

Pervasive Appraisal Optimism

A Review of the World Bank's Appraisal of the Bujagali Project

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Executive Summary

The Bujagali project, a 200 MW hydropower project on the Victoria Nile in Uganda, is in trouble. In December 2001, the World Bank and the African Development Bank approved loans and guarantees of a total of \$280 million for the project. In contrast, several official export credit agencies and other financial institutions have declined becoming involved in Bujagali. They do not share the World Bank's optimistic assessment of the project's economic viability. In order to pull export credit agencies back into the creditors' consortium and to rescue the project, the World Bank is now considering extending a MIGA guarantee of \$215 million on top of its earlier funding for Bujagali. A discussion in MIGA's Executive Board is expected to take place in early June, 2002. A report on the project by the World Bank's Inspection Panel is pending.

In their joint Project Appraisal Document for Bujagali, the World Bank and IFC claim their economic analysis "confirms that the proposed Project is the least cost generation option to satisfy the demand for electricity in Uganda from 2006".¹ This claim is based on a series of projections and assumptions regarding

- economic growth, growth of export revenues and aid flows to Uganda;
- privatization and investment in Uganda's power sector, the development of power theft and the expansion of the customer base in Uganda's power sector, the increase of tariffs and the price elasticity of power demand in Uganda;
- hydrological trends in the Victoria Nile;
- and finally, the attractiveness of other options to bridge the country's power gap, particularly the potential of geothermal power sources in Uganda.

This paper reviews the economic viability of the Bujagali project. Based on documents of the World Bank Group, the International Monetary Fund and other official sources, it finds every one of the World Bank's projections and assumptions to be over-optimistic if not misleading. The paper documents discrepancies between statistics given in World Bank Group documents of up to 50%, the repeated misrepresentation of information from other Bank documents which would be relevant for Bujagali, and projections proven wrong by actual developments since December 2001. The paper also points out several relevant

¹ The World Bank and International Finance Corporation, Project Appraisal Document for the Bujagali Hydropower Project, November 14, 2001, p. 21.

issues which were neglected in the Bank Group's economic analysis of the project. In every case where discrepancies occurred, the assumptions used in the project documents were those which favored Bujagali the most.

In sum, the World Bank Group's approach towards Bujagali seems to illustrate the "pervasive appraisal optimism" which the Wapenhans Report identified as the key reason for the Bank's decreasing portfolio quality in 1992. "Many Bank staff perceive appraisals as marketing devices for securing loan approval", the official Report had observed, and "funding agencies perceive an 'approval culture' in which appraisal becomes advocacy".² The Bank's appraisal of the Bujagali project also confirms the findings of the World Commission on Dams. According to the WCD Report, "political economy or intellectual barriers often pre-determined what options were considered in a given context". "In many cases", the WCD found, "the weight given to the infrastructure option by the key actors obstructed proper consideration of other viable alternatives. As a result, such options continue to be viewed as secondary to large projects."³

This paper argues that Executive Directors were misled by inaccurate documents and claims from Bank management when they approved IFC and IDA funding in December 2001, after having expressed concerns on many critical issues. It concludes with a series of recommendations to the Executive Board of MIGA and to export credit agencies still considering supporting the Bujagali project.

The paper recommends that MIGA and other financial institutions should only take decisions on the project once a series of conditions have been met. The Inspection Panel should first submit its report on the project. The potential of geothermal power plants, which appeared to emerge as the least-cost option for Uganda in the official options assessment for Bujagali but were dismissed by the World Bank on spurious grounds, should be analyzed in an unbiased way. The economic viability of Bujagali should be reconsidered in a more realistic manner, taking into account the recent economic downturn in Uganda. The project's Power Purchase Agreement should be disclosed to the public, and Uganda's civil society should be allowed to have an informed debate about all available options for the country's power sector, and the financial risks and obligations which they imply. If financial institutions do not now, in the face of strong evidence, draw lessons from earlier cases of appraisal optimism, they might approve a project which only drives Uganda further into debt – at a time when the IMF and IDA are expressing concern about the country's "very high debt indicators".⁴

² IBRD, *Effective Implementation: Key to Development Impact* [Wapenhans Report], November 3, 1992, p. 14.

³ *Dams and Development, The Report of the World Commission on Dams*, 2000, p. 180.

⁴ IMF, IDA, *The Enhanced HIPC Initiative and the Achievement of Long-Term External Debt Sustainability*, April 15, 2002, p. 3.

1. Introduction

Bujagali is a 200 MW hydropower project on the Victoria Nile in Uganda. The private venture – a Build-Own-Operate-Transfer (BOOT) project – is sponsored by AES Nile Power Ltd. The reputed Scandinavian journal, *Development Today*, asserts that “there has been considerable US pressure on Uganda to approve [Bujagali]. According to the Norwegian Embassy in Uganda, this is one of the reasons the Ugandan government has given Bujagali priority.”⁵

In December 2001, the World Bank’s Executive Board approved loans and risk management facilities from the International Finance Corporation (IFC) of up to \$110 million, and partial risk guarantees from the International Development Agency (IDA) of \$115 million for the project. The African Development Bank has approved a \$55 million loan for Bujagali.

The financial package for Bujagali is supposed to be complemented by official export credits and guarantees of \$234 million.⁶ So far, only Switzerland’s Export Risk Guarantee (ERG) has approved a (conditional) guarantee for the project. A series of financial institutions, including the US Overseas Private Investment Corporation (OPIC), the British Export Credit Guarantee Department (ECGD) and Germany’s Deutsche Investitions- und Entwicklungsgesellschaft (DEG) have declined support for Bujagali. Sweden’s Exportkreditnämnden (EKN) has declined becoming involved for the time being, since it does not share the World Bank Group’s optimistic appraisal of the project’s economic viability. Norway’s Guarantee Institute for Export Credits (GIEK) and Finland’s Finnvera have so far not taken any decisions on Bujagali.

The prudence of most export credit agencies has created a serious funding gap for the AES project. In order to rescue the venture, the World Bank’s Multilateral Investment Guarantee Agency (MIGA) is now considering extending a guarantee of \$215 million for Bujagali. MIGA’s guarantee would cover the project’s political risk, so that the Nordic export credit agencies would only need to cover the commercial risk. A discussion of the Bujagali project is expected to take place in MIGA’s Executive Board in early June.

Ugandan and international non-governmental organizations have raised serious concerns regarding the economic viability and the social, environmental and cultural impacts of the Bujagali project. International Rivers Network shares these concerns. In July 2001, affected people submitted complaints regarding violations of the World Bank’s operational policies to the World Bank Inspection Panel, and the Compliance Advisor/Ombudsman of IFC and MIGA. The Inspection Panel has not yet submitted its report on Bujagali. It is not clear whether the MIGA Board will wait for the overdue report to be submitted before discussing the project.

⁵ *Development Today*, 23-24/00, p. 5.

⁶ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 58.

This paper reviews the World Bank Group's appraisal of the economic viability of the Bujagali project. While the paper builds upon earlier critiques by Ugandan and international NGO colleagues, its conclusions are primarily based on documents prepared by the World Bank Group itself, by the International Monetary Fund, and by other official sources. The paper concludes with a series of recommendations to MIGA's Executive Board, and to the official export credit agencies which are still considering supporting Bujagali.

