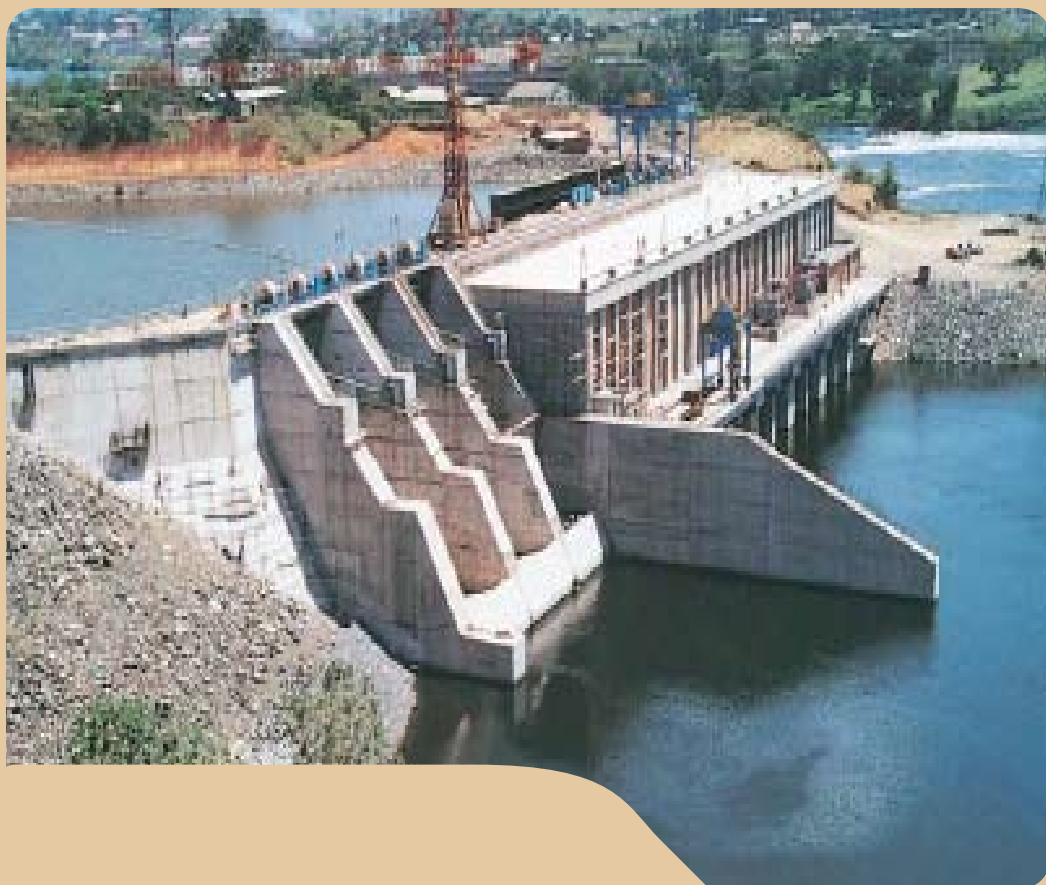


# THE UNRESOLVED ISSUES IN THE BUJAGALI DAM PROJECT IN UGANDA

A LACK OF TRANSPARENCY AND PUBLIC PARTICIPATION



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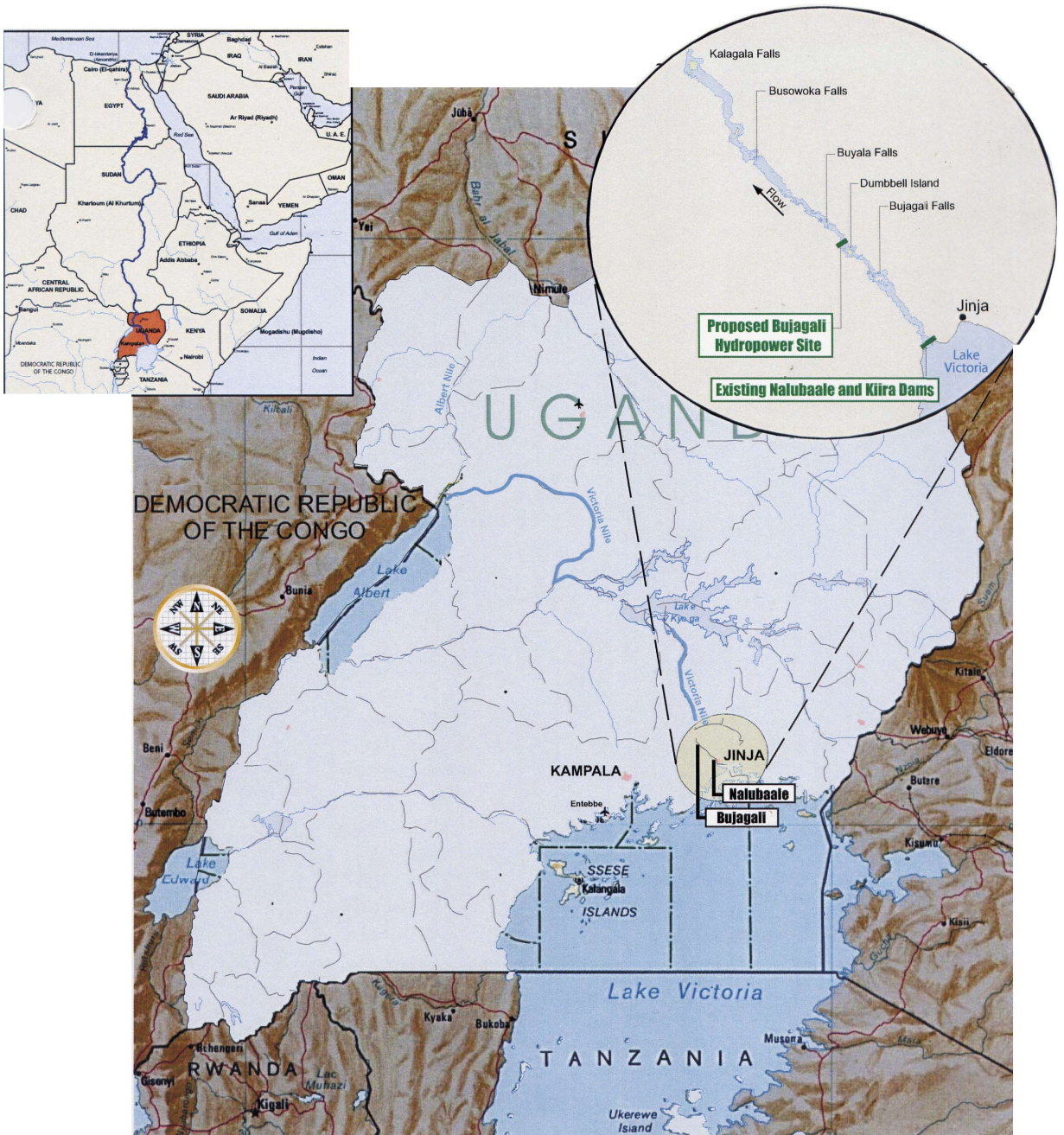
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## A map of Uganda showing Bujagali Dam site



Source: Bujagali Energy Limited (BEL)

## BACKGROUND

The once stalled Bujagali dam project is back for the second time on the Ugandan scene and is being fast-tracked. Many outstanding and new concerns plague the project. The project developer, Bujagali Energy Limited (BEL), is seeking financial support from the World Bank Group (WBG), African Development Bank (AfDB), European Investment Bank (EIB) and others.

As part of the dialogue and campaign process on the Bujagali project, Uganda's National Association of Professional Environmentalists (NAPE), with financial support from the Ford Foundation carried-out a public consultative process to establish whether there were still outstanding issues and concerns regarding the Bujagali project.

The consultative process involved meetings with the dam-affected communities, the private sector, the academia, the dam developer (BEL), Government of Uganda, National Environment Management Authority (NEMA), the World Bank, civil society, cultural institutions and other stakeholders to obtain views and facts on the Bujagali Project. As part of the consultative process a "Peoples' Public Hearing on the Bujagali Project" was also held on the 31<sup>st</sup> March 2007 in Kampala.



