

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

B. Economic Analysis of Alternatives

259. In general, the Requesters claim “... *that the absence of an adequate and comprehensive economic and alternative (options) assessment of the Bujagali dam Project violates the World Bank’s Policies on Economic Evaluation of Investment Operations (OP 10.04), Poverty reduction (OP/BP 1.00), among others...*”²⁵⁰
260. The Requesters state that there is no evidence that a comprehensive economic analysis of the Project was carried out, because the study published on the World Bank website is not “*comprehensive*” and a basis for determining the economic viability of the Project. They believe that the Economic Study is inadequate because it is based on the flawed assumption that the Project will be able to generate 250 MW, which, in the Requester’s opinion, will not happen.
261. The Requesters’ contend that the SEA did not adequately analyze feasible alternatives to Bujagali, and that the Economic Study did not include an adequate assessment of the economic alternatives to support the statement that the Bujagali dam is the least costly option. They maintain that the analysis of alternatives was geared toward proving that Bujagali is the least-cost option and thus there was no balance in this evaluation. The Requesters also claim that the Economic Study does not provide costs, cost-benefit or opportunity cost-scenarios, or calculations for developing these alternatives and for deciding to reject them in favour of the Bujagali option.
262. In its Response to the Panel, Management states that it “*considers that the economic, financial [...] and other required analyses to date are compliant with relevant World Bank Group policies [...]. Moreover, the overall project due diligence adequately accounts for best practice as well as the findings of the previous Bujagali Inspection Panel report.*”²⁵¹ Management argues that the economic study includes an assessment of the economic viability of the Project and risk analysis,²⁵² and maintains that the

²⁵⁰ Request for Inspection, p. 9.

²⁵¹ Management Response, ¶33.

²⁵² Management Response, Annex 1, p. 25 includes key points such as “(i) the impact of the current power crisis conditions on the sector and the need for emergency thermal power; (ii) the demand forecast [...]; (iii) the level of electricity tariffs; (iv) the hydrology of Lake Victoria and its impact on hydropower generation; (v) the supply alternatives and their costs; (vi) the environmental and social costs of Bujagali and its main alternative; and (vii) the economic value of electricity to consumers, the end-user tariff path and its affordability.”

analysis also addresses the financial sustainability of the power sector after Bujagali's commissioning.

1. Bank Policies

263. Bank Economic Evaluation policies applicable to this Project are OP/BP 10.04 on Economic Evaluation of Investment Operations and OP 1.00 on Poverty Reduction. OP 10.04, provides in paragraph 1 that *"For every investment project, Bank staff conduct economic analysis to determine whether the project creates more net benefits to the economy than other mutually exclusive options for the use of the resources in question."* The Policy then sets out specific provisions in seven areas: Criterion for acceptability, alternatives, non-monetary benefits, sustainability, risks, poverty and externalities.
264. Paragraph 3 of OP 10.04 refers to the Analysis of Alternatives as *"one of the most important features of proper project analysis throughout the project cycle. To ensure that the project maximizes expected net present value, subject to financial, institutional, and other constraints, the Bank and the borrower explore alternative, mutually exclusive, designs."* Paragraph 6 on Risk provides that sources, magnitude, and effects of the risks of the Project have to be evaluated *"by taking into account the possible range in the values of the basic variables and assessing the robustness of the project's outcome with respect to changes in these values"* to improve project design where possible, increase the expected value and diminish the risk of failure. Paragraph 8 addresses Externalities and states that *"A project may have domestic, cross-border or global externalities. A large proportion of such externalities are environmental. The economic evaluation of Bank-financed projects takes into account any domestic and cross-border externalities."*
265. In Bank projects, various key parts of the PAD normally signal compliance with OP 10.04. In the Bujagali PAD these sections include *Strategic Context and Rationale* (Section I), *Project Description* (Section II), *Implementation* (Section III) and especially the *Appraisal Summary* (Section IV), which includes sections relating to the economic and financial analyses carried out as part of the due diligence. Annexes contain further details of the underlying analysis, particularly *Annex 9: Economic Analysis*, but also in others that concern the hydrology of Lake Victoria, the financial performance of BEL and the financial performance of the Uganda power sector.

2. Terms of Reference for the Economic Study

266. IFC appointed consultants to carry out the Economic and Financial Evaluation Study, in this Report referred to as the "Economic Study" in January 2006 and the final report is dated February 2007.
267. The analysis is summarised in Section IV, Part A of the PAD; it reviews *"[...] Uganda's power sector, including the impact of the current power shortages, electricity demand growth, the hydrology of Lake Victoria, generation alternatives*

and an assessment of the least cost power investment program for Uganda [and] the project's economic rate of return, the end-user tariff path and the macro-economic impact of the project.” The PAD summary of the findings of the Economic Study states that.²⁵³

- *The Project is needed now, delay in the proposed commissioning date (2011) would be expensive, and its implementation presents minimal economic risk to its status as the least-cost option for the next major Ugandan grid system generation increment;*
- *The 250 MW (megawatt) Bujagali configuration is preferred over 200 MW;*
- *It would be uneconomic to commission the Karuma hydropower project before Bujagali;*
- *Commissioning Bujagali in 2011 has a risk-adjusted net present value (benefits minus costs) advantage of US\$184 million, at a 10% discount rate, relative to the alternative of not implementing the project; and*
- *The economic internal rate of return (EIRR) of the project is 22% in the Base Case and lies within a range of 11.3% to 26.4%, taking account of a broad range of assumptions about demand, costs and hydrology.*

268. The Executive Summary of the Economic Study confirms that their ToR, “[...] call for a comprehensive update of the previous due diligence work that was carried out in the first round of the Bujagali project [...]”²⁵⁴ The ToR remind the consultants of changes in significant key factors since the 2000–2002 due diligence, giving particular attention to potentially sensitive issues including the demand forecast and affordability and hydrological risks. The “Partial List of Studies” appended to the ToR includes the 2002 Management Report and Recommendation in response to the Inspection Panel Investigation report of the prior Bujagali Project.

269. The ToR also have three other significant aspects: (1) while the discussion of supply options includes potential hydro sites, from “mini to major,” a range of thermal alternatives, geothermal potential and bagasse, it does not draw attention to any other potential alternatives; (2) project costs are defined in a specific way “For purposes of economic analysis, the project cost is confined to incremental economic costs. For purposes of financial analysis, the project cost will be the tariff the sponsor proposes to the power purchaser(s).”²⁵⁵

²⁵³ PAD, p. 26.

²⁵⁴ Economic Study, Appendix A—Terms of Reference.

²⁵⁵ Economic Study, Appendix A—Terms of Reference, ¶16.

270. The ToR state that on acceptance of the inception report, the final report is expected within three months of contract award. The Executive Summary of the Economic Study notes, however, that after the February 2006 interim report and a presentation in Kampala in March 2006, *“Work was then held up for a number of months whilst the World Bank carried out an independent review of the analysis of the hydrology presented in the Interim Report. The demand forecast was also reviewed and amended to include updated GDP estimates and a detailed assessment of the assumptions of future levels of technical and commercial losses.”*²⁵⁶ In December 2006, the consultants submitted the Draft Final report, and presented it in January 2007 to the Government and other stakeholders (unidentified) in Kampala and to the lenders in London.
271. The following sections of this Report draw closely on materials presented in the PAD and in the Economic Study, and a range of other documents, and examine the Requesters’ claims and Management Response in light of applicable Bank Policies outlined above.

3. Alternatives considered

272. The PAD states that major generation alternatives to Bujagali considered in the Economic Study include: small and medium-sized hydropower projects, large hydropower projects studied beyond the feasibility stage (i.e. Karuma), thermal options, bagasse based cogeneration and geothermal.²⁵⁷ The economic consultants were required to consider the generating capacity profile during the “interim period” until 2011, the proposed commissioning year for Bujagali. Chapter 4 of the Economic Study discusses these arrangements, covering a range of actual and potential thermal (oil-fired), biomass and small hydro projects. The biomass section (4.3) discusses the generation of electricity from bagasse, including the forthcoming supplies from the co-generation plant at Kakira Sugar Works and from the SCOUT sugar estate. The consultants produced an interim generation expansion plan for 2006–2010 and a list of those plants expected to remain operational from 2011, when Bujagali would be due to come into service. Chapter 7 of the Economic Study contains a list with more detail, shown in the table below.²⁵⁸

Table 5 Assumed Generation Capacity Existing in 2011

²⁵⁶ Economic Study, Main Text, Executive Summary, p. 8.

²⁵⁷ PAD, p. 27.

²⁵⁸ Economic Study, Main Text, Table 7-7, ¶7.3, p. 107.

Table 7-7: Assumed Generation Capacity Existing in 2011

Station Name	Type	Installed Capacity MW	Available Capacity MW	Date of Installation/ Commissioning
Kiira Nalubaale	Hydro	380	203/205 ¹	Existing
Kilembe Mines	Mini-hydros	3	3	Existing
Bugoye/Waki		19	19	January 2009
Buseruka		9	9	January 2009
Kikagati		10	10	July 2008
Ishasha		5.5	5.5	January 2009
IPP	Medium Speed Diesel	50	50	April 2008
Kakira Sugar	Cogeneration	12	12	July 2007
SugarCorp (SCOUL)		3	3	January 2009
Total		488.5	314.5/316.5	
1. Depends on the hydrology case and the operating rule for Nalubaale – Kiira, also on the plants commissioned downstream.				

3.1 Conventional Thermal Plants (2011–2020)

273. The Economic Study explored a range of thermal options for electricity generation, all of which were expected to depend on imported fossil fuel. The conventional thermal options considered included diesel plants, gas turbines (open and combined cycle) and steam plants, ranging in size from 10–100 MW, all burning various forms of oil. Coal-fired plants were excluded because of, “[...] *the non-availability of coal in Uganda, the high shipping and rail haulage costs and the higher capital cost of this type of plant [...]*.”²⁵⁹ The study assumed that the plants would be sited close to Kampala and would not require grid connection costs beyond those of the switchyard.

274. The thermal candidate plants also included a geothermal plant of 40 MW, since “[...] *we do not believe that the geothermal potential for power generation in Uganda is sufficiently well proven at this time to rely on more than about 40 MW*” (the analysis of geothermal resource potential is discussed further below). The study undertook a preliminary screening analysis of the thermal plant options, at oil prices ranging from US\$68/bbl (the estimated 2006 price) to US\$35/bbl (the then forecast for 7–8 years ahead), estimates which now appear very conservative. The results suggested that, “*Provided the geothermal resource can be proven, this appears to be the most attractive of the thermal options for base load operation.*”²⁶⁰

3.2. The Geothermal Potential

275. The Request claims that Uganda’s potential for geothermal energy is up to 450MW but that hydropower generation studies took precedence over thermal energy because BEL claimed that only 45MW of the 450 are actually feasible. The Requesters think

²⁵⁹ Economic Study, Main Text, ¶5.1, p. 61.

²⁶⁰ Economic Study, Main Text, ¶5.1, p. 64.

that BEL's assessment is "premature and pessimistic," as experts they have consulted claim that the potential for sites is greater than indicated in the SEA. The Management Response states that a "*detailed review of geothermal prospects was conducted as part of the project analysis of alternatives.*"²⁶¹ The analysis concluded that only 10 percent of the potential 450MW claimed by the Requesters is feasible and a geothermal 40MW plant was assessed in the least-cost analysis. According to the Economic study, only one of three potential geothermal resources in Uganda is "*promising*"—at Kibiro—as it "*appears to be a medium grade resource*" with potential for power development.²⁶²

276. The Economic Study discusses the geothermal potential of Uganda, drawing on a detailed 37-page review of geothermal options in Appendix D. The study suggests that despite a long history of interest and increased recent activity, "*the exploration of these resources remains even today at a pre-feasibility level of investigation.*"²⁶³
277. The Panel notes that the Icelandic International Development Agency (ICEIDA) has stated that the Ministry of Energy and Minerals Development, "*with support from ICEIDA and the World Bank, carried out a drilling programme for temperature gradient measurement in Kibiro and Katwe geothermal prospects,*" which followed up a surface exploration in 2005. The programme's objective "*was to confirm the existence of the geothermal resource and assist in positioning deep exploration wells.*" ICEIDA reports, however, that "*now the research is drawing to a close with only a few outstanding gradient drilling boreholes in Katwe-Kikorongo. Unfortunately, no viable geothermal prospects have yet been identified.*"²⁶⁴
278. In its review, the Economic Study concludes that, "*historical estimates of the geothermal potential in Uganda being as much as 450 MW are substantially overstated.*" The study assesses the three main geothermal resource areas in Uganda, that is, Katwe, Buranga and Kibiro, and interprets the first two "*to be low grade resources with reservoir temperatures of only some 100°C and consequently with nil potential for commercial scale power generation.*" Kibiro, however, "*appears to be a medium grade geothermal resource with reservoir temperatures of about 220°C,*" and hence is "*considered to be the only geothermal resource in Uganda with clear potential for power development.*"²⁶⁵
279. The study estimates the cost of a full "greenfield"²⁶⁶ development of a 40 MW binary cycle geothermal power plant at Kibiro, "*at US\$134 million which equates to a cost of US\$3350 per KW installed,*"²⁶⁷ which would take around 52 months from when the exploration drilling commenced. Both the estimated costs and the time duration lie within, but at the upper end of, recently cited ranges. For example, expert

²⁶¹ Management Response, p. 30.

²⁶² Economic Study, Main Text, ¶5.2, p. 65.

²⁶³ Economic Study, Appendix D, ¶D.2, p. 216.

²⁶⁴ See: <http://www.iceida.is/english/main-activities/uganda/> (accessed 15 July 2008).

²⁶⁵ Economic Study, Main Text, ¶5.2, p. 65.

²⁶⁶ A place where no such plant or previous development exists.

²⁶⁷ Economic Study, Main Text, ¶5.2, p. 65.

participants at a US workshop in 2005 are reported to have suggested that “most projects currently under development have estimated capital costs between \$3000 and \$3500/kW;” and the same review states that, “[...] it takes a minimum of 3 to 5 years to put a geothermal power plant on line [...]”.²⁶⁸ Consequently, the Economic Study’s estimates of cost and project duration do not seem inappropriate (and, as noted earlier, the Economic Study screening analysis suggested that geothermal plant would be attractive for base load relative to other thermal candidate plants).

280. The Economic Study reaches its conclusion about the limited prospects at Katwe and Buranga partly by questioning existing estimates of temperature for Katwe and Buranga contained in a 2005 paper, whose authors’ affiliations include Uganda’s Department of Geological Survey and Mines.²⁶⁹ The Analysis also makes a comparison with developed geothermal systems elsewhere in East Africa, suggesting that high temperature volcanic systems are more likely to be found in the Eastern rather than the Western branch of the East African rift and that, “overall the lack of fumaroles in any Uganda prospects is a negative indication that any high temperature fields are present.”²⁷⁰ The Analysis does not report whether their reviewers discussed these conclusions with the aforementioned paper’s authors. Given the significance of the difference in interpretation, the Panel considers that such discussions should have been held and reported.
281. **The Panel notes the statement in the Management Response that additional studies and shallow drilling are included under the ongoing Uganda Fourth Power (Power IV) Project, to assist the Government in assessing geothermal prospects at several sites in Western Uganda. The additional information resulting from this work would help resolve conflicting views regarding geothermal potential in Uganda, and may have a significant bearing on the economic analysis of alternatives.**

3.3. Small and Medium Scale Alternatives

282. In the Requesters’ view, only a limited energy potential at various hydropower sites has been developed. Management responds that the Bank is supporting development of mini-hydro potential and states that projects providing power to the grid or suitable for grid connection were considered in the Economic Study.
283. Section 5.6.2 in the Economic Study discusses candidate small and medium scale hydro alternatives in a short paragraph. After noting that the least-cost planning analysis includes six small plants, with capacities of 3–13 MW, which were expected to be on stream before 2011, it states that the least cost planning analysis did not include any other small hydro projects because firm information and studies were not

²⁶⁸ *Factors Affecting Costs of Geothermal Power Development*, Geothermal Energy Association for the U.S. Dept. of Energy (2005), p. 47

²⁶⁹ G. Bahati, Pang ZhongHe, H. Ármannsson, E. M. Isabirye, & V. Kato, *Hydrology and Reservoir Characteristics of Three Geothermal Systems in Western Uganda*. 34(5) *Geothermics*, 568 (2005).

²⁷⁰ Economic Study, Appendix D, ¶D.6, p. 233.

available. The Analysis adds that *“The impact on the least cost plan, and on the Bujagali project, of any other projects that may be developed over the coming years is likely to be relatively small.”*²⁷¹ The PAD simply says that the costs and production characteristics of other potential small hydro sites in Uganda are not sufficiently known at present for purposes of long term planning.²⁷²

284. The Economic Study review of the potential of other biomass alternatives other than Kakira and SCoul, is limited to the Analysis discussion of Interim Supply Arrangements, where it is asserted that, *“There is some potential in Uganda for the generation of electricity from wood waste, coffee husks and rice husks, as identified in the ESMAP study.”*²⁷³ [fn: Uganda: Rural Electrification Strategy Study, UNDP/World Bank, ESMAP; Report 221/99] However, these biomass resources are considered to be too small and spread out to be economically justifiable for large-scale power generation within the timescale of this study.²⁷³ The Economic Study cites no authority or source for this last statement. Nor is there any indication of whether sources other than the 1999 ESMAP study were identified and consulted. The Economic Study or the PAD might have referred, for example, to the assessment of the state of information emerging from the study listed on the website of the Ministry of Energy and Minerals, which says that in January 2005 MEMD appointed consultants to undertake *“Technical Assistance for Renewable Energy Resource Information and Capacity Building Assessment.”*²⁷⁴
285. Thus, the Economic Study examines smaller scale hydro and biomass alternatives, apart from those likely to come on stream before 2011, in little more than four sentences (on pages 53 and 79–80 of the Economic Study Main Text) and one reference, to the 1999 ESMAP study. The Economic Study does not raise or discuss any other renewable sources of electricity, such as municipal solid waste, solar or wind, even simply to confirm that the resources might be unidentified, insufficient or otherwise unsuitable for appraisal in the least cost expansion planning process.
286. A related issue concerns connectability to the grid. The Economic Study does not make clear whether connectability to the grid was viewed as a necessary qualification for including an option in the analysis. If it did, the Economic Study should have explained, first, why distributed generation had been ruled out on principle; and second, how the test of connectability had been constructed and applied.
287. The ToR for the Economic Study states that, in preparing the electricity demand forecast, the consultants should *“...delineate the potential demographic and economic size of the market catchment area for an integrated grid of the type the Bujagali project would serve [...] sight should not be lost of those areas outside of the UMEME concession which are potential grid connectable demand centers which may be supplied within the framework of the Energy for Rural Transformation*

²⁷¹ Economic Study, Main Text, ¶ 5.6.2, p. 79-80.

²⁷² PAD, Annex 9, p. 82.

²⁷³ Economic Study, Main Text, ¶ 4.3, p. 53.

²⁷⁴ See <http://www.energyandminerals.go.ug/renenergy/index.html> [accessed 15 July 2008].

*Project [...].*²⁷⁵ The ToR also indicates, in relation to mini to major hydro alternatives, that the consultants should assess “*whether there is newer and better information about costs and capacity/energy supply potential for serving the grid than previously available.*”²⁷⁶

288. Thus, the ToR tended to encourage a focus on relatively large grid-connected plant and did not draw attention to the evaluation of smaller scale or off-grid alternatives. In addition, as noted above, Management has stated that any project providing power to the grid or suitable for grid connection was considered in the economic study. However, in a country where only 5 percent of the population is connected and there is widespread poverty which access to electricity could help to alleviate, it would be reasonable to expect attention also to be paid to small and/or distributed generation options (not only hydro) which might in theory more directly address local and rural poverty.
289. It is striking that the Management response contains a much fuller discussion and appraisal of the smaller scale and/or distributed generation options than was contained in the Economic Study and the PAD.
290. The Panel notes that the information in the Economic Study and the PAD relating to knowledge about and the potential of smaller scale and/or distributed generation alternatives did not clearly establish that the available studies and data had been identified and evaluated in a way that would have enabled decision-makers to decide whether further consideration was required. **Consequently, the Panel finds that the Economic Study and the PAD did not demonstrate full compliance with OP 10.04’s requirement in paragraph 3 to evaluate alternatives.**

3.4. Oil Resources

291. In January 2006, an oil company announced that they had proven “*the existence of a working petroleum system in the Albertine Basin,*”²⁷⁷ while warning that it was too early to determine its size or potential commerciality. Six months after the date of the PAD, this company claimed that “*Preparations for commerciality are well advanced [...] Preparing for Power generation in 2010.*”²⁷⁸ Other reports convey more scepticism about the scale of the discoveries.²⁷⁹
292. The PAD states that, “*The Government has also reported a domestic oil resource discovery in the Lake Albert region of western Uganda, which would need to be proven as economically viable; this is not expected to have any impact on power*

²⁷⁵ Economic Study, Appendix A, ¶ 8, p.6.

²⁷⁶ Economic Study, Appendix A, ¶ 20, p. 9.

²⁷⁷ See <http://www.tulloil.com/tlw/media/news/2006/2006-01-17/> [accessed 15 July 2008].

²⁷⁸ See

http://www.tulloil.com/tlw/ir/reportspres/finreportspres/2007/presentations/analystvisitid/analystvisitid_x/conclusion.pdf [accessed 15 July 2008].

²⁷⁹ See, for example, “Oil Hangs on Crude Balance”, posted 2007-11-06: <http://www.myuganda.co.ug/news/?more=196> [accessed 15 July 2008].

generation before 2011.”²⁸⁰ The PAD later goes on to say that because of the time required to go from proving the reserve to refinery construction, this discovery, “is not expected to have an impact on power generation options over the medium term,”²⁸¹ although it does not define the medium term.

293. The Economic Study does not appear to discuss the oil discovery at all. **While the oil resource discovery was at a very early and unproven stage at the time when the Economic Study Final report was completed (February 2007), the Panel finds that the existence and potential of this resource should have been reviewed in the discussion of alternative supply options.**

3.5. Large Hydro-Electric Power Plants

294. The Nalubaale and Kiira power plants were, of course, included in the modelling of the power system. The coverage of major new candidate hydro projects apart from Bujagali and Karuma is briefly addressed in four paragraphs in S. 5.6.1, which draw on the “review of the potential large hydroelectric projects in Uganda [...] made in the 2001 Acres study, based on existing studies such as the 1997 Master Plan.” The Economic Study states that apart from Bujagali and Karuma, “[...] the only sites that were considered particularly attractive for the development of the Uganda power system were: Kalagala, Ayago, Murchison and Masindi.” Kalagala is not considered a candidate because of its “offset” status, while the other three projects were “eliminated by Acres in 2001 for reasons that are still valid today.” Ayago and Murchison because of environmental impacts in the Murchison Falls National Park and Masindi because it had “been studied only at a conceptual level, and its large size (up to 3000 MW) makes it a too large project for being considered in the Uganda power system in the next ten years.”²⁸²
295. The Requesters claim that Karuma is less socially and environmental destructive than Bujagali and that in the comparison with Bujagali, Karuma lost on economic grounds because the Economic Study for Bujagali “was based on greatly inflated costs for building Karuma.” Management states that Karuma was the most likely alternative to Bujagali but also that the analysis showed that the latter is the least cost option between the two as Bujagali has a lower construction cost.
296. The PAD states that apart from Nalubaale and Kiira, Bujagali and Karuma are the only large hydropower projects “that have been developed beyond the feasibility stage in Uganda.” Management appears to have focussed on two possibilities for the dimensions of the Bujagali option: the ToR for the Economic Study state that, “One of the Bujagali project design decisions that needs to be assessed here is project dimensioning—specifically whether to provide for four or five 50MW units, the

²⁸⁰ PAD, p. 5.

²⁸¹ PAD, p. 27.

²⁸² Economic Study, Main Text, ¶5.6.1, p. 79.

economic viability of the fifth unit depending very much on demand and hydrology assumptions."²⁸³

297. In relation to Bujagali, "*The proposed project costs are based on the terms of the bid for its EPC [Engineering-Procurement-Construction] contract and current estimates of the project development, environmental and social and financing costs. Its economic cost is estimated at US\$520.6 million (2006 money). On the same basis, the estimated global cost of the Karuma Hydropower project is US\$587.8 million.*"²⁸⁴
- The PAD summarises the capital costs of the 250 MW Bujagali option and the 200 MW Karuma option in Table 6 below, (the figures are aggregates of those in Tables 5-4²⁸⁵ and 5-6²⁸⁶ of the Economic Study).

Table 6 Economic Cost Estimate for Bujagali and Karuma

Table 9.5: Economic Cost Estimate for Bujagali and Karuma

Item	Bujagali (250 MW) (US\$ million)	Karuma (200 MW) (US\$ million)
Direct construction costs		
- Civil Works	227	315
- Equipment	187	117
Connection to the grid	28	79
Engineering & Coordination	28	33
Environmental & Social Impacts	26	15
Development Costs	25	29
Total Implementation Cost (excluding Interest During Construction)	521	588

C. The Project costs

1. Bujagali Project Costs

298. The Requesters argue that from an original estimate of US\$430 million, the Project cost has now jumped to US\$735 million. NAPE states that, on February 28, 2007, it met with World Bank officials who acknowledged that the cost increase has been 30 percent.
299. Management claims that the increase since 2000 is due to an increase in Engineering Procurement and Construction (EPC) costs of around 65 percent caused by an increase in the cost of metals and increases in the cost of oil and of transporting equipment to Uganda. However, Management adds that the Bank group as well as the other lenders "*have taken several steps to ensure that costs of Bujagali reflect current market conditions.*"

²⁸³ Economic Study, Appendix A, ¶16, p. 8.

²⁸⁴ PAD, Annex 9, p. 82.

²⁸⁵ Economic Study, Main Text, ¶5.4.3, p. 72.

²⁸⁶ Economic Study, Main Text, ¶5.5.3, p. 78.

