

**INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE**

Report No.: AC4956

Date ISDS Prepared/Updated: 12/07/2009

I. BASIC INFORMATION

A. Basic Project Data

Country: Cameroon	Project ID: P114077
Project Name: CM - Lom Pangar Hydropower Proj. (FY11)	
Task Team Leader: Astrid Manroth	
Estimated Appraisal Date: April 1, 2010	Estimated Board Date: July 15, 2010
Managing Unit: AFTEG	Lending Instrument: Specific Investment Loan
Sector: Power (100%)	
Theme: Infrastructure services for private sector development (67%);Rural services and infrastructure (33%)	
IBRD Amount (US\$m.):	0.00
IDA Amount (US\$m.):	75.00
GEF Amount (US\$m.):	0.00
PCF Amount (US\$m.):	0.00
Other financing amounts by source:	
BORROWER/RECIPIENT	65.00
African Development Bank	95.00
Development Bank of the Central African States	20.00
EC: European Investment Bank	70.00
FRANCE: French Agency for Development	80.00
<u>SAUDI ARABIA: Saudi Fund for Development</u>	<u>25.00</u>
	355.00

B. Project Objectives [from section 2 of PCN]

The project development objectives of the proposed Lom Pangar Hydropower Project are to

- (i) improve the availability, reliability and affordability of electricity supply to increase access for households and businesses, and
- (ii) address effectively the environmental, social and distributional risks of the project.

Among others, the project outcomes will be measured by (i) reduced unserved energy, in particular during the dry season, (ii) the number of households in the Eastern Region provided with access to electricity under the project, (iii) compliance with World Bank safeguards on technical, environmental and social aspects of the LPHP and (iv) a satisfactory electricity tariff review by the regulator.

Higher level objectives to which the project contributes include the increase in growth and poverty reduction opportunities by unlocking Cameroon's significant hydropower potential on the Sanaga River.

As part of project preparation, a comprehensive monitoring and evaluation system will be developed consistent with the results-based approach of the project and to support a reliable ex post impact evaluation.

C. Project Description [from section 3 of PCN]

The Lom Pangar Hydropower Project is located in Cameroon's Eastern Province and consists of a 46 m high regulating dam on the River Lom about 4 km before his confluence with the Pangar River and 13 km before his confluence with the Sanaga River; an associated reservoir with a useful capacity of 6 bn m³ , associated surface of 537 km² and a maximum storage level of 674.5 m; a 30 MW hydroelectric power plant at the foot of the dam; a 120 km long 90kV transmission line between the power plant and the Eastern Network at Bertoua, as well as the Environmental and Social Management Plan (ESMP). Associated investments include a 25 km access road between the village of Deng Deng and the dam site and the required adaptation of the Chad-Cameroon Pipeline by replacing two 12.5 km stretches of the pipeline which will be submerged at two crossings of the Pangar River once the reservoir is filled.

Preliminary project costs are estimated at USD 430 m, of which USD 175 m for the dam, USD 45 m for the power house, USD 20 m for the transmission line, USD 60 m for the adaptation of the Chad-Cameroon pipeline, including preparatory studies, USD 5 m for the access road, USD 100 m for the ESMP, USD 15 m for a communal development program and USD 10 m for technical assistance. The project will be developed by Lom Pangar SA, a subsidiary of EDC to be structured as a Special Purpose Vehicle (SPV). The access road and cost of the adaptation works for the Chad-Cameroon pipeline will be financed by the GOC and preparatory studies and works for the pipeline adaptation will be carried out by COTCO.

The proposed IDA project will co-finance the construction of the dam, the power house and the ESMP, will finance a communal development program and will provide technical assistance to project construction and supervision. IDA will provide a total of \$75-100 m in co-financing. The transmission line is expected to be financed by the African Development Bank (AfDB) and Central African Development Bank (BDEAC).

3.1. Component 1 (\$25-35 million): Co-financing of construction of Lom Pangar regulating dam

This component will co-finance the construction of the Lom Pangar regulating dam on the Lom River. Based on the preliminary engineering design, the dam will be 46 m high and 7 m wide at the crest and be composed of a central overflow section with embankment wings and a saddle dam. This component is expected to be co-financed by AFD, EIB and other potential bilateral donors.

3.2. Component II (\$15-20 million): Co-financing of construction of Lom Pangar power plant

A 30 MW hydro power plant consisting of 4 Francis engines will be constructed at the foot of the dam for electrification of neighboring towns and villages to the south of the dam site which currently do not benefit from access to electricity. In addition, the power plant will replace certain expensive thermal generation units in the Eastern Electricity Network. IDA will co-finance the power plant together with the AfDB and BDEAC.

3.3. Component III (\$15-20 million): Co-financing of Environmental and Social Management Plan

This component will co-finance the Environmental and Social Management Plan (ESMP) for the LPHP together with AFD and EIB. The ESMP is being developed to comprehensively address the project's direct and indirect environmental and social impacts based on a participatory process. Local consultation committees are being established to ensure close consultation with the population south of the dam site (village of Deng Deng and surrounding villages) and north of the dam site (village of Betare Oya and surrounding villages). NGOs will be involved in the monitoring and evaluation of the ESMP implementation.

