



# Concept Environmental and Social Review Summary

## Concept Stage

### **(ESRS Concept Stage)**

Date Prepared/Updated: 08/01/2019 | Report No: ESRSC00512



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Burundi	AFRICA	P164435	
Project Name	Burundi Access to Sustainable Energy		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	7/15/2019	12/12/2019
Borrower(s)	Implementing Agency(ies)		
Ministère des Finances	Ministère de l'Hydraulique, de l'Energie et des Mines (MHEM), Agence Burundaise d'Electrification Rurale (ABER)		

Proposed Development Objective(s)

Expand access to energy services for Burundian households, businesses and public institutions in rural areas.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>50.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

The lack of well-equipped rural health centers and schools is a major challenge for public health and education in Burundi. It disproportionately affects rural areas, the poor, and female-headed households. By electrifying rural health centers and schools across the country—mostly through off-grid technologies—the project would directly contribute to increasing the types and quality of health and education services available to the most vulnerable parts of the population. The project would also raise the productivity of schools and health centers that will be electrified as part

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of the mini-grid component. In collaboration with the World Bank funded Social Safety Nets Program, the project will launch a pilot for extremely poor and vulnerable households with children in selected off grid areas.

The Project would include four components: (i) Stand-alone solar systems for health and education facilities (ii) Mini-grids for communities (iii) Stand-alone solar systems and efficient cookstoves for households (iv) Technical assistance and capacity building.

#### D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]  
The project aims at expanding access to sustainable energy services for health and education facilities, and households in rural areas which are not connected to the national grid. As energy is one of the drivers of human capital development, off grid renewable energy should strengthen public health and education services and develop productive activities of households in rural areas. The project would bring access to electricity for roughly 1,000 schools and 100 health centers across the country. Referring to ABER's experience in such operation, mini and micro-hydro based mini-grids or hybrid mini-grids combined with power generation from solar PV systems, diesel generators and battery storage shall be implemented in selected sites across the country. Specific sites will be selected using a GIS-based study (ongoing), which will assess suitability depending on population size and density, estimates of demand and large anchor loads, distance to the existing and planned national electricity network and renewable energy resources. These selected sites should supply energy to the community, including public education and health facilities, small enterprises including agriculture, and households. Considering the pilot nature of the program and the involvement of private sector in a nascent mini-grid market, larger sized sites (of 400-500 structures) will be selected and implemented. The project should also address economic constraints to accelerate growth of off-grid solar market and leverage mechanisms that shall be put in place to provide access to foreign currency for private sector, access to finance for households and businesses, improve affordability of solar energy services, and encourage productive use of renewable energy. The project will also support energy and cooking needs of the most vulnerable households, as identified in the safety nets project (Merankabandi project). It is expected to pilot a voucher program to reach 40,000 extremely poor households targeted in the Merankabandi project in the provinces of Kirundo, Gitega, Ruyigi, and Karuzi where it is being implemented. With the support from this proposed project, the program shall help vulnerable households acquire solar home systems and improve cookstoves to the households – thereby avoiding market distortion. The vouchers will be provided either to the companies or end-users, which will be further identified during the project preparation. The proposed project is structured into four components: (i) Stand-alone solar systems for health and education facilities (ii) Mini-grids for communities (iii) Stand-alone solar systems and efficient cookstoves for households (iv) Technical assistance and capacity building.

The environmental risk classification of the project is substantial as expected activities may affect the environment, the populations and whose nature, magnitude and scope are not yet defined in details. Project activities may cause impacts and risks on environment and natural resources which will occur during the construction and the maintenance of solar systems, and construction of mini grids. In addition, environmental health and safety guidelines of the workers on construction sites should be ensured in accordance with ESS1 requirements. As the project shall involve many workers on multi subprojects across the country, it is important to regularly guide the private sectors and monitor their activities based on elaborated ESS's instruments. During the implementation phase, e-waste could be generated in a neighborhood which is not familiar with it. For instance, these solar PV systems will likely need maintenance that involves disposing of old batteries and installing new batteries, and the entire system will need to



be disposed at the end of the project life. This should be well addressed in an ESIA/ESMP which is expected to be developed in accordance with ESS1 requirements during project implementation before any site can be developed.