300. The Economic Study states that they evaluated the economic cost of Bujagali, taking into account the results of the EPC contract negotiations reached by January 31, 2007, and the unit rates of civil works and power plant equipment.²⁸⁷ They do not comment here on the very large difference between the EPC costs of the earlier Bujagali proposal and the current proposal. The PAD acknowledges that by the time of its publication, estimates of Bujagali's EPC costs of US\$511million, excluding spares, were substantially higher than those for the prior Bujagali Project (US\$315 million in 2000). The PAD offers three sentences of explanation, with no quantitative information.
301. As noted above, the Management Response offers a somewhat fuller explanation, plus an assurance that the EPC contract price would be reviewed by the lenders. Management ascribes the increase in Project cost by approximately 65 percent to "(i) increase in the cost of metals by an estimated 90% over the last 5 years (metals account for about 40-60% of power generation equipment); (ii) increase in the cost of oil (140% between 2000 and 2006), which raises the cost of transporting equipment to Uganda over more than 1,000 km from the nearest port in Kenya; (iii) a tighter market for power generation equipment: higher global demand combined with consolidation among manufacturers has resulted in higher prices." The Response also notes that, the procurement of the EPC contractor was conducted under the supervision of the EIB and that, before finalization, the lenders, assisted by their Independent Engineer, will review the bid prices conducted by BEL's Owner's Engineer, the EPC contract price and conditions.²⁸⁸
302. The Panel notes that power plant costs have increased in real terms internationally, although the index of this for hydro plant may be less than for thermal plant because of the higher proportion of civil engineering costs in the former, the other more local factors referred to in the PAD may more than offset this. Nevertheless, **because EPC costs form a key element in the determining the Project's economic and financial viability, the Economic Study and the PAD should have supplied fuller explanations of the details of this cost increase, supported by appropriate analysis and quantitative evidence.**
303. In addition to the cost increase noted above, there is evidence of significant cost increase during and after the appraisal process for the current Project. The Economic Study states that "*Just after this report was completed, BEL informed PPA and the Bank Group of the most recent results of on-going negotiations with the EPC contractor [...] bringing the total EPC cost increase into a range of \$30 to \$35 millions, nominal and undiscounted.*" The Analysis argued, however, that an incentive scheme to accelerate commissioning was being negotiated, which would yield, "*a real economic cost saving on thermal plant operation estimated at \$30 to*

²⁸⁷ Economic Study, Main Text, ¶5.4.2, p. 70. These figures are obtained from international bidding on similar works, taking into account the recent trend of tightening of the market in the hydro power sector and a substantial increase in the price of some construction material.

²⁸⁸ Management Response, p. 35.

\$40 million (in dollars of 2006).” Consequently, the Economic Study judged the net impact on the project’s economic viability to be “minimal.”²⁸⁹

304. In April 2007, the PAD²⁹⁰ (and later the Management Response²⁹¹) cites an EPC price of US\$520 million (including spares; US\$511 million without spares).²⁹² This figure suggests an increase over the value shown in the PAD’s Table 9.5 (sourced from the Economic Study Table 5-4), since as noted above, the PAD states that the US\$521 million total in that table is based on the EPC contract bid terms *and* estimates of the project development, environmental and social and financing costs. The PAD does not specify which elements in Table 9.5 constitute the EPC cost, nor does it state clearly the price of the original October 2006 EPC tender.²⁹³ If the EPC element of PAD Table 9.5 is the sum of *Direct Construction Costs (Civil Works, US\$227 million; and Equipment, US\$187 million) and Engineering and Coordination (US\$28 million)*, then the EPC costs would be US\$442 million (or US\$441 million from the source, the Economic Study Table 5-4). The PAD’s US\$521 million EPC figure is US\$79 million higher than this.
305. In January 2008, a communication from Management to the Panel stated that the final EPC price was US\$564.4 million. Thus, the expected cost of the “*fixed price EPC contract*” had risen significantly during the appraisal process between tender evaluation and the April 2007 PAD estimate of US\$511 million. By December 2007 the final price was US\$123 million (28 percent) above the Economic Study value and US\$97 million (21 percent) above the tender value.
306. Overall, leaving aside financing costs, the EPC costs have changed significantly since October 2006, as indicated in the table below:

Table 7 Bujagali EPC Cost Evolution

Source	EPC Costs (US \$million)	Percentage of Economic Study Value
Tender Price, October 2006	467 ^a	106%
Economic Study, February 2007 (estimated)	441 ^b	100%
PAD, April 2007 (estimated)	520 ^c	118%
Final EPC price, December 2007	564 ^d	128%

Notes: (a) Colenco Project Review and Assessment Report, February 2007, p. 12.2 (evaluated price US\$477 million); (b) Items 1 and 3 in the Economic Study Table 5-4, p. 72; (c) PAD, para. 53, p. 15; (d) Communication from Management, January 2008.

²⁸⁹ Economic Study, Main Text, fn 5, p. 70.

²⁹⁰ PAD, p. 26. See also PAD, Annex 9, p. 78.

²⁹¹ Management Response, p. 30.

²⁹² PAD, p. 16.

²⁹³ Colenco Project Review and Assessment Report, (February 2007) (hereinafter “Colenco 2007”) records that the tender EPC price of the successful bidder was US\$467.2 million, excluding spare parts (Colenco 2007, p. 12.2). Colenco notes that while the October 2006 tender price was US\$467.2 million, the evaluated price was raised by US\$10 million, “to account for technical deviations.”

307. The February 2007 Independent Engineer's Report estimated the "*total project implementation budget*," excluding financial costs, based on the EPC tender price, plus estimates of spares, environment costs, engineering and management costs and contingencies at company level but excluding transmission line engineering and associated environmental and social costs.²⁹⁴ The total was US\$624 million, (including US\$60 million of contingencies at company level), significantly higher than the estimate of US\$476 million (US\$521 million minus US\$28million for grid connection and US\$17 million for transmission line environmental and social costs) in the Economic Study Table 5-4 (PAD Table 9.5).
308. The Economic Study cost estimates for Bujagali and Karuma both included an estimate for "*Connection to the grid (line and substations)*." For Bujagali, the Economic Study Table 5-4 (also PAD Table 9.5) indicates a cost of US\$28 million. The Economic Study states that these costs were based on the designs and the cost estimates proposed by the Project sponsor's consultants. The US\$28 million was an underestimate, however.²⁹⁵ The May 2007 African Development Fund Appraisal Report for the Bujagali Interconnection Project (BIP) produced an estimated total cost of the project of US\$75 million (of which US\$17 million were for resettlement/compensation).²⁹⁶ The PAD says that, ahead of the competitive tender and EPC contract, the "*construction cost of the Interconnection Project is estimated at approximately US\$55 million.*"²⁹⁷ This estimate is almost double the US\$28 million used in the Economic Study and reproduced in Annex 9 of the PAD.
309. **Two considerations may be drawn.** First, EPC costs have increased by US\$123 million (28 percent) from the Economic Study estimate to the point where the contract price was fixed. Second, the Economic Study, which appears to be the only economic appraisal addressing the total project costs, uses the lowest numbers, for both the hydropower and the interconnection projects. The PAD relies heavily on this study in confirming the judgement that this is the lowest cost option for generation and should enable retail tariffs to be reduced. The PAD adds a financial appraisal of Bujagali Hydropower Project (BHP) (using higher costs), but omits Bujagali Interconnection Project (BIP) from this analysis altogether, on grounds that—as the Panel was recently informed—the Bujagali Interconnection Project's wider role in the system would make it "*inappropriate to attribute the transmission line costs solely to the Bujagali project.*"
310. In addition, in considering tariff effects, the full recoverable costs of the Project must be included. In this case, it is not clear to what extent it is intended to recover the cost of the BIP through the Bulk Supply Tariff. The loan repayment terms would

²⁹⁴ Colenco 2007, p. 13.7.

²⁹⁵ Siemens 2006 evaluated several options, recommending option "3aR." This option had estimated initial capital costs of US\$41 million, a present value of capital cost for 2010–2030 of US\$52 million, and NPV of total costs (including losses and O & M) of US\$64M: Siemens 2006, Executive Summary, Table 3, p. 3-2.

²⁹⁶ AfDB, Appraisal Report for the Bujagali Interconnection Project, 30 May 2007, ¶ 4.8.1 and Table 4.1, p. 21. Later communications suggested that the final figure might turn out to be less than US\$75 million.

²⁹⁷ PAD, p. 17.

theoretically allow a relaxed attitude to this; but even if the total cost of BIP is omitted for the purpose of tariff calculation, the Economic Study still appears significantly to underestimate costs as shown in the PAD's Table 3. It thus seems likely that the Economic Study underestimated both the costs (for comparative purposes) and the tariff effects of the BHP/BIP project.

311. Management responded to a question from the Panel about differences between the cost estimates used for economic analysis in the Economic Study and the PAD, stating that: *"Although it may have been possible to revise the analysis mid-stream to incorporate emerging new data, it was not practical to consider re-starting this analysis when each new/refined estimate of project costs became available, since the new estimates were such that all parties involved in the study considered that they would not [to] alter the conclusions of the study. In contrast, the financial analysis, which drew from the same data set as well as results of the economic analysis, was more nimble. The financial analysis therefore represents the most up-dated information at the time of appraisal and issuing the PAD."*²⁹⁸
312. **The Panel finds that, although certain parts of the analysis were carried out thoroughly, to meet all of the requirements of OP 10.04, the PAD should have included an explanation and supporting evidence of why the substantial project cost variations would not alter the conclusions of the Economic Study.**
313. Paragraph 41 of the PAD states *"... there is limited likelihood of EPC cost increases once the EPC contract is finalized."*²⁹⁹ Section 5.4.4 of the Economic Study explains that for the risk analysis of the Net Present Value calculations they defined two cases, *"Low Bujagali capital cost"* and *"High Bujagali capital cost."* The values for the lower and upper cost scenarios for the items in Table 9.5, above were aggregated to minus 5 percent and plus 10 percent of the base capital cost, with each scenario assigned a 20 percent probability, with the base case at 60 percent. The Economic Study states, *"It should be noted the relatively high probability assigned to the base cost estimate takes cognisance of the advanced stage of development of the Bujagali project and the fact that the EPC contract has already been tendered and is under the final stages of negotiation."*³⁰⁰
314. The judgments of the PAD and the Economic Study may be optimistic, however, for the following reasons:
- (a) After the price is set, contractors are adept at pleading unforeseen geology/geotechnical grounds to justify an increase. In this case, the winning bid price was significantly lower than the next best, but between the time in which the

²⁹⁸ Communication to Panel, January 09, 2008. The note also said that, "The remaining differences between the PPA and PAD totals given above resulted largely from exchange rate fluctuations, and hence EPC cost fluctuation, which occurred after the economic analysis was largely complete, but which were accounted for in the financial analysis."

²⁹⁹ PAD, p. 11.

³⁰⁰ Economic Study, Main Text, ¶5.4.4, p. 74–75.

contract was awarded and the formal price was fixed, there was an increase of 28 percent.

- (b) Although the Project may be technically straight-forward by international standards, the challenge in Uganda of pulling together international and local contractors in an integrated project program will be significant
- (c) In a 2006 review of the draft contract, attention was brought to some provisions, which appeared to relax the discipline on the contractor (on defect restitution, warranties, and scope to resist Liquidated Damages in the event of delay). It is not clear to the Panel that these comments have been taken into account.
- (d) The PAD puts weight on the incentive on BEL to contain EPC costs. This may also be optimistic, in that there is scope for cost increases to be recovered via the PPA (see later comments on the PPA).

315. The Panel notes that these factors, as well as the increases noted in the Bujagali EPC costs, suggest that the confidence in the base scenario was misplaced and that the 10 percent increase in the "High Bujagali capital cost" scenario was insufficiently cautious.

2. Karuma Project Costs and Comparative Costing

316. As noted above, according to the Requesters, Karuma construction costs were inflated to gear the analysis of alternatives in favor of Bujagali. Management states, on the other hand, that the analysis has showed that Bujagali has lower construction costs than Karuma. The Panel has reviewed this question.
317. The Economic Study states that the economic construction costs of Karuma with 200 MW capacity (shown in Table 9.5 of the PAD – Table 6 above) were evaluated on the basis of the design and drawings in the March 1999 Project Definition Report issued by a company which has been promoting a project at Karuma since the 1990s, plus a February 2006 memo showing the main volumes of works. The Economic Study states that the estimates were based on, "*Unit rates of civil works and power plant equipment obtained from recent international bidding on similar works, consistent with the rates used for Bujagali cost estimates.*"³⁰¹
318. Table 8 below compares the estimates of EPC cost from the Acres 2001 study for the prior Bujagali Project³⁰² with those from the PAD's Table 9.5 (Table 6 above) (and Economic Study Table 5-4). The columns showing the percentage changes between the Acres 2001 and the PAD/Economic Study 2007 figures suggest that Karuma's EPC cost estimates grew by a smaller percentage than those of Bujagali.

³⁰¹ Economic Study, Main Text, ¶5.5.2, p. 76.

³⁰² Acres International, "Economic Review of the Bujagali Hydropower Project," 2001.

Table 8 Comparison of Bujagali and Karuma EPC Cost Estimates: Acres (2001) Study and Bujagali PAD

Source/ Category	Cost	Bujagali			Karuma		
		Acres (2001) Table 4.4	PAD Table 9.5/ Economic Study	% change	Acres (2001) Table 4.6	PAD Table 9.5/ Economic Study	% change
EPC Cost (excl. Transmission line)	306.4	442	144%	416.5	465	112%	
EPC Cost (incl. Transmission line)	335.3	460	137%	473.5	544	115%	
Total Implementation Cost	364.3	521	143%	427.5	588	138%	

319. **Comparative costing:** The PAD states that “For illustrative purposes, a comparative costing framework of the major projects described above is shown in Table 9.7 [...] It compares the economic cost of generation of the main long-term options for grid system expansion (in 2006 real terms), indicating that the proposed project is the least cost option under both hydrological scenarios.”³⁰³

Table 9 Economic Comparison of Supply Prices

Table 9.7. Economic Comparison of Supply Prices

Major Projects: Economic Profiles and Cost of Supply							
Item	Value	Bujagali Low	Bujagali High	Karuma Low	Karuma High	Geothermal	MS Diesel
Plant Size	MW	250	250	150	200	40	20
Plant Factor	ratio	0.53	0.91	0.89	0.92	0.84	0.873
Energy	GWt/y	1165	1991	1324	1809	295	159
Investment	USD mm	883.4	883.4	801.4	801.4	170.1	23.0
Investment	USD/kW	2733	2733	5072	4007	4253	1151
Fuel	US¢/kWh						6.60
O&M	US¢/kWh	0.28	0.26	0.21	0.22	0.93	1.76
Supply Price	US¢/kWh	6.17	5.81	6.31	5.24	7.27	12.33

Source: Cost input data for these calculations taken from PPA Report Chapter 7

Notes: “Low” and “High” mean low and high hydrology respectively
Investment includes IDC on all capital employed at 10% discount rate
Investment includes generation-associated transmission and for hydro E&S costs
Karuma Low has less MW available on low vs. high hydrology, but it is 200MW installed
O&M includes variable and fixed cost at the stated plant factors

320. The indicated supply prices of Bujagali under the low and high hydrologies are lower than those of Karuma (and the geothermal and diesel plants). The PAD says that these supply prices are, “relevant, but the ultimate cost of a system expansion program depends not only on individual project costs, but also on the required sequencing and energy/capacity contribution from each unit dispatching into the system, which varies

³⁰³ PAD, Annex 9, p. 84. The value of “Investment” in Table 9.7, US\$683.4 million, is significantly above the US\$521 million “Total Implementation Cost” for Bujagali in Table 9.5 of the PAD. The notes explain that the figure includes IDC (interest during construction), which was not in the Table 9.5 estimate. The notes offer no other explanation for the difference.

from year to year. This is why detailed least cost generation expansion plans for Uganda are derived to analyze if and how Bujagali would fit under such plans."³⁰⁴

321. **The Panel observes that the updating of the EPC cost figures does not obviously disadvantage Karuma relative to Bujagali.**
322. At the same time, the Panel found conflicting and incomplete reports³⁰⁵ on cost estimates for Karuma at the time of the prior project. Thus, the Panel could not fully assess these estimates, but notes that a recent report funded by the NBI and carried out as part of the SSEA ranks Karuma ahead of Bujagali in comparing costs, socio-economic and environmental considerations.

D. Assessment of Least Cost Options for Expanding Power Generation and Related Considerations

323. OP 10.04 states that the *"basic criterion for a project's acceptability involves the discounted expected present value of its benefits, net of costs. Both benefits and costs are defined as incremental compared to the situation without the project."* The policy also requires the economic alternative analysis to compare the project design with other designs but also to compare it with the alternative of not doing the project at all. The analysis also studies *"the switching values of key variables [...] and the sensitivity of the project's net present value to changes in those variables (e.g., delays in implementation, cost overruns, and other variables that can be controlled to some extent)"* to improve the design, increase the expected value and reduce the risk of failure.
324. The Economic Study devised and compared alternative generation expansion plans with and without Bujagali as a candidate plant. The Economic Study explains that, *"The difference in present-worth value between the costs of these two development strategies is defined as the Net Present value (NPV) of Bujagali HPP."*³⁰⁶ *"The least cost generation expansion analysis was undertaken for base, low and high demand forecasts; low and high hydrology scenarios; base, low and high fuel price projections; and base, low and high Bujagali cost estimates."*³⁰⁷ Seventy two cases were evaluated, 54 with Bujagali and 18 without, to explore the range of risks, with 13 more for further sensitivity analysis.
325. The PAD states that, *"The economic analysis confirms that the proposed project is the next major least-cost generation expansion option for Uganda. [...] In addition, the*

³⁰⁴ PAD, Annex 9, p. 84.

³⁰⁵ Development Today: Nordic Outlook on Development Assistance, Business and Environment, Confidential Report Over-Prices Karuma Falls Projects, December 3, 2003, No.19/2003

³⁰⁶ Economic Study, Main Text, ¶7.1, p. 97. See also PAD, Annex 9 ¶25, p.84, which states "A set of least cost generation expansion plans was developed for the Ugandan power system beyond 2010 based on candidate plants described above. These plants are then entered as candidates in the WASP software, together with existing generation capacity, the load forecast and the cost of unserved energy. WASP then generates the sequence of plants that meet demand at the lowest combination of capital and energy cost [...]."

³⁰⁷ PAD, Annex 9, p.85.

*least-cost status of Bujagali was tested for 200 MW versus 250 MW project size, delayed commissioning and the Karuma hydropower project preceding it.*³⁰⁸ The Economic Study reports a sensitivity test in which Bujagali's capital cost was increased to determine how large an increase in capital cost would need to be so that the least cost expansion plan would no longer choose Bujagali as the next best option for the expansion of the system. Based on these calculations, Karuma would become the best option if the capital cost of Bujagali increased by 49 percent of the base cost estimate, the probability of which was considered very low.³⁰⁹

326. The PAD also states that the only cases where Bujagali is not in the least-cost expansion plan *"are those where low demand is combined with high hydrology; such scenarios have a combined probability of occurrence of only 6%."*³¹⁰ The PAD suggests that *"Because the low hydrology has a 79% probability of occurrence versus 21% for the high hydrology scenario, it would not be economic to delay the proposed project."*³¹¹
327. **The process of testing the sensitivity of the least cost expansion plans with and without Bujagali appears to have been carried out thoroughly. The assumed increase of 10 percent for the "high Bujagali capital cost scenario" compared with the "base scenario", with an assigned probability of only 20 percent, was inappropriately low. Nevertheless, a sensitivity test suggested that the Economic Study's conclusions that Bujagali was the least-cost option were robust for an increase of almost 50 percent in capital costs.**

1. Tariffs and Affordability

328. The PAD's Annex 9 states that the Economic Study also showed that under the identified least cost system generation expansion plan, with Bujagali commissioned in 2011, *"the resulting costs of meeting the demand forecast, as well as the incremental costs of transmission, distribution and losses, can be recovered at tariffs no higher than those on which the demand forecast itself was based."* It also says that the financial analysis for the power system as a whole suggested that, when compared with the assumed tariff underlying the demand forecast, *"[...] the tariff may drop by up to 10% in real terms after the commissioning of the proposed project."*³¹²
329. The Economic Study comparison,³¹³ suggests that from 2011 the average long term cost of supply, 16 c/kWh is 1.2 c/KWh lower than the assumed constant tariff level of 17.2 c/kWh (a 7 percent difference). This estimate is based on system costs that incorporate the EPC contract costs and transmission costs for each power station, including Bujagali. However, the costs used here by the Economic Study for Bujagali

³⁰⁸ PAD, p. 27.

³⁰⁹ Economic Study, Main Text, ¶7.4.4, p. 120.

³¹⁰ PAD p. 27.

³¹¹ PAD, Annex 9, p. 86.

³¹² PAD, Annex 9, p. 87.

³¹³ Economic Study, ¶9.4.3, p. 151.

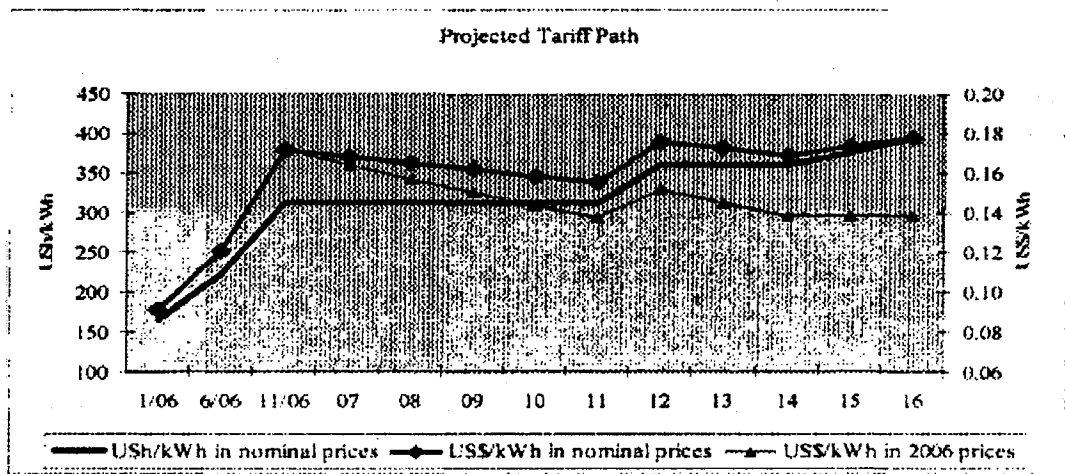
were again based on their EPC estimate of US\$441 million, rather than the 18 percent greater US\$520 million cited in the PAD, as well as on their probably understated figure for transmission connection costs.³¹⁴ This suggests that the Economic Study's 16 c/kWh estimate of post-2011 average long term cost of supply was an underestimate—and that the post-2011 gap between the supply cost and the assumed tariff would have been smaller than the 1.2 c/KWh cited earlier.

330. The PAD's statement simply asserts that the Economic Study shows that the tariff may drop by up to 10 percent, without qualifying the statement in light of the increases in EPC and transmission costs after the Economic Study was prepared and that were recorded in the PAD (but before it was finalised). The issue of electricity tariffs and affordability is of such high importance to the people and communities. **The Panel finds that, in order to comply with the requirements of OP 10.04, the PAD should have qualified its statement about the projected drop in tariffs to take into account the impact of EPC and transmission cost increases.**³¹⁵

331. The PAD presents its own estimates of the projected levels of the weighted average retail tariff path, based on a different and presumably later Economic Study, shown in Figure 12.2 (below) :

Figure 8 Projected Electricity Tariff Path (2000-16)

Figure 12.2: Projected Electricity Tariff Path (2006-16)



332. The series in real terms (i.e. at 2006 prices), and exclusive of 18 percent value added tax, is shown in the table below.³¹⁶ The PAD does not compare these figures with those in the Economic Study and comment on or explain why they differ. **The Panel notes that the Project's impact on tariffs and their affordability was known to be**

³¹⁴ Economic Study, p. 152, Table 9-6; ¶9.4.3, p. 153; and Table 9-8, ¶9.4.4, p. 154.

³¹⁵ The issues of affordability of electricity tariffs and poverty reduction are also addressed in Chapter VI.

³¹⁶ PAD, Annex 12, Table 12.2, p. 106.

a key concern. In this light, the Panel considers that the relationship between the estimates in the Economic Study and those from the PAD's financial analysis should have been presented more clearly and transparently in the PAD.

Table 10 Estimates of the weighted average retail tariff path 2011-2016

	2011	2012	2013	2014	2015	2016
kWh at 2006 prices	13.8	15.1	14.5	13.9	13.9	13.9

2. A Criterion for Economic Acceptability of the Project: Internal Rate of Return Analysis

333. The Requesters argue that the “*SEA does not give cost, cost benefit, opportunity cost scenarios and calculations for installation and development of these alternative energy options as basis for determining Bujagali as the least-cost option.*”³¹⁷ They add that risks to the economy related to hydrology issues, the drought in the region and so on, have not been adequately assessed in the decision making process to choose the best option.
334. In their opinion, there is a need to assess what power options may help reducing the burden on the national grid at competitive costs and prices, and study the feasibility of developing independent grids, which in the Requesters’ view could be more beneficial for the people than being connected to the existing national grid.
335. Management responds that the information regarding costs and benefits is included in the Economic Study rather than the SEA. Management also believes that independent grids are part of the electrification program of the country and both grid and off-grid systems are supported under the Energy for Rural Transformation Program (ERT). The Response says, however, that the expansion of the national grid network is still the least-cost means of connecting the customers.
336. The economic internal rate of return (EIRR) on a project is the rate at which the present value of the project’s series of incremental economic benefits is equal to the present value of its series of incremental economic costs. The PAD notes that “*The benefits are a combination of displacement of more expensive thermal power in the early years of the project’s life and ‘consumer willingness-to-pay’ for incremental electricity supply. The costs include constructing and operating the project and the incremental transmission and distribution works needed for delivering the project’s energy to end-users, as well as managing environmental and social impacts.*”³¹⁸ The risks to the EIRR include hydrology, fuel prices (influencing willingness to pay for alternatives to grid power), the demand forecast and the capital cost of the project, for which different cases had been specified as part of the least cost expansion planning.

³¹⁷ Request, p. 7.

³¹⁸ PAD, p. 29. Additionally, the PAD, Annex 9, p. 90 explains that, “The EIRR is calculated over 2007 to 2061 inclusive, with project benefits and costs stabilized at the level reached by the year the proposed project’s output is fully absorbed, which varies depending on the selected hydrology and demand forecast assumptions.”