Source: NAPE File photo

### Peoples' Public Hearing on Bujagali

This publication records key issues that emerged during the consultation process,

<sup>1</sup> Applied Energy Services Nile Power (AESNP)



which remain unresolved.

## EMERGING ISSUES

### Compensation and Resettlement

Compensation and resettlement of dam affected people was not completed by AESNP, the former Bujagali dam developer that eventually abandoned the project in 2004. The compensation and resettlement was conducted on the basis of a framework that undervalued people's property and one that did not reflect current economic circumstances in Uganda. The housing structures that were provided as compensation and resettlement were constructed in a substandard manner by the former Bujagali project developer AESNP and are dilapidated 6 years after. Many of the community benefits promised such as a school, market, health centre, road network, electricity, land titles, kitchens, proper water storage facilities, etc. were not fulfilled and still remain outstanding.

### The Bujagali Falls

The project would submerge the Bujagali Falls, an important cultural/spiritual, recreation and tourist attraction site that is contributing over US\$100million per year in revenues to government, yet the economic opportunity cost of losing this site vis-à-vis the project were not adequately addressed.

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The decision by government and the World Bank to make Kalagala Falls downstream of Bujagali an off-set for Bujagali Falls was not entirely acceptable by all stakeholders. While it may have seemed a prudent environmental management strategy, it was flawed because a site cannot compensate for another in any natural way other than economic. This is further complicated by the absence of government's commitment to perpetually off-set Kalagala Falls in place of Bujagali Falls. The proposed indemnity agreement between government and World Bank over off-setting Kalagala for Bujagali could only apply for the 30-year duration of the IDA/WBG indemnity agreement, after which Kalagala would easily be converted into a dam site. According to the WBG, negotiations with government are still going on to put in place a mechanism to protect Kalagala from ever being developed into a dam site. All this means that there is no legally binding commitment in perpetuity on the Kalagala Falls off-set.



Source: NAPE File photo

Bujagali Falls Picture

## Bujagali Dam

The dam is constantly hyped that it will generate the projected and designed capacity of 250MW, but in reality it will not. The maximum amount of electricity it can generate under the current and future hydrological conditions is 121MW based on a natural run-of-the-river flows and Lake Victoria water elevations.

## Climate Change Risks

The World is experiencing worsening global warming as a result of accumulation of greenhouse gases in the atmosphere attributed to man's habits, activities and degradation of forests and wetlands. This globally warming is causing increased evaporation of water bodies and melting of ice caps and thus affecting availability of water for hydropower generation, human and animal use, especially in the Lake Victoria basin and catchments. This fact is, however, being minimised in the Bujagali project appraisal documents that claim that climate change will have minimal impact on hydropower generation on River Nile now and in the future. In contrast, the World Bank that is intending to finance Bujagali thinks otherwise that climate will have an impact on hydrology of Lake Victoria and River Nile and hence hydropower generation. Similar risks were intimated in a United Nation's Inter-government Panel on Climate Change (IPCC) report 2007. This brings into question the credibility and accuracy of the information on the impact of climate change on the Bujagali project and obviously threatens the relevance and survival of the project.

## Hydrological Risks

River Nile already supports a power complex comprising of Nalubaale and Kiira dams that, in addition to prolonged drought and interrupted rainfall patterns due to climate change, drastically reduced the amount of water in Lake Victoria leading to the current low Lake hydrology. The Lake's hydrological condition is unlikely to improve due to the worsening global and continental climate change effects. Therefore, the "constant and stepwise operational rule recommended for releasing water through the power stations on River Nile will not permit quick recovery of Lake Victoria once Bujagali power station becomes operational in 2012. This further negates the possibility of Bujagali ever generating to capacity.