D. 2. Borrower’s Institutional Capacity

The key energy institutional stakeholders for this project are: the Ministry of Hydraulic, Energy and Mines (MHEM) and l’Agence Burundaise de l’Électrification Rurale (ABER). The project will be implemented by the Direction Générale de l’Energie (under MHEM) and ABER. The regulator (‘Autorité de Régulation des Secteurs de l’Eau Potable et de l’Energie (AREEN)) will benefit from technical assistance support under the project. The project activities shall comply with national rules and procedures in terms of environmental impacts assessment which are regulated by a government agency, the Burundian office for the protection of environment (Office Burundais pour la protection de l’environnement (OBPE)), an institution of the Ministry of Environment. Also, it is expected that private sector entities will be involved in implementation of the subprojects under components 1, 2 and 3.

Implementation agencies, involved institutions and private sector are not familiar with the new Environmental and Social Framework of the World Bank which is leading the preparation and implementation of the project in accordance with ESSs requirements. It is therefore important to schedule multiple sessions of trainings related to ESSs requirements to build capacity of all stakeholders.

A set of multiple ESS instruments such as ESMF, IPPF, RPF, SEP, ESCP, LMP will be drafted prior to appraisal stage by the project. These instruments shall apply to all components of the project and will be tailored to different activities and implementation arrangements. In accordance with ESMF as well as other documents, the PIU shall prepare ESIA(s)/ESMP(s) and, as relevant, other document (RAP(s) and IPP(s)) during implementation once exact locations will be determined. In addition, E&S standards will be described under the implementation manuals of specific activities: (i) under component 1, the DGE will prepare an implementation manual for the service provision fund; (ii) under component 3, a framework manual will be established for the results based facility, and will describe E&S standards that private companies shall apply.

The E&S Specialist assigned by the project, the PIU, as well as some government officials from those institutions, private entities, and agencies will comply with the ESS’s instruments to properly address environmental and social risks that may occur during project implementation. Capacity building activities relevant to the implementation of safeguards instruments should be reflected in the Environmental and Social Commitment Plan (ESCP) prepared by the Government and agreed upon with the World Bank.

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II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

Environmental Risk Rating

Substantial

The Environmental Risk Classification of the project is substantial due to: (i) The expected low institutional capacity of the PIU, ABER, MHEM, private sector and OBPE on new Environmental and Social Framework (ii) The scope, nature and magnitude of the interventions, which include impacts and risks from Project activities associated with hybrid systems (component 2) combining power generation capacity from solar PV and backup (diesel generators with



battery storage) and low voltage distribution networks. The mini grids activities are also expected to produce impacts and risks on project sites and alongside the buffer zone around transmission lines for the transport of energy to the beneficiaries. During the construction activities, loss of biodiversity and natural resources, noise production, water and air pollution (GHG emissions) may occur on sites. (iii) The impacts and risks on the environment and populations during the construction and the maintenance of solar systems, marketing of solar energy kits to the households to be executed under components 1 and 3. Environmental Health and Safety Guidelines (EHSGs) on construction sites should be applied and ensure compliance with ESS1 requirements. During the implementation activities, solar PV systems will generate e-waste and even in operation phase the systems will need maintenance such as replacing batteries or other types of waste. These issues of e-waste will consistently be addressed in an ESIA/ESMP which will be developed in accordance with ESS1 requirements.

The World Bank will provide trainings on relevant ESSs to the ES specialist of the PIU to effectively ensure compliance with environmental and social standards during the project life. The ESCP will capture all relevant actions that will require ESSs compliance. All environmental and social instruments shall be prepared prior to project appraisal, reviewed and disclosed in-country as stated in the Stakeholder Engagement Plan and on the World Bank website.