337. Potential scenarios were explored, both with and without an estimated “greenhouse gas” benefit of US\$25 per ton of CO₂ emissions reduced through the displacement of thermal capacity using fossil fuel. These calculations suggested that the EIRR “*would be no less than 12.4% and no more than 25.8% in the series without greenhouse gas benefits (or no less than 12.9% or nor more than 26.4% with greenhouse gas benefits). The EIRR for the Base Case is 22.0% without the CO₂ benefits and 22.9% with these benefits.*”³¹⁹ In an alternative approach to risk analysis the Economic Study specified probability distributions for the values of project capital cost (Bujagali and incremental transmission and distribution), demand forecast, willingness to pay of newly connected residential consumers, oil prices and hydrology and used the Crystal Ball program to run a Monte Carlo procedure, “*to randomly select any combination of values for each variable within the specified ranges over a series of 10,000 iterations [...]*”³²⁰ The PAD states that, “*The results of the EIRR analysis are that the EIRR without any greenhouse gas credit has zero probability of being less than 11.3% or more than 26.4%.*”³²¹ The EIRR appeared relatively insensitive to an increase in capital costs although, as noted, the change was over a relatively narrow range.
338. OP 10.04 does not require a specific value for the EIRR, although a frequently cited range for the opportunity cost of capital is from 10 to 12 percent. The Economic Study confirms that they applied a test discount rate of 10 percent in their studies, “*as directed by the World Bank Group.*”³²² The distribution shown in the PAD (Figure 9.3, which differs very slightly from that shown in the Analysis) suggests a zero probability of an EIRR less than 10 percent and a very low probability of an EIRR less than 12 percent. The analysis of the possible effects of different capital costs with and without the Bujagali Project appears to have been carried out thoroughly, as cited earlier in this chapter.

3. Macroeconomic Considerations in the Analysis of Alternatives

339. The Economic Study states that through meetings held with various institutions in Uganda, “*It was found that the tools available for analyzing the impact of power sector investments and production on other sectors are not well developed. Forecasts presented by international institutions and the GoU for the Ugandan economy are based on extrapolations and simple accounting formulae. There are no models with relationships representing the responses of various sectors to changes in income and prices.*” The Economic Study states that because of this limitation on modelling tools, the total impact of the two cases they compared, “with Bujagali” (and Karuma in 2017) and “without Bujagali,” could not be “*quantified with precision.*”³²³ Consequently, they mainly discuss the direct impacts rather than the full direct and indirect effects.

³¹⁹ PAD, Annex 9, p. 91.

³²⁰ PAD, Annex 9, p. 92.

³²¹ PAD, p. 29.

³²² Economic Study, ¶7.2.5, p. 101.

³²³ Economic Study, ¶10.1, p. 163.

340. Among other effects on components of GDP, the Economic Study claims that the “without Bujagali” case will have 5 percent higher tariffs than the “with Bujagali” case, which has a “small” direct impact on households; and that the effects of changes in power supply will be felt most in the manufacturing and mining sectors. This is because the agricultural sector uses little electricity, while energy intensity is ten times greater in manufacturing than in the commercial sector. The Economic Study ends its review of the government’s financial position thus, *“The Government will through its ownership of UECTL carry substantial risks related to the power sector through UECTL’s payment obligations under the power purchase agreements. However, we assume that the Government will not have to subsidise electricity after 2010 in the Bujagali case and after 2011 in the ‘without Bujagali’ case.”*
341. Management examined macroeconomic effects further in March 2007. An independent consultant assembled a spreadsheet model of the impacts, using data developed by the consultants for the Economic Study and two of their power sector expansion scenarios, one with Bujagali from 2011 and Karuma from 2017, and the other largely thermal but including existing hydro capacity (and different from the Economic Study second case). The PAD states that the Project *“is expected to have a positive macroeconomic impact. Compared to a thermal oil-based expansion plan, the hydro-based expansion plan is expected to save the country’s balance of payments over US\$700 million from 2011 to 2020.”*³²⁴ The independent consultant states that his sensitivity tests show that, *“Even if fuel costs fell by 40%, while at the same time construction costs rose by 25%, the more capital intensive but fuel saving alternative ‘with Bujagali and Karuma’ would still be superior to the ‘without’ alternative by US\$45 million in terms of its net impact upon the BOP [Balance of Payments].”*
342. The independent consultant also argues that the relatively greater increase in external debt associated with capital costs is, *“justified when one recognizes that the value of the investments made in the power sector in the ‘with’ case is US\$1,094 million greater.”* The consultant’s brief report concludes that *“Rather than creating macro problems, meeting much of Uganda’s growing needs for electric power through hydropower development at Bujagali (and subsequently at Karuma) will have major benefits for the balance of payments plus more modest benefits for the budget (the results depending on tax, subsidy and pricing policies).”*³²⁵
343. Because of rising oil prices, the independent consultant’s judgement about “big thermal” versus “big hydro” in Uganda may be broadly right. However, one advantage of small multi-fuel generation is that it may make more use of both indigenous fuels and indigenous materials and skills than the big Independent Power Producer options, and thus conserve foreign exchange. In discussing balance of payment “benefits,” it should not be forgotten that Bujagali will require payments of over US\$100 million (equivalent) every year for 30 years.

³²⁴ PAD, p. 29.

³²⁵ Project Files, communication dated March 2007.

4. Externalities

344. Paragraph 8 of OP 10.04 requires the Economic Study to take into account domestic and cross-border externalities, which are in large part environmental.³²⁶
345. The Economic Study states that a field mission to Uganda in July 2006 was carried out to collect data on the environmental and social costs of the Bujagali and Karuma projects. It adds that the Economic Study for Bujagali also used data gathered in the preparation of the SEA.³²⁷ While the Economic Study Draft Final Report was submitted after the completion of the SEA analysis, the Analysis asserts that “*this Final Report takes account of the results of the ESIA report.*”³²⁸
346. Chapter 6 of the Economic Study discusses individual social and environmental estimates. Then, through a process that is not clearly presented, it aggregates them into overall totals in Tables 6-2 and 6-6 (the contents of which appear to underlie the numbers in Table 5-4, *Total implementation Economic Cost Evaluation*). The Economic Study draws on data and tables prepared in the December 2006 Social and Environmental Assessment Reports prepared for the Bujagali and Interconnection projects but without citing either table or page numbers. The overall estimates assembled by the Analysis appear, nevertheless, to be broadly consistent with those used in the SEAs.
347. The lenders’ Independent Engineer reviewed the SEA analysis of Bujagali social and environmental costs. While they judged this part of the report to be, “*clear and quite detailed,*” they suggest that, “[s]ome efforts could have been done to better specify the cost estimates, trying also to evaluate the cost of the Social and Environmental Actions to be performed by the EPC Contractor.”³²⁹
348. The Economic Study prepared estimates of the value of carbon dioxide (CO₂) that would be avoided by Bujagali through the displacement of thermal plant, valuing the damage avoided by each tonne of CO₂ at US\$25, “*which is in the lower band of the equilibrium level quoted in the recent Stern Report on climate change.*”³³⁰ This was not an unreasonable number to employ, given the great uncertainty and wide range of estimates of the “social cost of carbon.”³³¹ In relation to other externalities that were potentially relevant, the Economic Study states without explanation that while, “*There may be SOx impacts,*” the study did not quantify their value.

³²⁶ While global externalities (including greenhouse gases) must be considered only in circumstances that do not appear relevant here. See OP 10.04 ¶8.

³²⁷ Economic Study, Main Text, Executive Summary, p. 12.

³²⁸ Economic Study, Main Text, ¶6.1, p. 81.

³²⁹ Colenco 2007, p. 8.12.

³³⁰ Economic Study, Main Text, p. 84.

³³¹ See Lord Nicholas Stern, *Stern Review of the Economics of Climate Change*, (Cambridge University Press 2007), in particular, Chapter 13, available at:

http://www.hm-treasury.gov.uk/media/A/2/Chapter_13_Towards_a_Goal_for_Climate-Change_Policy.pdf.

349. **The Panel finds that the limited presentation and discussion of these costs in the Economic Study did not succeed in demonstrating full compliance with OP 10.04. In the Panel's view, to meet all the requirements of Paragraph 8 of OP 10.04, the Economic Study should have examined, in more detail, the potential of changes in damage from pollutants other than CO₂, such as sulphur and nitrogen oxides, particulates and noise, even if it might have proved difficult to value them.**

E. Environmental Analysis of Alternatives

350. OP 4.01 on Environmental Assessment states that a project EA analyzes project alternatives. Annex B on the Content of an Environmental Assessment states that the analysis of alternatives “[s]ystematically compares feasible alternatives to the proposed project site, technology, design, and operation--including the "without project" situation--in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements.” The policy requires that this evaluation should quantify the environmental impacts for each option considered and provide economic values where possible.³³² It should also state the basis for selecting one particular option and the proposed project design.
351. The discussion below reviews the analysis of alternatives to the Bujagali hydropower facility in three steps: (a) analysis of hydropower in comparison to alternative power generation technologies within the region; (b) alternative hydro-power locations within Uganda; (c) alternative configurations for the Bujagali option.³³³

1. Hydropower in Comparison to Alternative Power Generation Technologies within the Region

352. As noted before, Uganda has experienced chronic and acute shortages of electrical power since 2002 when the low water level of Lake Victoria prevented full use of the country's sole source of base-load power: the Kiira and Nalubaale hydropower complex. This complex has in recent years been operating at less than half of its combined 380MW capacity.
353. A World Bank study under the Energy Sector Management Assistance Program considers that the Ugandan requirement for consistent reliable power generation significantly in excess of 100 MW effectively rules out, on purely technical grounds, power generation alternatives other than conventional thermal, nuclear or large-scale hydropower plants. “Power generation technologies larger than 100 MW capacity are exclusively conventional power plants burning fossil fuels (coal, heavy oil or natural gas), or are large hydroelectric power plants. In developing countries, power plants of this magnitude are operated by central or state electricity boards or in some

³³² OP 4.01, Annex B ¶2(f).

³³³ Some of the alternatives considered in (a) and (b) have been noted in Section B above in the context of the Project's economic evaluation.

*cases by investor-owned utility companies or by independent power operations. The units in this range are always grid-connected and serve urban or peri-urban areas with high-load density.*³³⁴

354. A separate study carried out as part of the SSEA dated February 2007, funded under the Nile Basin Initiative, analyzed social and environmental issues relating to power development options in the Nile Equatorial Lakes Region of Africa.³³⁵ This study covered four generation technologies—large scale hydro, renewable, geothermal and thermal.³³⁶ The study utilized both the Multiple-Criteria Analysis (MCA) approach and Risk Analysis to compare and rank the various options for providing electrical power to the region. The MCA methodology is semi-quantitative and has the advantage of making the weightings and value judgments that are made transparent and open to questioning.³³⁷ The Risk Analysis was non-quantitative.³³⁸ The two forms of analysis were then combined to produce a final ranking of power generation options.
355. The considerable hydro-power potential of the Upper Nile, together with the country's experience with this form of power generation, appear to be at the base of the GoU according priority to large-scale hydro-power as the electricity generation technology of choice. Uganda's lack of large-scale coal reserves, an existing but unproven oil reserve and its geographical position in the center of Africa (which adds significantly to the cost of generating power using petroleum products) have made the development of conventional thermal power stations less attractive.³³⁹
356. For the MCA three equally weighted categories of criteria were used for project selection, these were: cost, socio-economic considerations and environmental considerations. The criteria and weightings³⁴⁰ that were applied are summarized in the table below:

³³⁴ Technical and Economic Assessment of Off-grid, Mini-grid and Grid Electrification Technologies, Technical Paper 121/07, December 2007, p. 50

³³⁵ The Panel has noted in Chapter III of this Report (Environmental Compliance) that the Bujagali SEA makes only a passing reference to the SSEA and that it is clear from reading the two reports and the complete lack of cross-references between them that they do not form part of the same suite of documents. The Panel continued to say that, as the purpose of both the sectoral and project specific EA is to disclose information relevant to a decision, the fact that one study is reliant on another must be clearly stated and disclosed in project documentation. The Panel found that the failure to disclose the SSEA or its relevant parts as an integral part of the Project documentation in a timely manner was not consistent with OP 4.01, but also noted that the necessary Project studies were conducted and disclosed, albeit independently, considered by Management and referred to specifically in the PAD.

³³⁶ SSEA, Table 1, p. S-8.

³³⁷ The method as well as the criteria and weightings that were used are fully discussed in Chapter 9 of the SSEA.

³³⁸ The method and its conclusions are fully discussed in Chapter 10 of the SSEA.

³³⁹ HPP-SEA, p 172.

³⁴⁰ The weightings of each category—cost, socio-economic and environmental—each add to 100 percent. In the SSEA analyses in which these three components were not equally weighted are also discussed.

Table 11 Criteria and Weightings applied in Multiple -Criteria Analysis

Cost Category	
Economic viability	100%
Socio-economic Category	
Impacts due to population displacement	15%
Promotion of rural electrification	35%
Socio-economic impacts downstream	15%
Land issues	35%
Environmental Category	
Resource depletion	25%
Greenhouse gas emissions	10%
Air pollution	10%
Land-take requirements	25%
Waste disposal	5%
Downstream environmental effects	25%

Risk Analysis covered:

- Risks of opposition from internal and external groups;
- Risks related to institutional and legal frameworks;
- Increased risks to public health;
- Risks to designated habitats or natural sites;
- Risks to sites of exceptional biodiversity value;
- Risks in the use of resources;
- Risks of sedimentation;
- Gestation period in delivering benefits;
- Hydrological risk; and
- Financial risk.

357. The MCA and Risk Analysis were qualitatively combined to provide “best evaluated options” for regional power generation. The results of the process in rank order are summarized in the table below:

Table 12 Results of MCA and Risk Analysis in Rank Order

Site	Country
Ruzizi III	Rwanda
Karuma	Uganda
Ruhudji	Tanzania
Gas Turbine 60 MW gas - generic x 4units	Tanzania
Combined Cycle gas x 3 units	Tanzania
Bujagali	Uganda
Rusumo Falls	Tanzania/Rwanda
Rumakali	Tanzania
Geothermal	Generic
Kivu methane engines 30 MW x 4 units	Rwanda/DRC
Mombasa – LNG	Kenya
Kabu 16	Burundi
Kakono	Tanzania
Wind	Generic
Mutonga	Kenya

358. The Analysis indicated that on pure technical grounds, as well as a combination of multiple criteria and risk analysis, the power generation option considered to be most appropriate for Ugandan base-load supply among the four options generation options considered (large-scale hydro, renewable, geothermal and thermal) was large scale hydro-power.³⁴¹ This conclusion put a focus on large-scale options in the analysis of alternatives, both within Uganda and at Bujagali Falls in particular. It may also be noted that while this analysis focused on comparing hydropower to alternative power generation technologies, it ranked Karuma, as well as thermal plants outside of Uganda, ahead of Bujagali.

2. Hydropower Location Alternatives within Uganda

359. Twelve alternatives at seven different sites in Uganda were considered for large-scale hydroelectric projects in the Nile Equatorial Lakes Region study.³⁴² Only two alternatives—Karuma and Bujagali 1-4³⁴³— were found to be both cost-effective and socially and environmentally acceptable. The sites that were considered are summarised in Table 13 below:

Table 13 Alternative Sites Considered for Large Hydroelectric Projects within Uganda

Location	Installed Capacity (MW)
Ayago North 1-4	228
Ayago North 5-6	76
Ayago South	234
Bujagai 5	50
Bujagali 1-4	200
Kalagala 1-7	315
Kalagala 8-10	135
Karuma	200
Masindi 2	360
Masindi 1	360
Murchison 1-6	315
Murchison 7-8	105

³⁴¹ These studies accord with those undertaken for the earlier Bujagali project. The earlier studies were undertaken by Rust Kennedy and Donkin (1997), Electricité de France (1998), Energy Strategy Management Assistance Strategy for a Rural Electrification Strategy Study (1999) and the Assessment of Generation Alternatives (Acres International, 1999, and finalized in May 2000), all of which concluded that large-scale hydropower was the most viable alternative for electricity generation in Uganda.

³⁴² SSEA, Table 6.1, p. 6-3.

³⁴³ Bujagali 1-4 indicates installation of four turbines, (4 x 50 MW = 200 MW). Bujagali 5 is installation of the 5th turbine to bring power generation up to 250 MW. The two alternatives were thus a 200MW or a 250MW installation. This was done to assess economic and financial consequences, and there is no proposed difference to reservoir size, dam height or area flooded. The environmental and social differences between the two options are minimal - retention time of water in the reservoir and speed with which reservoir levels would fluctuate by up to 2 metres.

360. Murchison Falls was identified as the least cost option in terms of capital cost per MW generated—excluding social and environmental impacts.³⁴⁴ However, both the Murchison Falls and Ayago locations were dismissed on social and environmental grounds as each lies within the Murchison Falls National Park, a proposed World Heritage site. Masindi, a diversion scheme, was also dismissed due to cost. Kalagala, Karuma and Bujagali remained as potential options to meet growing electricity demand. But as the Government of Uganda has agreed that Kalagala should be exempted from power development as part of the Kalagala Offset Agreement this site was also not considered further.

361. According to the Project’s analysis of alternatives, the multi-criteria comparison of the Karuma and Bujagali options showed that on environmental grounds (Table 14) there is little to choose between the two, although Bujagali scores are marginally better, or equal to, Karuma except for land take.

Table 14 Ranking of Options within the Environmental Category³⁴⁵

	Scores for each criterion						Final score
	Resource Depletion	Greenhouse Gasses	Air Pollution	Land Take	Waste Disposal	Downstream Impacts	
Weighting	25%	10%	10%	25%	5%	25%	
Bujagali	0.37	0.04	-	0.03	-	0.20	0.2
Karuma	0.74	0.04	-	0.02	-	0.34	0.3

Table 15 Ranking of Options within the Socio-Economic Category³⁴⁶

	Scores for each criterion				Final score
	Population Displacement	Rural Electrification	Impacts Downstream	Land Issues	
Weighting	15%	35%	15%	35%	
Bujagali	0	7.0	0	0	2.5
Karuma	0.1	9.3	0	0	3.3

362. Although the MCA shows Bujagali slightly better than Karuma for all socio-economic criteria used (Table 15), the specific criteria used in the socio-economic category have been contested by the Requesters. Specifically, Requesters state that, “Cultural and spiritual issues in the Bujagali project area were inadequately covered in the SEA.”³⁴⁷ The Canadian consultant undertaking the study³⁴⁸ in consultation with stakeholders determined the categories, their constituent criteria and the associated weightings. “The consultant was guided in the work by [sic] a Project Steering Committee (PSC) that met regularly throughout the process. The committee consisted

³⁴⁴ Acres International, Review of Potential Hydropower Development for IFC, May 2000.

³⁴⁵ Extract from SSEA, Table 9-5, p. 9-12.

³⁴⁶ Extract from SSEA, Table 9-5, p. 9-12.

³⁴⁷ Request, p. 11.

³⁴⁸ Hydro-Quebec International of Canada. The Consultant was contracted by the World Bank. (SSEA ¶ 2.1, p. 2-1)

*of two power experts from each country involved (usually one from the electric utility and one from the ministry responsible for power). In addition, there were observer members from the Sudan and Egypt.*³⁴⁹

363. This committee in turn invited 30 participants to engage in stakeholder consultation workshops. Four stakeholder consultation workshops were held. Stakeholder representatives came from Burundi, DRC, Kenya, Rwanda, Tanzania and Uganda. Representatives came from national and local governments, civil society organizations (including the private sector), and academia.³⁵⁰ The majority of participants in the stakeholder consultations were drawn from steering committee members attending as power experts; Permanent Secretaries – or their representatives also attending as power and water resource experts; Nile Basin observers from Egypt, Sudan and the Nile Secretariat; representatives of the World Bank and CIDA; independent reviewers; and members of the Consultant team. It is this largely technical grouping rather than Civil Society or Affected Communities in Uganda³⁵¹ that was relied upon to validate the Consultant’s determination of categories, criteria and weightings.

*“Within the Socio-economic and Environmental categories, weights are assigned to each criterion to reflect their relative importance using percentage points. These weights were assigned by the Consultant team on the basis of the grouping of criteria into three classes of importance: “Very important”, “Important”, “Less important”. This grouping was initially carried out during Stage I of the SSEA and was approved during the Third Stakeholders Consultation Workshop held at the onset of SSEA Stage II and confirmed during the Fourth Stakeholder Consultation Workshop at the end of SSEA Stage II. For the new criteria proposed during the Third Stakeholders Consultation Workshop, the Consultant selected the class of importance based on the discussions during the workshop.”*³⁵²

364. The Panel has examined the way in which spiritual and cultural values were considered when comparing project alternatives. Appendix J of the SSEA³⁵³ outlines the decision process. Although retention of the criterion “Impacts on Cultural, Historical and Religious Sites” was part of the revised list of criteria following the Third Stakeholder Consultation, this criterion was not retained in the MCA by the

³⁴⁹ SSEA ¶ 2.3.2, p. 2-4, 5.

³⁵⁰ SSEA ¶ 2.3.2, p. 2-4, 5.

³⁵¹ SSEA, Appendix B records involvement of Ugandan NGOs and Civil Society as follows: “Additional meetings were held with national environmental NGOs and representatives of academia in Kenya and Uganda to discuss the proposed stakeholder consultation process, to obtain information on environmental and social issues related to the power options under consideration in each country, and to identify the most relevant sources of information on these subjects. A number of the environmental NGOs selected for these discussions (NAPE, Greenwatch) were vocal and articulate opponents of the Bujagali hydropower project and, as such, were considered as relevant contributors to the discussions.” (Appendix B, ¶ B.3.1, p. B-19) Neither organization is recorded as having been engaged in the stakeholder consultation workshops.

³⁵² SSEA, Appendix J, ¶ J.1.3, p. J-10

³⁵³ SSEA, ¶ 9, p. 9-1

consultants and was assigned: “to be addressed in the assessment of project risks under ‘Risks of Opposition from External and Internal Groups.’” Here Cultural, Historical and Religious Sites are concatenated with ‘risks of opposition to the project’ which include resettlement, unique habitats, public health and indigenous communities: the weight attributable to spiritual and cultural issues in the risk assessment is consequentially minimal. Further, the significance of Cultural, Historical and Religious Sites was perceived solely in terms of archaeology and graves with no consideration of the current spiritual significance of sites:

“With regards to potential impacts on cultural, historical and religious sites, available EIA reports on Bujagali, Karuma, Ruhudji and Rumakali hydropower projects mention impacts on archaeological sites and, in the case of Bujagali, impacts on family graves. No sites of exceptional value would be affected. Mitigation measures include the evaluation of archaeological potential in project-affected area, the relocation of elements of infrastructure in order to avoid certain sites, archaeological tests and the excavation of sites with high potential. During construction, in cases of a find by chance of an archaeological site, salvage operations should be undertaken. It is unlikely that other projects considered in the comparative analysis would generate impacts on sites of exceptional value. It is also assumed that the same type of mitigation measures would be implemented for these projects. It is thus considered that risks of potential impacts on cultural, historical, and religious sites are minor and about the same for all options.”³⁵⁴

365. The Panel finds that Management did not ensure that cultural and spiritual matters were properly considered when comparing the Bujagali and Karuma alternatives, as required by OP 4.01. This is especially relevant in light of the significant cultural and spiritual importance of the Bujagali Falls to the Busoga people. The lack of proper consideration of cultural and spiritual matters in this comparison had important consequences, in that it appears to have led to the conclusion that there was little difference between the Bujagali and Karuma sites and that therefore the economic and financial aspects of the options should become the determining factor in selecting the preferred option. As discussed earlier in section B, the Karuma and Bujagali sites were subject to a further review in the Economic Study.

3. Alternative Project Configurations at Bujagali

366. The Social and Environmental Assessment (SEA) undertaken for the prior Bujagali project³⁵⁵ included an analysis of alternative impoundments to utilize the head provided by the falls at Kyabirwa, Bujagali, Buyala and Busowoko. Nine variations were considered, one at Kyabira, two at Bujagali, two at Buyala and four at

³⁵⁴ SSEA Appendix J, ¶ J.4.2, p. J-29

³⁵⁵ ESG International Inc and WS Atkins International, Bujagali Hydropower Project Social and Environmental Assessment, Main Report, March 2001.

Busowoko. Two of the Busowoko variations were such as to avoid the inundation of the Bujagali falls—a site of significant spiritual importance — and other rapids used for white-water rafting. One of the Bujagali variants would divert water from above the falls through a headrace canal, thus preserving the falls but with a much smaller volume of water³⁵⁶ flowing in the natural course. For each alternative the power that could be generated, costs, and both socio-economic and environmental impacts were evaluated. This analysis was revisited for the SEA in 2006 for the second Bujagali project.³⁵⁷ Both studies reach the same conclusions. A summary of the conclusions is provided in table 4.2 of the SEA.³⁵⁸

367. In run-of-the-river hydro-power plants the amount of electricity that is generated is a direct function of the difference in water level (the head) between the surface of the reservoir and the tail-water below the generating turbines.³⁵⁹ At Bujagali the maximum water level in the impoundment cannot exceed 1111.5 meters above sea level (masl). This is the elevation of the tail-water of the Kiira and Nalubaale plant and a reservoir level above this would reduce power production at these facilities³⁶⁰. The maximum water level that would avoid inundation of the Bujagali falls is 1097masl³⁶¹ and the level that would preserve both the Kyabirwa and Bujagali falls is 1089.5masl.³⁶²
368. In the alternatives that preserve the Bujagali and Kyabirwa³⁶³ falls, the analysis assumed that the Nile impoundment would need to be moved downstream to below the Busowoko falls to partially compensate for the loss of head. The consequence of adopting the Busowoko options is reduced power generation due to the reduced head, an increase in the area inundated by the reservoir and an increase in construction costs. The benefits are preservation of the aesthetic and spiritual characteristics of the Bujagali falls and the retention of the falls for white-water rafting. The Bujagali option that envisages diverting 80 percent of the Nile's flow through a canal, in order to maintain some flow over the Bujagali falls, would necessitate excavating a cut some 4 km in length, 150 wide and up to 50 m deep and disposal of the excavated material in an acceptable manner.³⁶⁴

³⁵⁶ As low as 20% of current rates of flow.

³⁵⁷ R J Burnside International Limited, Bujagali Hydropower Project Social and Environmental Assessment Main Report, December 2006

³⁵⁸ R J Burnside International Limited, Bujagali Hydropower Project Social and Environmental Assessment Main Report, December 2006 p. 194

³⁵⁹ The greater the head the more electricity will be generated for any particular flow rate; if the head is fixed electricity generation is a function of flow rate.

³⁶⁰ ESG International Inc and WS Atkins International, Bujagali Hydropower Project Social and Environmental Assessment, Main Report, March 2001, pg.183

³⁶¹ The Busowoko E3 option

³⁶² The Busowoko E4 option.

³⁶³ A loss of 14.5 meters – making the Dumbbell Island site non-viable as head would be reduced to about 8 meters reducing power output to about 65 KW without significantly reducing construction costs. This is because a high proportion of Bujagali construction cost is attributable to mobilization, river diversion and equipment. All of which would remain unaffected by the height of the dam wall.

