

**INTEGRATED SAFEGUARDS DATA SHEET
APPRAISAL STAGE**

Report No.: ISDSA14479

Date ISDS Prepared/Updated: 16-Nov-2015

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I. BASIC INFORMATION

1. Basic Project Data

Country:	Liberia	Project ID:	P149683
Project Name:	Liberia Renewable Energy Access Project (P149683)		
Task Team Leader(s):	Clemencia Torres De Mastle, David Vilar Ferrenbach		
Estimated Appraisal Date:	06-Nov-2015	Estimated Board Date:	28-Jan-2016
Managing Unit:	GEE07	Lending Instrument:	Investment Project Financing
Sector(s):	Hydropower (70%), Other Renewable Energy (10%), Transmission and Distribution of Electricity (20%)		
Theme(s):	Infrastructure services for private sector development (40%), City-wide Infrastructure and Service Delivery (50%), Rural services and infrastructure (10%)		
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)?			No
Financing (In USD Million)			
Total Project Cost:	27.00	Total Bank Financing:	2.00
Financing Gap:	0.00		
Financing Source			Amount
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			2.00
Strategic Climate Fund Grant			25.00
Total			27.00
Environmental Category:	B - Partial Assessment		
Is this a Repeater project?	No		

2. Project Development Objective(s)

The Project Development Objective (PDO) is to increase access to electricity and to foster the use of

renewable energy sources.

3. Project Description

The proposed Project would support a mini-grid powered mainly by renewable energy in small towns and rural areas, strengthen institutions for decentralized electricity services, and support the scale-up of the Government's initiative to foster a market in Liberia for off grid solar energy devices. The Project is comprised of three components. The first component would finance decentralized electrification through a mini-grid in Lofa County, an economic and agricultural hub on the border with Guinea and Sierra Leone. The second component would finance the development of regulations for decentralized electricity services and capacity strengthening of RREA. The third component would continue support to RREA to foster the growth of a market for solar energy lighting devices.

Component 1. Decentralized electrification in Lofa County (estimated cost US\$22 million, of which US\$20 million SREP and US\$2 million IDA). This Component would expand access to affordable, reliable, year round electricity services to at least 8,000 new users in North Lofa County, an economic and agricultural hub in North-West of Liberia close to the border with Guinea and Sierra Leone. The county was one of the hardest hit during the Ebola outbreak. It is more than 200 km from the national grid. There are no prospects in the medium term to provide service to this area from the national grid that serves Greater Monrovia. The Component would focus on the towns of Vonjaima, Foya, Kolahun and Massambolahun/Bolahun and surrounding areas, providing electricity services to households, business and public institutions. Financing would be provided for installation of facilities, and technical assistance to define the most suitable arrangements for operation and maintenance services, and selection of the operator. Since the mini-grid would supply productive and commercial users as well as households, it would be important to provide a reliable and continuous supply of electricity. Electricity generation would utilize hydropower and back up thermal generation based on diesel. A study is ongoing to optimize the hydropower plant design and thus minimize the use of diesel during the dry season.

Component 2. Technical assistance to strengthen rural electrification institutions (estimated cost US \$2 million-SREP Financing). This Component would provide technical assistance to support the implementation of the Government's program to expand decentralized electrification and foster the use of renewable energy. To this end, it would support the development of regulations and standards for isolated mini-grids, to complement the September 2015 Law for the Electricity Sector and the Rural and Renewable Energy Act. It would also finance capacity building of RREA, document the lessons learned in establishing decentralized hybrid renewable energy mini-grids, as well as support Project implementation, other preparation studies and the project audits.

Component 3. Market development of stand-alone solar systems (estimated cost US\$3 million-SREP financing). This component would finance the development of a local market for pico-PV products. It would help provide access to modern energy services for over 100,000 people. It would aim to support the development of the market by increasing the sustainability of the supply chain through strengthening of the retail network and facilitating the transfer of procurement and import responsibilities from RREA to the private sector and by addressing demand side constraints. The component aims to expand and increase the sustainability of the retail network based on the experience and achievements of the ongoing LLL Program.

4. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The identified rural area is in the North of Lofa County, a rural economic and agricultural hub in the

border with Guinea and Sierra Leone. The capital of this county is Voinjama, a highly populated center in the area. This area is located more than 200 km from the national grid and there are no prospects in the mid-term to reach this area with the national grid, nowadays only serving Greater Monrovia. The area is mostly an agricultural area.