### Social Risk Rating

Moderate

Potential social risks include: small-scale involuntary land acquisition and related impacts, (limited) exposure of GBV risks to school-age children and vulnerable community members, and inequity in the identification of sub-project sites. In addition, there are institutional risks given low capacity of the client including capacity to coordinate across multiple agencies. For this reason, the Social Risk Rating is Moderate.

## B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

### B.1. General Assessment

#### ESS1 Assessment and Management of Environmental and Social Risks and Impacts

##### **Overview of the relevance of the Standard for the Project:**

The Environmental and Social Assessment and ESIA review process is under the responsibility of the Ministry of Agriculture, Livestock and Environment through the Burundian Office for the Protection of Environment (Office Burundais pour la Protection de l'Environnement, OBPE). The OBPE has the mandate to manage and regulate environmental impacts and risks of any project prepared and implemented across the country. The office has officers in provinces who always monitor and enforce the compliance of ESIA studies reports, particularly the proposed mitigation measures to address impacts and risks for a proposed project. OBPE regularly reviews and approves Environmental Impact Assessment documents for projects and gives an Environmental Compliance Certificate. The Decree n ° 100/22 of October 07, 2010 implementing the Environmental Code in relation to the Environmental and Social Impact Assessment procedures in Burundi needs to be updated and has gaps compared to the WBG's ESSs (ESF). OBPE implements its duties through four main phases: (i) validation of the terms of reference in accordance with OBPE's Guidelines; (ii) the receipt of the ESIA draft reports submitted to the Ministry of the Environment; (iii) review and organization of field visits for validating the environmental studies of the project by OBPE; and (iv) environmental monitoring and evaluation of the project by Provincial Officer of OBPE.

The environmental risk classification of the project is substantial due to the noticed gaps in ESSs of Borrower institutions, the implementation agencies, private sectors involved as well as the nature, scope, and magnitude of



the expected interventions. It is expected that the interventions generate impacts and risks on the environment and populations during the construction and maintenance of solar PV systems and marketing of solar energy kits to the households. Environmental Health and Safety Guidelines (EHSs) on construction sites will apply to ensure the security of workers in accordance of ESS1 requirements. The project will require and involve many workers in subprojects; it will be important to regularly guide the contractors and monitor their activities by specifically following the code of conduct.

Project activities associated with hybrid systems (component 2) combining power generation capacity from solar PV and backup (diesel generators with battery storage ) and low voltage distribution networks will be implemented on selected specific sites. These activities are expected to produce impacts and risks on project sites and alongside the buffer zone around transmission lines for the transport of energy to the beneficiaries. During the construction activities, loss of biodiversity and natural resources on sites, the production of noise, water and air pollution (GHG emissions) are at small scale expected to impact the environment and population.

During the project implementation the subcomponent 3.2 will mainly focus on vulnerable households for a pilot voucher program and one of the category in these groups will consider the Batwa(indigenous people) dimension in accordance with ESS7. As the indigenous people Batwa will be among vulnerable group a specific plan will no longer be prepared but will be identified where they exist as vulnerable group.

Also the applicability of ESS5 will be established during the environmental and social assessment. This ESS applies to permanent or temporary physical and economic displacement resulting from different types of land acquisition or restrictions on land use undertaken or imposed in connection with the project implementation.

As per ESS1 requirements, an ESMF instrument will be prepared for all components (all project activities) to set guidelines for ESIA's and/or ESMPs for each subproject during implementation. In any case, the borrower shall avoid impacts on cultural heritage and when avoidance of impacts is not possible, the client will identify and implement measures to address impacts on culture heritage in accordance with mitigation hierarchy. Where appropriate, the client shall develop a cultural heritage management Plan.