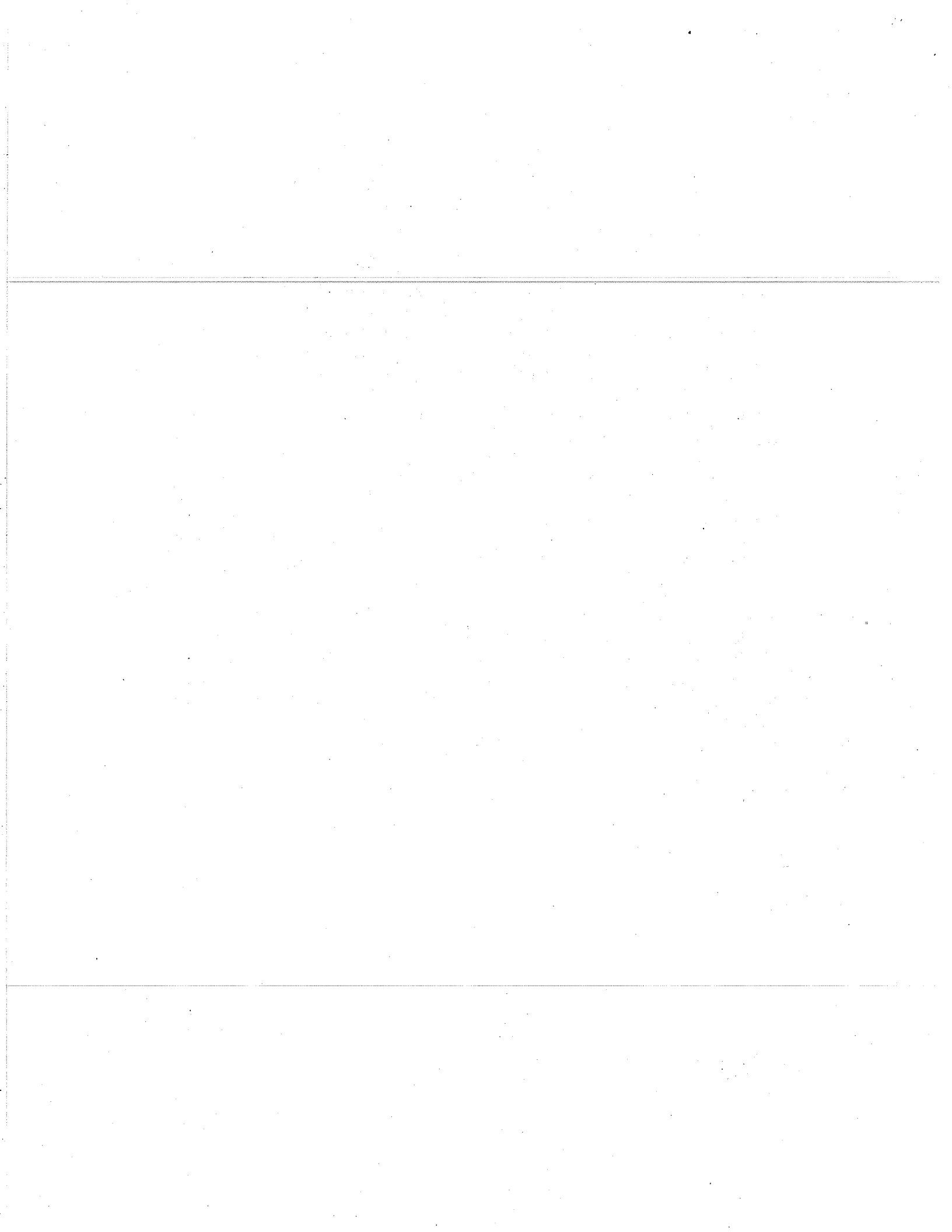
³⁶⁴ Simple arithmetic shows that disposal of the material excavated from the canal would require a spoil heap covering close to 100 hectares to a height of 15 meters.

369. The SEA for both the prior and current Bujagali project conclude that the optimal least-cost option for generating large-scale hydro-power at the Bujagali site, without in their view major socio-economic or environmental consequences, would be to construct a 30 m high dam across Dumbbell Island.³⁶⁵ This naturally occurring island facilitates diversion of the river during construction and reduces the volume of constructed dam wall, thus reducing construction costs in the Bujagali dam option³⁶⁶. These conclusions follow from serious and wide-ranging considerations of what were judged to be the feasible alternative configurations in the vicinity of Bujagali. Neither the Kyabirwa nor the Busowoko E4 configurations individually would generate the requisite 200MW of power, and were therefore judged to be inferior to the Bujagali dam option. Both Buyala configurations as well as those designated Busowoko E1, E2 and E3 are projected to cost more than \$100 million over the Bujagali dam option, and were therefore also judged to be inferior to the Bujagali dam option. The Bujagali diversion configuration would change the landscape in the proximity of the falls through the creation of a large canal and spoil heaps, and would change the aesthetic appeal of the falls by greatly reducing the volume of water flowing over them, and was therefore judged to be inferior to the full Bujagali dam option. These judgements reflect implicit assumptions of the relative weights of economic, social and environmental criteria which were not made sufficiently transparent. A more transparent approach would have been to lay out the various technically feasible alternatives together with their economic, social and environmental benefits and costs, so that judgements on optimal alternatives could be made with a full understanding of the trade-offs involved.

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

³⁶⁵ The Bujagali B1 option.

³⁶⁶ The Bujagali B1 option.



Chapter VI

Economic Evaluation: Poverty Reduction and Risk

A. Affordability and Poverty Reduction

371. The Requesters argue that the Project does not take into account that the Project's high costs and the country's indebtedness have become contentious issues. They believe that because of the Project's cost increase, it is becoming clear that the majority of Ugandans-- who live in rural areas far from the national grid-- will not be able to afford unsubsidized electricity from the Bujagali dam. Furthermore, the high Project costs will limit the funds for rural electrification and will likely lead to reducing subsidies for grid-connected users. The Requesters claim that the Project will *"negate the country's economic development and efforts for poverty eradication."*³⁶⁷ Management claims that the expected Project benefits include the provision of reliable least cost power, which is expected to increase the number of connections of residential users per year and allow industrial and commercial users to increase their output and efficiency. This is expected to *"have positive impacts on poverty alleviation in Uganda"* directly through the availability of power and indirectly through employment creation. The Response adds that *"Management views the Bujagali hydropower plant as an important element of the infrastructure backbone needed for Uganda to continue its broad based growth in support of poverty reduction."*³⁶⁸
372. In the PAD, Management suggests that *"further delays in augmenting Uganda's electricity generation capacity could undermine the economy."*³⁶⁹ It cites the recent country Economic Memorandum as supporting evidence. The Memorandum says that *"close to half (45 percent) of potential investors cite electricity problems as a major or severe constraint which negatively compares with average commercial perception in other African countries."*³⁷⁰ Section 7.4, *Economic and Developmental Benefits*, of the Project's Social and Environmental Assessment (SEA) suggests that the project *"will result in many community benefits at the national, regional and community levels."*³⁷¹ However, although the report describes a wide range of potential country wide benefits,³⁷² it presents very limited quantitative analysis of benefits to individuals and households.

³⁶⁷ Request, p. 9.

³⁶⁸ Management Response, p. 13, 36.

³⁶⁹ PAD, p.1.

³⁷⁰ Uganda Moving beyond Recovery, Vol. II, ¶ 6.23, p. 169.

³⁷¹ HPP-SEA, ¶ 7.3, p. 333.

³⁷² Including sub-sections on reduced electricity rationing and associated costs, increased productivity, implementation of rural electrification programs, reduced costs of power, and reduced air and noise emissions.

373. OP 1.00 on Poverty Reduction states that, *“The Bank’s mission is sustainable poverty reduction. Poverty encompasses lack of opportunities (including capabilities), lack of voice and representation, and vulnerability to shocks. The Bank’s support for poverty reduction is focused on actions, consistent with its mandate, to increase opportunity, enhance empowerment, and strengthen security. Within this broad framework, a critical priority is promoting broad based growth, given its proven importance in reducing poverty.”*³⁷³

374. In its assessment of the economic internal rate of return to the Bujagali Project, the Economic Study provides quantitative assessments of both costs and benefits, including those benefits associated with new connections, reductions in the amount of unserved energy demand and the displacement of relatively expensive thermal generation. The findings of Chapter 10 of the Economic Study, which was peer reviewed by an independent hydrologist, suggested that the Project would deliver largely positive direct impacts on Uganda’s economy, including enhanced electricity supplies, probably at lower cost than they otherwise would be, that would benefit industry, commerce and connected households, thus enhancing national economic activity. **In this sense, and bearing in mind the reservations about the cost estimates of the Economic Study expressed in Chapter V and this Chapter, from a macroeconomic perspective, the analysis appears to have complied with the requirement in OP 1.00 to show that the Project is likely to contribute to “broad based growth.”**

375. In terms of the affordability of electricity generated under the Project for the people of Uganda, Management Response acknowledges that *“end-user tariffs in Uganda almost doubled in 2006”* and that the *“increased price still does not fully cover the cost of generation, transmission and distribution, estimated at US¢25/kWh, requiring government subsidies for the difference.”* Still, Management claims that *“according to the Economic Study, Bujagali’s commissioning in 2011 would enable the cost of power to end-users to fall to US¢16/kWh in 2006 money. This would improve the affordability of power to end users.”*³⁷⁴

376. **The Panel notes, however, that the ¢16/kWh figure provided in the Economic Study is likely to be an underestimate of the cost of electricity with the Project.** As explained in Chapter V of this Report, the Bujagali Engineering-Procurement-Construction (EPC) costs used in the Economic Study were nearly a fifth below the EPC values cited in the PAD.³⁷⁵ Further, the transmission cost estimates used in the Economic Study were low. **The Management Response does not mention these differences in cost estimates or make clear their implications for the tariff estimates of the Economic Study, on which the estimate of US¢16/kWh and Management’s above statement about improved affordability are based.**

³⁷³ OP 1.00 ¶ 1.

³⁷⁴ Management Response, p.35.

³⁷⁵ EPC costs used in Economic Study turned out to be more than one quarter lower than the December 2007 final EPC costs.

377. Much of the expected direct benefit from Bujagali, however, especially in the early years, is likely to be experienced by the better off urban households and particularly the industrial and to a lesser extent the commercial sectors and their stakeholders. The Economic Study estimates, for example, that in 2005 residential users consumed around one third of total electricity sales, with the other two thirds consumed by commercial (12 percent) and industrial (55 percent) users.³⁷⁶
378. Existing poorer households that could afford to connect would benefit from the delivery of a more reliable and possibly relatively cheaper service. New connections, in urban and gradually in rural areas, facilitated by UMEME's distribution investments and by better electricity availability, would mean that increasing numbers of households would gain access. Nevertheless, the electricity would still be very costly for poorer households and too costly for many. Poor urban dwellers consume little if any electricity, while most rural households are not close to a grid connection: "*electricity use by households in Uganda is stunningly low outside of Kampala.*"³⁷⁷
379. The 2004 Bujagali Economic Review³⁷⁸ noted that a 2002 Uganda Bureau of Statistics (UBOS) survey, with population quintiles defined over household per capita consumption expenditure, showed no recorded spending on electricity by the bottom quintile of urban households. The mean spending on electricity in the fifth quintile by households that consumed it was five times that of those in the second quintile. The Country Economic Memorandum says that, "*The distributional and policy implications of this coverage profile are huge. For instance, the electricity profile according to the income cut [... suggests] that any subsidy to consumption is rather regressive, but also indicating that targeted subsidies to new connections might be the way to go as sufficient power becomes available.*"³⁷⁹
380. The Terms of Reference (ToR) for the Economic Study discuss the calculation of the ERR for Bujagali, outline the broad range of benefits and costs to be included, and state that "*This section will also identify the direct impact of the project on poverty alleviation by estimating the economic impact of the project on low income households.*"³⁸⁰ **The Panel did not find evidence in the Economic Study or the PAD of any estimates of the economic impact of the Project on low-income households. The Panel considers that such analysis, in addition to the broader macroeconomic analysis undertaken in the Economic Study, should have been made during appraisal to provide a better understanding of whether the objectives of poverty reduction envisaged by OP 1.00 would be achieved.**

³⁷⁶ Economic Study, Main Text, Table 2-5, p. 26.

³⁷⁷ Uganda - Moving Beyond Recovery: Investment and Behavior Change for Growth, Report No. 39221-UG, World Bank, Sept 2007, V. 1, p. 25.

³⁷⁸ Bujagali Economic Review, p. 42.

³⁷⁹ Uganda - Moving Beyond Recovery: Investment and Behavior Change, for Growth, Country Economic Memorandum, , Report No. 39221-UG, World Bank, October 2007, Vol. II, Overview, p. 169.

³⁸⁰ Economic Study, Appendix A, ¶ 26, p. 10.

B. Financial and Governance Risks

381. According to OP 10.04, Bank staff must verify whether “*the legal and institutional framework either is in place or will be developed during implementation to ensure that the project functions as designed*” and whether “*critical private and institutional stakeholders have or will have the incentives to implement the project successfully.*” Assessing sustainability includes evaluating the project's financial impact on the implementing/sponsoring institution and estimating the direct effect on public finances of the project's capital outlays and recurrent costs.

1. Revenue Projections and the Institutional Framework

382. Section B of the PAD's Appraisal summary addresses the financial analysis of BEL and suggests that the Project's (i.e. BEL's) ability to withstand downside scenarios is robust against a 30 percent increase in EPC costs that is not fully recoverable by BEL, unrecoverable increases of 25 percent in O & M costs, a 50 MW shortfall in capacity at commissioning, and availability below 90 percent, as well as a project delay of up to 6 months.³⁸¹
383. Section C of the Appraisal Summary and Section 12 of the PAD review the financial situation and prospects of the power sector. They outline the challenges and risks it faces, relating to: tariffs (including the recent increases relating to the costs of thermal plant and UMEME's revenue requirements, and future increases needed to cover system investments); the past and future performance of both UETCL and UMEME, distribution losses and uncollected energy bills; revenue shortfalls and government support through subsidies and debt service deferment; and IDA support under the Power Sector Development Operation.
384. Figure 3 and Figure 12.2 in the PAD depict projected revenue requirements and the projected tariff path to 2016. These graphs indicate the scale of the challenge, and the scale of expected revenue shortfalls. The PAD suggests that “*The projected revenue requirements and tariffs converge by the time the proposed project comes on line in 2011. Electricity tariffs would be fully cost reflective by then and subsidies would be removed, except for duty exemptions on generation fuel and transmission investments.*”³⁸² It estimates Government support to power utilities at US\$734 million for 2005-2011 and US\$85 million for 2012-16. Over the period 2005-16, the government is projected to collect net revenues of \$US217 million: “*The power sector will be a drain on the Treasury until the proposed project is commissioned but a net contributor after.*”³⁸³
385. **The Panel notes that this statement in the PAD appears misleading and seriously at odds with the projected revenue stream of the Bujagali Project, given the large shortfall until 2022 between the revenue to be raised by the tariff for Bujagali**

³⁸¹ PAD, p. 31.

³⁸² PAD, p. 34.

³⁸³ PAD, p. 36.

proposed in the PAD, and the requirements of the capacity charge. This gap is explicit in the PAD figures, as is made clear below, and it is not clear from where else but the Treasury this gap will be bridged. In the Project's later years, the tariff revenues will exceed the capacity charge for Bujagali, which will relieve the Treasury of this burden and enable the resources to be re-couped. The statement quoted above, however, appears to be about cash flow, which is negative from the commencement of Bujagali operations until at least 2022. **The revenue gap that UETCL, in particular, will face, may lead to large, urgent demands on the GoU Treasury and potentially on the Bank via its Guarantee.** The possibility of both higher Project costs and significantly lower revenues will have a major bearing on whether the GoU guarantee of capacity payments under the PPA agreement is likely to be triggered.

386. Sensitivity tests were performed on the base case financial projections to 2016. The PAD's Table 12.8 shows the resulting percentage tariff impacts. The tests cover five "downside risks" and three "upside potentials" scenarios. The PAD states, however, that, "*Each of the sensitivities is considered in isolation, with all other assumptions in the base case remaining unchanged.*"³⁸⁴ It would have been helpful to have applied these tests using a more comprehensive probability-based sensitivity analysis³⁸⁵, which would have enabled wider distributions of the values of each variable and their simultaneous variation to be taken into account, along with other variables such as changes in the US\$/US\$ exchange rate. **The likely tariff variations and the possible revenue shortfalls or surpluses and their implications for UETCL, UMEME and government net revenues are key sustainability concerns;** they matter for the future of the power sector, for electricity consumers, actual and potential, and for the GoU's ability to invest in key sectors and services.
387. Paragraph 95 of the PAD gives estimates of BEL's annual project revenues during the life of the senior loans (US\$137-187 million) and of "*the estimated hydropower electricity tariff in nominal and levelized terms [...]*."³⁸⁶ The levelized tariffs for the low and high hydrologies respectively are 9.7 US\$/kWh and 5.7 US\$/kWh over the years 2011-2027 (Table 5). With expected outputs of 1165 GWh and 1991 GWh in the two hydrologies, these tariffs imply a stream of annual payments of US\$113 million, which UETCL would need to recover through the Bulk Supply Tariff. UETCL will also presumably need to recover at least the construction investment costs of the transmission line for Bujagali, which the PAD estimates at US\$55 million.³⁸⁷
388. As noted, the PAD indicates levels of 1165 GWh and 1991 GWh in the low and high hydrology scenarios. Using those figures, the PAD also shows that in a high hydrology scenario, Bujagali's lifetime (30 years) capacity charges could be recovered through a levelized bulk supply tariff (2.5 percent *per annum* inflation

³⁸⁴ PAD, Annex 12, p. 114

³⁸⁵ A standard practice in Operations Research known as "Monte Carlo Analysis."

³⁸⁶ PAD, p. 30.

³⁸⁷ PAD, p. 17.

assumed, 2006 prices) of 5.7c/unit (Table 5, para. 95). The equivalent figure under low hydrology, calculated to have the same value, \$113m, is 9.7c/unit. Presumably this charge would be included in UETCL's Bulk Supply Tariff (BST), to be passed on to customers via UMEME and retail tariffs. The actual revenue generated for UETCL would however be less than \$113m, (25 percent less, at a conservative estimate) because of technical and commercial losses. By contrast, during the first 12 years of operation (the period of repayment of senior debt), the Bujagali annual capacity charge is actually estimated at an average of \$155m, with a peak of \$187m in 2022.³⁸⁸ So the levelized tariff would leave UETCL with a substantial revenue shortfall in paying the Bujagali capacity charge.

389. It is then arguable how a levelized tariff will be set, given hydrological uncertainty.³⁸⁹ Whichever levelized tariff is set, there will be a significant revenue shortfall, to be paid by UETCL, against the required capacity charge up to 2022, of \$32m, plus compensation for losses, *per annum* on average, peaking at \$74m plus in 2022. If the tariff were set at 8.4c but 2022 was actually a year of low hydrology, the revenue gap that year would rise to \$89m plus. UETCL's revenue shortfall should have been included in the PAD financial, cash flow and retail tariff forecasts. Moreover, the revenue forecasts assume collection rates rise from 54 percent in 2006 to 75 percent in 2013³⁹⁰. **The Panel expert considers that it would have been realistic to use a lower forecast recovery rate.** The possibility of both higher costs and significantly lower revenues will have a major bearing on whether the GOU guarantee of capacity payments under the PPA is likely to be triggered.
390. The PAD says that, "*The evacuation of maximum electricity output from the plant would require 100 km of transmission lines, the construction of a new substation at Kawanda, and the extension of the Mutundwe substation (the Interconnection Project).*" It points out that it would be built as a separate project and "*will be financed by ADB.*"³⁹¹ In the PAD's financial discussion and projections, it is not obvious where, if at all, the expected costs of the transmission project enter the projections and on what estimates they are based. Detailed consideration of supply options in the PAD's Annex 9 appears to exclude or under-estimate connection costs – see Table 9.5 which repeats the figures in the Economic Study. As noted in Chapter V, the actual bulk supply tariff which UETCL will pass onto the distribution sector, for inclusion in retail tariffs, should include an element for recovery of at least some of the BIP costs, which the PAD estimates at US\$55 million.³⁹²
391. This issue did not arise with the prior Bujagali project's evaluation because AESNP were investing in both the dam and the required transmission connection. In a communication to the Panel, Management has suggested that some elements of the

³⁸⁸ PAD, Annex 11, paragraph 10.

³⁸⁹ One answer might be to use the low/high hydrology probability estimate of 79/21: on the PAD ¶ 95 basis, this would give an ex-ante levelized tariff of 8.4c/unit.

³⁹⁰ PAD, Annex 12, p. 117.

³⁹¹ PAD, Annex 4, p. 61.

³⁹² PAD, p. 17.

cost of the new transmission arrangements might contribute to purposes beyond connecting Bujagali to the grid. Even so, in the Panel's view, to demonstrate compliance with OP 10.04, and in light of the varying estimates of the costs of the Interconnection project, the evaluation should have presented identifiable estimates of the impacts on electricity tariffs and of the challenge facing UETCL in recovering these costs, on top of the requirement to meet the capacity payments for the dam project.

392. The PAD states that *"One of the biggest challenges currently facing Uganda's power sector are the high level of distribution losses (34.1 %) and non-collection rate (18%) as of December 2006."*³⁹³ Along with transmission losses of up to 5 percent, *"This means that at the end of 2006 approximately 49% of the energy sent out is not paid for. It will be crucial that loss numbers and collection rates improve again."*³⁹⁴ Collection rates rose from 80 percent at the start of the concession to 92 percent by May 2006 but after two tariff increases dropped to 82 percent by December 2006. As noted in Chapter V, the PAD recognises as a critical risk, the possibility that UMEME terminates its concession (in May 2006 UMEME was considering using an exit clause that allowed it to exit after 18 months³⁹⁵) and lists various approaches taken to address this, including IDA and MIGA risk coverage, and says that the concession structure was modified to protect UMEME from the impact of power shortages and reduced revenues,³⁹⁶ *"Under the restructured concession, there will be a downside protection for UMEME, and benefits accruing from lower losses will be shared between UMEME and UETCL as long as the power crisis persists."*³⁹⁷
393. The decline in fee collection rates suggests that UMEME's actual performance is likely to remain potentially vulnerable to tariff increases from a variety of causes, both external and internal. There are also risks that the technical and commercial losses will not be reduced as projected in the PAD. It remains to be seen, however, whether the requirement of OP 10.04 to verify that the institutional framework is or will be in place to ensure that the Project functions as designed, can be met. As noted above, UMEME faces vulnerabilities and the restructuring might have weakened their incentives to achieve the targets for reduced losses, enhanced collection rates and new connections envisaged in the load forecast and economic evaluation in the Economic Study.

2. Infrastructure Funds

394. The 2007 Country Economic Memorandum cited in the PAD states that, *"Special or extra-budgetary infrastructure funds have increasingly been started as a means to "protect" public funds from funding specific targets."* Of the five funds listed in its

³⁹³ PAD, Annex 4, p. 108.

³⁹⁴ PAD, p. 33.

³⁹⁵ The World Bank, Implementation Completion and Results Report (Credit #3411-UG) for a Privatization & Utility Sector Reform Project, July 31, 2006, Report No: ICR-000041, p. 34.

³⁹⁶ PAD, p. 23.

³⁹⁷ PAD, Annex 12, p. 109.

Table 6-1, three (the Rural Electrification Fund, the Tariff Stabilisation Fund and the Credit Support Facility) are in the electricity sector. *“These special off budget funds are set up with sector specific institutions and regulations, and are partially funded with budget transfers (that rarely materialize) and own funds collected via levies, licenses and other fees administered directly by the fund without going through the budgetary annual process and controls. [...] It is recommended to review the functioning of some of these funds, and make their amounts public. Extra-budgetary funds as fashionable as they may be, bring drawbacks [...]”* The cited potential drawbacks include: misuse for purposes unrelated to the original purpose, potential allocation of excess funds outside the primary fund objective; and governance issues involving inter-temporal trade-offs of staggered spending.

395. The Memorandum then says, *“In general the proliferation of Extra-budgetary funds poses a serious fiscal threat in a poor country with weak governance systems and capacity. [...] Experience in other countries has shown that extra-budgetary funds create opportunities for waste and corruption in countries with weak governance structures. Uganda is no exception: the Tariff Stabilization Fund which was designed to smooth tariffs until the Bujagali hydropower project comes on stream is already being utilized to subsidize higher tariffs from thermal power generation. This Fund is also being used to fund selective rural electrification projects, despite the existence of a separate Rural Electrification Fund. Fiscal liabilities and contingencies created through extra-budgetary funds are not accounted for in the Government’s budget.”*³⁹⁸

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

C. The Power Purchase Agreement and Associated Risks³⁹⁹

397. This section examines the Power Purchase Agreement (PPA) and associated documents, and compares it in certain aspects with the PPA for the prior project (the 1999 PPA).⁴⁰⁰

1. The Power Purchase Agreement

398. In general terms, a power purchase agreement is a long-term contract between a generator of electricity and a purchaser. In the present Project, the PPA is a 30 year

³⁹⁸ Quotations in this paragraph are from Uganda - Moving Beyond Recovery: Investment and Behavior Change for Growth, Report No. 39221-UG, World Bank, Sept. 2007, V.II, paras. 6.75-77, pp. 194-96.

³⁹⁹ This section is primarily based on the analysis provided by the Panel’s independent expert Mr. Graham Hadley. A summary of his analysis is found in Annex B of this Report.

⁴⁰⁰ “Power Purchase Agreement, relating to the Bujagali Hydroelectric Project, between The Uganda Electricity Board and AES Nile Power Limited,” 8 Dec. 1999 (hereinafter “1999 PPA”).

contractual arrangement, signed in December 2005 and amended and restated in 2007 (the 2005 PPA)⁴⁰¹, between the Project Sponsor, BEL, and the government entity in charge of transmission, UETCL. As indicated in Chapter II, under the 2005 PPA, BEL is to sell the contracted capacity of 250 MW exclusively to UETCL.