3.4. Component IV (\$15 million): Communal development

This component will finance selected communal development initiatives to ensure that the local population benefits directly from the realization of the LPHP. These initiatives will be a specific sub-set of the regional development plan being developed in a consultative process with the local population. They can include development projects for transport solutions for herd stock, artisanal gold-mining, communal fishery, the improvement of local transport infrastructure, etc.

3.5. Component V (\$5-10 million): Technical assistance

Technical assistance will be provided to project construction and supervision, including financing for phase II of the independent owner's engineer for project implementation, implementation supervision of the ESMP, project communication, administration and additional requirements as assessed during project preparation.

To maximize the project's benefits as a trigger for the sustainable development of the project region, a regional development plan is being elaborated as an integral part of project preparations. The implementation of this plan will leverage a number of existing donor instruments, including but not limited to the World Bank's Community Development Program Support Project and the Rural Energy Fund financed by the ESDP.

Project preparation to date conforms to World Bank standards. World Bank support to the LPHP will require ongoing conformity with an agreed implementation framework.

D. Project location (if known)

The Lom Pangar Hydropower Project is located in Cameroon's Eastern Province on the River Lom about 4 km before his confluence with the Pangar River and 13 km before his confluence with the Sanaga River. Its reservoir will flood an area of 537 km², and the project will have an influence over a large part of the Eastern Province. A hydroelectric power plant will be constructed at the foot of the dam for the electrification of neighboring towns and villages and a transmission line will link the power plant and the Eastern Interconnected Network at Bertoua.

E. Borrower's Institutional Capacity for Safeguard Policies [from PCN]

The Government of Cameroon has a clearly defined institutional and regulatory framework for the management of environmental assessments (EAs) since 2005. All large projects are submitted to EAs that must be reviewed by Inter-Ministerial Committee on the Environment, subjected to public hearings, and resulting in a certificate of compliance issued by the Minister of Environment. This EA process is operational, although there are some weaknesses in terms of the technical capacity of the inter-ministerial committee to review complex EAs and to monitor the implementation of Environmental Management Plans (EMPs) that result from these EAs.

Lessons learnt from the Chad-Cameroon pipeline have illustrated the GOC's limited capacity in the sustainable development of large-scale infrastructure projects. Taking these lessons on board, the World Bank has already started to strengthen the GOC's capacity to handle safeguards issues according to international standards, particularly in the context of large energy infrastructure projects such as LPHP. ESDP is providing technical assistance to build GOC's capacity to prepare the LPHP, and a parallel environmental and social capacity building project (PReCESSE) and the forestry and environment protection program are focusing on building capacity across environmental and forestry issues.

The French Development Agency AFD and the World Bank are providing technical assistance to environmental and social studies; financing the Wildlife Conservation Society (WCS) to assist the GOC with the creation of the Deng Deng National Park and financing the independent panels of experts on dam safety, environmental and social aspects. International and national consultants have been hired to help the government team prepare the Safeguard documents in compliance with the World Bank policies. The GOC's and EDC's team is also receiving guidance and support as needed from the Bank's safeguards specialists in the project team.

Complementing this ongoing support, the proposed project will include further measures to ensure satisfactory handling of safeguards during the construction and operation of LPHP. In particular, the project will include a suitable training program, supported by a technical assistance package as needed.

F. Environmental and Social Safeguards Specialists

Mr Yves Andre Prevost (AFTEN)

Mr Mohamed Arbi Ben-Achour (AFTCS)

Ms Lucienne M. M'Baipor (AFTCS)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies Triggered	Yes	No	TBD
Environmental Assessment (OP/BP 4.01)	X		
The project will have significant and irreversible environmental impacts. A draft EA was prepared by Government with AFD support to reduce or mitigate these impacts. The World Bank commented on the draft EA in December 2005, and recommended further work to bring it to World Bank standards. A detailed compliance matrix was also communicated to Government in March 2006.			
The draft EA was publicly disclosed in January 2006, and was the subject of public hearings in February 2006. Government requested additional work before the EA could be approved, in a			