The implementation agency will sign an agreement with private sector to carry out some activities of the project. These private entities will have to comply with the Environmental and Social Management Framework and Plans elaborated by the agency. The same option will apply for other ESS's instruments (RPF, IPPF) during project implementation. It should be noted that Performance Standards for Private Sector Activities (OP/BP 4.03) will not apply.

The Environmental and Social Commitment Plan (ESCP), which is part of legal agreement, will outline all the key elements contained in those ESS instruments agreed upon with the Borrower.

**Areas where “Use of Borrower Framework” is being considered:**

The Borrower has a relevant legal framework for addressing environmental and social risks and impacts. However, its capacity through policies and institutional arrangements is limited, particularly as it will require the oversight of multiple implementing agencies from the public to private sector. The use of Borrower's Framework is not endorsed, and the Borrower's Framework will not be used in whole or in part for this project.

**ESS10 Stakeholder Engagement and Information Disclosure**

There is a strong commitment and consensus among different stakeholders on the need to expand off-grid energy access across the country, and relevant experience with electrification of health and education centers. Other



important stakeholders include targeted poor and vulnerable households that would benefit from the enhanced energy access, solar off-grid power companies, local entrepreneurs, and the communities in which investments would be constructed. A Stakeholder Engagement Plan (SEP) shall be developed and publicly disclosed as early as possible and prior to appraisal phase. This plan will address specific risks identified by stakeholders, including risks to vulnerable people, security and/or safety risks affecting delivery of services, culturally consultations for Batwa group, and it will be updated as and when necessary. The objective of the stakeholder engagement is to incorporate views from all stakeholders through meaningful consultations, to improve the environmental and social sustainability of the project, enhance its acceptance, and make a significant contribution to successful project design and implementation. As a key focus of the project is to ensure that vulnerable groups including indigenous people (batwa) can access project benefits, the stakeholder engagement process shall ensure that their views are incorporated in project design and implementation, and that risks particularly affecting women and girls are adequately assessed and mitigated. The project will also implement the grievance redress mechanism to handle complaints from direct/indirect project-affected people regarding adverse temporary or permanent project impacts and risks.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

ESS2 in the project is relevant to direct workers employed or engaged by the project implementing agencies, contracted workers, and primary supply workers for the solar panel equipment. These will include construction workers hired for the anticipated civil works (as required) and trained technicians for the installation and maintenance of the solar panels and mini-grids and will be subject to the requirements of ESS2 on Labor Management Procedures including clear information on the terms and conditions of employment, principles regarding non-discrimination and equal opportunity, the establishment of workers' organizations, rules regarding child labor and forced labor, and occupational health and safety measures. There will also be a grievance mechanism for labor issues, drawing on national law and procedures. Should the hiring of workers from outside the local area be required (especially for purposes of the installation of specialized technical equipment), worker accommodation and influx will need to be managed in line with ESS2 (and ESS4); any labor influx would be limited in time and scale. To ensure health and safety of workers during the construction and operational phases of the project, a Health, Safety and Environmental (HSE) plan in line with Good International Industry Practice (GIIP) shall be appropriately prepared and tailored to each ESMP of the subproject. School and health center personnel of the facilities in which the solar panels are installed are not subject to the requirements of ESS2 other than for the HSE plan.

### **ESS3 Resource Efficiency and Pollution Prevention and Management**

Project construction and implementation shall require specific sites with minor earthworks and the consumption of diesel for generators. Water shall be needed to clean solar panels during dry seasons. There will be the generation of waste such as iron and wood, spoils, and used batteries. The ABER shall implement technically and financially feasible measures for improving efficiency requirements of the ESS3. It is expected that during project implementation, air pollution will be emitted from trucks on-site during construction phase; diesel generators and fugitive dust will also be generated. Also hazardous and non-hazardous wastes (e-waste) shall be generated on specific sites. The private sector entity involved in the corresponding activity shall treat, destroy or dispose of e-waste in an environmentally