399. The terms of the PPA are critical in understanding how financial and economic risks of the Project are allocated, including who would bear the risk of low water flow and, correspondingly, low energy output (below capacity) of the hydropower facility.
400. **In the Panel's opinion, the introduction of a cost-based formula in the 2005 PPA, instead of the maximum capacity charge specified in the 1999 PPA, is probably the single largest adverse contractual change for the power purchaser (UETCL) and its guarantors. The new contractual basis for the Project represents a significant shift in risk away from the project investors and lenders to the power purchaser.**
401. The formula and its effects can be described as follows. The formula for determination of the monthly capacity charge is in Annex D to the PPA. It is very complex, since the components are defined rather than priced, and all are subject to variation. In broad terms, the components are: development costs; EPC costs; tariff debt service reserve; working capital, and fees payable by BEL. All of these constitute Tariff Project Costs, plus equity repayment and return; debt repayment; GOU Equity (representing past development costs), and Operation and Maintenance (O&M) fees.
402. Some of these are treated as pure pass-through (fees, and elements of the O&M charge). Others are carefully defined as to the make-up of their "base" cost, and in some cases – including EPC costs - increases on the base are subject to a quantified percentage "cap". The costs are subject to accountants' inspection. However, the fact remains that, leaving aside debt repayment, BEL has considerable scope to shape the base costs and in some cases the increases too, to deliver a higher capacity charge.
403. Considerable potential delay is built in to the determination of the capacity charge (previous to which payments are on an interim basis). The charge must be set (the Final Declaration Date) within 2 months of production of a Final Cost Report, but that report need not be produced earlier than 6 months after the Final Draw Date, and that event (meaning the earlier of the final draws on equity or debt) in turn may be up to 18 months after the commencement of commercial operation. So 26 months may elapse after the start of operations before there is a determined capacity charge. And curiously there are no specific provisions for dispute resolution. The power purchaser may be relying on BEL to be motivated to move as quickly as possible from an interim capacity charge to the finally determined charge, but equally there is plenty of time as well as scope for BEL to shape the figures.

⁴⁰¹ "Power Purchase Agreement, relating to the Bujagali Hydroelectric Project, between the Uganda Transmission Company Limited and Bujagali Energy Limited," Dec. 2005 (hereinafter "2005 PPA" or "PPA").

404. As was the case with the 1999 PPA, **the capacity charge is not related to output, so the payment will be the same under low hydrology (when the output may be halved) as with high hydrology.** Of course, hydrology is outside BEL's control. But the payments are also relatively invariant to plant availability, which is in BEL's control. A percentage reduction in availability (say 5 percent) would have to be sustained for a whole year before there was an equivalent reduction in the monthly capacity charge.⁴⁰²

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

2. Risks and Consequences Associated with the Project PPA

406. The increased risk borne by the power purchaser and its guarantors (the GoU and the World Bank) has significant consequences. The risks to which the Project is exposed, how the risks are shared, and possible consequences, include:

407. **Capital cost escalation.** If the capacity charge is set higher than present estimates, or rises subsequently, either tariffs must increase or additional subsidies are to be paid to UETCL.

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

409. **Prolonged low hydrology.** A more pessimistic but more realistic view of hydrology has been taken for the Project as compared with Bujagali I. Nevertheless substantial uncertainty remains. Past hydrological patterns have shown great year-on-year volatility, so that both the "high" and "low" numbers used in the PAD are long-term averages only. The PAD illustrates how the cost of a unit from Bujagali rises dramatically in a "low" year. A levelized tariff may be set *ex-ante*, but if the actual hydrological pattern falls below that assumed for the levelized tariff, then the capacity charge shortfall will widen and the consequences will be those described above.

⁴⁰² 2005 PPA, Annex D.

410. **Lower demand growth.** It is assumed that the demand growth rests both on continuing growth of demand from existing customers, and a high rate of new connections/customers, such that the number of customers almost doubles by 2012. If this growth does not occur, UETCL's revenues would fall, with possible abovementioned consequences. To illustrate, if Bujagali were operating today, its average capacity charge during the first twelve years would pre-empt over three quarters of total electricity sector revenues (customer payments) in Uganda.⁴⁰³
411. **Lower or static proportions of supply costs recovered from customers.** It has been assumed that this ratio will have risen to 75 percent by 2013. If it were to remain at the 2006 rate (54 percent), sector revenues would be 28 percent lower.
412. **Affordability.** If the PAD's economic analysis is proved correct, Bujagali's introduction will allow a reduction in (real) retail tariffs of at least 5 percent compared with current levels. Collection rates appear not to have been significantly affected by the large (approximately 80 percent) increases in the last three years, so the Project affordability on that basis does not seem to be subject to high risk (though new customers may reveal different price sensitivities – and produce different collection rates – compared with existing customers). However, if any of the risks above arise, this may (in the absence of subsidies) result in a tariff increase which would affect the affordability of electricity. In addition, it could also reduce demand and therefore reduce rather than increase revenues.
413. **Construction Delay.** Despite Liquidated Damages provisions penalizing the contractor, the costs of delay would be likely in practice to be shared via the PPA with the power purchaser. Extreme delay could require additional stop-gap generation. Otherwise, the main consequence of delay would be to defer for customers the main benefit of the Project, namely a reduction in power-cuts. Overall, this may be regarded as one of the lesser, or more manageable, economic risks.
414. **Withdrawal of the Developer/Operator.** This risk has been mitigated compared with the first Bujagali. The contractor is bound in for the construction phase, and subsequently would be replaceable as operator if not so easily as investor. The Panel notes that the Project provides for the Project to be bought out if necessary.
415. **Poor Plant Performance.** Although the PPA is generous to the owner-operator in the scale of penalties for low availability, this may be regarded as low-risk. In the extreme, the provisions for Company Default provide a safety net.

3. Risk Mitigation Measures

416. Physically and in its electrical impact, the present Project and its associated transmission project closely resembles the prior Bujagali project. The Project vehicle – a leveraged independent power project (IPP), including building and operating the plant and selling bulk power to the public utility under a long term contract (Power

⁴⁰³ PAD, Annex 12, p. 116.

Purchase Agreement - PPA), with IFIs and Government supporting both the loan finance and the PPA - is also conceptually the same. Although there are some changes in the loan and guarantee structures, the key contract documents (the PPA and Implementation Agreement) are also similar, even identical, in many respects.

417. As described in the previous section, there have been important changes in the PPA between the prior and present Bujagali Project that have had the effect of increasing the risk on the purchaser as compared to the project sponsor. At the same time, in the Panel's opinion, some other changes represent potential improvements - reduction of risk - for the present Bujagali Project as compared with prior project. Some of the changes most relevant for Project costs and risk are: 1) the Project was awarded to the developer/sponsor by competitive process, rather than single-track; 2) the World Bank Group has important links, independent of the Project, with one of the equity partners; and 3) increased provision has been made for the public electricity supply system to buy-back the Project in particular, low hydrology, circumstances.

- **Award of the project by Competition** The Panel acknowledges Management's statements that competitive solicitation of Independent Power Producer (IPP) projects is an international best practice aimed at ensuring the lowest market price consistent with technical fitness to carry out a project. This procedure is a marked improvement over the prior project. In this case, however, the benefits of competition were largely lost by post-bid negotiations, which allowed the price to rise by at least 28 percent before it was established. Further, the recent amendments to the PPA provide specific contractual scope for further upward revision.
- **World Bank Group links with the Equity partners.** The PAD notes IFC's equity contributions to one of the Project's sponsors, Industrial Promotion Services (Kenya). The importance of this, together with other safeguards regarding future changes in equity holding, is that it should reduce the medium/long-term risk of collapse precipitated by withdrawal of the sponsors. Sithe Global is an experienced and respected international IPP company (as was AES in 2001); should they wish to withdraw at a later date, however, it might be expected that IPS(K) could temporarily take over equity leadership and engage another experienced investor/operator - or provide a transition into public ownership. There appears to have been a change of mind-set since the prior Bujagali project - for that project the power purchaser and its guarantors took an arms-length approach, leaving it mainly to AES to overcome the planning and other local problems and propose solutions, whereas for the present Project it has been recognized at the outset that although BEL continues to take the lead, these problems will not be overcome without the involvement and long-term commitment of the public authorities. It is particularly important that public authorities should deal appropriately with the resettlement costs arising from local disruption at the dam and along the interconnecting transmission line. This could be an important factor in gaining public support, and thus reducing political risk.

- **Buy-back in case of Low Hydrology.** For both the prior and present Bujagali Project, the PPA and Implementation Agreements provide for buy back of the plant by UETCL under default conditions and certain *force majeure* events. In general terms, these provisions follow international norms. However, the present Bujagali PPA adds a new provision: UETCL may terminate the PPA and buy back the plant in the event of 30 consecutive months of “low water”. The Panel notes that this is an important safeguard because the cost of power from Bujagali, per unit, as determined by the PPA may become prohibitively high in a sustained low hydrology scenario, and in those circumstances it would be preferable for the public authorities to assume control, when they could stop paying the fixed capacity charge, smooth tariff effects and ensure that funds were available for alternative generation. While this provision is to be welcomed, two specific issues may need to be addressed. First, the low water trigger may have been defined too demandingly from the power purchaser’s perspective. Second, the payment terms for buy-out,⁴⁰⁴ which provide that BEL can set the price broadly to equate to capacity payments foregone, seem generous to BEL, given that the plant will be in real trouble if this scenario occurs. The Panel nevertheless acknowledges the need for the sponsors and their lenders to look for protection against loss.

418. While these changes represent potential reduction of risk on the purchaser for the present Bujagali Project as compared with the prior project, the fact remains that other changes, in particular those described in section (b) and (c) above (the determination of a capacity charge by application of a cost formula, rather than a maximum charge), have created significant additional risk. Beyond this, the capital costs and total costs for the power plant have increased significantly in real terms

4. Conclusions on Distribution of Risks

419. It is clear from the review of the Project documents that the greatest share of economic risks lies with the power purchaser. The capacity charge may be adjusted upwards if the developer/operator hits unforeseen costs, but not downwards if demand or supply conditions deteriorate for the purchaser. The Panel notes that in fact the lenders especially but also the investors are held harmless against all or most eventualities. However, in a crisis of non-affordability in Uganda such as might be produced by currency devaluation or very low hydrology, the investors and lenders may also be at risk, if the money to pay the capacity charge is not available. In these circumstances, buy-out is likely to provide the best solution.
420. **The Panel observes that the high allocation of risk to the UETCL, the power purchaser, and eventually the GoU increases the possibility that the Project may not achieve the broad objective of sustainable development and poverty reduction embodied in Bank Operational Policies and Procedures. This also increases the possibility of the Bank (IDA) Guarantee being called. The Panel is concerned that any additional GoU resources that are spent in the financing of**

⁴⁰⁴Implementation Agreement, Annex J.

the development and operation of this Project may lead to decreased resources available for social and other priority development programs.

5. Disclosure of the PPA

421. The Requesters state that the PPA was not adequately disclosed. They add that a photocopy was only belatedly (January 8, 2007) released for public review at the Uganda Electricity Regulatory Authority's (ERA) Office in Kampala and that viewers were required to read it only during office hours. The Requesters claim that this is in violation of the Bank's policy on disclosure of information.⁴⁰⁵

422. The Panel notes that OP 14.25 on Guarantees provides that *"Any investment project benefiting from a Bank guarantee must comply with all Bank safeguard and disclosure policies."*⁴⁰⁶ The Bank Policy on Disclosure of Information *"reaffirms its recognition and endorsement on the fundamental importance of transparency and accountability to the development process"*⁴⁰⁷ and provides for the timely disclosure of a number of documents involving lending operations. However, there is no reference to the disclosure of third party documents such as the PPA.

423. The Inspection Panel notes that the 2002 Inspection Panel Investigation Report stated that it *"seems evident that (...) full disclosure of the PPA is vital if the intent is to place the public in a position to analyze, understand, and participate in informed discussion about viability of the Project and its impact on the economy and well-being of Ugandans. It is also evident (...) that according to IDA's policy, there is no specific requirement to disclose contracts to which IDA is not a party."*

424. Management indicated that in learning from this prior Panel Investigation, *"the GoU committed to and implemented a stronger program of public disclosure. This project's Power Purchase and Implementation Agreements have been disclosed by the GoU."*⁴⁰⁸ Management adds that copies of the PPA were made publicly available at the ERA offices for a 30 day period starting on March 6, 2006, and again for an open-ended period, starting on January 8, 2007. Management considers that the GoU public disclosure of the PPA was *"a commendable and unusual step for a private sector transaction."*⁴⁰⁹

425. Management further states that ERA's disclosure of *"commercial documents of this nature [was] a departure from standard industry practice, since such documents are frequently considered to be sensitive and confidential."*⁴¹⁰ Concerning the method of disclosure, Management adds that it was understandable that ERA may wish to *"retain a measure of control over the circulation of the documents."*⁴¹¹

⁴⁰⁵ Request pp 9-10.

⁴⁰⁶ OP 14.25, para 5

⁴⁰⁷ The World Bank Policy on Disclosure of Information (2002) as revised in March 2005, Part II, para 3.

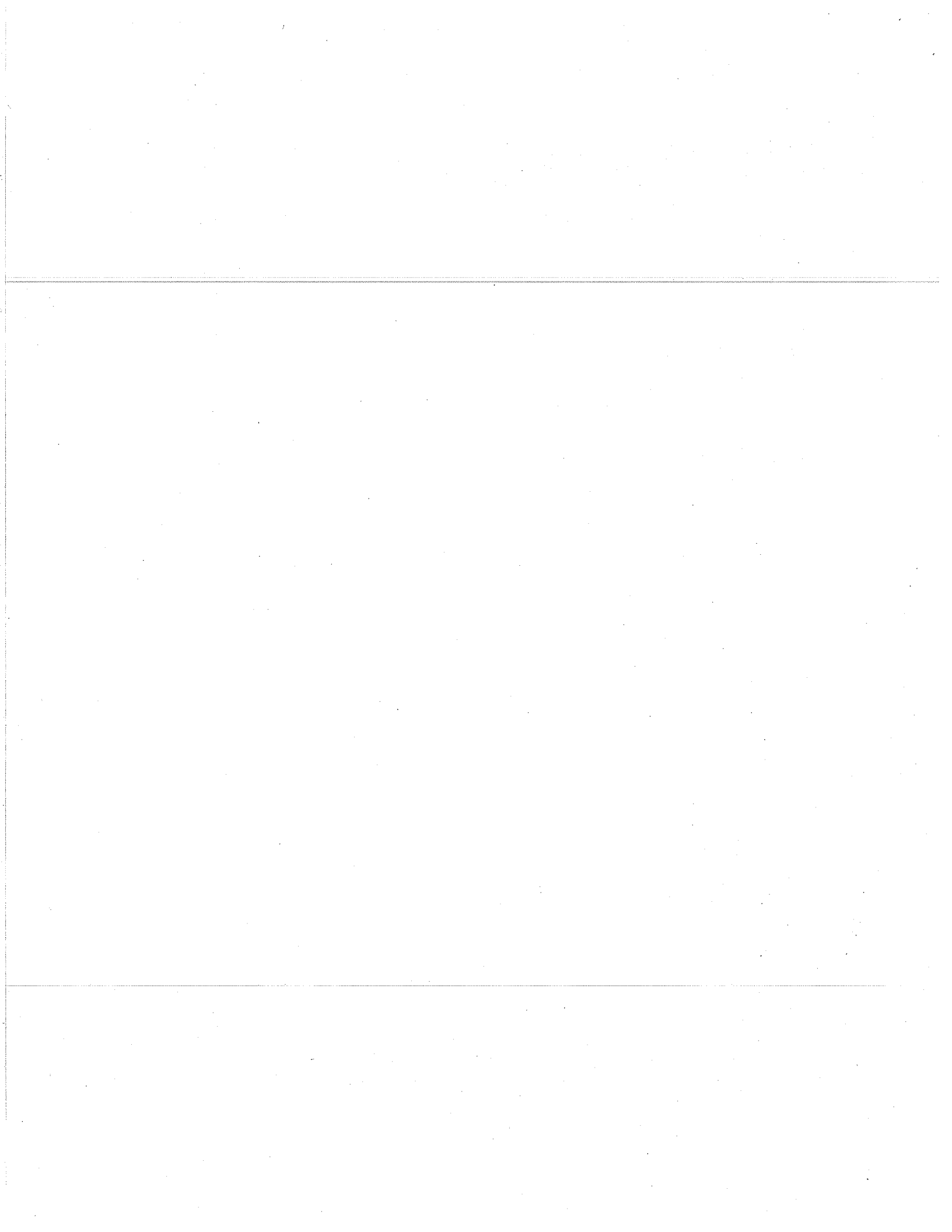
⁴⁰⁸ Management Response para 24.

⁴⁰⁹ Management Response para 29.

⁴¹⁰ Management Response, Annex 1, item 25, p. 45.

⁴¹¹ Management Response, Annex 1, item 25, p. 45

426. During its visit to Kampala, the Panel team visited the ERA offices and verified that a copy of the PPA was available to the public in a reading room.



Chapter VII

Involuntary Resettlement

A. The Requester's Claims and Management Response

427. The Requesters claim that the resettlement under the Project is not complete.⁴¹² They raise multiple, interrelated involuntary resettlement issues, including loss of livelihood, under-compensation, inability to obtain secure land titles, lack of consultation, and request to share in Project benefits. They believe that the existing compensation and resettlement framework is outdated and does not reflect the current economic conditions in the Project area and of affected people. Furthermore, they claim that "There should have been a re-assessment of social costs and benefits of the compensation and resettlement exercise to reflect the current and future realities."⁴¹³
428. The Requesters assert that the consultations carried out in project preparation were not adequate because people were informed about the project but their participation in the decision-making process did not in fact occur. They believe that "*project proponents confuse consultation with true participation in a decision-making process*".⁴¹⁴
429. The Requesters also raise specific issues about the Naminya community, including the lack of secure tenure through land titles, unfulfilled promises made regarding accessibility to potable water and water tanks, defective latrines, schools, health centers, condition of housing, provision of electricity, a community center, a market, road maintenance, employment, and food and income sources such as adequate plots for farming, fish ponds, and more.⁴¹⁵
430. Management firmly believes that this Project has been well prepared in accordance with Bank policies.⁴¹⁶ Management "*shares*" the Requesters' concerns about resettlement issues, noting that the withdrawal of the prior project Sponsor left some social aspects "unfinished. The Response goes on to say that in this context the Bujagali Implementation Unit (BIU) maintained an active presence on the ground.
431. Management deals with the Requester's specific claims using a three part framework they state is "*designed to ensure that local populations are fairly treated and their livelihoods improved.*"⁴¹⁷ They prepared two Assessments of Past Resettlement Activities and Action Plan (APRAPs) to address legacy issues and actions needed to comply with World Bank Group resettlement policies⁴¹⁸: one for the hydropower

⁴¹² Request, p. 11.

⁴¹³ Request, p. 11.

⁴¹⁴ Request, p. 12.

⁴¹⁵ Request, pp. 15-17.

⁴¹⁶ Management Response, ¶ 51.

⁴¹⁷ Management Response, ¶ 50.

⁴¹⁸ Management Response, Annex 1, p. 38.

plant, the other for the Kawanda resettlement along the T-line.⁴¹⁹ These assessments were for people who had been moved by the prior Sponsor and were in the process of resettlement. In addition, Management had the Sponsor prepare a full Resettlement Action Plan (RAP) for those people who had yet to be moved along the T-line.⁴²⁰

432. Management states that “*all outstanding issues*” on the resettlement at the dam site will be resolved because the BEL and the BIU has committed to corrective activities including: completing the land titling process; providing new water supply hand pumps at 17 existing borehole locations in the surrounding communities; improvements to education facilities in the eight affected communities, and improvements to the health facilities at the Naminya resettlement site.
433. With regard to consultations, as part of the SEA Management completed an updated Public Consultation and Disclosure Plans (PCDP) discussing past and planned activities, posting both at the Project website. Management states that the consultation process includes continuous consultations with representatives from communities and clans.⁴²¹ The Response adds that, “*While it would be impossible to address “each of the stakeholders” concerns, at all meetings with stake-holders, the developer has invited community representa-tives and community members to raise issues with regard to their involvement in the project.*”⁴²²
434. **Bank Policy** The provisions on Involuntary Resettlement constitute an important part of the World Bank’s safeguard policies and poverty reduction mandate. To avoid displacement-induced impoverishment, the Bank policy on Involuntary Resettlement, OP/BP 4.12, sets three objectives, all of which are applicable to the Bujagali project. Resettlement should a) be avoided where feasible, or minimized, exploring all viable alternative project designs. Where it is not feasible to avoid resettlement, b) resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits.⁴²³ Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs, and (c) displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.⁴²⁴

⁴¹⁹ Bujagali Hydropower Project Social and Environmental Assessment Main Report, Appendix I Assessment of Past Resettlement Activities and Action Plan (APRAP) December 2006 (hereinafter, “HPP-APRAP”) See also Bujagali Interconnection Project - Assessment of Past Resettlement Activities and Action Plan (Kawanda Sub-Station). 5 Nov. 2006. (D059) (hereinafter “IP-APRAP”)

⁴²⁰ Bujagali Interconnection Project - Resettlement and Community Development Action Plan. Dec. 2006 (D060). (hereafter “RCDAP”)

⁴²¹ Management Response, Annex 1, p. 40.

⁴²² Management Response, Annex 1, p. 40.

⁴²³ The AfDB adheres to almost identical standards. African Development Bank Involuntary Resettlement Policy, November 2003 (D026) (“hereinafter AfDB IR Policy”) ¶ 3.3 (a).

⁴²⁴ OP 4.12 ¶2.

435. To achieve these objectives and mitigate impoverishment risks attributable to a project, the borrower prepares a resettlement plan.⁴²⁵ For the Project, World Bank policies and procedures required the Sponsor to identify impoverishment risk-related impacts and plan measures to mitigate them using an appropriate resettlement instrument.
436. The Panel notes that Management adopted non-standard Bank policy terminology for the Bujagali project, calling what is normally called a resettlement action plan (RAP) on the T-Line the Resettlement and Community Development Action Plan (RCDAP).⁴²⁶ In their Response to the Panel, Management refers to the three frameworks (two APRAPs and the RCDAP) as Resettlement Action Plans "RAPs."⁴²⁷ Unrelated to these three documents and physical and economic displacement, the Sponsor also prepared a Community Development Action Plan.⁴²⁸

B. Changing Context: from the prior project to the present Bujagali Project

437. The prior Bujagali project was divided administratively into two infrastructure components; one for the hydroelectric power plant (HPP), the other for the transmission line (T-line). The prior project sponsor, AES Nile Power (AESNP), assigned a single team for both resettlement programs and the same consultant prepared two Resettlement Action Plans (RAPs) under the then applicable Bank policy on involuntary resettlement OD 4.30, one for the HPP and the other for the T-line component.
438. AESNP's withdrawal from the project in 2003 raised the issue of who would be responsible for the physical, institutional, and fiscal integrity of the on-going and pending involuntary resettlement activities.⁴²⁹ During the preparation of the new project, Management states that continuity of consultations with project affected populations and villagers surrounding the hydropower site and the associated Interconnection Project was maintained by staff from UETCL, through its Bujagali Implementation Unit (BIU),⁴³⁰ but other resettlement component investment was almost suspended.
439. When the prior Bujagali project was stopped, the resettlement process at the hydropower site had either physically moved or compensated about 8,700 people (1,288 households) excluding dependents, who lost assets in some form or another.⁴³¹

⁴²⁵ OP 4.12 ¶ 6. The AfDB IR Policy refers to this as a "Full Resettlement Plan." Annex A lists 16 elements.

⁴²⁶ Management Response, Annex 1, No. 18-23. See also RCDAP and HPP-APRAP. Management use of non-standard Bank involuntary resettlement terminology for the names of their studies creates unnecessary confusion.

⁴²⁷ Management Response, ¶50.

⁴²⁸ HPP-APRAP, p. 4.

⁴²⁹ Project Files, communication dated December 21, 2004.

⁴³⁰ PAD, p. 40.

⁴³¹ The HPP-APRAP (p. 4) states that 8,700 individuals (1,288 households) were affected in one way or another, but discounts "dependents" who were declared as such by the household head during the socio-

Of these, 634 people (85 households) had to move from their domiciles.⁴³² Thirty-five of the 85 physically displaced households resettled in Naminya, a 48.6 hectare site⁴³³ approximately 5 kilometers from the dam site, the remaining 51 relocated without resettlement assistance using the cash compensation paid by AESNP.

440. In contrast, AESNP had made less progress on the T-Line involuntary resettlement which stretched along a 100 kilometer narrow corridor. In 2001, it had anticipated 5,796 people were to be displaced (1,183 households), of whom 1522 individuals (326 households) were projected to be physically displaced from their residence. Of these, an estimated 900 individuals (184 households) would need to be resettled with the assistance of the Company. As of 2005, only 27 households had relocated, most of whom took cash compensation.⁴³⁴ Eight households opted for resettlement packages with project-constructed new housing near Nansana about 19 kilometers from Kawanda (although closer to Kampala).⁴³⁵ On the basis of the figures available in Project documents, the Panel's expert on involuntary resettlement matters has calculated that, through route optimization along the T-line, the new Sponsor reduced the number of physically displaced households from 326 (in 2001) to 120 (in 2006), despite an increased number of displaced persons from 5060 to 5796 individuals along the Right of Way.⁴³⁶

441. After the termination of the prior Bujagali project, Management and the GoU restructured the ownership and financing of the T-line to be a public project. UETCL assumed responsibility for the resettlement, compensation, and associated community development, excluding those who had been displaced by the previous Sponsor.⁴³⁷ Management states that a key reason for this change in the financing and ownership structure was the concern that additional financing for the transmission line could have an impact on the "financibility" of the power plant.⁴³⁸

1. Management's decision to assess past resettlement activities and prepare action plans

442. This Project presented a rather unique situation where some of the affected people were relocated or compensated as part of a Resettlement Action Plan approved by the Bank in the context of a prior project with the same location, characteristics and area of impact. What follows is a description of how Management dealt with this issue and the concerns raised by the affected people.

economic survey, some of whom may be children over 18 years, or other dependents that the Sponsor felt were "not household members in sociologic or economic terms." This deduction adjusts the displaced persons ("project-affected people" in their terminology) down to 5,158 individuals. .

⁴³² HPP-APRAP, p. 50. In 2001, AES estimated that 714 people (101 households) would be physically relocated.

⁴³³ HPP-SEA, p. 351.

⁴³⁴ IP-APRAP, p. 7.

⁴³⁵ IP-APRAP, ¶1.4.

⁴³⁶ Panel comparison of RCDAP (2001) Table 6.4, pp. 6-11 to RCDAP, pp. 35, 67.

⁴³⁷ Project Files, communication dated Jan 18 and Jan 23, 2008.

⁴³⁸ Project Files, communication dated Jan 18 and Jan 23, 2008.