## Costs of the Project

The costs of the project have continued to increase and are now at US\$860million, but there are indications that the costs could even escalate to or more than US\$1.0billion as a result of interest rate, disasters preparedness and emergency mechanisms, need for fresh comprehensive social and environmental studies, among others that were never considered in the existing project evaluation documents. At the US\$860million, the cost per megawatt of constructing Bujagali will be US\$3.44million/MW for 250MW capacity, yet it is clear that the project is unable to generate to capacity. At the current 121MW generation potential, the cost will be US\$7.1million/MW. Compared to the World's largest Three

Gorges Dam in China with a capacity of 18,000MW that involved displacement of over 1.3 million people, the cost was only US\$1.34million per megawatt. Uganda's economy is smaller compared to China's and therefore cannot support an expensive Bujagali dam. Something is obviously wrong with the Bujagali Project.

## Electricity Shortages and Affordability

Due to the failure of Nalubaale and Kiira to meet the country's electricity demand and the delay to develop additional renewable power sources, government resorted to thermal generators to meet demand. The generators are very expensive to operate and maintain and are depleting national economy. Also, the establishment of these thermal units has been hampered by allegations of corruption that are rife in the country's energy sector. This has consequently hiked the tariffs from 6.0US cents to 24 US cents, notwithstanding government's subsidisation in the electricity sector. This has made electricity extremely unaffordable by the majority of Ugandans. It is obvious that even if Bujagali comes online, electricity will remain unaffordable. Tariffs are expected to be more than 17US cents even with government subsidy, a situation that is a burden to the taxpayers.

## Risks of Increased Electricity demand and Continued Declining Lake Victoria Water Levels

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Ever-since Kiira power station became operational in 2002, the amount of water available at the headrace for power generation at the Owen Falls complex declined, requiring abstraction of more water from Lake Victoria to meet growing electricity demand. This led to drastic reduction in Lake Levels that had not yet been registered since 1923-4, drought notwithstanding. At the current 9.9% growth rate in electricity demand (18MW per year), the proposed Bujagali generation will be exceeded in the next 13 years. This demand, coupled with the "step-wise constant operational rule" now recommended for Lake Victoria, will require further abstraction of water from the Lake, causing further recession of the Lake elevation. This abstraction will drain wetlands and rivers in the Lake's catchments, further negating hydropower production on River Nile, making Bujagali unfeasible.

## Alternatives to Bujagali

The Bujagali appraisal studies did not adequately assess Bujagali against other alternative energy options, for example; solar, wind, geothermal, Karuma dam on River Nile and non-damming technologies ([www.verdantpower.com](http://www.verdantpower.com)) before determining Bujagali as the least-cost and most appropriate option.

<sup>2</sup> Bujagali II-Economic and Financial Evaluation Study, 2007



Engineers installing a kinetic hydropower turbine underwater with no dam



An installed submerged turbine operates on the principle of wind mills. Flowing water rotates the turbine, thus generating electricity

## Dam Safety

The safety of Bujagali in relation to the aging Nalubaale dam upstream was not factored into the project documents. Other than mentioning that a Dam Safety Panel (DSP) would be established, there were no dam safety mechanisms and strategies, including decommissioning of the aging dams, incorporated in the project appraisal documents. If this is later incorporated in the project appraisal process, the cost of the project will definitely escalate. This increased cost will obviously be reflected in the final electricity tariff accruing from the project, thus hiking the tariff and making it unaffordable to the majority of the Ugandans. Then, for whom is the dam being developed? What if the old Owen Falls (Nalubaale) structures collapse and destroy Bujagali downstream, who will bear the risks and costs?

## Cumulative Impact Assessment

When Owen Falls dam and power station (now referred to as Nalubaale) was being developed in the late 1940s and early 1950s, the need for an Environmental Impact (Audit) Assessment (EIA) was unknown. Therefore, no EIA was done for the dam and power station before and after construction. Later, EIAs increasingly became important for large infrastructure developments such as industries, dams, etc. However, when the Owen Falls Extension (Kiira) power station was being developed in 1998, a time when EIAs were of paramount importance, no EIA was done before and after construction of the power station.