sound and safe manner that includes the appropriate control of residues resulting from the handling and processing of the e-waste in accordance with ESS3. The mitigation measures such as dust suppression and vehicle and truck maintenance shall be applied to minimize the impact of air emissions and air pollution during construction/operation. Noise might likely be generated from the use of construction machinery and truck movements as well as diesel generators. The relatively short-term and small-scale nature of works suggest that noise levels will not be excessive or cause long-term nuisance but diesel generators will frequently produce noise. The Environmental and Social Management Plans (ESMPs) to be prepared by the Borrower shall include mitigation measures to minimize and manage the noise levels, such as by applying standard restrictions to hours of site work. Construction/operation activities shall generate solid waste which shall primarily include excavated soil and solid wastes. All waste generated by the construction/operation phase shall be disposed at approved sites, in accordance with national laws and regulations, which shall be complemented by ESS3 requirements. Lastly, the project activities will look into the issue of kerosene use inside rural households, which causes indoor air pollution and respiratory diseases. The preparation of ESMP instruments shall also provide all additional relevant mitigation measures to be taken during the operation phase.

#### **ESS4 Community Health and Safety**

The Borrower will evaluate the risks and impacts of the project on the health and safety of the affected communities that are living in the project affected areas during construction and operation, including impacts on the operation of education and health centers. This will include adverse social impacts such as labor influx that disrupts communities, gender-based violence (GBV), sexual exploitation and the transmission of communicable diseases such as HIV/AIDS on local communities. Given the small scale nature of the infrastructure works, GBV prevention measures will be included in the ESMF and will take into account nearby presence of schools and maternity patients. Construction companies will actively collaborate and consult with communities in promoting the understanding, and methods for, the implementation of community health and safety, including HIV and communicable diseases prevention, and informing communities about the requirements of workers' codes of conduct. Contractors will also provide project workers with training on respectful relations with communities, including on health and safety practices. While the civil works to be financed are limited in scale and scope, to ensure the health and safety of communities during the construction and operation phases of the project, the project will develop and implement a Health, Safety and Environmental (HSE) Plan in line with World Bank Group Environment, Health and Safety (EHS) Guidelines (for construction activities). Mini-grid activities will prioritize hybrid solar schemes; should mini-hydro facilities be included in the project, they will be limited to run-of-the-river type schemes requiring no water impoundment/reservoir formation, without significant safety risks, retention of toxic materials or potential for significant downstream impacts.

#### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

The project is expected to involve minor temporary and/or permanent economic and physical displacement for people living in or near the private sector led mini-grid power generation facilities and their low-voltage distribution networks. Land acquisition will consist in commercial transactions or Government lead and take. An RPF will be



prepared, consulted upon and disclosed for the project, and if necessary, RAPs will be prepared during project implementation.

#### **ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

Project activities are not expected to be implemented in Protected areas. If any endemic flora and fauna including protective species are found on specific sites, the borrower shall carry out an identification of the types of habitats which will be affected and make consideration of potential risks and impacts on ecological function of the habitats at which PV Solar panels will be installed on specific site within remote or rural areas. ESS6 will be less relevant as the project activities involve modified habitat but as construction of low voltage distribution networks is expected, there might be some affected natural habitats. The preparation of ESMF shall provide guidance on screening and mitigation measures to ensure that project activities do not alter or cause destruction of any critical or sensitive natural habitats within project areas. The clearance and loss of areas of vegetation and fauna & flora habitats will be less affected during the construction activities. Overall, the project shall have positive impacts as it will promote solar energy and support the livelihoods of rural communities for health and education sectors.