2. Contradictory options assessments for Bujagali

2.1. The options assessment process

In 1991, Acres International, a Canadian engineering firm, first proposed Bujagali as the site for a hydroelectric power project. In 1994, the government of Uganda and the AES Corporation signed a Memorandum of Understanding to develop the Bujagali project. In November 1997, a different engineering firm completed a Hydropower Development Master Plan for the Ugandan government, with support from the African Development Fund. In September 1997, IDA expressed its interest in pursuing a partial risk guarantee for a private power project as part of a financial package to support the reform of Uganda's power sector. In February 1999, the government, IDA and IFC held discussions about funding "the next hydropower project" as part of Uganda's power sector reform. In June 1999, the government approved a comprehensive power sector restructuring and privatization strategy.⁷

In December 1998, IFC awarded a contract for the assessment of all available power generation alternatives to Acres International. Acres submitted the respective report in May 2000. Remarkably, the report concluded that it was most economic for Uganda to develop a gas-fired combined-cycle plant as quickly as possible, followed by Bujagali, and other hydropower and combined-cycle plants (see below). Equally remarkably, Acres did not consult any of the available reports on geothermal power in Uganda. The 377-page report devotes one paragraph to geothermal energy, explaining why geothermal is "not considered for this study".⁸ Acres recognized, but did not analyze the potential of bagasse-fired power plants or demand side management in Uganda.⁹

⁷ Bank Management Response to the Request for Inspection Panel Review of the IDA-Financed Uganda Third Power Project and the Proposed Bujagali Hydropower Project, 13 September 2001, p. 6f.

⁸ IFC, Assessment of Generation Alternatives – Uganda, Acres International Ltd. in association with Kagga & Partners Ltd., April 2000, p. 6-46.

⁹ Ibid., pp. 6-4 and 6-11.

IFC and the World Bank do not seem to have supported the outcome of the Acres report, and do not mention its conclusion in any of the project documents on Bujagali. Although Acres proposed developing a gas-fired power plant first, the Bank Group ignored this recommendation and commissioned the company to prepare an economic review of the Bujagali project, which was submitted in July 2001.¹⁰ Unlike the earlier options assessment, this economic review is not in the public realm. From the information which IFC's Summary of Economic Due Diligence (SEDD) for Bujagali summarizes, the economic review does not appear to have considered the least-cost project sequence identified in May 2000, i.e. a combined cycle plant followed by Bujagali and other hydropower and gas-fired plants.

The option assessment process on which Bujagali is based calls for a series of comments:

- The whole process was skewed towards justifying building further hydropower projects. The African Development Fund financed a Hydropower Development Master Plan, and the Bank Group expressed interest in funding “the next hydropower project”, before any other options were even assessed.¹¹ IFC then commissioned Acres International to carry out an option assessment – the very company which had first proposed the development of Bujagali. Obviously, Acres would have invalidated its earlier advice if it had proposed a project sequence which did not include Bujagali. “Assessment of the hydroelectric projects on the Victoria Nile is the central element of this study”, Acres admitted in the report.¹² When its May 2000 report still prioritized a combined-cycle plant (followed by Bujagali), the Bank Group disregarded this conclusion. IFC instead commissioned Acres to prepare a report which did not look at the option prioritized in the earlier study, and ended up justifying Bujagali.
- Uganda is blessed with a high potential for geothermal energy. In a research paper prepared for a regional seminar on geothermal energy in East Africa, Uganda's geothermal potential was estimated at 450 MW in 1982.¹³ This sizable potential has since been confirmed by various institutions, including the World Bank's Energy Sector Management Assistance Programme.¹⁴ In spite of this, geothermal power and other renewable energy sources were marginalized in the options assessment process.
- From 1997 onwards, the Bank Group offered support for a new hydropower project in Uganda as an incentive for the government to carry out reforms in

¹⁰ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 128.

¹¹ Bank Management Response to the Request for Inspection Panel Review, p. 7.

¹² IFC, Assessment of Generation Alternatives – Uganda, p. 1-2.

¹³ See J.R. McNitt, The Geothermal Potential of East Africa, in: Proceedings of the Regional Seminar on Geothermal Energy in Eastern and Southern Africa, Nairobi 1982, pp. 3-8.

¹⁴ According to IFC, Bujagali project, Summary of Economic Due Diligence, October 12, 2001, p. 17.

the power sector. This begs the question why large, bulky investments such as large dams, which the Bank Group claims cannot be subjected to international competitive bidding, create more attractive incentives than a series of medium-sized projects such as geothermal or combined-cycle power plants.

2.2. The outcome of the options assessment as presented by IFC

The economic review of Bujagali prepared by Acres in July 2001 does not look at the option prioritized by the earlier assessment, but does appear to consider geothermal energy as one of the options. According to the SEDD, Acres International put the cost for geothermal power in its options assessment at \$2000/MW, including all costs from exploration to commissioning. Based on this assumption, and with a discount rate of 10%, Acres costs the geothermal option at a net present value of \$510 million.¹⁵ In comparison, Acres estimates the cost of Bujagali at a net present value of \$499.3-676.2 million, depending on which hydrological model is used.¹⁶

In the analysis of Bujagali's economic rate of return, the SEDD estimates the net present value-added of white-water rafting at Bujagali, which will be foregone if the dam is built, to be \$19.6 million.¹⁷ This value must be added to the cost of Bujagali. The SEDD does so when calculating the project's economic rate of return, but does not seem to have done so in the preceding assessment of different options. If the foregone value-added of rafting is added to the cost of Bujagali, geothermal power, with net-present value costs of \$510 million, emerges as the least-cost option in the SEDD.

In spite of its low cost and large potential, geothermal is not considered further in the SEDD. IFC argues that "geothermal generation could not be commissioned much before 2010" and that "both its timing and underlying costing are speculative".¹⁸ The World Bank's and IFC's Project Appraisal Report claims that "based upon detailed analysis, the proposed project is the least cost generation option for Uganda as compared to all other options".¹⁹ It does not inform its readers that a combined-cycle plant emerged as the lowest-cost project in the official options assessment, and that geothermal power appeared to be the least-cost option among those considered in the Summary of Economic Due Diligence for Bujagali.²⁰

¹⁵ Ibid., p. 18.

¹⁶ Ibid., p. 23.

¹⁷ Ibid., p. 30.

¹⁸ Ibid., pp. 17, 18.

¹⁹ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 45.

²⁰ Ibid., p. 63.

2.3. The actual record of geothermal power generation

The World Bank and MIGA have funded geothermal power projects in countries including Kenya, Nicaragua and Guatemala since the late 1970s. Their actual experience with this technology differs vastly from the characterization in the Bujagali project documents. In a fact sheet on geothermal energy, the World Bank says: “Geothermal energy is a proven resource for direct heat and power generation. (...) With over 8000 MW of installed capacity, geothermal electric power generation is a well-proven technology that has been especially successful in countries and islands that have a high reliance on imported fossil fuels.” The fact sheet indicates a price range of US c 2.5-6.0/kWh for geothermal plants of more than 30 MW with a high or medium quality resource. For the capital costs of plants of more than 30 MW, the Bank indicates a price range of \$1150 – 2200/MW.²¹ The full range of unit costs and the average capital cost indicated by the World Bank for geothermal power plants are lower than the cost of the Bujagali project, and lower than the assumptions for geothermal used by the economic analysis of Acres International.