5. Environmental and Social Safeguards Specialists

Paivi Koskinen-Lewis (GSURR)

Robert A. Robelus (GENDR)

6. Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	Because the location and exact scope of the works is not known, an ESMF has been prepared, consulted upon, and disclosed in country and Infoshop on 12 November, 2015. One or more ESIA's will be prepared, once feasibility studies confirm the physical footprint, to manage and mitigate the construction and operational environmental and social impacts of the small hydropower facility, diesel plants and/or PV facilities as well the impacts of the access road, substations, distribution lines and distribution network. A World Bank environment mission visited that Kaiha 1 site on November 4, 2015. The sites of Kaiha 1 and 2 are very similar with regard to the expected environmental and social impacts. The approximate sites of the two proposed mini-hydropower facilities of approximately 5 meter high are known. The mission assessed that the environmental and social impacts of the mini-hydropower plant and associated facilities will be small since the weir and the reservoir will be very small. The size of an obligatory environmental flow has to be determined as well as downstream uses of the water. The environmental and social impacts of the entire project are assessed as small. The ESIA will determine these impacts during construction and operation and establish operational rules with regard to environmental management.
Natural Habitats OP/BP 4.04	No	The project areas of the two proposed mini-hydropower sites are farm-bush areas. There is a strip of approximately 100 meters on both sides of the river where disturbed natural forest is still present. The impacts on this disturbed natural forest strips will be local in the area of the weir and the reservoir. According to information no important wildlife exists in the area. There are no chimpanzees in the wider project area and no endemic or endangered species are present. For these reasons the Natural Habitat Policy is not triggered.
Forests OP/BP 4.36	No	Local people use the remaining forest areas for their own daily use. There are no logging activities near the two

		proposed mini-hydropower facility locations. For these reasons the forest policy is not triggered.
Pest Management OP 4.09	No	The Project does not involve the use of pesticides and will not apply any pest management practices. The Pest Management policy will not be triggered.
Physical Cultural Resources OP/BP 4.11	Yes	The ESMF includes a screening mechanism to screen for the presence of Physical Cultural Resources, which could be graves or sacred forests. During the preparation of the ESIA for the proposed mini-hydropower site and the reservoir area a rapid survey will be carried out to determine the presence of the physical cultural resources such as sacred forests and/or graves. A Chance Find Procedure will be included in every Contractor Contract.
Indigenous Peoples OP/BP 4.10	No	There are no indigenous peoples in the project area.
Involuntary Resettlement OP/BP 4.12	Yes	Component 1 may have some limited land acquisition or subsequent losses of assets related to the construction of the mini-hydropower plant, mini-grids, diesel plants and PV plants, and therefore OP 4.12 is triggered to address any adverse impacts. Since the exact location of the works is not known, a Resettlement Policy Framework (RPF) has been prepared, consulted and disclosed prior to appraisal in the Bank's Infoshop and in country on 12, November 2015. It addresses potential land acquisition/resettlement and/or losses of assets or access to resources. In case land acquisition and/or resettlement is required in relation to the construction of the mini-hydropower plant and PV-diesel facilities, the RPF will guide the preparation of a Resettlement Action Plan (RAP) or an Abbreviated RAP (ARAP). A World Bank environment mission visited the site of Kaiha 1 on November 4, 2015. Both the Kaiha 1 and 2 sites are very similar with regard to land acquisition. At the Kaiha 1 site according to information from local farmers only 3 farms are present of which only a small part could potentially be inundated. According to the Prefeasibility Studies a similar situation exists at the Kaiha 2 site.
Safety of Dams OP/BP 4.37	No	The policy on Safety of Dams is not triggered. The design of the 5 meter high weir will be done taking sound engineering practices into account to address dam safety issues as reflected in the ESMF. Dam safety issues with regard to the routing of a high flood will be part of the engineering design.
Projects on International Waterways OP/BP 7.50	Yes	The Safeguard Policy OP 7.50 Projects on International Waterways is triggered since the Kaiha River is a

