

Implementation Status & Results
Sierra Leone
SL Bumbuna Hydroelectric Environmental and Social Management project (P086801)

Operation Name: SL Bumbuna Hydroelectric Environmental and Social Management project (P086801)	Project Stage: Implementation	Seq.No: 14	Status: ARCHIVED	Archive Date: 03-Nov-2011
Product Line: IBRD/IDA	Country: Sierra Leone	Approval FY: 2005	Lending Instrument: Specific Investment Loan	
Implementing Agency(ies): Ministry of Energy and Water Resources				

Key Dates

Board Approval Date	16-Jun-2005	Original Closing Date	31-Aug-2009	Planned Mid Term Review Date	01-Mar-2009	Last Archived ISR Date	03-Nov-2011
Effectiveness Date	19-Dec-2006	Revised Closing Date	30-Sep-2012	Actual Mid Term Review Date	01-Mar-2009		

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

To assist the recipient in satisfactorily addressing and mitigating the environmental and social impacts in the Project Area associated with the completion and initial operation of the Bumbuna hydroelectric dam and transmission line.

Has the Project Development Objective been changed since Board Approval of the Project?

Yes No

Component(s)

Component Name	Component Cost
Environmental Management and Social Mitigation	7.05
Community Growth Poles	1.25
Technical Assistance	1.20

Overall Ratings

	Previous Rating	Current Rating
Progress towards achievement of PDO	Moderately Satisfactory	Moderately Satisfactory
Overall Implementation Progress (IP)	Moderately Satisfactory	Moderately Satisfactory
Overall Risk Rating	Substantial	

Implementation Status Overview

A number of activities have started or have been completed since the last mission (July 2011), and indicate the operational status of the project: (a) Bumbuna Hydroelectric Project is evacuating power and transferred 17.81 GWh in September 2011 with a peak load of about 32 MW; (b) Dam Safety Review Panel (DSRP) report has been finalized which has stated that "Bumbuna dam is as safe as any other such dam elsewhere in the world;" (c) Bumbuna Watershed Management Authority (BWMA) has become operational from August 2011, with staff hiring completed; (d) Bumbuna and Biodiversity Conservation Project (BCP) IDA-financed budgets were harmonized in September 2011 to avoid duplication and affect

economies for the development of Loma Mountains National Park (LMNP); (e) Field work for the configuration design and specification for the supply and installation of sirens was completed in November 2011, and the procurement process has been launched; (f) The hiring process for Permanent Engineer has been completed, and the selected candidate is expected to assume responsibilities shortly; and (g) The updates of the dam and reservoir and 161 kV T-Line RAPs have started, including a re-inventory of the shoreline and T-Line right-of-way (RoW).

However, while these activities have been completed, there are a few critical issues which risk jeopardizing the timely and successful implementation of the project:

1. Predictable and transparent financial arrangements for the continued safe operations of Bumbuna Hydroelectric project. This inter alia entails: (a) an appropriate Power Purchase Agreement (PPA) between Bumbuna and NPA which takes into account all prudent operation and maintenance, safety, environmental and social mitigation costs # a conservative estimate of these costs is about \$ 1 million per month; (b) finalization of the institutional arrangements and conclusion of the contracts; and (c) a systematic plan to clear the outstanding dues owed to the dam operator and engineer.
2. Review of the financial situation of the power sector, capital expenditure and operating costs of NPA, and strengthening of distribution network to enable optimal utilization of Bumbuna;
3. Swift finalization of the procurement and installation of sirens warning system;
4. Completion of the updates of the T-Line and Dam/Reservoir Resettlement Action Plan (RAP) implementation, including compensation to possible new project affected persons (PAPs) in the reservoir area and full payments to eligible PAPs in the T-Line;
5. Completion of biomass clearing, navigation channel markings in the reservoir, especially for water safety purposes, and water quality monitoring under the BWMA;
6. Implementation of the schedule of activities planned for setting up of Loma Mountains National Park (LMNP), including baseline socio-economic information; and
7. Setting up of the Bumbuna Trust along lines agreed in the Bank July 2011 Mission.