Incidentally, IFC is currently executing a geothermal power project in the Kenyan part of the Rift Valley for the World Bank with funding from the Global Environment Facility (GEF). The project will facilitate adding up to 17 MW of capacity to the 36 MW Olkaria III geothermal power plant which is already being developed. In its Project Brief, the GEF argues that “full development of Olkaria III will allow KPLC to diversify its power sources and reduce weather-related risks associated with its reliance on hydroelectric dam projects. The project is identified as part of the least-cost system expansion strategy in the Least Cost Power Development Plan (July 1998) prepared by Acres International Ltd. under the World Bank power sector program in Kenya.”²² MIGA has already agreed to provide political risk coverage for this project.

Preliminary geological and geochemical investigations of three geothermal fields in Uganda’s Rift Valley have already been carried out. The investigations indicated all of them to be high-temperature hydrothermal systems suitable for exploitation. One of them is located within a few kilometers from the nearest grid point. Yet as a representative of Uganda’s Department of Geological Survey and Mines points out, “development [of Uganda’s geothermal potential] faces constraints that include the monopoly of hydropower in the energy sector”.²³ Still, a geothermal expert with extensive experience in Uganda contacted by International Rivers Network believes that a number of high-potential sites in Uganda could be developed in two to three years. In comparison, the exploration of additional capacity at the Olkaria III field under the GEF/IFC project will take

²¹ See www.worldbank.org/html/fpd/energy/geothermal/index.htm

²² GEF, Project Brief, Kenya: Olkaria III Geothermal Power Development, p. 9.

²³ Edward Isabirye Mugadu, Geothermal Energy in the Development of Uganda, in: Proceedings World Geothermal Congress 2000, Kyushu-Tohoku 2000, pp. 229-235

30 months. Geothermal power plants typically take two to three years to be built, and have been set up in a mere nine months.²⁴

2.4. Added benefits of geothermal power for Uganda

Apart from appearing to be the lowest-cost option of power supply according to the assessment by Acres International, developing geothermal power plants rather than Bujagali would have the following added benefits for Uganda:

- Unlike in the case of Bujagali, the social and environmental impacts of geothermal power plants are usually very limited in scale.
- Developing geothermal power would reduce Uganda's high dependence on hydropower, and the country's exposure to the vagaries of climate change (see below).
- Unlike the Bujagali project, contracts for geothermal power plants could be subjected to international competitive bidding, as it was the case for the Olkaria III project. Geothermal power is thus more compatible with the critical tenets of transparency and accountability in Uganda than a large hydropower project (see below).
- As an expert of Uganda's Department of Geological Survey points out, geothermal energy, unlike the Bujagali dam, "can be developed step by step in response to the funds available and energy requirements at the time".²⁵

2.5. Conclusion on options assessment

Given all the evidence on the low-cost geothermal power potential in Uganda, the term "speculative" by which IFC characterizes this option only indicates that Acres International, and IFC, have not seriously evaluated this option as an alternative to the Bujagali project. This is all the more serious since the macroeconomic and sector-specific assumptions on which the Bujagali project is based must themselves be considered speculative at best.

The preparation of the Bujagali project unfortunately seems to confirm the evidence which the World Commission on Dams collected regarding the assessment of water and power development options. The WCD report makes the following comments on options assessment: "This report confirms that selecting the most appropriate combination of options depends on giving all the

²⁴ William Peirce, *Economics of the Energy Industries*, Praeger Press, Westport, 1996, p. 255; Ex-Im Bank Completes \$50 Million Refinancing Of Philippine Geothermal Project, Ex-Im Bank Press Release, 22 January 1999.

²⁵ Edward Isabirye Mugadu, *Geothermal Energy in the Development of Uganda*, p. 233.

options equal and appropriate consideration in any assessment process. Assessment should be based on the respective merits of available options in the given context and should include not just a set of technical, financial and economic criteria, but also full integration of social and environmental criteria.”²⁶ “In the case of developing countries, the selection of alternatives for meeting water and electric power needs was, and is, frequently constrained by preferential access to international finance and the pre-existing international expertise in large dams rather than alternatives.”²⁷ And finally: “Political economy or intellectual barriers often pre-determined what options were considered in a given context. (...) In many cases the weight given to the infrastructure option by the key actors obstructed proper consideration of other viable alternatives. As a result, such options continue to be viewed as secondary to large projects.”²⁸

The postponement of decisions regarding the Bujagali project offers the chance to take a second look at available options in Uganda. Before the Executive Board of MIGA takes any decision on Bujagali, the World Bank should commission a comprehensive, thorough assessment of the geothermal options.

3. Macroeconomic projections

3.1. The projections for GDP growth

The World Bank and IFC project Uganda’s gross domestic product (GDP) to grow by an annual average of at least 6.3% between 2001 and 2010. This is the rate at which Uganda’s economy grew between 1990 and 1999.²⁹ The country needs to sustain this growth rate for Bujagali to make economic sense. As IFC indicates in its Summary of Economic Due Diligence (SEDD) for the project, “the sustainability of the base case demand forecast depends very much on the sustainability of the GDP projection”.³⁰

World Bank economists Ritva Reinikka and Jakob Svensson point out that “one obvious explanation for the high growth rates in Uganda [in the 1990s] is the preceding economic contraction, which resulted from a long period of mismanagement of the economy during 1972-85 when the capital stock shrunk”.³¹ It is thus highly optimistic to project that the high growth rates of the post-war reconstruction period can be sustained throughout the coming decade.

²⁶ WCD Report, p. 136.

²⁷ Ibid., p. 169.

²⁸ Ibid., p. 180.

²⁹ Ibid., p. 21.

³⁰ IFC, Bujagali project, Summary of Economic Due Diligence, p. 14.

³¹ Ritva Reinikka and Jakob Svensson Ritva Reinikka and Jakob Svensson, *Confronting Competition, Investment Response and Constraints in Uganda*, undated paper, p. 3.

Indeed, reality has unfortunately not kept up with the projections of the SEDD since IFC approved funding for Bujagali in December 2001. Falling export revenues have caused a sharp slowdown of economic growth in Uganda. In 2000, Uganda's gross domestic product grew by only 4.0%, and in 2001, by 4.9%.³² Without further explanation, the IMF and IDA now project the country's GDP to grow at a very high rate of 6.4-6.8% from 2003 onwards. Such rapid growth would result in an average rate of 6.1% for the 2000-2010 period.³³ Even if staggering growth rates can be achieved from 2003 onwards, Uganda's annual economic growth will therefore be slightly below the rate of 6.3% which IFC has defined as the scenario under which sufficient demand for power from Bujagali exists.

3.2. Export growth projections

To a large extent, Uganda's GDP growth depends on the development of export revenues and aid flows. The country's exports consist primarily of agricultural products and other raw materials. Coffee alone accounts for 30-50% of annual export revenues, depending on world market prices.

