



Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Mozambique	AFRICA EAST	P175295	
Project Name	Sustainable Energy and Broadband Access in Rural Mozambique Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Energy & Extractives	Investment Project Financing	7/12/2021	10/6/2021
Borrower(s)	Implementing Agency(ies)		
Ministry of Economy and Finance	MIREME, Ministry of Mineral Resources and Energy (MIREME), Fundo de Energia (FUNAE), Ministry of Transport and Communications (MTC), Electricidade de Moçambique (EdM)		

Proposed Development Objective

The project development objective is to increase access to energy and broadband services in project areas and strengthen the operational performance of the electric utility.

Financing (in USD Million)	Amount
Total Project Cost	205.00

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]

Energy access in Mozambique remains low with significant rural-urban disparities. The rural electricity access rate is estimated at about eight percent, against 72 percent in urban areas. Only 17 percent of the population in the



northern provinces have access to electricity (about 14 million people living without modern energy solutions – see Figure 2). Energy for cooking in Mozambique is currently dominated by traditional stoves and fuels as in most other Sub-Saharan African countries. Mozambique had only 4 percent of clean cooking access in 2018 (12% urban areas and 0% rural areas). Most rural households use firewood with traditional three-stone stove for cooking and charcoal prices increased significantly in the past year in urban/peri-urban areas, hurting the poor. While fast growing, the broadband sector in Mozambique is one of the least developed compared to other countries in the world, with only 17.5% of the population using the internet in 2017.

The proposed Sustainable Energy and Broadband Access in Rural Mozambique (LigaMOZ) Project seeks to consolidate gains made by GoM over recent years, bolster efforts towards long-term development goals, and position the electricity and ICT sectors to provide the needed support for the country’s sustainable recovery. The project will directly support the CPF under Focus Area 1 (“Promoting Diversified Growth and Enhanced Productivity”), the strategic objective of “Expanding Access and Improved Reliability of Electricity” by helping increase the delivery of electricity services through grid extension and provision of off-grid solutions throughout the country and improving EDM’s operational efficiency to enhance energy service reliability. This will be achieved by complementing ongoing projects that address different aspects of the FSP and will finance electrification and connectivity to broadband services in a financially sustainable manner to sustain revenues while strengthening EDM’s balance sheet to support the electricity access goals of Mozambique. The activities under the proposed project provide a continuation of two ongoing projects (ProEnergia – P165453 and PERIP – P158249) that were explicitly included in the CPF as operations that support the above-mentioned objective.

The proposed project will be implemented as an IPF with performance based conditions (PBCs) and has four components aimed at increasing connectivity access to electricity energy and broadband services namely: Component 1 (Peri-urban and Rural Electrification) build on the ongoing ProEnergia project to provide access to electricity to over 1,000,000 beneficiaries primarily through grid densification and expansion. Component 2 (Improvement of EDM financial performance) seeks to improve the financial performance of EDM and strengthen structural and institutional framework of the sector. It will support results-based practices and management in EDM by providing financing for payments under an Eligible Expenditure Program (EEP) against an agreed set of actions to be performed by EDM and MIREME. Component 3 (Off-grid energy and broadband service delivery) will finance the electrification of areas in Mozambique where off-grid solutions are the least-cost or most-viable solutions; improve access to affordable broadband connectivity for public institutions, private enterprises and citizens; and support the availability of clean cooking solutions (CCS) to address energy and health challenges associated with the use of traditional stoves for cooking. Component 4 will finance capacity building, implementation support for the implementing agencies, expected to be Electricidade de Moçambique (EdM), Ministry of Mineral Resources and Energy (MIREME), Fundo de Energia (FUNAE), and Ministry of Transport and Communications (MTC).

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The project components include activities with potential environmental and social risks and impacts. Component 1: On-grid Peri-urban and Rural Grid Electrification include civil works to provide electricity services nationwide. Component 2: EDM Operational Performance includes employment of direct and indirect workers to implement and operate the IT systems, ERP systems, and fiber-optic network. Restocking warehouses and supplying equipment for



rapid disaster response stations are also planned under Component 2. Component 3: Off-Grid Electricity Access and Clean Cooking Solutions includes the utilization of financial services, the Risk-Sharing Facility, and civil works to supply and install solar systems for non-electrified facilities. Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Component 4: Broadband Access for Underserved Areas and Target Groups utilizes IDA funds in complement to provide a financial incentive mechanism to increase the interests of the private sector to construct and operate mobile broadband network infrastructure. Component 5: Technical Assistance and Implementation Support will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC. Component 6 of the project includes Contingent Emergency Response Component (CERC).