Cumulative Impact (Audits) Assessments (CIAs) are a requirement when more than one large infrastructure developments are located close together or on the same natural resource. But, in the case of the Owen Falls complex and the Bujagali dam project, no CIA was done. This has complicated the evaluation and appraisal process in determining the

suitability of Bujagali dam at the proposed site 8km downstream the Owen Falls complex. Government technocrats also admit that they were unable to conduct CIA studies, because of the prior absence for EIAs for Nalubaale and Kiira power stations. Who is to blame for this omission? It is still important that cumulative impact assessment of having more than one dam in a short stretch of the River Nile is done.

## Cultural Issues

Bujagali Falls is a central cultural and spiritual site for the 240 Basoga clans. The Bujagali project developer inadequately handled the cultural issues during project appraisal. The Spiritual Leader of the Basoga Clans, Nabamba Budhagali, was not consulted concerning the impact of the project on the Basoga's Spiritual site Bujagali Falls. Instead, the project sponsors replaced the rightful head of the Basoga clans, Nabamba Budhagali, with his former Security Guard (Askali) as Spiritual Leader of the Basoga during consultations, a smirk of corruption and influence peddling.

## Immediate Outcomes of the Consultation Process

On realisation that Government and the Banks were poised to proceed with the Bujagali project before resolving the outstanding and new concerns on the project, civil society spearheaded by NAPE, petitioned the Banks against financing the project before the concerns on the project were explicitly addressed. Civil society submitted a request (claim) for investigation of the Bujagali project to the Inspection Panel of the WBG in March 2007 and to the Compliance Review and Mediation Unit of the AfDB in May 2007. Also, a claim was submitted to EIB. In response, The WBG and AfDB registered the claims and are preparing to conduct fully-fledged investigations of the project starting late June or early July 2007.

As a result of these actions, financing of the Bujagali project by the Banks has been delayed until the investigations are completed and recommendations therein addressed by the dam developer and government. The banks have also put in place conditionality for financing the Bujagali project. For example:-

In addition to the Inspection Panel Investigation Report findings, the World Bank pegged its financing of the Bujagali project on addressing all concerns raised on the project, a government's commitment in perpetuity on Kalagala Falls as an Off-set for Bujagali Falls and a fresh and comprehensive social and environmental assessment.

The African Development Bank (AfDB) only approved the private-sector loan for BEL, what had not yet been approved was the public-sector loan that covers the interconnection part of the project. Since the AfDB received and registered a civil society request for investigation of the Bujagali project, decision-making on the public-sector loan will have to wait until the request is disposed of.



The European Investment Bank (EIB) pegged financing of Bujagali on the World Bank Inspection Panel's investigation findings and the project's addressing of all concerns. EIB would also release money for the project after all other Banks have released money for the project

The National Environment Management Authority (NEMA) also approved the project with conditions that include; a) all compensation and resettlement claims are resolved; b) the shrines at Bujagali are relocated before the project proceeds; c) dam developer obtains all the necessary permits from the Directorate of Water Development; d) obtain permit from NEMA; e) establish an Independent Panel of Design and Safety Experts, f) establish a monitoring committee, including government and civil society, among others. Despite the conditions, the developer and government are pushing to start the construction of the dam. Then, what is the relevance of the conditions?

On realisation that the Bujagali dam project is going to be delayed further, government decided to lend BEL, a private dam developer, US\$154million of taxpayers' money to kick-start the project. This is however unethical and an act of corruption.



Bujagali Landscape

Civil society realises that further delay in developing additional energy sources will negatively impact the well-being of the Ugandan citizens and the economy. However, this is not civil society's desire. We urge for prudent, appropriate and effective development in the energy sector that ensures an energy mix, energy security and affordability of electricity by all Ugandans. Failure to achieve these objectives and aspirations, the consequences of unaffordable and unreliable power will be borne by the ordinary citizens. It is, therefore, civil society's intention to ensure that the general public receives the much needed electricity as quickly as possible in an effective, affordable and sustainable manner for many years to come. There is therefore need for a paradigm shift in the manner in which government handles and develops the energy sector. The reliance on a private-sector managed and dominated energy sector is great insecurity for Uganda.