1.1. Terms of Reference for the Assessments of Past Resettlement Activities and Action Plans

443. Management divided the displaced peoples into two groups: those who had been displaced in 2001 and those awaiting displacement along the T-line. These groups roughly correspond to the Project's infrastructure components. The Panel notes that the 2006 Social and Environmental Assessment (SEA) applied markedly different involuntary resettlement TOR to each group.
444. Along the T-line, a full Resettlement Action Plan was prepared for those to be displaced (Resettlement and Community Development Action Plan or RCDAP).⁴³⁹ The TOR called for an assessment and update of the prior 2001 RAP and provide additional new information as required to complete the RAP requirements to current standards (OP/BP 4.12).⁴⁴⁰ Elements of the RAP mentioned include standard RAP elements provided for in the Bank policy: identifying affected peoples and their assets, providing a framework for consultation affected peoples and third parties, analysis of the legal and institutional framework, resettlement and compensation approach, impact identification based on satellite images with ground confirmation, provisions for monitoring and evaluation, grievance management, attention to vulnerable people and groups, budget and schedule. The T-Line RAP TOR also required examining the results of compensation strategy and approach and an updated socio-economic baseline, supplementing the 2001 baseline. The TOR further required a distinct socio-economic census and evaluation of those to be physically or economically displaced (center-line survey), consistent with Bank procedures.⁴⁴¹
445. At the hydropower site and at Kawanda on the T-Line, Management did not require a full Resettlement Action Plan for those who were in the process of resettlement. The TOR for an Assessment of Previous Resettlement Activities and Action Plan (APRAP) stated that based on "*preliminary field observations and consultations with local leadership in project-affected villages and the Bujagali Implementation Unit*" it appeared that the prior project Sponsor had "*largely completed compensation and resettlement work before its departure.*"⁴⁴² As part of the SEA, BEL was asked "*to verify this general observation by preparing a detailed monitoring of the status of those compensation and resettlement activities with commitments made in the earlier Resettlement and Community Development Action Plan (RCDAP).*" Should this monitoring identify outstanding issues, a corrective plan was to be prepared in consultation with potential involved stakeholders for subsequent implementation.⁴⁴³

⁴³⁹ Bujagali Interconnection Project, Uganda Social and Environmental Assessment: Terms of Reference. June 2006, (hereafter, "IP-TOR"), pp. 11-12.

⁴⁴⁰ IP-TOR, p. 11.

⁴⁴¹ IP-TOR, pp. 11-12.

⁴⁴² Bujagali Hydropower Project, Uganda Social and Environmental Assessment Terms of Reference, June 2006 (D081 (hereafter, "HPP-TOR"), p. 9. The TOR read: "... it appears that the previous project sponsor largely completed compensation and resettlement work ..."

⁴⁴³ HPP-TOR, p. 10, p. 17.

446. The APRAP Terms of Reference also required BEL to conduct a “*socio-economic survey of the project-affected area at the hydropower site to characterize the socio-economic conditions and livelihoods of the people living in the eight project-affected communities,*”⁴⁴⁴ which include many people who were not being displaced, though they are affected by the Project. This should be done by supplementing the 1999/2000 the socio-economic baseline survey. In addition, BEL was asked to “*undertake a socio-economic and livelihood survey to monitor the current status of the previous Sponsor’s resettlement activities*” and check the status of public services in the Project area.⁴⁴⁵ This sample survey was to be used to “*assist*” in the establishment of “*the socio-economic baseline*” for the affected communities and “*check the status of livelihood restoration and related commitments made in the 2001 RCDAP.*”

1.2. The Assessment and Action Plan: compliance with Bank policy on Involuntary Resettlement

447. From a policy perspective the Panel notes that this Project involves rather unusual circumstances: an ongoing, incomplete resettlement program which was developed under a previous Bank-financed operation and was based on a policy no-longer applicable, OD 4.30, which had the same overall objectives of the policy now applicable to the Project: OP/BP 4.12.⁴⁴⁶ Both the old and new policy call for a Resettlement Action Plan (RAP) consistent with the policy objectives and in compliance with specific policy and procedural requirements. In this Project, Management chose instead to develop and build on an Assessment of Past Resettlement Activities and Action Plan (APRAP) rather than to develop a new RAP, with the justification that affected people had already been relocated and others had already received compensation under the prior project. An “*Assessment of Past Resettlement Activities and Action Plan*” is not a resettlement instrument referenced in Bank policy. However, regardless of the terminology, the Panel considers that the overriding issue is whether the TOR and subsequent Action Plan meet the objectives and requirements of the Bank policy on Involuntary Resettlement.
448. In the Panel’s view to achieve compliance with the Bank policy the APRAP should have included the elements of a RAP as defined in the policy and used by Management in the T-Line part of the Project. The hydropower and Kawanda APRAP TOR and its implementation did not incorporate the policy objectives and specific requirements and did not take into account shortcomings in the design and execution of the previous RAP, and evolving social and economic situations and circumstances.
449. The Panel could not find an adequate “*socio-economic survey of the project-affected area at the hydropower site to characterize the socio-economic conditions and*

⁴⁴⁴ HPP-TOR, p. 9.

⁴⁴⁵ HPP-TOR, ¶ 2.3.1, p. 9.

⁴⁴⁶ OP/BP 4.12 replaced OD 4.30, *Involuntary Resettlement*; these OP and BP apply to all projects for which a Project Concept Review took place on or after January 1, 2002.

livelihoods of the people living in the eight project-affected communities” as required by the TOR.

450. Moreover, Management opted to complete an assessment and action plan based on selective fulfillment of commitments made under an outdated RAP that had been shown by the previous Inspection Panel to have a deficient baseline, rendering inconclusive any findings on livelihood restoration. Situations not adequately considered before or that arose in the interim period were not appropriately dealt with because of the lack of an adequate baseline assessment. **This does not comply with OP 4.12. This led to action plans that did not meet the policy objectives and requirements.**
451. The Panel found no formal monitoring or evaluation supporting the assertion that the involuntary resettlement was “largely completed”, the reason stated for forgoing a full RAP preparation, as required by OP 4.12. **The Panel finds that the hydropower APRAP failed to assess and update the previous 2001 RAP and provide additional new information as required to complete the RAP requirements to current standards (OP/BP 4.12).⁴⁴⁷ This does not comply with OP/BP 4.12.**
452. Substantive instances of non-compliance of the APRAP include, *inter alia*:
- The failure to assess and update the previous 2001 RAP disenfranchised any stakeholders not previously identified in 2001, including vulnerable people who slipped through the flawed sampling;^{448 449}
 - Information gathered on the displaced persons’ livelihoods and standards of living as required by OP 4.12 ¶ 6(a) was limited to a sample survey, making it very difficult to determine whether the resettlement is achieving its objectives;
 - The shortcomings in the original resettlement plan were carried forward.
 - Livelihood restoration was mainly limited to the people identified in 2001 and the terms and conditions set forth in 2001
453. The Panel notes that resettlement is a process, not a threshold defined by the moving of people or acquisition of land, and the degree of progress of previous resettlement efforts does not exempt the Project from meeting the requirements of a RAP as envisioned in the Bank policy.
454. The way an Assessment and Action Plan was substituted for a full RAP on the hydropower and Kawanda segments had far ranging consequences. Following the TORs, BEL prepared an assessment of the progress in the execution of the Bank-approved old RAP, and recommended recovery activities where it observed gaps. The

⁴⁴⁷ IP-TOR, p. 11.

⁴⁴⁸ The AfDB makes explicit references to a situation such as the present Bujagali Project, in which a Category 1 ESIA has been completed prior to Bank involvement in the project, OPs may request the Borrower to carry out additional public consultations and to prepare a disclosure plan, as deemed necessary (AfDB D 021 ¶ 5.8).

⁴⁴⁹ HPP-TOR, pp. 13-14.

studies did not include an evaluation of the impact of the delay on the socio-economic conditions of the Project or an assessment of whether or not the previous Sponsor complied with either the former or current Bank's resettlement policy objectives. Consequently, the new Sponsor resettlement responsibility to the people who were in the process of being resettled was circumscribed to certain outstanding commitments that the new Sponsor wished to recognize. The critical policy requirement to census all displaced persons as of the project baseline was neglected – a decision undermining much of the policy objectives.⁴⁵⁰ The public consultation process, an integral part of a RAP, was truncated, predefining the consultations to on-going issues, rather than including all aspects of the Project.



Picture 7 Panel meeting with people to be resettled under the Interconnection Project

2. Baseline socio-economic data

455. In the Requesters' opinion, the existing compensation and resettlement frameworks do not reflect the current economic situations of the people and include out of date information. They believe that the Project should have provided for "*a re-assessment of social costs and benefits of the compensation and resettlement exercise to reflect the current and future realities.*"⁴⁵¹ Management claims that the APRAP took into account new conditions; for example it includes actions to address vulnerable

⁴⁵⁰ OP 4.12 ¶14 and OP 4.12 Annex A, ¶ 6(a). Rather than a full census, Management directed the Sponsor to assess a sample of displaced persons at the HPP in 2006. They divided the PAPs into three groups: resettlers at the Naminya resettlement site, non-resettled physically displaced persons, and non-physically displaced persons. The assessment encountered a limitation. Management required a 100% survey of those resettled in Naminya. The study team identified only 24 of the 34 households (71%). Management set a 50 per cent sample of the non-resettled, physically displaced persons: only 18 of the 51 could be found (35%). Of the remaining non-physically displaced people, Management set and achieved a 5 percent sample (60 of 1203 households). (APRAP, p. 10).

⁴⁵¹ Request, p. 11.

people's needs. In Management's view, BEL's social evaluations are in "full compliance with World Bank policies."⁴⁵²

456. OP 4.12 requires gathering of baseline information, including a census survey of current occupants of the affected area, standard characteristics of the displaced households (including production system, labor, and household organization), baseline information on livelihoods and standards of living, the magnitude of expected loss, and information on vulnerable groups.⁴⁵³ Operationally, a broader survey on the occupants of the affected area is accompanied by a detailed survey of people to be displaced – meaning those who will be physically and/or economically displace. In addition, the RAP, should also include "provisions to update information on the displaced people's livelihoods and standards of living at regular intervals so that the latest information is available at the time of their displacement."
457. A full RAP also sets disclosure and consultation requirements for projects involving involuntary resettlement,⁴⁵⁴ including the requirement that displaced persons and their communities are to be provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement.⁴⁵⁵ Appropriate and accessible grievance mechanisms are to be established for these groups.⁴⁵⁶ Measures are to be in place to ensure that vulnerable groups, such as the landless and are adequately represented.⁴⁵⁷ Data collection on the socio-economics of displaced households also offers an avenue for displaced persons to communicate their concerns to Management, and as such is part of the overall consultation strategy.⁴⁵⁸
458. Apart from consultation with the displaced persons themselves, in preparing the resettlement action plan, Management is to ensure that the borrower (or Sponsor in this case) draws on appropriate social, technical and legal expertise and on relevant community-based organizations and NGOs and informs potentially displaced persons at an early stage about the resettlement aspects of the project and takes their views into account in project design.⁴⁵⁹ World Bank policy also directs Management to discuss the institutional, legal and consultative arrangements for resettlement with the agencies responsible for implementing the resettlement program.
459. The Sponsor was directed to conduct household interviews with a sample of affected people to assist in establishing the socio-economic baseline of affected people. According to the Assessment and Action Plan a sampling of affected people, based on a 2000-2001 database developed by AESNP and later maintained by the BIU, was interviewed to carry out the survey. Project Affected People (PAPs) were divided into

⁴⁵² Management Response, p. 39.

⁴⁵³ OP 4.12, Annex A ¶6(a)(v).

⁴⁵⁴ OP 4.01 fn 19 and OP 4.12 ¶2(b). See also AfDB IR Policy.

⁴⁵⁵ OP 4.12 ¶13(a) and OP 4.12, Annex A, ¶15a.

⁴⁵⁶ OP 4.12 ¶13(a).

⁴⁵⁷ OP 4.12 Annex A, ¶15(d).

⁴⁵⁸ OP 4.12 Annex A, ¶6.

⁴⁵⁹ OP 4.12 ¶19.

three groups: resettlers at the Naminya resettlement site, non-resettled physically displaced persons, and non-physically displaced but only a sample of displaced persons at the HPP in 2001 was assessed in 2006.⁴⁶⁰



Picture 8 Panel team meeting with people resettled at Naminya

460. The APRAP indicates that the survey encountered a limitation. Management required a 100 percent survey of those resettled in Naminya but the study team identified only 24 of the 34 households (71 percent). Management also set a 50 percent sample of the non-resettled, physically displaced persons: only 18 of the 51 could be found (35 percent). Of the remaining non-physically displaced persons, Management set and achieved a 5 percent sample (60 of 1203 households). Nonetheless, comparable problems of finding the displaced persons appeared: seven of the eight resettled at Nansana were consulted, and none of the remaining 19 households who opted for cash compensation could be located.
461. Following AESNP's withdrawal, monitoring of affected people was limited by lack of available resources allocated for this purpose.⁴⁶¹ According to Management, the database of affected people, established in 2000/2001 by AESNP was maintained by a unit of the Uganda Electricity Transmission Company Ltd (UETCL)'s, the BIU. The APRAP notes that the BIU has tended to focus on the Naminya resettlement site, while *"for lack of resources, the BIU has been at pains monitoring non resettled affected people, particularly those who have moved out of the area, or those who were not permanent residents of the area, such as the numerous "licensees"(sharecroppers)."*⁴⁶²

⁴⁶⁰ HPP-APRAP, ¶2.4, p. 10.

⁴⁶¹ Project Files, communication dated July 21, 2004.

⁴⁶² HPP-APRAP, p. 11.

462. The APRAP acknowledges that “the whereabouts of many people, who received compensation in 2001, are unknown” and notes that a concern arose for those who were “significantly affected and were considered as Displaced People but did not opt for AESNP’s resettlement assistance, and chose rather to relocate themselves.”⁴⁶³ The APRAP also recognizes the need to reestablish monitoring of the non-resettled population.⁴⁶⁴
463. **The Panel notes that the survey conducted by BEL cannot be considered a census of economic or social conditions as defined in OP 4.12.**⁴⁶⁵ The profiling of affected people was based not on actual field work but rather on socio-economic surveys that had been undertaken by the previous project Sponsor and on more recent surveys, which were conducted only for select groups to audit past resettlement activities and other affected villages.⁴⁶⁶ In fact, as noted above, the TOR approved by Management directed the new Sponsor to assess only a sample of displaced persons.⁴⁶⁷
464. **The Panel also finds that the approach to consultations with people who had moved and had been compensated is not consistent with the involuntary resettlement policy.** The consultation strategy was structurally flawed because it excluded the majority of displaced persons and limiting the scope of consultations to previous commitments.
465. The Panel notes that significant weaknesses in the process of gathering socio-economic data, an activity central to the preparation of a RAP, were also identified in the 2002 Panel’s Investigation Report. In that Investigation Report, prepared following the submission of a Request for Inspection related to the prior Bujagali project, the Panel found that

*While the importance of baseline socioeconomic survey is noted in the RAP as part of the planning process, very little of it is evident in the EIA in way that would be useful in establishing actual planning baselines. Socioeconomic data were collected as part of the land valuation process on a transaction-directed basis. There is no evidence of the utilization of a free-standing survey of affected households including, most importantly, those who were to be physically displaced.*⁴⁶⁸

Based on the foregoing, the Management’s claim that the Project took the first Panel’s report findings into account in the preparation of the current Project is not accurate because significant weaknesses in the process of gathering baseline

⁴⁶³ HPP-APRAP, ¶2.6.1, p. 11.

⁴⁶⁴ HPP-APRAP, p. 31.

⁴⁶⁵ HPP-APRAP, p. 10.

⁴⁶⁶ Bujagali Hydropower Project Social and Environmental Assessment Main Report, Appendix (hereafter “HPP-PCDP”), Table 3.2.

⁴⁶⁷ HPP-APRAP p. 10.

⁴⁶⁸ Inspection Panel Report 2001 (D273), p. 77-78.

data information were similarly identified in the 2002 Panel Investigation Report.

C. Livelihood Restoration

466. The Requesters question whether livelihood restoration is occurring among the displaced persons. This touches the principal objective of the involuntary resettlement policy. Displaced persons should be assisted in their efforts *“to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher”*.⁴⁶⁹ In the policy, the objective is structured as reaching a threshold from a baseline, not a sequence of activities: *“not merely restored, but... improved” “at least to restore...to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher”*.⁴⁷⁰
467. Cash compensation is not a policy objective.⁴⁷¹ Cash compensation alone is insufficient to restore livelihoods. Leading social research has established that cash compensation fails to perform the restorative function that economics and development policies ascribe to it; the number of resettlers who, after compensation is paid, remain worse off and do not recover are the majority in many projects.⁴⁷² Policy preference is given to land-based resettlement strategies, particularly among agricultural populations.⁴⁷³ When compensation is appropriate, policy requires it be made at *“full replacement cost”* for loss of lands and other assets.⁴⁷⁴ Compensation should be made prior to their actual move or before taking of land and related assets or commencement of project activities, whichever occurs first.⁴⁷⁵
468. In its investigation, the Panel learned that livelihoods of affected people have been disrupted for some seven years, stemming back to the beginning of relocation and resettlement actions under the prior Bujagali dam project. During this period, many of the people that were originally displaced were essentially left in limbo, and did not receive key elements of the resettlement process to which they were entitled under Bank policy. Also, as a consequence of the project’s “hiatus,” certain of AESNP’s commitments to regulators and the communities under its resettlement and community development plans were not fulfilled.

⁴⁶⁹ OP 4.12 ¶ 2(c)

⁴⁷⁰ The annexes to the policies define procedures to guide Management and the Sponsors to achieve these objectives. (OP 4.12 Annex 1, BP 4.12, and African Development Bank Involuntary Resettlement Policy, November 2003. ¶ 4.1)

⁴⁷¹ OP 4.12 ¶ 11 and 12.

⁴⁷² Cernea, M. (2001). Development Economics, Sociology, and Displacement: A Vexing Dilemma under Interdisciplinary Dialogue. Draft Paper prepared for the Workshop: “Moving Targets: Displacement, Impoverishment and Development Processes” Cornell University, November 9-10, 2000.

⁴⁷³ OP 4.12 ¶ 11.

⁴⁷⁴ OP 4.12 ¶ 6(a)(iii).

⁴⁷⁵ AfDB IR Policy ¶ 3.3(e).

469. The Panel observes that the effects on the people of the original displacement, and of the ensuing delay, have not been fully reflected in the APRAP. Specific issues relating to livelihood restoration, including Project's impact on fisheries and agriculture, compensation, vulnerable people, are reviewed in more detail below.

1. Method to assess livelihood restoration

470. The Panel notes that no adequate socio-economic study was carried out. The APRAP methodology identified livelihood issues through interviews and opinion surveys with displaced people. Displaced persons and host communities were asked six to nine open-ended questions in focus groups, as were key informants from the health, education and political sectors. For example, focus groups were asked "*how do you compare your current livelihood (including cash and subsistence) with what it was before compensation and resettlement? Do you think it was equal, better or worse?*"⁴⁷⁶

471. The hydropower APRAP included interviews with 24 households resettled at Naminya and with 18 households physically displaced persons who were compensated, but not resettled by the Project (equally divided by men and women on both banks of the Nile). Both groups reported mixed opinion as to whether their livelihood restoration had occurred. Some people stated that they were better off than before displacement, though this assessment seemed to include all aspects of their life, not only livelihood restoration. Other people claim to be worse off than before, in general because of loss of fishing opportunities, loss of fruit trees and loss of agricultural land and smaller size replacement land.⁴⁷⁷ These interviews also qualitatively indicated that key livelihood risks, known to appear in many other involuntary displacements, have materialized in the Bujagali project. Those interviewed told of failed businesses, new costs incurred to procure potable water, local price inflation preventing full replacement costs of land, loss of sustainable incomes, gender inequality, and more.⁴⁷⁸

472. The APRAP for Kawanda concludes that five years after resettlement, livelihood is not restored for three out of the seven of the interviewed resettlers. At the settlement of Nansana, for example, the opinion survey reports again mixed opinions as to whether or not livelihood restoration has occurred. It found that "*livelihoods are not restored, and some households need to be supported in their efforts to restore them: these are not houses living in a household economy anymore (if they ever were), and they need to be supported in non-farming activities.*"⁴⁷⁹

473. The Panel observes that the APRAPs' conclusion is unreliable. Livelihood restoration economics encompasses many dimensions that cannot be evaluated using an opinion survey due to inter-respondent variation in interpretation of such a general question.

⁴⁷⁶ HPP-APRAP, p. 92.

⁴⁷⁷ HPP-APRAP, p.17, 21.

⁴⁷⁸ HPP-APRAP, pp. 77-93.

⁴⁷⁹ IP-APRAP, p.12.

During its visit to the Project area and meetings with affected people, the Panel team observed that those questioned had difficulty focusing their responses to a question that simultaneously asked for opinions on changes to their lives on at least two issues over a six year period.⁴⁸⁰ The methodology used to assess livelihood restoration did not compare the 2006 livelihood status of the resettlers to their previous conditions. Nor did it set a new 2006 baseline for future actions. This methodology was ambiguous as to what was and was not being measured and, as a result, it produced only a list of unfulfilled promises left over by the prior project.⁴⁸¹ **In the Panel's view, the methodology used to assess livelihood restoration in the context of this Project, while suggestive of issues, cannot substitute for an economic analysis of the livelihood risks and restoration.**⁴⁸²

2. Real or perceived unfulfilled promises made in the prior project

474. At the hydropower site, the APRAP survey found that the people believe that a number of promises made by the previous Sponsor were left unfulfilled, including employment, electricity – including transmission lines –, landing sites, good potable water, technical schools, secure land titles, health centers, primary school in Naminya, a market place in Kikubamutwe, durable houses, fish ponds, road repair, five years of support, and monitoring.⁴⁸³ At Nansana, some resettlers felt there was a promise of a school, a health facility, improved roads, a 30 percent disturbance allowance, and secure titles.⁴⁸⁴
475. Management claims that BEL and the BIU “*are now resolving all outstanding issues*” and have committed to address the issues left unfulfilled by the previous sponsor.⁴⁸⁵ The Assessment also claims that its purpose is “*to assess whether AESNP's commitments to comply with the publicly released RCDAP were met. Where gaps are observed, recovery activities are recommended.*”⁴⁸⁶ On the other hand, the Public Consultation and Disclosure Plan (PCDP) states that it is “*committed to resolve certain of these past resettlement issues in the immediate future and prior to construction initiation.*”⁴⁸⁷
476. The Panel notes a lack of method for deciding what promises were or were not made, which would or would not be honored and the timeframe for completing the

⁴⁸⁰ HPP-APRAP, p.21 ¶ 4.3.4

⁴⁸¹ HPP-APRAP, ¶ 4.3.2, p. 11.

⁴⁸² Cernea, Michael M. ed. *The Economics of Involuntary Resettlement: Questions and Challenges*. Washington, D.C.: The World Bank, 1999. See also, Cernea, Michael M. and Scott Guggenheim 1994. *Resettlement and Development. The Bankwide Task Force Review of Project involving Involuntary Resettlement 1986-1993* (with contributions from task-force members: W. van Wicklin III, D. Aronson, A. Salam, L. Soefstestad, D. Tewari, T. Solo) Washington, DC, the World Bank. Environment Department.

⁴⁸³ HPP-APRAP, pp. 21, 63, 64,65,68,71, 76, 79, 83, 90, 91, 95, 98, 100, 105,106.

⁴⁸⁴ IP-APRAP, p. 16.

⁴⁸⁵ Management Response, ¶ 30.

⁴⁸⁶ HPP-APRAP, p. 4.

⁴⁸⁷ Bujagali Interconnection Project - Public Consultation and Disclosure Plan Dec. 2006 [hereinafter “IP-PCDP”] p. 48, to the T-line and Nansana. The same statement is made with reference to unfulfilled promises in the HPP-SEA, p. 310 and in HPP-PCDP, p. 47.

resettlement activities,⁴⁸⁸ while the Bank's safeguard policies require that the resettlement plan define clearly these activities and provide a schedule for their implementation.⁴⁸⁹ The fact that the same promises were mentioned on different occasions, at different sites and by different people who are identified with the Project adds credibility to specific promises. Affected people may misunderstand what they are entitled to. **The Panel notes that lack of clear communication with affected people to address the concerns of the displaced persons with regards to the commitments made by AESNP, risks leaving the Bujagali project with contentious, unresolved issues.**

3. Specific Livelihood Risks

477. The APRAP and consultations identified livelihood issues where displaced persons stated that they were "worse off" than before. Key among these were the loss of fishing opportunities and the loss of agricultural land and other sources of livelihood, including concerns about the loss of fruit trees grown for income and personal consumption/nutrition.⁴⁹⁰ The APRAP concludes that there were incomplete or insufficient livelihood restoration activities, leading to potential hardship on certain categories of affected people.⁴⁹¹ The Panel examined the most significant livelihood impoverishment risks.

3.1. Fishing

478. The Terms of Reference for the SEA instructed BEL to "*assess fishing practices and livelihoods*" in relation to fisheries in the Nile river. BEL was to do this by reviewing earlier surveys conducted for the prior project and "*assess any significant changes.*" As a result, BEL would "*propose any interventions that may be needed in response to the anticipated effects of the hydropower development, by means of socio-economic surveys of fisheries in the project-affected area.*"⁴⁹²

479. The 2006 Assessment found that it is "*quite likely that the significance of fishing has in fact been underestimated when planning resettlement and compensation, particularly for physically displaced peoples on the East Bank.*"⁴⁹³ The 2001 RAP had estimated that only 10 percent of the displaced persons were fishing, mostly on the East bank of the Nile.⁴⁹⁴ No compensation or assistance was made following

⁴⁸⁸ See ¶ 500-503 of this report that discusses the issue of electricity being provided to the displaced.

⁴⁸⁹ See also infra "Overall Conclusions on Livelihood Restoration."

⁴⁹⁰ APRAP, p.17, ¶ 3.4.3.

⁴⁹¹ APRAP, p. 31, ¶ 6.1.

⁴⁹² HPP-TOR, p. 7, ¶2.2.2.

⁴⁹³ HPP-APRAP, p.17, ¶ 3.4.3.