This project is in line with the previous energy projects implemented in the country and is an integrated effort to finance investments in the Northern provinces to address structural development solutions for a permanent medium/long term development, including the provisions of urban infrastructure, rural development activities, and water and sanitation particularly focused in offering services to IDP communities. Component 1 will finance construction works required to electrify all participating households, businesses, and public facilities in the target areas with high population density, located close to existing electricity networks in peri-urban and rural areas. Proposed investments are at the national level but focusing on areas where access to electricity is low, e.g northern provinces, mainly in peri-urban areas close to Cabo Delgado province's borders and around the district capitals of these four northern provinces (Cabo Delgado, Nampula, Niassa, and Zambezia). Component 3 will support the electrification of areas where off-grid solutions are the least-cost or most-viable solutions (solar home system and mini-grids), with a focus on internally displaced persons (IDP), also to improve access to affordable broadband connectivity for public institutions, private enterprises, and citizens in underserved areas of Mozambique including the Northern Provinces and provide clean cooking solutions. Precise project location information for each component is still unknown at this stage, and will be better identified during preparation as a result of the proposed comprehensive area-based ESIA, where a clear description of relevant details is expected including spatial analysis and salient physical characteristics relevant to the E&S assessment of these four districts; and, will be included in the A-ESRS. Currently, general location information is provided for each one of the four northern provinces. Mozambique's northern provinces of Cabo Delgado, Nampula, and Niassa as well as the central province of Zambezia are among the richest in terms of natural resources but recorded the highest poverty rates in the country. Miombo is the dominant forest ecosystem in these four provinces.

The security situation in the Northern provinces of Mozambique has degraded significantly in the past few years, due to armed attacks in the gas-rich province of Cabo Delgado, which have claimed about 2,000 lives and displaced nearly 300,000 people since it began in 2017. This situation multiplies the crisis caused by Cyclones Idai (Sofala, Manica, and Tete provinces) and Kenneth (Cabo Delgado province) in 2019, and most recently by the COVID-19 pandemic. Cabo Delgado borders Tanzania and the provinces of Nampula and Niassa. It is most impacted by insurgency and faced with other illegal activities (cutting wood and hunting elephants for ivory). Mozambique is expected to become the World's fourth largest exporter of natural gas with approximately US\$20 billion investments in the gas sector in the next 15-20 years in the northern districts, from where many of the displaced people have moved to seek shelter in the provinces of Zambezia, Nampula, and Niassa. Zambezia's key notable attribute is the Zambezi River and the extensive floodplains along its banks. The province has several conservation areas including Derre Forest Reserve, Gile National Reserve, and part of Primeiras and Segundas APA and five KBAs (Moebase, Mabu, Namuli, Morrumbala, and Chiperone). Nampula, the most populous province in Mozambique, has the highest deforestation rates in the country accounting for more than 25 percent of national deforestation (ca. 74.000 ha/year). Nampula has received most of the Internally Displaced Persons (IDPs) from Cabo Delgado. Northern Mozambique's long coastline teems with rich marine life and is estimated to be the livelihood source for hundreds of remote coastal communities.



D. 2. Borrower's Institutional Capacity

The project will be implemented by Ministry of Mineral Resources and Energy (Ministerio de Recursos Minerais e Energia) (MIREME), Electricity of Mozambique (Electricidade de Moçambique) (EDM), the Energy Fund (Fundo de Energia) (FUNAE), and Ministry of Transport and Communication (Ministério dos Transportes e Comunicações) (MTC) over 5 years.

EDM will be the implementing agency for components 1, 2, and part of component 5. FUNAE will be responsible for sub-components 3a, 3b, 3c, and part of component 4. Component 4 will be executed by Ministry of Transport and Communication (Ministério dos Transportes e Comunicações) (MTC), Instituto Nacional das Comunicações de Moçambique (INCM), and the Universal Access Service Fund (Fundo do Serviço de Acesso Universal) (FSAU) with fiduciary oversight provided by FUNAE. MTC will be responsible for the implementation of activities under component 4 in coordination with INCM (regulation) and FSAU (rural broadband coverage activities) and part of component 2 (activities related to infrastructure sharing and commercialization of EDM's fiber-optic spare capacity).