After revenues had stagnated from 1995 to 2000, IFC projects Uganda's exports to grow rapidly in the next ten years, from \$510.0 million in 2000 to \$999.6 million in 2005, and \$1,648.5 million in 2010.³⁴ Given the strong dependency on raw materials, it is extremely optimistic to assume revenues to increase more than threefold by 2010. Rather than growing rapidly as IFC had projected, Uganda's export revenues actually plummeted by 27% in 2001 due to falling coffee prices.³⁵

3.3. Projections for external assistance

Economic assistance plays an even larger role in Uganda's balance of payments than exports. IFC projects economic assistance to grow from \$809.7 million in 2000 to \$1,045.4 million in 2005, and to \$1,277.8 million in 2010. This projection is based on the assumptions that the gross national product (GNP) of donor countries will grow by an annual rate of 2.8% during this period, and that official development assistance will continue to account for 0.22% of total donor GNP. IFC further expects that Uganda's share of total development assistance will

³² IMF, IDA, The Enhanced HIPC Initiative and the Achievement of Long-Term External Debt Sustainability, p. 34.

³³ Ibid., p. 34

³⁴ IFC, Bujagali project, Summary of Economic Due Diligence, p. 11.

³⁵ IMF, IDA, The Enhanced HIPC Initiative and the Achievement of Long-Term External Debt Sustainability, p. 7.

grow from 1.24%, the average achieved in recent years, to 1.52% in 2005, and 1.43% in 2010.³⁶

Throughout the 1990s, the Ugandan government was universally acclaimed for following the policy advice of the IMF and the World Bank. Uganda received extraordinary amounts of aid, and was the first country to receive debt relief under the HIPC Initiative. It is extremely optimistic to assume that after debt relief has been completed, Uganda will receive an even higher share of international development assistance than it did in the 1990s.

Declining export revenues have already had a serious impact on Uganda's debt sustainability and need for external assistance. The net present value of Uganda's debt in 2005 is now projected to be 226% of export earnings, rather than 96% as projected earlier.³⁷ According to the IMF and IDA, improving Uganda's debt sustainability will require "a major improvement in export performance and appropriate external support by its creditors and donors".³⁸ The additional aid flows required to create sufficient demand for the Bujagali project would need to be appropriated on top of this support.

When donor governments consider the proposed MIGA guarantee, or extending official export credits and guarantees, they should assess whether they will themselves increase Uganda's share of overall aid to the extent projected by the IFC's Summary of Economic Due Diligence. They should consider whether a growth rate for Uganda of 6.4-6.8%, which would allow an average GDP growth of 6.1% over the next ten years, is a realistic assumption. And MIGA should explain to its Executive Board how an annual GDP growth rate for the decade of 0.2% less than previously projected will impact the viability of Bujagali.

4. Projections regarding power demand

4.1. Uganda's power needs

Currently, only about 3% of Uganda's population has access to grid-supplied electricity. 70% of power consumers live in the urban areas of Jinja, Kampala, and Entebbe.³⁹ Lack of access to electricity hinders social development, and the poor quality of supply hampers economic development. In February-July 1998, the World Bank and the Ugandan Private Sector Foundation carried out a survey

³⁶ IFC, Bujagali project, Summary of Economic Due Diligence, pp. 10f. In the main text, the SEDD claims that Uganda's share will peak at 1.43%, but table 2.3. indicates that it will go up to 1.52%.

³⁷ IMF, IDA, The Enhanced HIPC Initiative and the Achievement of Long-Term External Debt Sustainability, p. 35.

³⁸ Ibid., p. 18.

³⁹ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 7.

of 243 private enterprises in Uganda. According to this survey, “poor utility services” (electricity, telephone, water etc.) ranked as the third most important of 24 constraints to investment.⁴⁰ On average, the surveyed firms did not receive electricity from the grid for 89 days a year. As a result many companies purchased power generators, the cost of which accounted for an average of 16% of total investment.⁴¹

For whatever reasons, the World Bank and IFC overstate the findings of the private sector survey in their Project Appraisal Document (PAD) for Bujagali. In the PAD, the Bank and IFC claim that according to the same survey, the quality and reliability of power was the most binding constraint to private investment, and that 34% of private sector investment was allocated to purchasing power generators.⁴² These are factual misrepresentations. According to the survey, the most binding constraint to investment was the high price of public utilities, including electricity.⁴³ This is relevant in the context of the impacts which an increase in power tariffs will have on future power demand (see below).

4.2. The World Bank’s demand forecast

The World Bank and IFC expect electricity demand in Uganda to grow by an average 8.3% per year from 2000 to 2010, with low and high scenarios of 8.1% and 8.7% respectively.⁴⁴ This projection is based on load forecast reviews prepared by Electricite de France (EdF) in October 2000 and January 2001. Upon request, IFC and AES did not make these reports available to International Rivers Network. A report prepared for IFC by Acres International summarizes the conclusions of an earlier load forecast carried out by EdF in 1998. This report notes that “the average annual growth rate over the 20-yr period from 2000 to 2020 is about 5.5% for the base scenario”. The demand growth rates for the 2000 to 2010 period range from 6.0% to 7.7%.⁴⁵ All these rates are considerably lower than the projection of 8.3% which the Bank Group uses in the Bujagali documents. The lower projections are never referred to by IFC and the World Bank in their PAD and SEDD.

The demand growth projection of 8.3% is based on the optimistic macroeconomic assumptions discussed above, and on several critical assumptions regarding Uganda’s power sector:

⁴⁰ Ritva Reinikka and Jakob Svensson, *Confronting Competition*, p. 19.

⁴¹ Ritva Reinikka and Jakob Svensson, *How Inadequate Provision of Public Infrastructure and Services Affects Private Investment*, December 15, 1999, p. 5.

⁴² The World Bank/IFC, *Project Appraisal Document for the Bujagali Hydropower Project*, p. 3.

⁴³ Ritva Reinikka and Jakob Svensson, *Confronting Competition*, p. 19.

⁴⁴ IFC, *Bujagali project, Summary of Economic Due Diligence*, p. 13, and the World Bank/IFC, *Project Appraisal Document for the Bujagali Hydropower Project*, pp. 21 and 61.

⁴⁵ IFC, *Assessment of Generation Alternatives – Uganda*, pp. 6-8f.

- A rapid privatization of electricity distribution is supposed to reduce the rampant technical and non-technical losses in Uganda's power system.
- Privatization is supposed to facilitate the investment necessary for technical improvements, and a rapid expansion of the customer base.
- IFC believes that this expansion of the customer base, and the respective demand growth, are possible if real tariff rates do not increase beyond US c 10.5/kWh.

All these assumptions can be demonstrated to be over-optimistic.

4.3. Privatization in Uganda's power sector

According to the Bujagali PAD, "major efficiency improvements and expansion of access are anticipated only when UEB's distribution facilities are under private management", and "privatization of the power sector, and more specifically privatization of distribution facilities, is a fundamental necessity for the commercial viability of the proposed project".⁴⁶

The Uganda Electricity Board (UEB) has been unbundled into separate power generation, transmission and distribution companies. Power distribution is supposed to be privatized under two ongoing World Bank projects – the Uganda Privatization & Utility Sector Reform Project (approved in August 2000), and the Uganda Fourth Power Project (approved in July 2001). The Privatization & Utility Sector Reform Project set a target of end-2001 for private sector participation in electricity distribution.⁴⁷ The Fourth Power Project set a target of November 2001 for the award of concessions for the privatization of distribution businesses.⁴⁸ According to the PAD for the latter project, "privatization of the power sector" is "of course (...) a main challenge".⁴⁹ Finally, in November 2001, the Project Appraisal Document for the Uganda Energy for Rural Transformation Project stated that "the winning bid for the distribution concession is expected to be announced in January 2002".⁵⁰

The "main challenge" has so far not been met. The privatization of Uganda's power distribution system has been delayed, and is expected to take place by the end of June 2002 at the earliest. In early May 2002, workers at the Owen Falls and Kiira power stations went on strike because they had not received their

⁴⁶ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, pp. 6, 7.