⁴⁹⁴ HPP-APRAP, p. 17, ¶ 3.4.3. The National Fisheries Resources Research Institute (NaFRRI) completed a study showing its significance a year before the 2001 RAP (NaFRRI Aquatic and fishers survey of the Upper Victoria Nile: A report prepared for AESNP, Second Quarter 5-14 April 2000. p. 104.) Male resettlers in Naminya consistently reported that the loss of fishing opportunities had been their most important loss (HPP-APRAP, p. 33, ¶ 6.3.2). An April 2000 survey of a fishing transect near the dam site discovered a small industry of 50 canoes, 89 fishermen, 22 traders, 6 vendors, a net repairman, and a fish cleaner. Displaced persons expressed a loss of fish in their diet, including among children (Bujagali

resettlement for this loss of livelihood, now stretching into its seventh year. To the contrary, the displaced complained that the Project had further limited livelihood opportunities by restricting their access to the river and may have not even paid for fish ponds that were taken.⁴⁹⁵

480. Among other problems, fishermen were settled much farther from the fishing areas, lacked transport to get there, and have had their access even to these areas restricted by fencing connected with Project activities. There is a strong belief that promises to restore their livelihoods were not kept, and feelings of great frustration.
481. The 2006 Assessment considered a fishery development program for the resettlers to be of “critical importance” in livelihood restoration.⁴⁹⁶ Despite this categorization, planning for livelihood restoration in fishing was limited to a two page “plan”. The Panel also notes that the 2006 Action Plan repeats almost verbatim the so-called 2001 plan.⁴⁹⁷ The documents set laudable general goals, such as training that will address preparation of fishermen for change in the river characteristics following impoundment and earmarking training for the displaced persons, within an overall regional project.⁴⁹⁸ However, this planning is not associated with any studies on the economics and nutritional importance of fishing, particularly on the East bank of the Nile, despite the TOR’s requirement. Moreover, no additional support was allocated to what was called an underestimated, critical activity: the 2006 budget remains at the 2001 level (US\$ 182,000- budget).⁴⁹⁹

3.2. Agriculture

482. The Panel observes that the approach taken to restore damaged agricultural livelihoods follows a pattern similar to that for fishing. No baseline census of the displaced persons and a socio-economic analysis was carried out, allowing only a general overview of the pre-displacement livelihood economics. Based on the regional descriptions in the 2001 RAP and consultation discussions, it appears that the displaced persons worked small plots of land, as peasant farmers and supplemented their income through cash crops (coffee, sugar cane, vanilla) and other income generating activities (e.g. fishing, trade, bicycle taxi driving, etc.).⁵⁰⁰ Subsistence crops included bananas, cassava, sweet potatoes, maize, beans, millet and

Hydropower Project Social and Environmental Assessment Main Report, Appendix C Fisheries Report, December 2006, p. iv]. Data comparing 2000 and 2006 economic activity show a decrease in food vendors, net repairers and an increase in fishermen and fish traders from outside the area in the six years (HPP-APRAP, p. 60).

⁴⁹⁵HPP-APRAP, pp. 72, 74, 83, 88, 92 and 96. General opinion questions during consultations such as are not substitutes for socio-economic analysis. When asked of people in the host village, the question assumes the interviewee is an expert on the livelihoods before and after resettlement.

⁴⁹⁶HPP-APRAP, p. 33.

⁴⁹⁷RCDAP 2001, pp.136-139. See also CDAP, pp. 25-26.

⁴⁹⁸APRAP update of 15 October 2007. (D233), p. 8.

⁴⁹⁹The budget appears to have been reduced US\$ 100K as a result of 100K for NaFRRI monitoring being moved to another line in the 2006 budget.

⁵⁰⁰HPP-PCDP, p. 9.

yams. Fruit trees - jackfruit, avocado, mango, oranges, and pawpaws - assured a source of natural sugars before displacement.⁵⁰¹

483. Bank policy requires that when replacement land is offered, the resettlers are provided with land for which a combination of productive potential, locational advantages (accessibility), and other factors is at least equivalent to the advantages of the land taken.⁵⁰²
484. The livelihood restoration strategy focused on the physical size of replacement land rather than its quality or location. For those physically displaced to Naminya, each household was allocated a minimum of an acre residential plot, where the house is located, with additional surface compensated in kind if it was part of the same residential plot in the original location. Any additional agricultural surface was compensated in cash. The result of this policy was that some resettlers were net “winners” – to use the Project’s terminology, and others losers – if the compensation was not used to replace lost land.⁵⁰³
485. The Panel has found that insufficient information was available to permit the new Sponsor to assess whether or not landlessness increased or decreased under this strategy.⁵⁰⁴ Along the T-line, at Nansana, there was a reduction of 40 percent in agricultural land, with five of the seven households having less land after resettlement.⁵⁰⁵
486. Soils are a critical factor in agricultural productivity. The Panel notes that land fertility was not considered in livelihood restoration planning or execution; however it surfaced as a major concern of the displaced persons during the 2006 Assessment consultations.⁵⁰⁶ At Naminya, displaced persons report that they cultivated cash crops (coffee, vanilla) and fruit trees at their former locations, the availability of which diminished in their new surroundings.
487. Management concedes that soil fertility is an issue “*for some*” based on the Assessment’s subjective observations of where banana plantains are growing at Naminya, stating that “*not all plots are adequate for plantain bananas...with some obviously too dry and with a too thin layer of arable soil for this particular crop.*”⁵⁰⁷ The Panel notes that these seem to be subjective opinions, which may not substitute for comparative agronomic studies of the former and current sites. The Panel notes that the resettlement site is a former sugar plantation, a monoculture crop that

⁵⁰¹ In the field, the Panel viewed a few photographs of pre-displacement plots that support this generic description.

⁵⁰² OP 4.12 Annex 1, ¶ 11. The Sponsor proposes to consolidate rather disburse the residential areas in the new resettlements, with the commute to agricultural lands being by bicycles. At Naminya, the lack of project provide bicycles to gain access to livelihood activities was a complaint.

⁵⁰³ HPP-APRAP, p. 16.

⁵⁰⁴ HPP-APRAP, p. 17.

⁵⁰⁵ IP-APRAP, p. 10

⁵⁰⁶ HPP-APRAP, p.17.

⁵⁰⁷ HPP-APRAP, p.17.

depletes soil fertility.⁵⁰⁸ The Panel is concerned that plans are underway to move T-line displaced families to Naminya without evaluation of this issue.

488. The negative impacts of the productive and locational disadvantages are evident in multiple complaints about the loss of fruit trees. As one mother stated during a consultation, the fruit trees were particularly “appreciated” by mothers of young children as a substitute for purchased, refined sugar.⁵⁰⁹ On the East bank of the Nile, resettled people reported that their replacement agricultural land was too far away from their residences and less fertile, effectively reducing their income.⁵¹⁰

489. The Assessment and Action Plan recognizes the “critical importance of traditional subsistence agriculture as a safety net for the affected people.”⁵¹¹ Nonetheless, mitigation actions are not aligned with an agro-ecological or economic analysis coupled to the livelihood risks. The 2001 RAP lacked any livelihood restoration plan or budget for agricultural activities apart from replacement of or compensation for land. **The Panel finds that the 2006 action plan attempts to mitigate the situation, but its provisions will most likely be insufficient to meet Bank policy requirements.** The 2-page CDAP refers a number of agricultural development options for affected people: organization of producers, increased agricultural extension and animal husbandry services, and farming as a business.⁵¹² However, there is no assessment of the damages to be addressed by these measures nor an economic study justifying the amount allocated in the Plan for these purposes (US\$ 200,000 for “enhancing livelihood restoration plan” to intensify agriculture and high value-added crops in 8 communities over 5 years. Furthermore, this succinct plan, which does not focus on displaced persons, provides no implementation details. The Panel notes it is a list, not a plan.⁵¹³ This perfunctory treatment of the livelihood restoration problem persists along the T-Line.⁵¹⁴

3.3. Conclusions on fishing and agriculture

490. The Panel notes that Management failed to ensure that the Project would institute or assure financing to mitigate these losses, exposing the displaced to on-going impoverishment risks that are now approaching eight years. Once the peoples were displaced, Management failed to recognize these livelihood risks in multiple supervision missions.⁵¹⁵ **The Panel finds that the Project failed to provide**

⁵⁰⁸ See Alfred Hartemink, ISRIC, ICSU World Data Center for Soils, POB 353, 6700 AJ Wageningen, The Netherlands. fax +31 317 471 700 e-mail Hartemink@isric.nl

⁵⁰⁹ HPP-APRAP, p 17.

⁵¹⁰ HPP-APRAP, p 20.

⁵¹¹ HPP-APRAP, ¶ 6.3.1.

⁵¹² HPP-PCDP, p. 119.

⁵¹³ HPP-APRAP, p 39.

⁵¹⁴ On the T-Line, the RAP also proposes a five year “agricultural enhancement package” and a US\$ 600 one time subsidy per household but fails to provide a budget. The T-line agricultural package is part of an undifferentiated, US\$ 305K budget line for “livelihood restoration package” that includes an agricultural package, training, and business support (RCDAP, p.98.)

⁵¹⁵ Project Files, Communication dated May 2. The Jan 15-27 Supervision mission reports its key findings are that “the project is in compliance with the Bank’s social safeguards policies.”

adequately for loss of livelihood associated with the loss of fishing and agriculture, in non compliance with OP 4.12.

4. Compensation

491. The Panel notes that the agro-economics of livelihood restoration is weak, particularly with reference to compensation. According to the prior project compensation method coffee, the main cash crop, was compensated at its annual yield times 1.5 to 3 to cover the so-called “*establishment period*” – meaning the time it takes to reestablish the perennial crop.⁵¹⁶ However, coffee takes four to five years, as opposed to 1.5 to 3 years, to restore production, assuming that one has comparable land to plant. Some calculation must be made for the loss of the income stream until production is reestablished, including the labor costs of reestablishing the asset to its previous production. The Uganda rates do not compensate farmers for their labor to bring a perennial crop back into production. Underestimates of the establishment periods for coffee and other crops including vanilla and cocoa made it economically unfeasible for the displaced to reestablish their lost incomes.
492. The witness NGO was reporting unresolved issues in the Mukono district in 2007 with regard to compensation for crops that was viewed to be unfair and not reflective of the realistic values for the crops when compared with rates provided by neighboring districts for the same crops.⁵¹⁷ Issues also arose over differential formula being used to pay for crops of less than four months of age.⁵¹⁸
493. The APRAP also points to an additional reason that the compensation method may not have achieved the objective of compensating the displaced persons at full replacement value. On both banks of the Nile, local land prices may have doubled after compensation, undercutting the valuation’s estimates for replacement value, reducing the chances that those who received cash compensation were able to replace their lands with lands of equivalent value.⁵¹⁹
494. **The Panel concurs with the APRAP’s findings, which validate the claims of the project affected peoples (PAPs) that full replacement value compensation may have not taken place in the prior project.**⁵²⁰

5. Land titles

495. Most of the displaced lacked security of land titles before displacement, but they may have had established, informal security with usufruct rights recognized by others.⁵²¹

⁵¹⁶ RCDAP, Annex 1-6.

⁵¹⁷ AESNP, p. 6.

⁵¹⁸ HPP-APRAP, p 22.

⁵¹⁹ The Assessment points to a case where an acre of land was compensated at between UGX 0.8M and UGX 1.2M, but it was not uncommon to be charged UGX 2.2M for a similar piece of land (HPP-APRAP, p 20).

⁵²⁰ HPP-APRAP, p. 20.

⁵²¹ AESNP, p. 6, No. 7, 8.

Bank missions reported in February 2005 that only 22 of the 69 titles pending in the HPP component had been arranged and all eight households at Nansana were still awaiting titles.⁵²²

496. According to the APRAP, while many people who were interviewed stated that they received land titles, it also appeared that some PAPs did not receive the titles. However, the APRAP goes on to say that *“this cannot be stated with certainty as in some cases, the person who has received the title was not around during the interview”* and that this situation would have to be checked.⁵²³ On another section the APRAP states that *“several affected people met by the study team claimed that land titles for replacement land provided by AESNP to non-resettlers were not all issued, particularly on the East Bank.”*⁵²⁴ The underlying reasons for these disputes appear to be acquisition by AESNP of replacement land that was under unresolved conflicts. The Assessment and Action plan then provides that *“the situation must be checked (when the monitoring unit mentioned above is operational), and potential gaps must be fixed.”*⁵²⁵
497. During its visit to the Project area, the Panel team witnessed Project-generated insecurity among displaced persons in Naminya as a consequence of resurveying and proposed readjusting of the boundaries within the settlement. The resurveying appears to be the consequence of the original survey layout failing to leave a leeway for the power lines passing through the settlement. As a result, the parcel layouts of displaced persons are being adjusted accordingly, creating new, Project-generated conflicts. The Panel expects that this situation will be dealt with during the implementation of the APRAP.
498. **The Panel finds that the APRAP conclusion related to the necessity of issuing land titles to people resettled under the prior project is consistent with OP 4.12. The Panel notes however that there seems to be no agreed timetable for the issuance of these titles.**

6. Vulnerable Peoples

499. The APRAP determined that there was no proper identification of vulnerable people up until 2007, including not providing clear criteria for vulnerability and not identifying assistance actions. The displaced persons included a *“sizable number of orphans, widows, and peoples with disabilities.”*⁵²⁶ The Assessment and Action Plan states that they were not properly recorded and judged that it is *“virtually impossible to identify, locate and monitor vulnerable people.”*⁵²⁷

⁵²² Project Files, communication dated February 7-9, 2005.

⁵²³ HPP-APRAP, p 14.

⁵²⁴ HPP-APRAP, p. 21.

⁵²⁵ HPP-APRAP, p. 36.

⁵²⁶ HPP-APRAP, p. 24.

⁵²⁷ HPP-APRAP, p. 24.

500. The Panel notes that a group of vulnerable people, the landless tenants and sharecroppers, may have been left out from receiving compensation as a result of the strategy noted before.⁵²⁸ Ineligible for replacement land, they were compensated only for their lost crops. AESNP announced compensation rates, including prices for young seedlings (known as “1-4” for their months of age). Anticipating compensation, some tenants and shareholders purchased and planted seedling. The Sponsor, believing they were observing fraudulent attempts to maximize compensation through the planting of young seedlings, reneged on their compensation commitment and did not pay for the “1-4” crops. AESNP requested and got the support of the GoU on their non-compensation decision.⁵²⁹ This left landless peoples worse off, with new debt, no crops, and no harvest.
501. Heated disputes arose, some of which are still in court, representing half the current court docket on the resettlement issues of the Project.⁵³⁰ They were frequently mentioned in consultations.⁵³¹ From the perspective of a sharecropper or a tenant position, this represents a substantial loss of income – an issue that after five years is still fresh on people’s minds, surfacing repeatedly during the consultations.⁵³² The APRAP notes that “*the situation of tenants and sharecroppers (who were compensated only for crops as they did not own land) appears to be worse in this respect than that of landowners*”.⁵³³ The Panel notes that the APRAP approved by the Bank recommended not paying the claims. In light of Management’s failure to pay particular attention to the needs of vulnerable people, this on-going dispute could constitute a reputational risk for the Bank and the new Sponsor.
502. The APRAP states that “*there is no proper identification of vulnerable people at the moment and it needs therefore to be done (or redone)*” to correct the lack of attention to vulnerability and proposes a posteriori actions.⁵³⁴ The Assessment sets forth a US\$105,000 plan to use community assistance measures to identify the disadvantaged project-affected peoples and assist them with counseling, food support, health monitoring or medical attention if required, with specific attention to orphan heads of households and other affected orphans – an additional US\$20,000.⁵³⁵
503. **The Panel notes that the absence of a focus on livelihood risks to the vulnerable is evident in that none of the proposed assistance measures addresses the vulnerable tenants/sharecroppers or children.**⁵³⁶ Additionally, the proposed

⁵²⁸ HPP-APRAP, p. 20.

⁵²⁹ HPP-APRAP, p. 20.

⁵³⁰ HPP-APRAP, p. 22.

⁵³¹ HPP-APRAP, pp. 12, 20, 22, 86, 91, 96, 105.

⁵³² HPP-APRAP, pp. 12, 20, 22, 86, 91, 96, 105.

⁵³³ HPP-APRAP, p. 20.

⁵³⁴ Management Response, p. 39. See also, HPP-APRAP, p. 32.

⁵³⁵ HPP-APRAP, p. 32.

⁵³⁶ Evidence of the inattention to children was brought to the Panel’s attention in discussions with the displaced along the T-line. Panel interviews near the Mutundwe substation discovered people were supportive and prepared to move, but concerned that the displacement might occur after school enrollment, making it difficult if not impossible for displaced children to enroll or transfer between government schools. The demographics may range from several hundred to several thousand children and represents a

assistance measures do not address the question of sustainability beyond the limited Project support. The Panel finds the Bujagali Project is out of compliance with the vulnerable peoples provisions of OP 4.12.

7. Housing, Public Services, and Electricity

504. **Housing** The APRAP states that the houses that were built met with the design criteria that was set out in the 2001 RAP and were therefore generally compliant with the commitments made. It states that the resettlers felt that the houses were better than the ones they had, but still complained about deficiencies in the buildings.

505. **During its field visit, the Panel verified that the standard of living of the displaced households who resettled in Naminya and Nansana has greatly improved in the area of housing.**⁵³⁷ On the other hand, the Assessment discovered some shortcomings in housing condition and the Panel observed physical problems and deterioration with some of the houses and structures. **The Panel is concerned that no physical action is planned with regard to houses at the resettlement site (apart repairing the taps from the rain water harvesting system).**

506. **Public services: water, roads, schools, health facilities.** Restoration of livelihoods and the standards of living includes assisting displaced persons in their efforts to improve or at least restore, in real terms, public services they had prior to displacement.⁵³⁸

- **Water:** The APRAP states that AESNP built a well, and improved a spring catchment. Due to some complaints from resettlers, BEL agreed to improve the water drawing system. This is part of the Community Development Action Plan.
- **Education:** The 2001 RAP included a commitment by AESNP to refurbish an existing school in Naminya. Their pulling out of the Project caused significant concern to the locals. Subject to consultation with the local authorities, BEL proposed to follow through with AESNP's commitments.
- **Health:** There is a health centre at the site, but resettlers complain that there is poor onsite accommodation for staff which jeopardizes the operations of the clinic. While BEL and the authorities have discussed the situation, BEL cannot make a commitment to assist because it is not the

substantial loss of human capital which, according to mothers, may be irreparable for teenagers if the disruption derails their studies. Options such as paying for full enrollment and transportation costs of private schools or adjusting the time of the move had not been considered. Enrollment in school is one of the 8 indicators for outcome evaluation, meaning that this problem may negatively skew the overall project evaluation. School fees account for 23 percent of the affected household's spending, underscoring the significance the displaced place on education.

⁵³⁷ HPP-APRAP, p. 13.

⁵³⁸ OP 4.12 ¶2(b).

owner of the houses that were built by AESNP. BEL will though be part of the negotiations between the local authorities and the Lands Commission to get housing for the health staff.

507. **Electricity.** A high voltage line crosses Naminya. Throughout the process to conduct the Assessment, numerous displaced persons, those who took cash compensation, and local leaders stated that they believed AESNP made a commitment to provide electricity to Naminya and other communities.⁵³⁹ The APRAP states that “*it does not seem*” that such a commitment was planned under the 2001 RAP, other than providing power to equip the trading centers of the four Western bank affected villages with transformers and low tension lines.⁵⁴⁰ On this point Management Response states that “*BEL together with UMEME is exploring possibilities for the provision of electricity. BEL will also finance a feasibility study for electrical distribution to the resettlement community, which may convince UMEME to provide a supply.*”⁵⁴¹ The budget commitments are limited to this study.
508. The RCDAP of 2001 makes limited commitments to power. It states that local communities have constantly requested power supply during consultation and that “[t]here is clearly an expectation from villagers that AESNP, as a power producer, could easily supply electricity for free.” However, the document goes on to say that “*this expectation is legally impossible, for AESNP is a power generator, not a distributor. Neither is this desirable as it will not be sustainable in the long run when AESNP is no longer in charge of the facility operation.*” The RAP adds that mid-voltage lines were constructed along the main roads with 500m distributions spurs taken off in the vicinity of trading centers at each village. However, while AESNP was to support the costs for developing distribution infrastructure systems to make electricity accessible to the eight villages, AENSP did not intend to “*pay for the cost of any individual connection or any electricity bill.*” Its support was only to help the communities with initial capital costs and in turn communities or individuals would bear connections and consumption costs.⁵⁴²
509. The issue is highly controversial and a significant livelihood development issue. During the Panel’s visit to Naminya, a woman handed the Panel a weathered copy of *The Bujagali Power Project* newsletter of 2001, Volume 1, Issue 3, page 7 that in her opinion supported the promise of electricity. The text states “*AES Nile Power is committed to provide step-down transformers in eight villages in the affected area and in the new resettlement land allowing for access to power by residents who have never had the opportunity.*” (emphasis added). The Panel has found evidence that

⁵³⁹ HPP-APRAP, pp. 63,76,82,83, 85.

⁵⁴⁰ HPP-APRAP, p. 15.

⁵⁴¹ AfDB Management Response to Request for Compliance Review of the Uganda: Bujagali Hydropower Project (Private Sector) and Bujagali Interconnection Project (Public Sector), June 2007 (D029), p. 43 for statement to AfDB Board and Doc 075, page 133 statement to WBG Board.

⁵⁴² The affected communities are on the West Bank in Mukono District: Buloba, Naminya, Malindi, Kikubamutwe (RCDAP 2001, p. 132). On the East Bank in Jinja District: Bujagali, Ivunamba, Kyabirwa, Namizi.(RCDAP 2001, p.22). And in two meetings in Naminya with village leaders and the inhabitants anticipated support for power (RCDAP 2001, page 63).

displaced persons were told that “*you have a right to electricity, as do all Ugandans*”. Given the context and previous expectations, this broad statement may have reasonably been interpreted as a promise to deliver electricity connections to affected households. The Panel notes that this is an outstanding controversy of high importance to the affected communities.

8. Investment resources for livelihood restoration

510. As of the close of the prior project in 2003, the resettlement costs had slightly exceeded budget allocations (US\$11.5 million spent for US\$11.1 million allocated).⁵⁴³
511. The Assessment and Action Plan budgets US\$497,000 for completion of the legacy resettlement and income restoration issues of which US\$ 320,000 is to be used for income restoration activities and an additional US\$ 125,000 to assist vulnerable people.⁵⁴⁴ The Assessment allocates US\$ 40,000 for resettlement corrective actions at Nansana.⁵⁴⁵
512. The Panel’s review of the limited scope of the livelihood restoration programs indicates that they may be under-budgeted. Management has allocated roughly the same investment resources to the HPP (households at Naminya) and the T-line (with an estimated 160 households to be physically and economically displaced). The HPP budget does not include the restoration of livelihood costs of the displaced people who opted for cash compensation, apart from the Naminya restoration costs once a feasible plan has been development. As information on livelihood conditions of the displaced persons, including those who were economically or physically displaced but took cash compensation, has yet to be determined, the costs of livelihood recovery are unreliable. As livelihood restoration instruments develop, Management is expected to monitor the resettlement budget to provide sufficient resources as per OP 4.12.

9. Costs of Project Delay on Displaced Persons

513. The Panel observes that livelihood restoration has been disrupted by the Project for six years. The effects of the delay to the displaced have yet to be fully reflected in the APRAP. Management conservatively estimated the overall economic costs of delayed development during 2006-2010 to be at least US\$700 million.⁵⁴⁶ They noted that the time lag before entry of the new Sponsor has tested the patience of local populations

⁵⁴³ Project Files, communication dated January 18 and 23, 2008. The T-line RAP budget allocates US\$ 16.94 million including a 15% contingency to its RAP. The funds are budgeted for cost of resettlement and housing (US\$ 2,932,000 of which US\$ 1,804,000 is for land acquisition). Cash compensation is estimated to use US\$9,087,750 while livelihood restoration (including agriculture and business support) is US\$305,000. The remaining US\$ 2,148,000 is for RAP implementation (staffing, specialist consultants, legal advice, witness NGO and logistics.).

⁵⁴⁴ PAD, p. 42,145.

⁵⁴⁵ IP-SEA Executive Summary, p. ES-53.

⁵⁴⁶ Management Response, ¶25.

who planned their investments based on commitments made under the prior project.⁵⁴⁷ Disclosure and consultations created expectations in the Project affected area and among those soon to be displaced.⁵⁴⁸ Some examples:

- Physically displaced persons at the hydropower plant site opted for compensation to make investments for businesses to service the construction, only to incur a loss when it was delayed;⁵⁴⁹
- Fishermen claimed they lost access to the Nile when the project area was secured without the promised access points; and
- Some displaced people claim they were told by the prior Sponsor not to improve or use their land after the original valuation.⁵⁵⁰

514. Comparable stories echo throughout the Project area, as investment and life decisions were affected by the uncertainties directly resulting from the delay. The Panel heard and witnessed videotaped evidence that the uncertainties were so great that displaced persons were demanding project construction and the remaining resettlement begin immediately. Relative to the overall project losses, these issues may seem minor, however they appear to represent substantial losses to the affected-persons' limited capital.
515. The Panel observes that, as a consequence of the project hiatus, certain of AESNP's commitments to regulators and the communities under its resettlement and community development plans were not fulfilled.⁵⁵¹ In February 2005, Bank resettlement specialists asked for an audit to be carried out to pay attention to the productive outcome of the resettlement operation and the economic and social status of the vulnerable households.⁵⁵² In recognition of these issues, BEL has undertaken to document the situation, and in selected instances, began immediate action programs to respond to stakeholder concerns.⁵⁵³ Management did not state its methodology as to how these "selected instances" for actions were prioritized and the documents do not provide evidence that this prioritization was guided by the safeguard policies.
516. **The Panel finds that Management did not assess and include in the APRAP a methodology for restitution of the unintended socio-economic costs incurred by displaced persons resulting from project stoppage/delay. This is not consistent with OP 4.12.**

⁵⁴⁷ Management Response, ¶ 50.

⁵⁴⁸ Project Files, communication dated February 7-9, 2005.

⁵⁴⁹ APRAP, p. 78, Annex 2.

⁵⁵⁰ IP-PCDP, p. 48.

⁵⁵¹ Appraisal Report, Bujagali Hydroelectric Power Project Uganda, African Development Bank, May 2007, ¶ 4.9.7, p. 14.

⁵⁵² Project Files, communication dated February 7-9, 2005.

⁵⁵³ Appraisal Report, Bujagali Hydroelectric Power Project Uganda, African Development Bank, May 2007, ¶ 4.9.7, p. 14.

10. Overall Conclusions on Livelihood Restoration

517. According to Bank policy, the loss of livelihood for involuntarily displaced persons is an unacceptable outcome for a Bank-sponsored infrastructure investment.⁵⁵⁴ The APRAP methodology was useful for identifying some livelihood risks but lacked sufficient analysis to mitigate the critical risks, particularly those related to fishing and agriculture. The Panel's review of the livelihood assessment method and other Project data shows that the Bujagali Project is facing substantial problems in measuring, monitoring, and mitigating livelihood risks, especially among vulnerable peoples.