Locations

Country	First Administrative Division	Location	Planned	Actual
Sierra Leone	Northern Province	Yiben		
Sierra Leone	Northern Province	Port Loko		
Sierra Leone	Northern Province	Makeni		
Sierra Leone	Northern Province	Magburaka		
Sierra Leone	Northern Province	Lunsar		
Sierra Leone	Western Area	Freetown		
Sierra Leone	Northern Province	Bumbuna		

Results

Project Development Objective Indicators

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Indicator Name	Core	Unit of Measure		Baseline	Current	End Target
Project Affected Persons (PAPs) claims related to the transmission line addressed	<input type="checkbox"/>	Percentage	Value	0.00	0.00	100.00
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	Claims not addressed.	Claims are envisaged to be addressed by May 2012	All claims would have been addressed.
PAPs around the dam and reservoir area are resettled and compensated	<input type="checkbox"/>	Percentage	Value	0.00	100.00	110.00
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	Most PAPs are settled.	Verification of claimants (post-impoundment) and ground truthing planned.	Could include potential additional PAPs.
PAPs with livelihoods restored to same level as pre-project	<input type="checkbox"/>	Percentage	Value	0.00	0.00	100.00
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	Livelihood Restoration Programs not implemented.	Livelihood Restoration Programs expected to be completed during April-July 2012.	Livelihoods would have been restored to pre-project levels.
BWMA fulfills its key functions	<input type="checkbox"/>	Text	Value	0	10	20
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	Maximum score of 25 points (completion of RAP; water quality & water borne diseases Monitoring, management of conservation area)	BWMA established; Draft ToR for Bumbuna Watershed Management, Rapid assessment of waterborne diseases, and Baseline epidemiological survey planned by Dec 2011. expected by Sep 2011,	BWMA would be fulfilling its mandate and all key functions.
Loma mountains National Park established and operational	<input type="checkbox"/>	Text	Value	No	No	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	No Loma Mountain National Park.	Staff appointed; pillaring is being done; Loma Mountain National Park expected to be established by Jan 2012, and operational by April 2012.	Loma Mountain National Park would be operational.
Direct Project Beneficiaries (number) of which female (%)	<input type="checkbox"/>	Text	Value	34%	48%	50%
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012

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Indicator Name	Core	Unit of Measure		Baseline	Current	End Target
			Comments	34% female beneficiaries in LAIR and SAP	Increase to 48%.	Increase to 50%

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure		Baseline	Current	End Target
Revised 161kV Transmission line RAP implemented	<input type="checkbox"/>	Text	Value	No	No (partial implementation)	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	Revised RAP for 161 kV Transmission line not implemented.	RAP partially implemented; complete implementation expected by mid-2012.	Revised RAP would be fully implemented,
Amount of replacement land provided (ha)	<input type="checkbox"/>	Number	Value	198.00	198.00	198.00
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	No replacement land yet.	Consultation and sensitization planned; no decision yet on replacement land.	Final decision on replacement land would be implemented.
RAP implemented in accordance with schedule	<input type="checkbox"/>	Text	Value	No	Not on schedule.	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	RAP implementation is behind schedule.	RAP implementation is now expected to continue up to May 2012.	RAP implementation will be completed before close of the project.
Completion of the Stabilized Agriculture Program (SAP)	<input type="checkbox"/>	Text	Value	No	No (Partial)	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	SAP not completed.	Planned to be completed by August 2012.	Completed.
Completion of the Livelihood Assistance and Income Restoration Programs	<input type="checkbox"/>	Text	Value	No	No (Prtial)	Yes
			Date	28-Sep-2011	04-Nov-2011	30-Sep-2012
			Comments	LAIR not completed.	Planned to be completed by April 2012.	Completed.
Legal ACT passed to create BWMA and BCA	<input type="checkbox"/>	Text	Value	No	Yes	Yes
			Date	28-Sep-2011	04-Nov-2011	30-Sep-2012
			Comments	Legal Act not passed.	BWMA has been established.	
Bumbuna Watershed Management Plan developed and adopted	<input type="checkbox"/>	Text	Value	No	No	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012

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Indicator Name	Core	Unit of Measure		Baseline	Current	End Target
			Comments	Bumbuna Watershed Management Plan not developed.	Draft TOR developed and being discussed. Plan would be ready in early 2012.	Bumbuna Watershed Management Plan developed and adopted.
Sustainable Financing Mechanism in place for BWMA and Loma Mountains National Park	<input type="checkbox"/>	Text	Value	No	Yes (partial)	Yes
			Date	28-Sep-2011	04-Nov-2011	30-Sep-2012
			Comments	No sustainable financing for BWMA and LMNP.	BWMA and LMNP costs are included in the Bumbuna Power Purchase Agreement (PPA) with NPA.	Sustainable financing for BWMA and LMNP would be achieved.
BWMA regularly reports on state of environment in watershed	<input type="checkbox"/>	Text	Value	No	Yes (partial)	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	No regular reports.	BWMA has initiated reporting on the state of environment in the watershed.	Regular reporting would occur.
Draft Loma National Park Management Plan prepared	<input type="checkbox"/>	Text	Value	No	No	Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	No LMNP Management Plan	Planned for April 2012	LMNP Management Plan would be available.
Provisional warning system downstream installed	<input type="checkbox"/>	Text	Value	No		Yes
			Date	28-Sep-2010	04-Nov-2011	30-Sep-2012
			Comments	Not installed	Concept design for installation of sirens downstream has been finalized in Nov 2011, procurement process is underway, and installation (expected 2Q 2012)	Sirens would be installed.