⁴⁷ The World Bank, Project Appraisal Document for a Privatization & Utility Sector Reform Project, May 22, 2000, p. 26.

⁴⁸ The World Bank, Project Appraisal Document for the Uganda Fourth Power Project, p. 7.

⁴⁹ Ibid., p. 34.

⁵⁰ The World Bank, Project Appraisal Document for an Energy for Rural Transformation Project, 14 November 2001, p. 11.

terminal benefits since UEB had been unbundled in March 2001. They also asked for higher wages, which would make power companies less attractive for private investors. The recent strike may signal some of the problems ahead for the process of further privatization.

It is common for the World Bank to overestimate the speed at which sector reforms can be carried out, and the capacities of institutions which are supposed to implement them.

In this context, it is worthwhile recalling the lessons learned in the Project Completion Report for the Uganda Second Power Project. According to the PAD for the Privatization & Utility Sector Reform Project, “lesson 1” from the earlier power project is that “Bank’s over optimism about UEB’s implementation capacity led to an unrealistic timetable for project implementation”.⁵¹ More generally, the World Bank’s Wapenhans Report in 1992 noted “unreliable assessments of institutional, managerial and organizational capacities for project implementation” as an “appraisal shortcoming”.⁵² The Highlights of a Borrowers’ Workshop in the context of the Wapenhans Report point out: “Borrowers especially criticized the Bank’s rigidity about timetables. They often agree that certain reforms should be made, but find the bank’s timetable for reform unrealistic. The Bank insists on the timetable anyway, and often the project cannot stick to it.”⁵³

The World Bank claims that privatization is a “fundamental necessity for the commercial viability” of the Bujagali project. This paper does not assess whether this claim is correct. Yet it should be of concern for MIGA that since the Executive Board approved IFC and IDA funding for Bujagali, two other Bank projects in Uganda’s power and utility sector have already slipped in this respect. The members of MIGA’s Executive Board now have the chance to consider the implications of this slippage for Bujagali, and to reconsider the overall risk of the project.

4.4. The need for investment in power distribution

The rapid expansion of the customer base which is needed to absorb electricity from Bujagali requires massive investments in Uganda’s power transmission and distribution network. According to IFC’s SEDD, investment of \$374 million (“plus inflation and allowance for funds used during construction”) will be needed from 2001 to 2010. Of this amount, \$252.4 million is supposed to be spent on distribution facilities by private investors.⁵⁴

⁵¹ The World Bank, Project Appraisal Document for a Privatization & Utility Sector Reform Project, p. 23.

⁵² Wapenhans Report, p. 14.

⁵³ Ibid., Annex B, p. 2.

⁵⁴ IFC, Bujagali project, Summary of Economic Due Diligence, p. 29.

The World Bank's and IFC's Project Appraisal Document, in comparison, indicates that only \$305 million will be required for investment in transmission and distribution during the same period, of which \$183 million is for distribution.⁵⁵ The Bank document does not explain the significant discrepancy between the SEDD and PAD figures, and does not mention that any additional funds will be needed.

So far, no private investment in Uganda's distribution network has come forward. An electrical industry analyst with professional experience in Uganda believes that it is the big investment requirements in distribution which has scared off potential bidders for the privatization of UEB. This is relevant for the Bujagali project. "If privatization were not successful enough to assure the necessary connection rates of new customers and adequate billings and collections", the Bujagali PAD warns, "sector performance would be at risk."⁵⁶

4.5. The issue of power theft

System losses in Uganda's power sector – both for technical and non-technical reasons – were a high 30% in 2000.⁵⁷ Non-technical losses is a euphemism for theft.

Privatization is supposed to drastically bring down system losses over the next decade. Again, the figures in World Bank documents are not consistent, and again the Bujagali PAD is more optimistic than other Bank documents. The Privatization & Utility Sector Reform PAD of May 2000 sets a target of reducing system losses to 25% by June 2005 (with no target indicated for 2010).⁵⁸ The Uganda Fourth Power PAD of June 2001 sets a target of 24% for the end of 2004 (and no target for 2010).⁵⁹ The Bujagali PAD, in comparison, expects privatization to reduce system losses to 19.6% in 2005, and to 14.6% in 2010.⁶⁰ Again, the Bujagali document offers no explanation for its considerably more optimistic projection.

Privatization does tend to reduce losses in a power system. Yet evidence from India to Moldova indicates that the respective gains are often smaller than expected. In a corrupt system, electricity linesmen and managers will be tempted to improve their income by taking bribes for free connections irrespective of whether their utility is publicly or privately owned. In Orissa for example, the first Indian state where power distribution was privatized, in more than five years system losses have only decreased marginally, and less so than in the state of

⁵⁵ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, pp. 21, 87.

⁵⁶ Ibid., p. 43.

⁵⁷ Ibid., p. 26.

⁵⁸ The World Bank, Project Appraisal Document for a Privatization & Utility Sector Reform Project, p. 29.

⁵⁹ The World Bank, Project Appraisal Document for the Uganda Fourth Power Project, p. 2.

⁶⁰ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 28.

Andhra Pradesh, where power distribution has been corporatized but not privatized. The World Bank's country director for India points out that "privatisation by itself is not enough as we have seen in Orissa", and emphasizes the need for political commitment to fight corruption as a prerequisite for reducing power losses.⁶¹ A similar awareness of the importance of corruption is not reflected in the Bujagali PAD.

4.6. Tariff increases and power demand

World Bank documents do not disclose the exact unit price of power from Bujagali. According to an industry analyst familiar with Uganda's power sector, this price could be as high as US c 18/kWh. Power tariffs will be lower, because existing power plants produce at lower cost, and because creditors are in the process of consolidating UEB's debt, thus subsidizing the power from Bujagali. By November 2001, donors had agreed in principle to convert debt of about \$170 million, or half of UEB's debt, into equity, partly in order to "mitigate the impact of future electricity tariff increases when the new hydropower plants are commissioned".⁶² Without such debt relief, the Bujagali scenario "rapidly becomes unattractive", IFC's SEDD points out.⁶³ In its SEDD, IFC further assumes that the profits from power exports will be used to reduce domestic tariffs, even while admitting that Uganda's government intends to use these proceeds for investment.⁶⁴

The World Bank's Bujagali PAD projects average customer tariffs in Uganda to remain at US c 9.3/kWh (in 1999 dollars) from 2003 to 2011.⁶⁵ Until May 2001, the electricity tariff stood at US c 5.6/kWh.⁶⁶ The question is what impact the increased power tariffs and the efforts to combat power theft will have on demand for electricity – both on the number of new power consumers, and on the average amount of power consumed.

