, waiver, termination or other change to such an agreement or undertaking which would or could in the opinion of the Association materially affect the rights or obligations of the Association under the IDA Agreements or any other Transaction Document (including any assignment, transfer, novation, abrogation, granting of security over or other disposition of any rights or obligations under such agreements).

Section 3.03. Uganda shall, and shall cause UETC and each other Public Sector Entity performing obligations under or related to the Transaction Documents or related agreements or undertakings, to promptly notify the Association of: (a) the receipt or giving by Uganda, UETC or the Company (as the case may be) of any notice, claim, demand, payment or recovery for or in respect of any Company Action or Inaction, Company Event of Default, Force Majeure Event, GOU Action or Inaction, GOU Event of Default, Other Force Majeure Event, Political Force Majeure Event or UETC Event of Default; and (b) the occurrence of any other event or

circumstance that would or could: (i) result in the breach or termination of any Transaction Document; or (ii) affect the Company's, GOU's, Uganda's or UETC's ability to perform its obligations or exercise its rights under the Transaction Documents.

Section 3.04. Uganda shall take all lawful actions within its power to remedy and cure any GOU Event of Default (including a Change in Law) or any other event referred to in Section 3.03 within Uganda's, UETC's or a Public Sector Entity's control or responsibility, that would or could result in the breach or termination of any of the relevant Transaction Documents, or that could adversely affect the Government's ability to perform its obligations or exercise its rights under the Implementation Agreement or the Government Guarantee or the ability of any of the Public Sector Entities to perform its obligations or exercise its rights under the relevant Transaction Documents.

Section 3.05. Uganda shall take all lawful action within its power so as not to create or permit to exist or occur, and shall ensure that neither UETC nor any other Public Sector Entity shall create or permit to exist or occur, any circumstance or Change in Law that would render obligations under a relevant Transaction Document illegal, invalid, unenforceable, ineffective or void in whole or part, and will not initiate or permit any Public Sector Entity to initiate a Dispute in violation of the Implementation Agreement. If such circumstance or Change in Law exists or occurs, or a Dispute is initiated, Uganda shall take all lawful actions within its power to remedy and cure, or to procure that UETC or the appropriate Public Sector Entity remedies and cures, the adverse effect on the Project of such circumstance, Change in Law or Dispute.

Section 3.06. Uganda shall:

(a) 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, GOU undertakes to conserve through a sustainable management program and budget mutually agreed by the Government and the Association (no later than expiration of the prevailing sustainable management program or such later date as the Association may agree), the present ecosystem of the Mabira Central Forest Reserve, as well as the Kalagala Central Forest Reserve and the Nile Bank Central Forest Reserve on the banks of Kalagala Falls (as such Reserves are included within the Kalagala Falls Site). Upon receiving the Association's notice of a termination (or prospective termination) of the IDA Guarantee Agreement (whether by the Association's payment thereunder or otherwise) which in turn may lead to a termination of the Project or this Agreement, Uganda will enter into discussions with the Association regarding an extension (and the terms of any extension) of the afore-mentioned setting aside of and undertakings in respect of the Kalagala Falls Site (including the Kalagala Central Forest Reserve and the Nile Bank Central Forest Reserve) and the Mabira Central Forest Reserve;

(b) carry out promptly or cause to be carried out promptly any action required to be performed by it or by any Public Sector Entity (including UETC) under the Environmental Management Plans and the Resettlement Action Plans;

(c) take all action that shall be necessary on its part or on the part of UETC or any other Public Sector Entity to enable the Company (i) to obtain any required approval or environmental or social authorization for the Company to perform its obligations under the Environmental Management Plans and the Resettlement Action Plans (so long as the Company has properly applied for such approval or authorization in accordance with the Laws of Uganda and/or any applicable Transaction Document provision), and (ii) to perform all of its obligations under the IDA Agreements and the Transaction Documents;

(d) not take any action or cause or permit UETC or any other Public Sector Entity to take any action that would prevent or interfere with the performance by the Company of such obligations referred to in Section 3.06(b) above;

(e) deliver, or cause UETC to deliver, to the Association a copy of its annual audited financial statements within six (6) months of their certification; and

(f) not take or permit to be taken any action that would prevent or interfere with the Company's performance of its obligations under the IDA Agreements.