#### **ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

Batwa communities in Burundi fulfill the four criteria by which ESS7 defines Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, and are among vulnerable groups. The project will ensure that the Batwa are not disproportionately affected by adverse impacts of project activities and experience its benefits - particularly for the access to energy sub-components. Selection of subprojects that would otherwise result in adverse impacts on land or natural resources traditionally owned or used by Batwa, relocation of Batwa communities, or impacts on Batwa cultural heritage, will not be eligible for financing. If necessary, an Indigenous Peoples Planning Framework (IPPF) should be developed, consulted, and disclosed prior to appraisal to guide the development of Indigenous Peoples Plans (IPPs) during implementation. The project will also ensure that the Grievance Redress Mechanism developed under ESS10 will be appropriate and accessible for Batwa communities.

#### **ESS8 Cultural Heritage**

The project will not finance project activities that will affect cultural heritage resources on sites. The borrower shall avoid impacts on cultural heritage. When avoidance of impacts is not possible, the Borrower will identify and implement measures to address impacts on culture heritage in accordance with mitigation hierarchy. Where appropriate, the client shall develop a cultural heritage management Plan. This ESS8 refers to ESS1 during the project implementation.

#### **ESS9 Financial Intermediaries**

The project will establish a debt facility to solar off-grid companies that will be subject to the requirements of ESS9. Channeling of credit finance to solar off-grid market players will be conducted through one or more eligible financial intermediary/ies which will be identified during the detailed design stage. The capacity of the financial intermediary (ies) to develop and maintain effective environmental and social systems and procedures for assessing, managing and monitoring risks and impacts of the construction and operation of beneficiary solar off-grid companies will be



assessed by appraisal and an Environmental and Social Management System will be put in place and documented. Under the same component, a results-based financing (RBF) facility will provide grants to off-grid companies; however, this activity will not be processed under ESS9 (see above). Rather, the RBF facility will be processed under the ESMF and framework manual to be prepared.

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways** No

**OP 7.60 Projects in Disputed Areas** No

**III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

**A. Is a common approach being considered?** No

**Financing Partners**

n/a

**B. Proposed Measures, Actions and Timing (Borrower’s commitments)**

**Actions to be completed prior to Bank Board Approval:**

Actions to be completed prior to Bank Appraisal: Preparation of Environmental and Social Commitment Plan (ESCP) with measures for addressing the environmental, social and labor risks identified in the project. Preparation and disclosure of a draft Stakeholder Engagement Plan (SEP) including a Grievance Redress Mechanism, draft Labor Management Procedures (including Occupational Health and Safety of Workers), an Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF), an Indigenous Peoples Planning Framework (IPPF) if necessary. Consultation of all these instruments in accordance with the SEP.

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

- Implementation of SEP;
- Labor Management Procedures;
- Development and implementation of a proportional Health, Safety and Environmental (HSE) plan in line with World Bank Group Environment, Health and Safety (EHS) Guidelines (for construction & rehabilitation activities);
- Development of relevant ESIA/ ESMP
- Development of relevant RAP
- Preparation and implementation of the Grievance Redress Mechanism(GRM);
- Monitor the environmental and social performance in accordance with the legal agreement.

**C. Timing**

**Tentative target date for preparing the Appraisal Stage ESRS**

16-Sep-2019

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**IV. CONTACT POINTS**

**World Bank**

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**Borrower/Client/Recipient**

Borrower: Ministère des Finances

**Implementing Agency(ies)**

Implementing Agency: Ministère de l’Hydraulique, de l’Energie et des Mines (MHEM)

Implementing Agency: Agence Burundaise d’Electrification Rurale (ABER)

**V. FOR MORE INFORMATION CONTACT**

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**VI. APPROVAL**

Task Team Leader(s):	Rhonda Lenai Jordan Antoine, Karen Bazex
Practice Manager (ENR/Social)	Robin Mearns Recommended on 26-Jul-2019 at 14:37:59 EDT
Safeguards Advisor ESSA	Nathalie S. Munzberg (SAESSA) Cleared on 01-Aug-2019 at 13:09:26 EDT

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