Common sense suggests that tariff hikes do have an impact on demand, and that consumers will use power more wisely if they have to pay for it than if they can steal it. In India and other countries, the World Bank argued for a long time that tariff increases, and stopping the theft of power, were the most important means to encourage electricity conservation. When it comes to Bujagali, however, IFC argues that "it is not possible to establish a reliable view of whether consumers will ultimately respond to improved collection discipline by paying what they owe

⁶¹ Address by Edwin R. Lim, Country Director, World Bank, at Conference on Distribution Reform, October 12-13, 2001, p. 3.

⁶² The World Bank, Project Appraisal Document for an Energy for Rural Transformation Project, p. 11.

⁶³ IFC, Bujagali project, Summary of Economic Due Diligence, p. 36.

⁶⁴ *Ibid.*, p. 35

⁶⁵ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 28.

⁶⁶ *Ibid.*, p. 6.

or by reducing their consumption”.⁶⁷ Based on demand forecasts by Electricite de France, IFC believes that the price elasticity of power demand in Uganda is low, so that “the overall demand impact of the assumed tariff increase is small”.⁶⁸ According to the SEDD, as long as tariffs do not exceed a range of US c 9.5-10.5/kWh (in 2001 dollars), the forecast of an annual growth of 8.3% for power demand “should be achievable”.⁶⁹

IFC’s demand projections are again highly optimistic. They seem to ignore or misrepresent several critical factors:

- Under a World Bank funded project, about 20,000 electricity meters were installed in households in Tanzania. As a result, power consumption dropped by 5%.⁷⁰ The project documents for Bujagali do not mention the experience in Uganda’s neighboring country.
- When the World Bank carried out a private enterprise survey in Uganda in 1998, the single most important constraint to investment (out of 24 different factors) were “high utility prices” for electricity, telephones, water etc. This outcome was identical for all groups of enterprises – small, large, and foreign firms.⁷¹ At the time of the survey, power tariffs were considerably lower than at present, and sales revenue averaged US c 7.1/kWh.⁷² This finding does not suggest that the price elasticity of power demand is low. IFC uses the outcome of the survey widely in its Bujagali documents, claiming that the most important constraint was the poor reliability of power supply. IFC does not mention that in actual fact, the most important constraint were high utility prices.
- In June, 2001, the PAD for the Fourth Power Project expected the number of billed electricity consumers in Uganda to increase from 189,000 to 264,000 by 2006.⁷³ This expansion of the customer base in the power sector would not suffice to absorb the power produced by Bujagali. In November 2001, the Bujagali PAD projected the number of billed customers in the power sector to reach 396,000 by 2006.⁷⁴ The PAD does not inform readers about the earlier projection for the same year, and does not explain the increase of this crucial projection by 50% within only six months.

⁶⁷ IFC, Bujagali project, Summary of Economic Due Diligence, p. 33. On April 22 and 23, 2002, IRN requested to see a copy of the EdF demand forecast in letters to IFC and AES. So far, IFC and AES have not responded to these requests.

⁶⁸ Ibid., p. 34.

⁶⁹ Ibid., p. 35.

⁷⁰ The World Bank, Fuel for Thought: An Environmental Strategy for the Power Sector, June 2000, p. 45.

⁷¹ Ritva Reinikka and Jakob Svensson, Confronting Competition, pp. 19, 21.

⁷² IFC, Bujagali project, Summary of Economic Due Diligence, p. 33.

⁷³ The World Bank, Project Appraisal Document for the Uganda Fourth Power Project, p. 32.

⁷⁴ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 28.

- On 14 November, 2001, the World Bank stated in the PAD for the Uganda Energy for Rural Transformation Project: “Under the optimistic assumption that the number of rural households connected to the main grid would increase at a sustained, compound annual growth rate of 15% over 2001-2010, the total number of rural households connected to the main grid would increase from about 30,000 in 2001 to about 125,000 in 2010.”⁷⁵ The Bujagali PAD, which also appeared on 14 November, 2001, projects the number of residential customers to grow from 27,400 in 2000 to 222,200 in 2010 – almost twice the number which another Bank document called “optimistic” on the very same day.⁷⁶ Again, the Bujagali PAD offers no explanation for this discrepancy.

4.7. Conclusion on power demand

The World Bank’s over-optimistic demand forecast for Bujagali risks duplicating the experience of past Bank power demand projections. In more than 100 national electricity demand forecasts used by the World Bank, actual demand seven years after forecasts were made was on average one-fifth lower than projected.⁷⁷ This aspect is crucial for the outcome of the Bujagali project. “With such a large proportion of system costs being fixed”, the Bujagali PAD states, “if demand growth were below the base case, even higher tariffs would be needed to meet satisfactory financial performance criteria for the sector. It is not clear, however, that much higher tariffs could be charged.”⁷⁸ In June 2002, MIGA’s Executive Board may have the chance to reconsider the demand forecast risks, and the implications for the Bujagali project.

The global evaluation of large dams which the World Commission on Dams carried out confirmed that there is a certain politics of demand forecasts. “The needs for power, food and water are typically identified through sectoral demand forecasts, which have frequently overstated sectoral needs”, the report notes. “Overstating future demand has led to a perceived need for a large incremental response to meet rapidly growing needs. In many circumstances this has militated against a gradual approach of adopting smaller, non-structural options and has pushed decision-makers into adopting large-scale dam projects because they seem to be the only adequate response to the large gap between existing supply and forecast demand.” And, also of relevance to Bujagali: “Of principal concern is that it is frequently the agencies that are responsible for building supply infrastructure that are also charged with undertaking demand forecasts, leading to a potential conflict of interest.”⁷⁹

⁷⁵ The World Bank, Project Appraisal Document for an Energy for Rural Transformation Project, p. 12.

⁷⁶ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 62.

⁷⁷ John Besant-Jones, A View of Multilateral Financing from a Funding Agency, in: Proceedings of conference sponsored by International Water Power & Dam Construction, Frankfurt, 22-23 September 1994.

⁷⁸ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 42.

⁷⁹ WCD Report, p. 179.

5. Neglected aspects

5.1. Hydrological risk

Under the Power Purchase Agreement, Uganda carries the hydrological risk of the Bujagali project. In the case of a hydrological *force majeure* (the definition of which is not disclosed to the public), the capacity payments to the investor would be reduced or delayed. In the Bujagali PAD, the World Bank and IFC claim that in such a case, “the return on equity portion of the capacity payment to AESNP (...) will not be paid”.⁸⁰ According to experts knowledgeable about the Power Purchase Agreement, the contract does not waive, but rather defers this portion of the capacity payments to a later stage, with a hefty surcharge for Uganda.

The hydrological risk of the project is elaborated in IFC’s Summary of Economic Due Diligence.⁸¹ The SEDD’s analysis is based on the assumption that the Nile’s flow over the coming decades will be the same as during the past 50 or 100 years, and that climate change will not affect the Nile’s streamflow. As International Rivers Network’s earlier review of the SEDD documents, this assumption is “extremely unlikely to prove valid”.⁸² As far back as 1991, the UN’s Intergovernmental Panel on Climate Change, and more recently the report of the WCD, recognized that climate change has implications for the performance of dams.⁸³

In a paper presented at the Hydropower 01 conference in Norway in June 2001, G. Harrison and B. Whittington argue: “Global warming and changes in precipitation patterns will alter the timing and magnitude of river flows. This will affect the ability of hydropower stations to harness the resource and may reduce production, implying lower revenues and poorer returns. (...) The techniques of hydropower appraisal are long established. However, the continuing reliance on historic flows to indicate future flow conditions is not prudent given the prospect of climate change.”⁸⁴ The authors note that, based on research done on several major rivers in 1995, “the most severe changes occurred with the Nile. Under one scenario, mean flows fell to less than a quarter of their historic level.”⁸⁵

Even without Bujagali, Uganda is highly exposed to the risks of climate change. Food consumption and exports depend on rainfed agriculture, and the power sector relies almost completely on hydropower. As a recent report by UNEP found, the area suitable for growing Robusta coffee in Uganda will be “dramatically reduced” if average temperatures rise by 2 degrees C, which would

⁸⁰ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, p. 31.