Section 3.07. Uganda affirms to the Association that no Prohibited Activities have been engaged in by any official or representative of Uganda or any Public Sector Entity with respect to the Project or the UETC Line Project and declares its commitment to enforce the laws of Uganda against Prohibited Activities during and with respect to the performance of any contract or activity related to the Project.

Section 3.08. Without prejudice to Sections 9.01 and 9.02 of the General Conditions, Uganda shall, upon request, promptly provide the Association all information necessary, in the reasonable opinion of the Association, for the Association's review of Uganda's performance of its covenants pursuant to Sections 3.06 and 3.07 above.

Section 3.09. Without limitation of its rights under this Indemnity Agreement, the Association will notify Uganda as soon as practical following any reduction in amount, suspension or revocation of suspension, or termination of the IDA Guarantee.

ARTICLE IV

Remedies of the Association

Section 4.01. In the event that: (i) Uganda fails to make any payment to or to indemnify the Association as required pursuant to Section 2.01 of this Indemnity Agreement; (ii) Uganda defaults in the performance of any of its obligations hereunder and such failure or default continues and remains uncured in the opinion of the Association for sixty (60) days or more after notice thereof shall have been given to Uganda by the Association; or (iii) any representation made by Uganda in or pursuant to this Indemnity Agreement, or any statement furnished in connection with this Indemnity Agreement and intended to be relied on by the Association in providing the IDA Guarantee, shall in the opinion of the Association have been incorrect in any material respect, 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.

ARTICLE V

Effective Date

Section 5.01. This Indemnity Agreement shall come into force and effect upon signature by the parties, but save as otherwise may be provided hereunder, shall have no force or effect following the Government's satisfaction of all Guaranteed Obligations and the termination of the IDA Guarantee Agreement.

ARTICLE VI

Miscellaneous Provisions

Section 6.01. The Minister of Finance of Uganda is hereby designated as representative of Uganda for the purposes of Section 11.03 of the General Conditions.

Section 6.02. The following addresses are specified for the purposes of Section 11.01 of the General Conditions:

For Uganda:

Minister of Finance, Planning and Economic Development
P.O. Box 8147
Kampala
Uganda

Facsimile: 1-256-414-230163

For the Association:

International Development Association
1818 H Street, N.W.
Washington, D.C. 20433
United States of America

Cable address:	Telex:	Facsimile:
INDEVAS	248423 (MCI) or	1-202-477-6391
Washington, D.C.	64145 (MCI)	

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized representatives, have caused this Indemnity Agreement to be signed in their respective names in Washington, D.C. as of the day and year first above written.

REPUBLIC OF UGANDA

By: /s/ Charles Ssentongo
Authorized Representative

Name (printed): Charles Ssentongo

Title: Charge D'Affairs, Embassy of Uganda

INTERNATIONAL DEVELOPMENT ASSOCIATION

By: /s/ Grace Yabrudy
Authorized Representative

Name (printed): Grace Yabrudy

Title: Country Manager for Uganda

ANTI-CORRUPTION GUIDELINES FOR WORLD BANK GUARANTEE TRANSACTIONS

The purpose of these Guidelines is to clarify the meaning of the terms "Corrupt Practices," "Fraudulent Practices," "Coercive Practices," "Collusive Practices" and "Obstructive Practices" in the context of IFC, MIGA and World Bank Guarantee (Partial Risk Guarantee – PRG) operations.

1. CORRUPT PRACTICES

A "Corrupt Practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party.

INTERPRETATION

A. Corrupt practices are understood as kickbacks and bribery. The conduct in question must involve the use of improper means (such as bribery) to violate or derogate a duty owed by the recipient in order for the payor to obtain an undue advantage or to avoid an obligation. Antitrust, securities and other violations of law that are not of this nature are excluded from the definition of corrupt practices.