	<p>tributary of the Mano River, which is an international river waterway that runs along the boundary between Sierra Leone and Liberia.</p> <p>Paragraph 2 of OP 7.50 states that the policy applies to projects that involve the use or potential pollution of international waterways. When the policy is applicable to a project, the borrower is required to notify all other riparian states of the shared international waterway.</p> <p>Paragraph 7 of OP 7.50 recognizes three exceptions to the requirement that other riparian states be notified of a project involving international waterways. One of these, under paragraph 7(c) is applicable to “Any project that relates to a tributary of an international waterway where the tributary runs exclusively in one state and the state is the lowest downstream riparian, unless there is concern that the project could cause appreciable harm to other states.”</p> <p>Rationale for the Exception: In accordance with paragraph 7(c) of OP 7.50, the team is seeking to rely on the exception set forth in that paragraph on the basis that Kaiha River is a tributary of the Mano River that runs exclusively within Liberia; Liberia and Sierra Leone are both the lowest downstream riparians of the Mano River since the river runs along their respective border before emptying into the Atlantic Ocean; and the proposed Project would not cause appreciable harm to other riparian states.</p> <p>Under component 1 of the proposed Project, investments in a small hydropower development will be supported to supply energy to a mini-grid serving several towns in the Lofa County in North West Liberia. The Project will fund a 2 Megawatt hydropower development, and among the generation sites for hydroelectricity currently under study, a site known as ‘Kaiha 2’ appears to be the most likely site to be selected to supply electricity to the mini-grid. The Kaiha 2 site consists of small rapids and a waterfall over approximately 100 meters. The expected layout consists of a small dam and intake structure upstream of the waterfall, a short penstock, and a power station downstream. It has an approximate total head of 13 meters (five meter high weir and eight meter head difference); the design discharge of the power plant would be 7.5 m³/s. The run of the river plant would generate electricity for eight months of the year, complemented by diesel generation during the dry season. Given its</p>
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		<p>expected size and design, the hydropower plant is not expected to adversely impact the quality or quantity of water flows to other riparians nor other riparians' possible water use.</p> <p>The exception has been approved by World Bank management.</p>
Projects in Disputed Areas OP/BP 7.60	No	This project will not take place in any disputed areas as defined under OP 7.60, and will not support any activities that will impact disputed areas.

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

<p>1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:</p>
<p>The project is rated as environmental category B, partial assessment, as no adverse environmental impacts are expected that are sensitive, diverse or unprecedented. A World Bank mission who visited the Kaiha 1 project area assessed the environmental and social impacts of all project components as small. The project triggers 4 safeguard policies; Environmental Assessment (OP 4.01), Physical Cultural Resources (OP 4.11), Involuntary Resettlement (OP 4.12) and Projects on International Waterways (OP 7.50).</p> <p>OP/BP 4.12 on Involuntary Resettlement is triggered in the context of component 1 to cover construction of a mini-hydro, access road, distribution lines, distribution lines and diesel and PV plants, which might require some land acquisition leading to compensation, and/or relocation and displacement of some households and/or assets. In case any land acquisition or compensation becomes necessary, the cost will be covered by the borrower.</p> <p>The implementation of component 1 may also induce other environmental and social impacts which include tree cutting, soil erosion and degradation, nuisance due to dust and noises from construction activities, and risks of increased prevalence of HIV/AIDS and other STDs due to foreign workers on construction sites. The Contractor will be responsible for minimizing the risks of HIV/AIDS infections from his workforce through health education of his workforce and local communities and the supply of free condoms.</p> <p>The ESIA will need to determine the management of construction and operational impacts, among other the determination of an environmental flow, and downstream impacts of the storage of water. During construction health and safety issues will have to be managed by the Contractor, supervised by the Owner's Engineer and the Environmental/ Social Specialist of RREA.</p>
<p>2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:</p>
<p>The project is not expected to cause long-term impacts, as the environmental and social impacts associated with component 1 are localized, small and can be easily mitigated.</p>
<p>3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.</p>
<p>n/a</p>
<p>4. Describe measures taken by the borrower to address safeguard policy issues. Provide an</p>