⁸¹ IFC, Bujagali project, Summary of Economic Due Diligence, p. 21ff.

⁸² International Rivers Network, Review of IFC’s Report “Bujagali Project: Summary of Economic Due Diligence”, November 19, 2001, p. 4ff.

⁸³ IPCC, Climate Change: The IPCC Response Strategies, 1991, p. 181, and WCD Report, pp. 7, 53.

⁸⁴ G. Harrison and B. Whittington, Climate change: A storm is brewing..., in: International Water Power and Dam Construction, September 2001, pp. 26-29.

⁸⁵ Ibid.

have serious impacts on the country's export earnings.⁸⁶ As a consequence, climate change could render the Bujagali project uneconomic at a time when Uganda's economy is already suffering. It is disconcerting that the World Bank's and IFC's risk analysis for the project completely ignores the impacts of climate change.

5.2. Corruption

In the private enterprises survey which was carried out in 1998, companies ranked corruption as the fifth most important constraint to investment (out of 24 factors). The firms which reported paying bribes spent an average amount of \$8,300 per year, or about 3% of their gross sales, on such payments, for example to tax collectors or for utility services. The larger, more profitable and more export-oriented the firm, the higher were the frequency and amounts of bribe payment. "Clearly, bribes are significant", World Bank economists Ritva Reinikka and Jakob Svensson summarize the evidence from the survey.⁸⁷ Since the time of the survey, the situation only seems to have deteriorated. In 1998, Uganda received the thirteenth most unfavorable score out of 85 countries in Transparency International's annual Corruption Perception Index. In the most recent Corruption Perception Index of June 2001, Uganda received the third most unfavorable score out of 91 countries.⁸⁸

Public procurement for investment and construction projects seems to be particularly seriously affected by corruption. "The most perverse corruption is in the procurement of goods and services", the Uganda Debt Network stated in May 2001.⁸⁹ This view is confirmed by official donors. "In 1997 and 1998, corruption became a major issue", maintains an evaluation report for the Swedish International Development Cooperation Agency. "Many high government officials appear to have benefited, in particular, from the privatization process. (...) Projects, and especially investment projects involving construction, allow officers to supplement their income."⁹⁰ "The level of corruption remains high in Uganda", confirms the Ministry of Finance, Planning and Economic Development in its latest PRSP Progress Report: "A high proportion of grand corruption cases result from procurement."⁹¹

⁸⁶ Climate Change: Billions Across The Tropics Face Hunger And Starvation As Big Drop In Crop Yields Forecast, UNEP Press Release, November 2001,

<http://www.unep.org/Documents/Default.asp?DocumentID=225&ArticleID=2952>

⁸⁷ Ritva Reinikka and Jakob Svensson, *Confronting Competition*, pp. 19, 23.

⁸⁸ See <http://www.transparency.org/cpi/2001/cpi2001.html>

⁸⁹ Uganda Debt Network, *The Role and Experience of Civil Society in the Struggle against Corruption in Uganda*, 14-17th May 2001, p. 4.

⁹⁰ John Ddumba-Ssentamu et al., *What Does the Showcase Show? Programme Aid to Uganda*, A SIDA Evaluation Report, Stockholm 1999, p. IX.

⁹¹ Ministry of Finance, Planning and Economic Development, *Uganda Poverty Status Report 2001*, Summary, Kampala, March 2, 2001, pp. 17f.

When domestic companies are expected to pay bribes to get telephone or power connections, the risk must be considered very big that a large transnational corporation – in fact the world’s largest independent power producer – would pay bribes to secure a public procurement contract implying payments of more than a billion dollars over several decades. The World Bank has investigated allegations of corruption regarding Bujagali, and concluded “that there is no corroborated evidence of corruption that directly affects the merits of the Bujagali project”.⁹² (Conspicuously, the Bank’s statement does not exclude evidence of corruption which may not have directly affected the merits of Bujagali.) If corruption of sufficient relevance is detected at a later stage, IFC has the right to stop disbursement.

5.3. International competitive bidding

It is difficult to discover smoking guns in a corrupt environment. Rather than investigating rumors after a contract has been closed, financial institutions should promote conditions and follow procedures which from the outset discourage corruption to the largest extent possible. Foremost under these conditions are maximum transparency and accountability, for example by subjecting public procurement contracts to the rules of international competitive bidding.

Transparent procurement procedures are particularly important for large dams. In a contributing paper for the World Commission on Dams, Michael Wiehen, chair of Transparency International, Germany (and a former country director of the World Bank), wrote: “Among the standard rules on procurement which should be covered by the national jurisprudence are the following: open, public competition must be the rule and actual practice for all procurement decisions above a relatively low value threshold; any exceptions should be possible only in truly exceptional circumstances (e.g., natural disasters)”.⁹³

In its 2001 PRSP Progress Report, Uganda’s Ministry of Finance announced that “open tendering will be required [in public procurement], except for projects under a specific limit or in other specified circumstances”.⁹⁴ In spite of such announcements and the high risks of corruption, the Government of Uganda awarded the Bujagali contract through negotiations with AES Corporation, and not through international competitive bidding. In its Project Appraisal Document, the World Bank and IFC claim that because “developers normally want an exclusive right to a site before they commit substantial resources in project development”, hydropower projects are “generally unsuitable for a competitive

⁹² World Bank’s Board Responds to Uganda’s Energy Needs – Approves Support For Bujagali Hydropower Project, press release, December 19, 2001.

⁹³ Michael H. Wiehen, Transparency and Corruption on Building Large Dams, Contributing Paper, World Commission on Dams, p. 6.

⁹⁴ Ministry of Finance, Planning and Economic Development, Uganda Poverty Status Report 2001, Summary, p. 18.

process based on the price of electricity”.⁹⁵ If unlike other options, hydropower projects can indeed not be subjected to international competitive bidding, this factor should be considered in the options assessment process.

