

## Environmental and Social Review Summary

### Small Hydropower Project

*This Environmental and Social Review Summary (ESRS) is prepared by MIGA staff and disclosed in advance of the MIGA Board consideration of the proposed issuance of a Contract of Guarantee. Its purpose is to enhance the transparency of MIGA's activities. This document should not be construed as presuming the outcome of the decision by the MIGA Board of Directors. Board dates are estimates only.*

*Any documentation which is attached to this ESRS has been prepared by the project sponsor, and authorization has been given for public release. MIGA has reviewed the attached documentation as provided by the applicant, and considers it of adequate quality to be released to the public, but does not endorse the content.*

Country:	Uganda
Sector:	Infrastructure
Project Enterprise:	Trønder Power Limited
Environmental Category:	B
Date ESRS Disclosed:	February 25, 2008
Status:	Due Diligence

#### A. Project Description

The Project is to build and operate a 13 MW run of river hydropower plant and a 6 km long 33 kV transmission line to connect it to the Ugandan grid. The plant will be located on the Mubuku and Isya rivers in the foothills of the Rwenzori Mountains in Kasese district, in western Uganda. The Project will divert water from the rivers and run it via a 5 km long canal along the contour into a 950 m long penstock with a 160m head. After passing through two 6.5 MW Francis turbines, the water will be discharged back into the Mubuku River. Due to the canal construction, the Project will involve some resettlement. A power purchase agreement (“PPA”) with Uganda Electricity Transmission Company Limited (“UETCL”) is close to being finalized, with tariff approval by Uganda’s electricity regulator. There is an existing 10 MW small hydro (Mubuku 3) just downstream of the Project, and another one (Ibanda, approximately 5 MW) just upstream. The Project will not interfere with the operation of these two existing plants. The Project Sponsors are TrønderEnergi AS (“Trønder”, with 72,5%, a Norwegian utility company), and Norfund (with 27,5%), a development finance institution owned by the Government of Norway (“GON”). The Project cost is estimated at US\$56 million, and it will take about 21 months to build, with construction starting shortly. GON will support the Project with a US\$10 million grant.

#### B. Environmental and Social Categorization

The project has been classified as a Category B under MIGA’s Environmental and Social Review procedures. This is based on the nature of the project’s predicted adverse impacts, which are relatively few in number, generally restricted to a relatively small geographic area and readily addressed via well understood mitigation measures.

Although there is to be physical displacement (resettlement), the number of households involved is low (21), the relocation distance and associated social dislocation negligible, the Sponsors have implemented a best practice resettlement planning process to date and there will be structured Government, IFC and MIGA oversight. These factors will mitigate against an 'A' categorization.

### **C. Applicable Standards**

While all Performance Standards are applicable to this investment, based on our current information indicates that the investment will have impacts which must be managed in a manner consistent with the following Performance Standards:

- PS 1: Social & Environmental Assessment and Management Systems
- PS 2: Labor & Working Conditions
- PS 3: Pollution Prevention & Abatement
- PS 4: Community Health, Safety & Security
- PS 5: Land Acquisition & Involuntary Resettlement
- PS 6: Biodiversity Conservation & Sustainable Natural Resource Management
- PS 8: Cultural Heritage

PS 7 Indigenous People is not relevant because no indigenous peoples were found to inhabit the Project area.

### **D. Key Documents and Scope of MIGA Review**

The documents reviewed by MIGA:

- Bugoye Small Hydropower Project Environmental Impact Assessment (March 2006) – prepared by Norplan Uganda Ltd.
- Environmental Due Diligence Report (December 2007) – prepared by Scott Wilson
- Bugoye Transmission Line Environmental Assessment (March 2006) – prepared by Norplan Uganda Ltd.
- Resettlement Action Plan (March 2006) – prepared by Norplan Uganda.
- Resettlement Action Plan for the Proposed Bugoye Hydropower Project in Kasese – Western Uganda 3<sup>rd</sup>. Status Report (January 2008) – prepared by Irene Nakiwu & Michael Daka.
- Baseline Report: Development and Implementation of a Socio-Economic Survey for the Bugoye Community Development Project (November, 2006) – prepared by UNDP
- Bugoye Livelihood Restoration Project (December, 2006) – prepared by UNDP
- Project Information Memorandum (November 2007) – prepared by Tronder Energy and Norfund.
- Bugoye Hydropower Project – Final Feasibility Report (March 2006) – Prepared by Norplan and SNPower.

MIGA's due diligence also involves discussions with IFC's social and environmental staff who visited the project site.

## **E. Key Issues and Mitigation**

### Social and Environmental Assessment and Management Systems

The Sponsors have prepared an EIA incorporating an Environmental Management Plan (“EMP”), and a RAP for the hydropower component, and a separate EIA for the transmission line. These documents reflect Ugandan regulatory requirements and were approved by the national regulator in 2006. Based on the due diligence process for this project, the Sponsors are expanding the existing EMP into a more comprehensive Environmental & Social Management Program (ESMP) which spells out practical mitigation measures for each identified impact and indicates which resources will be made available for implementing these measures within reasonable timeframes. The ESMP will incorporate mitigation measures committed to in the EIA/EMP, additional issues with regard to the provisions of the applicable Performance Standards and the Lenders’ Independent Engineer and EIA conditions of approval supplied by the Ugandan regulatory agency NEMA. Finalization of this ESMP, as spelled out in the attached Action Plan, is a condition of MIGA support to this project.