B. It is acknowledged that foreign investment agreements, concessions and other types of contracts commonly require investors to make contributions for bona fide social development purposes or to provide funding for infrastructure unrelated to the project. Similarly, investors are often required or expected to make contributions to bona fide local charities. These practices are not viewed as Corrupt Practices for purposes of these definitions, so long as they are permitted under local law and fully disclosed in the payor's books and records. Similarly, an investor will not be held liable for corrupt or fraudulent practices committed by entities that administer bona fide social development funds or charitable contributions.

C. In the context of conduct between private parties, the offering, giving, receiving or soliciting of corporate hospitality and gifts that are customary by internationally-accepted industry standards shall not constitute corrupt practices unless the action violates applicable law.

D. Payment by private sector persons of the reasonable travel and entertainment expenses of public officials that are consistent with existing practice under relevant law and international conventions will not be viewed as Corrupt Practices.

E. The World Bank Group does not condone facilitation payments. For the purposes of implementation, the interpretation of "Corrupt Practices" relating to facilitation

payments will take into account relevant law and international conventions pertaining to corruption.

2. FRAUDULENT PRACTICES

A "Fraudulent Practice" is any action or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial benefit or to avoid an obligation.

INTERPRETATION

A. An action, omission, or misrepresentation will be regarded as made recklessly if it is made with reckless indifference as to whether it is true or false. Mere inaccuracy in such information, committed through simple negligence, is not enough to constitute a "Fraudulent Practice" for purposes of World Bank Group sanctions or remedies.

B. Fraudulent Practices are intended to cover actions or omissions that are directed to or against a World Bank Group entity. It also covers Fraudulent Practices directed to or against a World Bank Group member country in connection with the award or implementation of a government contract or concession in a project financed by the World Bank Group. Frauds on other third parties are not condoned but are not specifically sanctioned in IFC, MIGA, or PRG operations. Similarly, other illegal behavior is not condoned, but will not be sanctioned as a Fraudulent Practice under World Bank Group operations.

3. COERCIVE PRACTICES

A "Coercive Practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.

INTERPRETATION

A. Coercive Practices are actions undertaken for the purpose of bid rigging or in connection with public procurement or government contracting or in furtherance of a Corrupt Practice or a Fraudulent Practice.

B. Coercive Practices are threatened or actual illegal actions such as personal injury or abduction, damage to property, or injury to legally recognizable interests, in order to obtain an undue advantage or to avoid an obligation. It is not intended to cover hard bargaining, the exercise of legal or contractual remedies or litigation.

4. COLLUSIVE PRACTICES

A "Collusive Practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party.

INTERPRETATION

Collusive Practices are actions undertaken for the purpose of bid rigging or in connection with public procurement or government contracting or in furtherance of a Corrupt Practice or a Fraudulent Practice.

5. OBSTRUCTIVE PRACTICES

An "Obstructive Practice" is (i) deliberately destroying, falsifying, altering or concealing evidence material to the investigation or making false statements to investigators, in order to materially impede a World Bank Group investigation into allegations of a Corrupt, Fraudulent, Coercive or Collusive Practice, and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or (ii) acts intended to materially impede the exercise of the World Bank Group entity's access to contractually required information in connection with a World Bank Group investigation into allegations of a Corrupt, Fraudulent, Coercive or Collusive Practice.