## A SUMMARY OF OUTSTANDING ISSUES

- The Cost of the Dam: At US\$860million the dam is very expensive and a financial burden on Ugandan economy.
- Affordability of Electricity: Electricity tariffs have continued to hike from 6.0 US cents to the current 24 US cents, which is unaffordable to many Ugandans. Even at the proposed 17 US cents tariff (after government subsidy) when Bujagali project comes online in 2012, the electricity will still be unaffordable to the majority Ugandans.
- Hydrological risks: The current hydrology of Lake Victoria and River Nile cannot support the projected 250MW capacity of Bujagali.
- Climate change risks: Climate change and global warming threaten the survival of Bujagali project.
- Dam safety: The aging Nalubaale dam and bridge upstream threatens the Bujagali project, yet currently there are not mechanisms or strategies to mitigate a potential dam failure upstream. There is no decommissioning mechanisms for the aging dams
- Kalagala off-set: There is no legally binding commitment between government and the World Bank to perpetually off-set Kalagala Falls for Bujagali Falls. Implying therefore that Kalagala is still a potential dam site
- Cumulative Impacts: There were no studies to assess the cumulative impacts of having one or more hydropower dams in a short stretch (8km) of River Nile. This raises doubt on the suitability of Dumbbell Island as site for Bujagali dam.
- Compensation and Resettlement issues of dam-affected people have not been completely and adequately addressed. Many dam-affected people have not yet received titles to their plots and houses
- Consultation process of the Project: While there is some evidence of consultations in the project documents, the manner in which the consultations were conducted is still lacking. The rightful Cultural and Spiritual Leader of the 250 Basoga Clans attached to Bujagali Falls, Nabamba Budhagali, was not consulted by the dam developers on the impact of the dam on the Spiritual Shrines at Bujagali Falls.
- The Interconnection Project: This will destroy 68 hectares of Mabira Forest Reserve and important biodiversity area.
- Government's decision to lend US\$154million to the dam developer is unethical and an act of corruption

## LESSONS LEARNED

- There is still a conspiracy amongst government, the dam developer and the World Bank to proceed with a project that is still contentious with unresolved issues
- Civil society have great potential to guide and influence development of the country
- Multi-stakeholder process that bring different actors together is the way to go in development
- There is increased awareness among the public, dam-affected people and cultural institutions on issues regarding the Bujagali project. However, there is need to create more awareness.
- Many Ugandans were able to appreciate that there are other alternative energy sources to hydropower that could be harnessed e.g. solar, wind, geothermal and non-damming hydropower technology options
- There is need for government and civil society to work together for proper decision-making
- Ugandans were able to learn that there were high technical and commercial losses in the energy sector that they were paying for, a reason why government is proposing a strategy for energy audit and energy saving technologies.
- The public was able to learn that there is a complaint mechanism with the financing institutions such as the World Bank, European Investment Bank and the African Development Bank that need to be utilised.
- There is still lack of information on energy matters, because the information frequently released in public domain is too technical for the public to comprehend.

## NEXT STEPS IN THE BUJAGALI CAMPAIGN

- Now that the Inspection Panel (IP) of the World Bank and Compliance Review and Mediation Unit (CRMU) of the African Development Bank have accepted the request for investigation of the Bujagali project, there will be continued engagement of the IP and CRMU during and after the investigation;
- Continue campaigning for the development of alternative energy options;
- If the Bujagali project proceeds according to government's plans, there will be continued monitoring and evaluation of the project's compliance to set conditionality and mitigation measures;
- Continued campaigns for the preservation of natural forest reserves (e.g. Mabira, Bugala, etc) and wetlands that are important for sustainable hydropower generation in the country
- Continue to create awareness and sharing information on the Bujagali project, other energy options and the status of forests and wetlands in the country.
- Continue to work with dam-affected people to resolve their problems
- Encourage stakeholders to use the Uganda Dams Dialogue (UDD) Framework to resolve conflicts related to Bujagali and other dams
- Participate in the monitoring process of dam developments in Uganda
- Mobilise civil society to participate in advocacy in the area of dams and development.

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