<p>assessment of borrower capacity to plan and implement the measures described.</p> <p>The Rural Renewable Energy Agency (RREA) has prepared, consulted on and disclosed an ESMF and a RPF, since the exact location of the project facilities are not yet known. The ESMF and RPF have been disclosed in-country and in the Bank's Infoshop on 12 November, 2015.</p> <p>During project implementation RREA will finance the preparation of safeguard documents: one or more ESIA's and a RAP or Abbreviated RAP (ARAP). These ESIA and RAP/ARAP will be prepared, consulted upon and disclosed in-country and at InfoShop.</p> <p>The ESIA will be carried out when the preliminary results of the technical studies provide an exact indication of the project footprint. The ESIA will identify potential project location specific environmental and social impacts and devise mitigation and monitoring measures and will be guided by the ESMF.</p> <p>In order to address potential land acquisition and/or resettlement and/or losses of assets or access to resources, a Resettlement Action Plan (RAP) or an Abbreviated RAP (ARAP) will need to be prepared and implemented once the physical footprint of the project facilities are known. The RPF will guide the preparation of a Resettlement Action Plan (RAP).</p> <p>The Terms of Reference (TORs) for the ESIA's and RAPs will include a strong gender component.</p> <p>RREA has weak social and environmental management capacity and to strengthen the E&S department, it will hire a qualified Environmental and Social Specialist. RREA will also be provided with adequate Technical Assistance through the Owner's Engineer to improve the capacity to supervise the adequate preparation and implementation of the ESIA/ESMPs and RAPs/ARAPs.</p> <p>During construction the Contractor will prepare and implement his own Construction ESMP (CESMP) and hire qualified staff to supervise the implementation of this CESMP. The Owner's Engineer will supervise the adequate implementation of the CESMP and hire qualified staff for this purpose.. The RREA Environmental/Social Specialist will be responsible for the overall supervision of the CESMP and the environmental and social aspects outside the scope of the CESMP, including the adequate implementation of the RAP/ARAPs and monitoring of the grievances.</p>
<p>5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.</p> <p>All safeguards instruments will be consulted upon with PAPs and relevant local, regional and national level authorities.</p>

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other	
Date of receipt by the Bank	10-Nov-2015
Date of submission to InfoShop	12-Nov-2015
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	12-Nov-2015
"In country" Disclosure	
<i>Comments:</i>	

Resettlement Action Plan/Framework/Policy Process	
Date of receipt by the Bank	05-Nov-2015
Date of submission to InfoShop	12-Nov-2015
"In country" Disclosure	
Liberia	12-Nov-2015
<i>Comments:</i>	
If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.	
If in-country disclosure of any of the above documents is not expected, please explain why:	

C. Compliance Monitoring Indicators at the Corporate Level

OP/BP/GP 4.01 - Environment Assessment	
Does the project require a stand-alone EA (including EMP) report?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	Yes [<input type="checkbox"/>] No [<input type="checkbox"/>] NA [<input checked="" type="checkbox"/>]
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes [<input type="checkbox"/>] No [<input type="checkbox"/>] NA [<input checked="" type="checkbox"/>]
OP/BP 4.11 - Physical Cultural Resources	
Does the EA include adequate measures related to cultural property?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] NA [<input type="checkbox"/>]
OP/BP 4.12 - Involuntary Resettlement	
Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Is physical displacement/relocation expected?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] TBD [<input type="checkbox"/>]
Provided estimated number of people to be affected	
Is economic displacement expected? (loss of assets or access to assets that leads to loss of income sources or other means of livelihoods)	Yes [<input type="checkbox"/>] No [<input type="checkbox"/>] TBD [<input checked="" type="checkbox"/>]
Provided estimated number of people to be affected	
OP 7.50 - Projects on International Waterways	
Have the other riparians been notified of the project?	Yes [<input type="checkbox"/>] No [<input type="checkbox"/>] NA [<input checked="" type="checkbox"/>]
If the project falls under one of the exceptions to the notification requirement, has this been cleared with the Legal Department, and the memo to the RVP prepared and sent?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]

Has the RVP approved such an exception?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
The World Bank Policy on Disclosure of Information	
Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
All Safeguard Policies	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Have costs related to safeguard policy measures been included in the project cost?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes [<input type="checkbox"/>] No [<input checked="" type="checkbox"/>] NA [<input type="checkbox"/>]
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes [<input checked="" type="checkbox"/>] No [<input type="checkbox"/>] NA [<input type="checkbox"/>]

III. APPROVALS

Task Team Leader(s):	Name: Clemencia Torres De Mastle, David Vilar Ferrenbach	
<i>Approved By</i>		
Safeguards Advisor:	Name: Johanna van Tilburg (SA)	Date: 16-Nov-2015
Practice Manager/ Manager:	Name: Meike van Ginneken (PMGR)	Date: 17-Nov-2015