The Civil Works contractor will prepare an Occupational Health & Safety plan, Traffic Management Plan and various other plans in keeping with the updated ESMP. This contractor will hire permanent staff to oversee the implementation of environmental, health & safety and social mitigation measures. In addition, the Sponsors have retained Norplan Uganda as environmental and social consultants for this project. Norplan Uganda has been overseeing implementation of the RAP, ongoing community engagement activities and will also be overseeing contractor performance in relation to implementation of environmental, health & safety and social mitigation measures. Norplan Uganda will also be responsible for ensuring that monitoring and reporting activities committed to in the EIA and ESMP are conducted in a satisfactory manner.

The Sponsors have committed a proportion of the implementation budget to implement targeted community development projects in the project area. These projects will fall into the realms of village water supply, education and healthcare, all of which will endeavor to incorporate a gender dimension. Inputs have been received from the Bugoye Participatory Committee relating to community development needs and aspirations. Community development planning is underway and will be expanded on in the coming months. It is anticipated that suitably experienced local NGOs and service providers will be contracted to implement community development plans on behalf of the Sponsors. In the interim, all community related mitigation measures are being implemented by Norplan Uganda on behalf of the Sponsors.

### Labour and Working Conditions

This is currently a Greenfield project with a very small staff complement. The Civil Works contractor (Noremco), which will be hiring most of the employees (approximately 150 in total) during the construction phase, is currently developing Human Resources policies in keeping with Ugandan labour regulations. As part of the ESMP referred to

above, Noremco and other contractors will be required to commit to implementing fair labour practices including adherence to Ugandan labour laws and MIGA Performance Standard 2: Labour and Working Conditions.

### Pollution Prevention and Abatement

There are two key areas requiring management in relation to pollution prevention, namely erosion / sedimentation control and waste management. Sedimentation management is critical in sensitive construction activities occurring within and directly adjacent to river courses. Erosion control is important in the context of canal construction works along steep hillsides. Sedimentation and erosion control measures are readily available and well understood; these have been mentioned in the existing EIA and EMP and will be spelled out in greater detail in the expanded ESMP document. Waste management pertains to construction spoils – in particular rock spoils from tunneling and canal right of way development – as well as to sewage, oils and greases and domestic waste that will eventually be produced at the small office/workshop complex. Rock spoils are to be used wherever feasible for construction of project-related access roads; any excess is to be made available for local infrastructure projects and will be kept away from agricultural land and floodplain areas. Oils, greases and domestic waste will be dealt with via standard traps/disposal technologies. This project will not have greenhouse gas emissions associated with it once construction is completed; construction phase use of earthmoving equipment will result in minimal emissions. The project will be applying for carbon credits under the UNFCCC Clean Development Mechanism and will be providing renewable, low-carbon energy to Uganda's grid. It has been suggested that the Bugoye Small Hydro project will qualify as a 'small-scale project activity' under this mechanism and will thus only be required to monitor the electricity it generates via accurate, calibrated metering.

### Community Health, Safety & Security

Increased road traffic poses community safety risks and will be mitigated via a range of measures such as sensitization of local schoolchildren, installation of speed control measures on frequent-use roads and dust control. The Civil Works contractor will develop a traffic management plan to manage this issue. Influx should not pose significant risks on this project, e.g. via increased HIV-AIDS transmission, as most employees will be hired locally and the remaining skilled hires will be transported by a specially hired bus to and from their residences in the nearby town of Kasese. Nevertheless, the Civil Works contractor has committed to incorporate HIV-AIDS sensitization and management into its management plans for the construction phase of this project. No stand-alone construction camp is planned as the small number of skilled workers will rent their own accommodation in Kasese or surrounding areas. Although malaria is a significant health risk in the area, the project will not create additional mosquito breeding habitat and all canals will involve fast-flowing water. Other community related risks include those associated with fast-flowing water in project canals and an emergency overflow procedure when the power house must be worked on and water needs to be re-routed via a spill way. The Sponsors are aware of these issues

which can readily be addressed via a variety of standardized options which will be incorporated into the updated ESMP document mentioned under PS 1 discussion above. Security services, mainly related to prevention of fuel theft during construction, have been contracted to Group 4 Securicor (G4S), a leading international provider of security services. G4S personnel are generally well trained, well equipped and sensitized to community related safety concerns such as the appropriate use of force.