INTERPRETATION

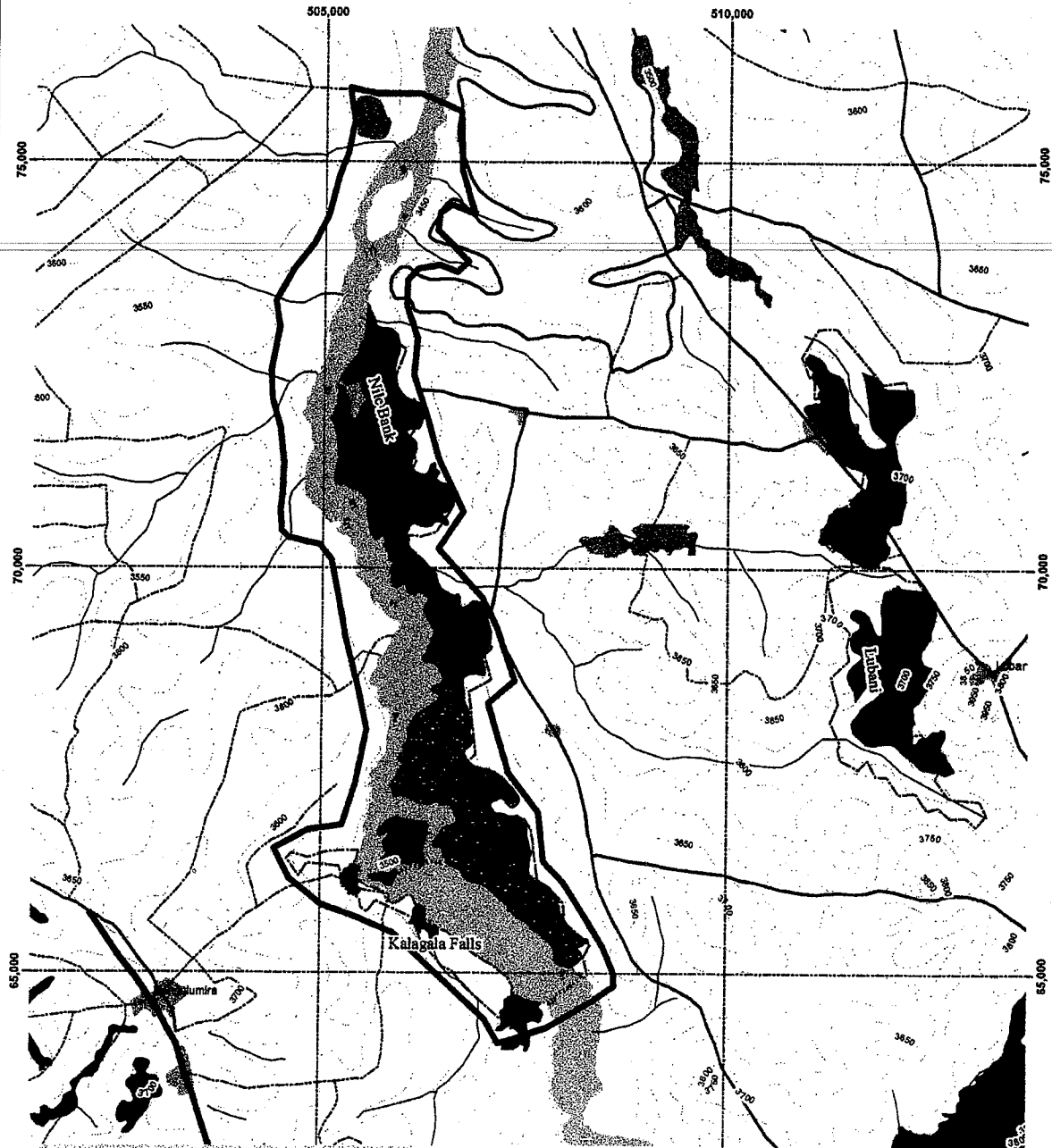
Any action legally or otherwise properly taken by a party to maintain or preserve its regulatory, legal or constitutional rights such as the attorney-client privilege, regardless of whether such action had the effect of impeding an investigation, does not constitute an Obstructive Practice.

GENERAL INTERPRETATION

A person should not be liable for actions taken by unrelated third parties unless the first party participated in the prohibited act in question.

[illegible]

Kalagala offset Area & Environs



Land use / Landcover (1995 situation)

- Broadleaved Tree Plantation or Woodlot
- High Forest (Well stocked)
- Tropical High Forest (Low Stocked)
- Woodland
- Bushland
- Grassland
- Small-Scale (Non-Uniform) Farmland
- Built-Up Area
- Open Water
- Falls
- Kalagala Offset Area

Rivers & Infrastructure

- Falls
- New_riv_all
- All-Weather Road, Bound Surface
- All-Weather Road, Loose Surface
- Dry Weather Road
- Motorable Track
- Railway Line