518. Annex A of OP 4.12 (¶19) also requires an implementation schedule for the resettlement plan, as follows

“An implementation schedule covering all resettlement activities from preparation through implementation, including target dates for the achievement of expected benefits to resettlers and hosts and terminating the various forms of assistance. The schedule should indicate how the resettlement activities are linked to the implementation of the overall project.”

519. The APRAP includes an implementation schedule, which links the restoration activities to the construction of the Project. The Panel notes that a RAP implementation timetable should be policy-driven rather than project construction-driven and be based on the displaced person receiving restitution for losses and achieving sustainable livelihood. This approach requires monitoring of changes in livelihood restoration (socio-economic conditions of the affected people), an opportunity missed by not establishing the initial baseline census in 2001, and by not correcting this failure in the preparation of this Project.

520. The Panel was not provided any evidence that livelihood restoration has been monitored since the prior Sponsor carried out partial resettlement activities in 2001.⁵⁵⁵ The Panel also notes that in February 2005 Bank social staff recommended that a resettlement audit be carried out because four years had passed since the implementation of the first RAP. This call for the audit was unheeded.⁵⁵⁶

521. Overall, the Panel finds that the Project is in non-compliance with the mandate of Bank Policy on Involuntary Resettlement to improve or at least to restore, in

⁵⁵⁴ OP 4.12 ¶1. Bank policy foresees this unacceptable outcome, stating that Bank *experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.*

⁵⁵⁵ HPP-APRAP, pp. 33-34.

⁵⁵⁶ Project Files, communication dated February 7-9, 2005.

real terms, the livelihoods and standards of living of the people displaced by the Project.⁵⁵⁷

D. Sharing in Project Benefits and Community Development

522. Project sustainable development and benefit-sharing is one of the principal objectives of the involuntary resettlement policy. Resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits.⁵⁵⁸ The policy explicitly singles out displaced persons as the beneficiaries.
523. BEL proposed “to develop a Community Development Action Plan (CDAP) for the eight project-affected villages around the Bujagali HPP site.” BEL undertook to review the first project CDAP and “determine what further work needs to be undertaken.”
524. The CDAP is to be directly implemented by BEL with participation of NGOs, consultants and contractors for certain components. BEL’s CDAP proposes activities to benefit the wider communities in the Project area, beyond those individuals and households who have been or will be directly affected by loss of land, crops or other assets. These activities focus on production related domains (agricultural, small business support and fisheries).
525. The CDAP budget is about 0.4 percent of the US\$ 867 million Project budget.⁵⁵⁹ Management aligned the CDAP budget to correspond with the restructuring of the overall project budget. On the HPP segment, BEL committed to spend US\$3.32 million⁵⁶⁰ on community development over 5 years, including US\$ 361,000 for BEL administration.⁵⁶¹ The budget is not exclusively directed at the displaced persons.⁵⁶²

⁵⁵⁷ Bank procedure BP 4.12 reads: “During project appraisal, the TT assesses (a) the borrower’s commitment to and capacity for implementing the resettlement instrument; (b) the feasibility of the proposed measures for improvement or restoration of livelihoods and standards of living; (c) availability of adequate counterpart funds for resettlement activities; (d) significant risks, including risk of impoverishment, from inadequate implementation of the resettlement instrument; (e) consistency of the proposed resettlement instrument with the Project Implementation Plan; and (f) the adequacy of arrangements for internal, and if considered appropriate by the TT, independent monitoring and evaluation of the implementation of the resettlement instrument.⁷ The TT obtains the concurrence of the Regional social development unit and LEG to any changes to the draft resettlement instrument during project appraisal. Appraisal is complete only when the borrower officially transmits to the Bank the final draft resettlement instrument conforming to Bank policy.”

⁵⁵⁸ OP 4.12 ¶ 2(b)

⁵⁵⁹ Calculated as US\$ (300K T-line + 3.32M HPP)/867M.

⁵⁶⁰ Responses to IP email of 18 Jan 2008. Estimated costs of the CDAP was present at in the 2 April 2007 PAD at US\$ 2.4M (¶143 on page 42), the higher figure of US\$3.817M appears in Table 8.1 (page 490 of the December 2006 SEA). BEL budgeted for additional actions it identified after the CDAP was finalized.

⁵⁶¹ Bujagali Hydropower Project Social and Environmental Assessment Main Report, Appendix J Community Development Action Plan (CDAP) December 2006 [hereinafter “CDAP”], p.28

⁵⁶² CDAP, p.28

This budget is distinct from the US\$497,000 allocated to complete resettlement and income restoration.⁵⁶³

526. Along the T-line, Management submitted a US\$ 300,000 CDAP budget to be paid for and implemented by GoU. The funds are to be divided proportionately among communities based on magnitude of impact, eligibility criteria, and focusing on enhancing community self-reliance.⁵⁶⁴ The allocations are proportional to the magnitude of impacts and partially proportional to the permanent population living in the community.⁵⁶⁵ The result is a system that assigns a minimum amount of the total CDAP funds to villages with small population and small length of transmission lines and vice versa.⁵⁶⁶ The funds are earmarked for community projects such as upgrades to schools, water centers, water supplies, access roads, or connections to public electricity networks.
527. The Panel notes that it is likely that the community development programs, once executed, will provide positive benefits for Uganda. However, the Panel identified four compliance issues related to the CDAPs: i) the lack of focus of the CDPs on displaced persons, ii) inequities in allocations between displaced persons on the T-line and HPP; iii) the lack of specificity of the sustainable development programs, and iv) a decrease in investment resources to this effort.
528. **Lack of focus on displaced persons** The Panel notes that the CDAP, though important demonstration of the Sponsor's corporate social responsibility, is not necessarily related to benefit sharing for displaced persons as required by the objectives of OP/BP 4.12. While the programs offered by the CDAP are directly available to the displaced people (micro-credit, agricultural extension, small business support, etc.),⁵⁶⁷ eligibility criteria do not indicate preference to displaced person.⁵⁶⁸
529. **Lack of Program Specificity:** The problem identified by the first Inspection Panel Report over five years ago persists. The Panel finds that in the area of sustainable development and benefit sharing, the CDAP focuses almost entirely on short-term exercises; its targets are poorly laid out; and it makes no significant or systematic effort to ensure that resources are directed to institution building or social fundamentals rather than only short-term construction projects.
530. **Imbalances in allocations between the T-line and HPP.** CDAP budgets show sharp differences. The T-line has a higher number of physically and economically displaced peoples than the HPP, but a smaller proportion of the resources devoted to CDAP

⁵⁶³ PAD, p. 42.

⁵⁶⁴ RCDAP, p. 92.

⁵⁶⁵ RCDAP, p. 92.

⁵⁶⁶ RCDAP, p. 93.

⁵⁶⁷ CDAP, p. 17.

⁵⁶⁸ CDAP, p.17.

activities.⁵⁶⁹ **The Panel finds that budget of the two components were not properly coordinated and this may lead to social discord among the displaced.**⁵⁷⁰

531. **Decrease in investment resources to this effort.** The previous Panel also found “*the net present value of the resources to be contributed over a 35-year period seems very low.*”⁵⁷¹ The HPP CDAP has been significantly reduced both in time and funding for the sustainable benefit-sharing plan between the prior project and the present Bujagali Project. The prior project had a US\$ 7.5M phase II CDAP component that is not in the present Project. The CDAP program of the prior project was also a 35 year program, coterminous with the investment itself. In contrast, the present Bujagali Project has been shortened to five-year construction phase.
532. While the decision to reduce investment resources is not a compliance issue in and of itself, the current Panel does not understand why Management decided to further reduce its effort. Even discounting for inflation, eliminating the second phase raises questions as to Management’s responsiveness to the previous Panel’s findings. **The fact that the same problems are surfacing with two different sponsors is of concern to the Panel. The Panel finds that with limited funding, broad criteria for eligibility and lack of specificity, the CDAP programs do not assure compliance with OP 4.12.**

E. Indigenous Peoples

533. The Requesters claim that the provisions of OP 4.10 on Indigenous Peoples have not been applied to the Project because the SEA does not consider the Basoga inhabitants of the Project area as indigenous people, in spite of the fact that the Third Schedule of the Constitution of the Republic of Uganda expressly considers the Basoga as such.
534. The Response states that Management respects local legislation but draws a distinction between the definition of indigenous people according to the Constitution of Uganda and that provided in OP 4.10. Under the Ugandan Constitution, in order to be considered an Ugandan citizen by birth – **regardless of socio-economic status** – one must belong to one of the 56 “indigenous communities” listed in the above-referred Third Schedule (or have a parent or grandparent who does); while under the Bank Operational Policy, the term indigenous is used “in a generic sense to refer to a **distinct, vulnerable, social and cultural group**” possessing “in varying degrees” the characteristics listed in paragraph 4 of the OP. (emphasis added)
535. Although the Basoga people meet some of the criteria necessary to be regarded as indigenous people in the context of Bank-financed projects pursuant to OP 4.10, they are a large and influential group with political, social and economic standing in

⁵⁶⁹ These are estimates since the precise number of economically displaced peoples on the HPP has yet to be determined. We are assuming 160 and roughly 100 economically and physically displaced household on the T-line and HPP, respectively.

⁵⁷⁰ CDAP, p. 24. Micro-credit and animal husbandry extension services are not in the T-Line budget.

⁵⁷¹ Inspection Panel Investigation Report 2001, p. 82-83.

Uganda's society, and the Panel did not find any indication that they are regarded as a "*marginalized and vulnerable segment*" of the population that is unable to "*participate in and benefit from development.*" **The Panel did not find any evidence that Management violated the provisions of the Bank's policy on Indigenous Peoples, with regard to the Basoga people.**⁵⁷²

⁵⁷² The Panel notes that this finding is consistent with the Panel's 2002 Investigation Report, page 77. See *infra* Chapter I Section 3.1 of this Report

Chapter VIII

Cultural and Spiritual Values

A. Introduction

536. This chapter analyses the cultural and spiritual issues related to the Project. This analysis begins with the work concluded in 2001, and events since then. Its main purpose is to analyze Management's actions or omissions in complying with the Bank's safeguards, particularly those dealing with cultural resources. For this purpose, the Panel conducted a careful research and analysis of relevant materials, including numerous studies by the Cultural Research Center in Jinja, which focuses on Busoga culture.
537. The Requesters claim that cultural and spiritual issues in the Bujagali project area were inadequately covered in the SEA. In their opinion, this "*calls for an effective consultation process involving all clans that are culturally and spiritually attached to Bujagali Falls followed by a public hearing.*" The Requesters claim that some consultation was carried out but there was no true participation of the people in the decision making process; in addition, consultations with the 240 clans in Busoga and 52 clans of Buganda were not done. The Requesters call for an effective consultation process involving all clans that are culturally and spiritually attached to Bujagali Falls followed by a public hearing.⁵⁷³
538. Management states that BEL is committed to complying with World Bank OP/BP 4.11, Physical and Cultural Resources. Management states that extensive consultations to address the concerns of the communities have been carried out since the earlier Bujagali project, including with the Buganda and Busoga⁵⁷⁴ Kingdoms, who, Management claims, are culturally responsible for the villages living on the west and east banks since the project preparation began in 2000 under the original developer AESNP.⁵⁷⁵ Management adds that their commitment to manage cultural and spiritual issues is part of the overall social management plan (part of the Social and Environmental Action Plans, SEAP) which will be implemented throughout the life of the project. They note that an independent Ugandan NGO, InterAid, will be monitoring all aspects of the project, including those related to cultural heritage.⁵⁷⁶
539. Bank's Physical Cultural Resources Policy OP/BP 4.11 recognizes cultural patrimony as important sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity

⁵⁷³ Request, p. 11.

⁵⁷⁴ A note on orthography: Basoga refers to the people of the Busoga culture. Lusoga is their language.

⁵⁷⁵ Management Response, p. 38.

⁵⁷⁶ Management Response, p. 38.

and practices.⁵⁷⁷ OP/BP 4.11 addresses physical cultural resources, requiring Management to assist sponsors to avoid or mitigate adverse impacts on physical cultural resources.⁵⁷⁸

540. Consultation is an important means of identifying physical and cultural resources, documenting their presence and significance, assessing potential impacts, and exploring mitigation options.⁵⁷⁹ The policy holds consultation to be important because many physical cultural resources are not documented, or protected by law.⁵⁸⁰

According to the policy, the EA includes (a) an investigation and inventory of physical cultural resources likely to be affected by the project; (b) documentation of the significance of such physical cultural resources; and (c) assessment of the nature and extent of potential impacts on these resources.⁵⁸¹

541. Bank policy on Natural Habitats, OP/BP 4.04, also contains important provisions that apply to Bank-financed activities that may affect (e.g., by inundation) places of cultural and spiritual significance. OP 4.04 states that the Bank supports the protection, maintenance and rehabilitation of natural habitats,⁵⁸² and contains a number of provisions to achieve this objective. Paragraph 4 of OP 4.04 sets a specific and high standard of protection for “critical natural habitats”. This provision states that “*The Bank does not support projects that, in the Bank’s opinion, involve the significant conversion or degradation of critical natural habitats.*”⁵⁸³ Of particular importance in the present situation, “critical natural habitats” under OP 4.04 include “(…) areas recognized as protected by traditional local communities (e.g. sacred groves) (…).”⁵⁸⁴ This issue is dealt with in details in Section H of this Chapter (Panel’s Analysis – Critical Natural Habitats).

542. Operationally, OP/BP 4.11 and OP/BP 4.01 require addressing impacts on the cultural assets and resources as an integral part of the environmental assessment (EA), and to examine the type, location, sensitivity and scale of the Project as well as the nature and magnitude of its potential impacts.⁵⁸⁵

⁵⁷⁷ OP 4.11 ¶ 2. OP 4.11 (July 2006) replaced OPN 11.03, *Management of Cultural Property in Bank – Financed Projects*, (September 1986). OP/BP 4.11 applies to the Project as its Project Concept Review took place after 15 April 2006.

⁵⁷⁸ OP 4.11 ¶ 3.

⁵⁷⁹ OP 4.11 ¶ 11.

⁵⁸⁰ BP 4.11 ¶ 7.

⁵⁸¹ BP 4.11 ¶ 8.

⁵⁸² OP 4.04 ¶ 1.

⁵⁸³ OP 4.04 ¶ 4. This excerpt includes a footnote to the definition of the phrase “significant conversion or degradation”, as explained in the text.

⁵⁸⁴ OP 4.04 Annex A.

⁵⁸⁵ BP 4.01 ¶ 2, Footnote 3. Explicit reference to “Location” refers to proximity to or encroachment on environmentally important areas, whereas “Scale” is judged by Regional staff in the country context. “Sensitivity” refers to projects that may have irreversible impacts, affect vulnerable ethnic minorities, involve involuntary resettlement, or affect physical cultural resources (emphasis added). The Panel observed that County staff from the region who had an awareness of scale were underutilized in the Bujagali project.

543. In its earlier Investigation report the Panel indicated the efforts of the Bank to address the cultural and spiritual issues that the Project raises, and Management's good faith attempts to mitigate these issues. At the same time, the Panel also noted the importance of including all key stakeholders in consultation and taking steps to minimize the possibility of disturbance to the local communities that might arise from excluding any faction from such consultations as the Project went forward.⁵⁸⁶
544. The TOR for the Project's SEA, in relation to Cultural Property Management and Status, required BEL to assess the adequacy and completeness of the Cultural Properties Management work of the previous sponsor, and determine whether further work was necessary.⁵⁸⁷ The TOR state that detailed archaeological investigations have already been undertaken for the Hydropower project-affected area, compensation has been paid for people's shrines (*amasabo*) and appeasement ceremonies have been undertaken to enable the relocation of the Bujagali spirits.⁵⁸⁸
545. The following section provides a review of the work conducted in 2001 under the prior Bujagali project before analyzing Bank compliance in the Project under investigation.

B. The 2001 Resettlement and Community Development Action Plan (RCDAP) and the Cultural Property Management Plan

546. The 2001 Resettlement and Community Development Action Plan (RCDAP) refers to a 1998 EIA study that led to a number of detailed studies, including a study of the traditional religion of the Basoga and the significance of the Bujagali site and the implications for the project.⁵⁸⁹ This study, in turn, suggested there could be more sites of cultural interest in the project area and, as a result, two additional comprehensive studies were commissioned: a Study of the River Nile and its Significance to Traditional Religion and Practices of the Inhabitants of the River Bank in Wakisi sub-county (West Bank) and a comparable study on the East Bank.⁵⁹⁰ In addition, the first Sponsor utilized quality control consultants to review the results.⁵⁹¹
547. The 2001 studies included representatives of caucus groups of "modern" religions.⁵⁹² The Sponsors mapped individual and community level spirits. The studies and focus groups identified dangers concerning breaking taboos and disturbing the spirit world, including some directly related to construction such as machinery injuring workers,

⁵⁸⁶ Inspection Panel Report 2002, ¶ 323.

⁵⁸⁷ African Development Bank Volume 1 Executive Summary Environmental & Social Auditing Guideline, June 2000, page 11. (Type African Development Bank Volume 1 Executive Summary Environmental & Social Auditing Guideline, June 2000 into google.com)

⁵⁸⁸ HPP-TOR, p. 11.

⁵⁸⁹ RCDAP 2001, p. 96.

⁵⁹⁰ The River Nile and its Significance to Traditional Religion and Practices of the Inhabitants of the River Nile West Bank. AES Consultant, September 18, 2000. The River Nile and its Significance to Traditional Religion and Practices of the Inhabitants of the River Bank in Wakise Subcounty. September 18, 2000.

⁵⁹¹ RCDAP 2001, p. 96.

⁵⁹² RCDAP 2001, p. 103.

breakdowns, and disappearance of livestock, women having miscarriages or producing deformed children, and invasion of the community by foreign diseases and pests.⁵⁹³ They identified a general protocol for moving spirits and were informed of perceived risks to the project and nature should such consultations not take place. The focus groups identified a five point protocol to transfer spirits.

548. AESNP acknowledged the community spirits and that the rapids at Bujagali Falls will be largely inundated and that this is an unavoidable impact with this project configuration. However, it was reported that the parties involved with the spiritual value of the site - namely Nabamba Bujagali, Lubaale Nfuudu who is the divine custodian of the Ntembe Clan that the issue is a local one and the impact is acceptable.⁵⁹⁴ These parties have given their consistent support to the project, as long as the necessary ceremonies, to ensure the spirits are satisfied, are carried out.⁵⁹⁵
549. In the view of the earlier Panel report, the 2001 RCDAP assigned little significance to the cultural or spiritual issues of the Bujagali Falls. The related studies missed the overarching concept of Basoga religious cosmology,⁵⁹⁶ including the hierarchical relationships between the spirits. This issue was not raised by BEL either. The RCDAP stated that a preliminary baseline socio-economic survey revealed that the spiritual value of the Falls is not an over-riding issue to the majority (83 percent) of the local community - those in the immediate vicinity of the Falls.⁵⁹⁷ The report briefly described three spiritual diviners associated with the spirits of the Falls, but mentioned neither the name of the spirit, *Nabamba Budhagaali*,⁵⁹⁸ embodied in the Bujagali Falls nor its significance to the Basoga people.⁵⁹⁹
550. The RCDAP 2001 also noted that Ugandan Ministry of Culture and the *Kyabazinga* (referred to as the “*cultural King of the Basoga*”) presented a statement to a public hearing declaring the support of the *Kyabazinga* Institution for the project but noting however that since a “treasured cultural site” would be lost, it would only be fair that AESNP pay the Institution a fair and adequate compensation.⁶⁰⁰ In spite of this, the previous sponsor found that “*whilst the Falls will be inundated this is not seen as a cultural or spiritual issue of over-riding significance by the majority of people who will be directly affected, at the individual, household, local community or national level.*”⁶⁰¹ The RCDAP 2001 states that “*on balance the project is judged to comply*

⁵⁹³ RCDAP 2001, p. 108.

⁵⁹⁴ RCDAP 2001, p. 112.

⁵⁹⁵ RCDAP 2001, p. 112.

⁵⁹⁶ See Annex C entitled *Spiritual Significance in Busoga Culture* for the description of Basoga religious cosmology.

⁵⁹⁷ RCDAP 2001, p. 113.

⁵⁹⁸ In this report, the name of the principal spirit at the Bujagali Falls site is *Nabamba Budhagaali* which is distinct from Nabamba Bujagali, the medium through which the spirit communicates. He is also referred to as “the Living Bujagali.”

⁵⁹⁹ RCDAP 2001, p. 101.

⁶⁰⁰ RCDAP 2001, p. 102. In June of 2000, the Institution presented a statement to the Open Forum held in Washington that “Bujagali Falls is a very important cultural site to the Institution of the Kyabazinga of Busoga and that the Kyabainza fully embraced the project”

⁶⁰¹ RCDAP 2001, p. 113.

with WB/IFC policy note OPN 11.03 in the context of the pressing need for additional electricity in the country and other benefits from the project.”⁶⁰²

551. The 2001 Cultural Properties Management Plan (CPMP) sets out a six month, US\$125,000 program⁶⁰³ of consultation, compensation of individuals for disturbed graves and shrines (*amasabo*), appeasement and relocation of the Bujagali spirits.⁶⁰⁴ Three individuals were identified as stakeholders for consultation about the spirits at Bujagali Falls.⁶⁰⁵ In the spring of 2003, the independent witness NGO, InterAid, prepared a snapshot of progress on the CPMP,⁶⁰⁶ reporting that, and at the level of individual spiritual site, consultation, disclosure and compensation for disturbances were proceeding well.
552. Problems, however, emerged with the so-called “*appeasement of community spirits*.”⁶⁰⁷ InterAid reported that consultations had been taking place with three persons that the Sponsor had identified as custodians/diviners.⁶⁰⁸ Each one of them was required to specify the requirements they needed for the appeasement of the spirits of Budhagali.⁶⁰⁹ The Sponsor facilitated separate appeasement ceremonies on different days, which were witnessed by multitudes of people. The Sponsor however tried to combine the appeasement ceremonies and to obtain a co-signed Certificate of Appeasement, a legal closure, but the three parties did not agree. Following these events, the implementation of the CPMP stopped for the next four years. Following the selection of BEL as a new Project sponsor, the Project preparation commenced in 2005.

C. Preparation of the Project

553. As noted, the TOR for the present Project’s SEA required BEL to assess previous work done by AESNP and determine what further work needed to be undertaken.⁶¹⁰ Management also felt it important to corroborate if people who live in the project-affected area believe that the Cultural Properties management work undertaken by the previous project sponsor was truly complete. Accordingly, BEL committed to detailed consultation with locally affected communities on their observations and

⁶⁰² RCDAP 2001, p. 113. OPN 11.03 is an earlier version of the Bank’s Policy on Cultural Resources, which applied to the prior Bujagali project, *see* also footnote 5.

⁶⁰³ RCDAP 2001, p. 112-116.

⁶⁰⁴ RCDAP 2001, p. 101 - 102.

⁶⁰⁵ RCDAP 2001, p. 101-102.

⁶⁰⁶ AESNP Hydro Electric Power Project, Witness NGO Report on the Implementation of Resettlement and Community Development Action Plan at Hydro Site, InterAid Uganda April 2003 [hereinafter “AESNP”].

⁶⁰⁷ AESNP, p. 71.

⁶⁰⁸ The Sponsor identified the stakeholders for consultations as Nabamba (the living Budhagali) who is the medium for the Bujagali spirits, Ntembe Waguma and Nfuudu who are caretakers (East Bank), and Nalongo Nakisita who is also a medium for the same spirit but known as Kiira (West Bank). Later in this report the Panel offers corrected clarifications of their respective roles.

⁶⁰⁹ The Monitoring NGO did not show an awareness of Busoga cosmology in its report, taking its lead from the Sponsor’s cultural consultant.

⁶¹⁰ HPP-TOR, p. 11, ¶2.3.3.

opinions on this issue, with follow-up and a revised Cultural Properties Management Plan, as necessary.⁶¹¹

554. BEL's consultations led it to conclude that, rather than a localized cultural site, the Bujagali Falls are of spiritual significance to the Kingdom of Busoga as they are considered a place inhabited by spirits.⁶¹² Though cultural ceremonies were conducted by the previous project sponsor to relocate the spirits, meetings with Kingdom representatives indicated that additional activities may be required to address the spiritual significance of the area prior to flooding. The Kingdom expressed support for the project and BEL committed to continuing and undergoing consultations with them to determine what needs to be done prior to the flooding of the Falls.⁶¹³
555. For the Basoga, the traditional religious structure is distinct from the cultural structure. What follows is first a brief description of the Busoga spirituality and then a brief description of Busoga cultural domain, which may help to clarify the ensuing Panel's findings.⁶¹⁴ A more complete review of the Busoga spiritual and cultural domain is attached to this Report as Annex C entitled *Spiritual Significance in Busoga Culture*.

D. Busoga Spiritual Domain

556. The Bujagali Hydroelectric Project is moving into a neighborhood long inhabited with strong, complex cultural and spiritual traditions. Although the peoples of other ethnic groups inhabit the Project area, the Basoga claim spiritual dominion of both sides of the Nile, its islands, the water and its waterfalls.⁶¹⁵ According to the 2002 census, there are about 2.7 million Busoga in Uganda whose territory lies to the east of the Project site.⁶¹⁶ Their language, Lusoga, predominates in this area, on the East bank of the River Nile. The Basoga share a common dialect and ideological, spiritual history, sharing a cluster of eight or more high status spirits – including *Budhagaali*, the spirit residing at the Bujagali Falls site – who are invoked in their specific ceremonies. The Basoga are distinct from the Buganda, the more dominant tribe in Uganda whose traditional realm reaches to the West bank of the Nile.

⁶¹¹ HPP-TOR, p. 11. The preparation of the Cultural Properties Management Plan is discussed further in Section I of this chapter.

⁶¹² HPP-SEA Consultation Summary, p. 22, p. 4. See also HPP-PCDP DRAFT, November 2006.

⁶¹³ HPP-SEA Consultation Summary, 22 September 2006, p. 4. See also HPP-PCDP DRAFT, November 2006.

⁶¹⁴ The Panel consulted with the Cultural Research Centre of the Diocese of Jinja whose researchers have published over 30 books on Busoga culture and language, interviewed the Requester's cultural experts, Busoga spiritual specialists, the Ministers of the *Kyabazinga*, individual Busoga, Management, and the Sponsor.

⁶¹⁵ The 2001 RAP states its baseline survey identified 22 ethnic groups living in the project area (HPP-SEA Main Report, p. 161). The region was repopulated by migrants from throughout Uganda and other central African countries in the 1940's after being nearly abandoned by the Busoga at the turn of the century due to sleeping sickness. (RCDAP 2001, p. 98)

⁶¹⁶ www.busoga.com/aboutBusoga.php