Safeguard Policies Triggered	Yes	No	TBD
<p>decision by the Minister of Environment from May 2006.</p> <p>An additional study was done in 2007 regarding the location of the workers camp and access patterns to the dam site. The study was reviewed by the World Bank.</p> <p>A critical issue that is being addressed is the flooding by the reservoir of approximately 5 km of the Chad-Cameroon pipeline. A management of change is being prepared by IFC and COTCO, including the preparation of an ESAP and an amendment to the Chad Cameroon EMP to ensure that its implementation remains compliant.</p> <p>A cumulative impact assessment is being conducted on the basis of Terms of References (ToRs) satisfactory to the Bank.</p> <p>A detailed forestry study regarding the recovery of wood in the reservoir and its induced impacts is also being commissioned on the basis of ToRs satisfactory to the Bank, in coordination with AFD.</p> <p>A panel of experts has functioned intermittently since early 2005. It is now supported for the next 5 years through the ESDP.</p> <p>It has been agreed with the GOC that the ESDP will fund any additional EA work required to meet World Bank standards, most particularly the finalization of the Environmental and Social Assessment, including a detailed Environmental and Social Management Plan, according to the ToRs that have already been commented by the Bank.</p>			
Natural Habitats (OP/BP 4.04)	X		
<p>The project will have significant impacts on natural habitats, both during construction and operation of the dam. The main impact will be the flooding of about 537 km², including approximately 300 km² of natural forest. The EA indicates that none of the flooded terrestrial habitat is critical. However, the dam site is located next to portions of the Deng Deng Forest that are critical habitats, particularly because of the presence of a viable population of gorillas, and a significant population of chimpanzees. The environmental significance of the Deng Deng forest was identified in the context of the Chad Cameroon Pipeline Project and led to its realignment, and was also discussed with Government in the context of the Forestry and Environment Project.</p> <p>The no project alternative is a gradual degradation of the Deng Deng forest that could lead to the extinction of its gorilla population. In the context of the dam project, Government commissioned additional work by WCS on the Deng Deng gorillas in late 2008, including immediate protection measures, and leading to the establishment of the National Park before construction of the dam starts.</p> <p>The draft ESMP includes the establishment of a National Park of 580 km² that straddles the dam site, provides an environmental offset to the flooded habitat, and ensures the long-term sustainability of the Deng Deng gorillas and chimpanzee populations. The boundaries of the Park are based on scientific data yielded by WCS's work, adjusted after consultations with neighboring populations.</p>			
Forests (OP/BP 4.36)	X		
<p>Forestry issues include recovery of the wood from the future reservoir, as well as control of induced impacts at the periphery of the reservoir.</p> <p>A supplemental study is being commissioned on the basis of ToRs satisfactory to the Bank, to ensure that recovery of the wood follows World Bank guidelines, including benefit-sharing with local population, and to limit induced impacts.</p> <p>The study will also ensure that most of the biomass is removed to reduce greenhouse gases, particularly methane emissions after flooding.</p>			

Safeguard Policies Triggered	Yes	No	TBD
Pest Management (OP 4.09)		X	
Physical Cultural Resources (OP/BP 4.11)	X		
Physical Cultural Resources were covered in the draft EA from 2005. However, further work will be conducted to meet World Bank requirements, and agreement will be reached with the Ministry of Culture regarding the management of chance finds.			
Indigenous Peoples (OP/BP 4.10)	X		
No Pygmies and other indigenous peoples according to OP 4.10 have been found in the project area. However, members of the Peulh/Bororo tribe are present in the project area, mostly through herding activities. The World Bank has requested that an additional study be carried out to assess the project's impact on these vulnerable people and identify adequate compensation measures.			
Involuntary Resettlement (OP/BP 4.12)	X		
The LPHP project is expected to have direct and indirect social impacts in its immediate area of influence and beyond. Consistent with WBG safeguards policies, OP/BP 4.12 was triggered and social mitigation plans identified. A resettlement action plan, supported by a regional community development plan are under preparation, as well as well as a process framework for the Deng Deng National Park to mitigate, offset, reduce negative impacts and strengthen positive impacts on the communities in the Project area.			
Safety of Dams (OP/BP 4.37)	X		
EDC has appointed an independent dam safety panel. An instrumentation plan is being elaborated as part of the revised engineering design. A construction supervision and quality assurance plan and a draft operating and maintenance plan will be reviewed by the dam safety panel and submitted to the World Bank before the authorization to appraise the LPHP.			
Projects on International Waterways (OP/BP 7.50)		X	
Projects in Disputed Areas (OP/BP 7.60)		X	

Environmental Category: A - Full Assessment

III. SAFEGUARD PREPARATION PLAN

- A. Target date for the Quality Enhancement Review (QER), at which time the PAD-stage ISDS would be prepared: 02/15/2010
- B. For simple projects that will not require a QER, the target date for preparing the PAD-stage ISDS: N/A
- C. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing¹ should be specified in the PAD-stage ISDS.
The document cited below will be disclosed before the appraisal in project country and in the Bank infoshop.

¹ Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in-country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.

Environmental Impact Analysis
Environmental and Social Action Plan
Resettlement Action Plan
Regional Community Development Plan

March 2010
March 2010
December 2009
March 2010

IV. APPROVALS

<i>Signed and submitted by:</i>		
Task Team Leader:	Ms Astrid Manroth	12/04/2009
<i>Approved by:</i>		
Regional Safeguards Coordinator:	Ms Zarafshan H. Khawaja	12/04/2009
Comments:		
Sector Manager:	Mr Subramaniam V. Iyer	12/04/2009
Comments:		