#### Land Acquisition & Involuntary Resettlement

Land either has been or will be acquired for the canal right of way, access roads, headrace and tailrace rights of way, power house and office/workshop complex. A total of 21 households will be physically displaced and 250 households will be directly affected as a result of project related land acquisition. A RAP was completed in March 2006 and is being implemented by the Sponsors' engineer (Norplan Uganda Ltd). By early February 2008, 75 % of resettlement and compensation had been successfully completed. There is a functioning liaison and grievance committee in place, namely the Bugoye Participation Committee, which has facilitated extensive consultation and negotiation surrounding resettlement matters (refer to section entitled 'Clients Community Engagement' below for further discussion). IFC team visited the project site reports that the replacement houses are substantially bigger and of better quality than the affected houses. In the vast majority of cases, people have relocated a very short distance and remain in the same community, reducing social dislocation. Crop compensation and replacement land acquisition have proceeded smoothly and have been adjudged to be in compliance with PS5 requirements. A week-long capacity building workshop was organized to build up the local government representatives' ability to work on resettlement planning and implementation.

#### Biodiversity Conservation & Sustainable Natural Resource Management

Although the Rwenzori Mountain National Park is located a few kilometers upstream of the proposed project site, the project footprint neither directly impacts this protected area nor poses a risk of influx-related infringement on the park. The EIA has established that there are no intrinsically valuable natural habitats or endangered species evident in the immediate project area. Habitat has been extensively modified through human use, mainly subsistence agriculture and settlement. The rivers contain little of scientific or commercial value, and fish migration is hindered by steep gradients, boulders and the intake structures of Mubuku I and Mubuku III small hydro schemes. Nevertheless, a minimum flow will be maintained for ecological and human use purposes.

#### Cultural Heritage

A number of graves have been identified during the EIA and RAP compilation process and measures have been put in place to consult with affected households and pay them appropriate compensation to relocate each grave. This has been done in consultation with local authorities and local leaders, as well as with household heads. The process has been implemented already and has posed no problems to date. A 'chance finds' procedure will be developed by the Civil Works contractor to ensure that any further graves or any

artifacts inadvertently uncovered during construction will be dealt with in the same culturally appropriate manner.

## **F. Environmental Permitting Process and Community Engagement**

The National Environment Management Authority (NEMA), under authority of the National Environment Statute No. 4 of 1995, reviewed the March 2006 Environmental Assessment for Bugoye Small Hydropower Project as an Environmental Impact Assessment under the Environmental Impact Assessment Regulations, SI No. 13 of 1998, issuing the Certificate of Approval No. NEMA/EIA/1124 dated October 4, 2006. The Certificate included 15 Conditions of Approval, which are addressed in the Action Plan.

Consultations with affected persons have been ongoing since 2004 and have been iterative. These have involved community leaders, village elders, members of the local and district government and directly affected households. The EIA and RAP consultants held a series of community meetings in affected villages during the preparation of project documentation. In addition, household visits were made to directly affected households along the diversion, headrace and tailrace canals as well as those impacted by other project components, and focus group discussions were held with sub-county (local government) officials including local Council members and administrators. Letters were sent to government officials, sub-county officials were mobilized to inform communities of impending public meetings, radio announcements were made providing information about these meetings and notice were distributed to all Chairpersons of affected villages. Brochures were prepared in both English and the local language providing information concerning project activities, applicable regulations, entitlements, grievance procedures and potential for income restoration. Village chairpersons were asked to read these aloud for the benefit of those who are illiterate. Visual aids were also prepared showing the locations of project components and were used during community interactions.

Compensation Verification Committees were established in each affected village involving representatives of the District Land Board, the Sub-County (local government), village elders and affected persons. The purpose of these committees was to verify the identity and ownership status of affected persons, to witness the disclosure process and signing of compensation consent forms and to witness compensation payments including land transfers. In addition, the Bugoye Participatory Committee (BPC) was established to act as a general forum mediating between the Sponsors and affected communities. The BPC has an office in the village of Ibanda, in the project area, and includes representatives of the District Land Board, local councilors, village elders and youth/women representatives elected by affected villages. Its main functions are to monitor, record and resolve grievances related to land acquisition, resettlement and other project impacts, assist in the identification and acquisition of alternative land, engage with the Sponsors around community development initiatives, mobilize affected communities thereby enhancing community participation in the project and involve vulnerable groups in decision making processes. As a result of these various initiatives, project affected people appear to be well informed about this project. A meeting with the BPC confirmed that stakeholders are well aware of key project issues, have been actively

involved in suggesting mitigation options and have participated in the resettlement and compensation process.

The following project documentation has been disclosed locally.

- Environmental Assessment for Bugoye Transmission Line, Final Report, March 2006
- Environmental Assessment for Bugoye Small Hydropower Project, Final Report, March 2006
- Resettlement Action Plan for Bugoye Small Hydropower Project, Final Report, March 2006
- EIA Certificate of Approval – Bugoye Small Hydropower Project, October 2006
- Resettlement Implementation Schedule, February 2008

#### **G. Availability of Documentation**

The above listed documentation is available electronically as PDF attachments to this ESRS at [www.MIGA.org](http://www.MIGA.org). It is also available for viewing at the following locations:

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