Data on Financial Performance (as of 30-Nov-2011)

Financial Agreement(s) Key Dates

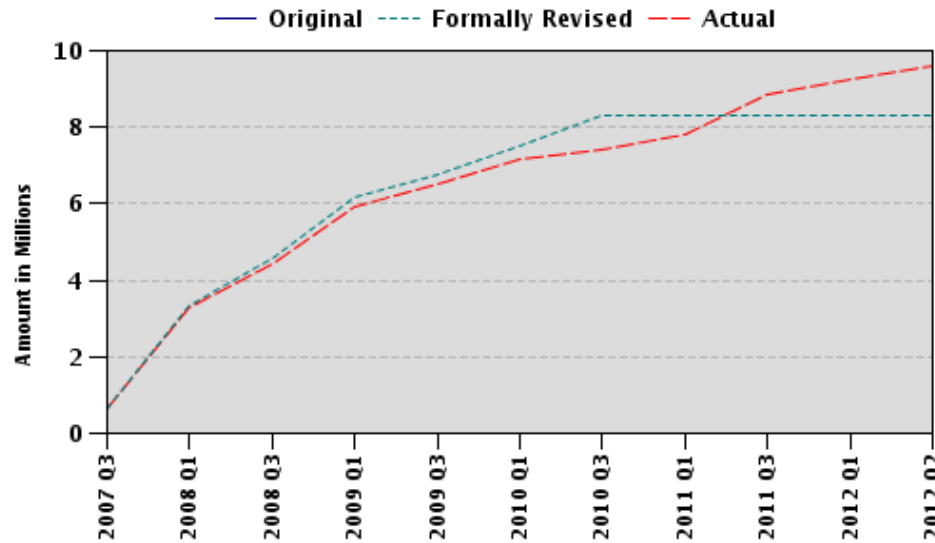
Project	Loan No.	Status	Approval Date	Signing Date	Effectiveness Date	Closing Date
P086801	IDA-H1700	Effective	16-Jun-2005	28-Jun-2005	19-Dec-2006	30-Sep-2012
P086801	IDA-H6250	Effective	28-Sep-2010	29-Sep-2010	14-Mar-2011	30-Sep-2012

Disbursements (in Millions)

Project	Loan No.	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
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P086801	IDA-H1700	Effective	XDR	8.30	8.30	0.00	8.30	0.00	100.00
P086801	IDA-H6250	Effective	XDR	6.30	6.30	0.00	1.31	4.99	21.00

Disbursement Graph



Key Decisions Regarding Implementation

1. Conclusion of a satisfactory Power Purchase Agreement (PPA), concurrence with the key provisions for all prudent operation and maintenance, safety, environmental and social mitigation costs, between Bumbuna Hydroelectric Project and NPA, which took place on December 6, 2011.
2. Finalization of contracts with the dam operator and engineer, and development of a predictable and transparent arrangement to clear past arrears to be shared with the Bank by December 31, 2011.
3. Finalization of the documents, and launching of the procurement process for the supply and installation of sirens in Bumbuna downstream (near zone) by end-December 2011.
4. Completion of the updates of the T-Line and Dam/Reservoir Resettlement Action Plan (RAP) implementation, including compensation to new project affected persons (PAPs) by end-February 2012.
5. Establishment and operation of Loma Mountains National Park (LMNP), including baseline socio-economic information by January 15, 2012.
6. Setting up of the Bumbuna Trust for continued financing of LMNP, BWMA, EAU and other entities by January 15, 2012.

Restructuring History

Level one Approved on 28-Sep-2010

Related Projects

P086903-SL Completion of Bumbuna Hydroelectric project - IDA Guarantee, P126880-Additional Financing for Bumbuna Hydroelectric and Social Mgt Project