In its Poverty Reduction Strategy Paper, the Government of Uganda has committed to transparency in public expenditure. In spite of this, and in spite of repeated calls from civil society, the Power Purchase Agreement of the Bujagali contract, which defines the risks and obligations of Uganda over the next 30 years, has never been made public. As IFC’s Compliance Advisor/Ombudsman commented in her assessment of the Bujagali project, “if AES wants to maintain a degree of secrecy consistent with a private sector project, perhaps public institutions should not be asked to provide guarantees for or subsidize the undertaking”.⁹⁶

6. Conclusion and recommendations

The claim that the Bujagali project is economically viable, and indeed the least-cost option for Uganda’s power sector, is based on a series of assumptions and projections. Every one of these assumptions and projections can be shown to be over-optimistic, or a misrepresentation of other World Bank reports:

- **The World Bank’s and IFC’s Project Appraisal Document for Bujagali contains major discrepancies with other relevant documents regarding essential aspects of the project.** Major discrepancies exist regarding the projected growth of electricity demand over the next 10-20 years, the number of billed consumers which are supposed to create the demand required for Bujagali (with the Bujagali demand figures being 50% higher than the projection in another 2001 Bank document for Uganda), the amount of investment needed in transmission and distribution to connect Bujagali with consumers, and the World Bank’s record with geothermal power particularly in Eastern Africa.
- **The World Bank’s and IFC’s project documents misrepresent or withhold critical information from other Bank documents.** They misrepresent the outcome of the 1998 private enterprise survey, which identified utility prices, rather than utility service quality, as the most important constraint to further investment in Uganda. The PAD further claims that Bujagali emerged from the options assessment as the least-cost option, and does not inform readers that the assessment reports showed a combined-cycle plant and geothermal energy to be the least-cost sources of power for

⁹⁵ The World Bank/IFC, Project Appraisal Document for the Bujagali Hydropower Project, pp. 31f.

⁹⁶ CAO Assessment Report, Complaint filed to the CAO regarding the Bujagali Hydropower Project, September 2001.

Uganda. The document finally contradicts expert opinion on whether in the case of hydrological *force majeure*, parts of the capacity payments to the investor will not need to be paid, or will rather be deferred to a later stage.

- **The Bank's and IFC's project documents neglect evidence from other Bank projects, or from other official sources, on important features of the Bujagali project and Uganda's power sector.** They neglect the limited impact which privatization has often had on power theft within a corrupt environment, the potential impact of climate change on Bujagali's hydrology, the critical importance which transparency and accountability have for public procurement in Uganda, and the advantages which geothermal power offers over hydropower in these respects.
- **Finally, the World Bank's and IFC's projections have already been proven over-optimistic regarding the growth of Uganda's export revenues and gross domestic product.** The pace of privatization in the power sector has also not kept up with the time-table put forward by two other Bank projects related to Bujagali.

In the case of a complex project, it is not unusual for documents to contain discrepancies, or for certain aspects to be neglected or withheld. Yet it is striking that whenever discrepancies occur, the Bank documents consistently take the positions which are most favourable for Bujagali, and that all aspects which are neglected or withheld make Bujagali less viable, and alternative options more attractive. For all these reasons, there is a serious risk that the Bujagali project will not be economically viable, but will add to Uganda's debt burden – at a time when the IMF and IDA have just expressed concern about Uganda's "very high debt indicators".⁹⁷

The information which the Bank Group's management and staff have provided to the Executive Board and the public on Bujagali is highly selective at best. In this context, it is noteworthy that management had already inaccurately informed the Board about a power project in Uganda in 1991. When the Board approved the extension of the Owen Falls hydropower project in June 1991, management claimed that the extension consisted of three units of 34 MW each, when it was already planning an extension by five units of 34 MW. In a document of October 2001, management "acknowledges that there was not full and frank disclosure of this situation to the Board".⁹⁸ One of the reasons management gives for this omission was "concern over the loss of the IDA allocations as the end of the fiscal year approached".⁹⁹ If MIGA does not approve a guarantee for Bujagali by the end of June 2002, the budgetary allocations for the project within IDA and IFC will again lapse. This may explain why MIGA appears to be pressing ahead

⁹⁷ IMF, IDA, The Enhanced HIPC Initiative and the Achievement of Long-Term External Debt Sustainability, p. 3.

⁹⁸ Bank Management Response to the Request for Inspection Panel Review, p. 28.

⁹⁹ Ibid., p. 18.

with a guarantee before the Inspection Panel has even submitted its overdue report on Bujagali.

The decision-making process for Bujagali seems to confirm a key conclusion of the WCD report. Based on its comprehensive evaluation, the WCD wrote in November 2000: “The end result of the influence exerted by vested interests, and the conflicts of interests that have arisen, has been that many dams were built not based on an objective assessment and evaluation of the technical, financial and economic criteria applicable at the time, much less the social and environmental criteria that apply in today’s context.”¹⁰⁰

The Bujagali project also documents that the “pervasive appraisal optimism” which the Wapenhans Report had identified as a fundamental source of portfolio problems for the World Bank still persists today. In 1992, the Bank’s Portfolio Management Task Force wrote: “The Task Force found that the credibility of the Bank’s appraisal process is under pressure. Many Bank staff perceive appraisals as marketing devices for securing loan approval (and securing personal recognition). Funding agencies perceive an ‘approval culture’ in which appraisal becomes advocacy.”¹⁰¹ And as borrowers observed in a workshop on portfolio quality for the Wapenhans Report, “the less involved in a project’s preparation the Bank is, the less likely it will be to promote it – and the more objective it can be in appraisal”.¹⁰²

Executive Directors confirm that they raised many critical issues at the Board meeting on Bujagali in December 2001. The concerns which seem to have been expressed include the accuracy of projections on macroeconomic trends and power demand, the potential impact of climate change on the Nile’s hydrology, the assessment of alternative options for Uganda’s power sector, and the lack of international competitive bidding. Inaccurate statements such as those contained in the Project Appraisal Document may have helped override such concerns, and in this sense misled the members of the Executive Board when they approved IFC and IDA funding for Bujagali.

MIGA’s Executive Board should not be swayed again by the persistent appraisal optimism of Bank management and staff. **Before taking any decision on Bujagali, the Board should insist that the following conditions are met:**

- The World Bank Inspection Panel should submit its report on the Bujagali project to the Board, the claimants and the public, and the Board should have the chance of an informed debate on the Panel’s findings.

¹⁰⁰ WCD Report, p. 191.

¹⁰¹ IBRD, Effective Implementation: Key to Development Impact [Wapenhans Report], p. 14.

¹⁰² Ibid., Annex B, The World Bank Borrowers’ Workshop on Portfolio Management, Highlights, p. 6.

- A comprehensive and balanced assessment of all options should be carried out and submitted to the Board for discussion. In particular, such an assessment should take an in-depth look at geothermal power, which appears to have emerged as the least-cost option from an evaluation done by Acres International.
- If MIGA continues to consider supporting the Bujagali project, the economic viability of the project should be reappraised with a more realistic view of essential project and sector features, and taking into account the recent economic down-turn in Uganda.
- The Bujagali Power Purchase Agreement should be made public, so that the interested public can have an informed debate about the Ugandan government's long-term obligations under it.
- Civil society in Uganda should have the chance of an informed debate about the Inspection Panel report, the conclusions of an effective options assessment and the Power Purchase Agreement. The Executive Board should take such a debate into account before reconsidering the Bujagali project or its alternatives.

The export credit agencies of OECD in July 2001 agreed on principles to avoid unproductive expenditures in HIPC countries. So far, only one export credit agency has approved a conditional guarantee for Bujagali. Several other agencies have refrained from getting involved in the project, either definitely or for the time being. In line with the OECD principles on unproductive expenditures, export credit agencies should also insist on the above conditions to be met before they reconsider any involvement in the Bujagali project.

International Rivers Network (IRN) supports local communities working to protect their rivers and watersheds. IRN works to halt destructive river development projects, and to encourage equitable and sustainable methods of meeting needs for water, energy and flood management.

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