PIUs of EDM, FUNAE, MIREME, and MTC will have E&S staff that will be responsible for the day to day implementation of the E&S measures and for ensuring that the project is being implemented in accordance with the ESCP: (i) One E&S specialist at FUNAE, (ii) One E&S focal point at MIREME, (iii) One E&S focal point at MTC, and (iv) One E&S focal point at INCM. Furthermore, the capacity of the PIU will be augmented with additional staff based in the field (for example, in the Pemba offices of FUNAE) and financed by the project.

The PIU within EDM will also remain the same as ProEnergia's, currently under the Directorate of social Energy (Direcção de Energia Social, DES), the unit that leads and coordinates electrification projects. EDM has an Environmental and Social Unit (ESU) responsible for environmental and social risk management. The ESU of the EDM has recently executed four (4) World Bank-financed projects (Electricity Development Access Project (P108444), Power Efficiency and Reliability Improvement Project (P158249), Mozambique Energy For All (P165453), and Temane Regional Electricity Project (P160427)). These projects allowed EDM to gain experience in environmental and social risk management in relation to complying with World Bank Safeguard requirements. FUNAE also recently implemented and completed the EDAP (P108444) and has built capacity in environmental and social risk management as well. The Ministry of Transport and Communication (MCT), has not yet implemented any WB-funded projects, meaning that MTC will need to build a solid capacity to implement and monitor environmental and social safeguards components under their responsibility.

However, EDM, FUNAE, and MTC have no experience working under the new Environmental and Social Framework (ESF); therefore it would be necessary to improve the procedures and processes of environmental and social risk management not only within the PIUs but also with the local level partners, private or public, institutions, and stakeholders.

Component 5 will provide technical assistance to MIREME, FUNAE, EDM, and MTC, and will support the capacity building of the PIUs to ensure compliance with the World Bank Environmental and Social Framework and applicable national environmental and social regulations. This activity will be designed and implemented as a complementary action to previous TA activities already offered by other projects, such as PERIP, ProEnergia, and TREP. EDM will be the main agency responsible for E&S risk management, as part of the Borrower's Capacity Strengthening EDM has implemented an Environmental and Social Management System (ESMS), including the ongoing certification process under ISO 14001 – Environmental Management System and ISO 45001 – Health and Safety. The ESU is also under a restructuring process to adequately respond to E&S risk management and monitoring, including the hiring of dedicated E&S specialists with relevant experience in WB-funded projects. The ESU has been able to successfully



supervise the preparation of high-risk and Category A projects (under Environmental Safeguards) such as TREP (P160427).

The draft ESMF outlines the environmental and social management roles and responsibilities of the contractors and the supervising engineers. In addition, independent consultants will be hired to support the EDM-FUNAE-MTC agencies with environmental and social assessments and the implementation of mitigation measures. As mentioned before the three executing agencies present local capacity constraints, although EDM has an ongoing plan to address it with the ESMS and specialists hiring plans, more attention should be given to FUNAE and MTC, in developing a broader capacity building plan to address the limited environmental and social capacity of the agencies for adequately monitor environmental and social risks and impacts during the project preparation and implementation. A proposal for an institutional strengthening program will be part of the ESMF. In addition to flexibility with regard to the selection of the project sites subject to the security situation, the project preparation and design shall consider contingency plans and standard operating procedures that may have to be put in place to undertake the project activities in case of restricted sites' access. During project design, options such as working with other UN agencies will be explored. WB E&S team will also continue to provide support to the PIUs.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Substantial

Environmental Risk Rating

Substantial

The Environmental Risk is the project is rated as "Substantial". Although there are no significant and/or irreversible adverse environmental issues anticipated from the project activities, the project components include civil works and activities employing labor with potentially adverse environmental and social risks and impacts. Civil works, planned under Components 1 and 3, pose substantial environmental risks. Component 1 includes civil works to provide electricity services nationwide. Component 3 includes the utilization of financial services, the Risk-Sharing Facility, and civil works to supply and install solar systems for non-electrified facilities. Such activities are associated with ESS2 related occupational health and safety, ESS3 related environmental pollution, ESS4 related community health and safety, ESS6 related biodiversity loss, clearing of habitats, and potential damage to ecologically sensitive areas, natural and/or critical habitats, and ESS8 related potential damage to cultural heritage. Component 2 includes the employment of direct and indirect workers to implement and operate the IT systems, ERP systems, and fiber-optic network and has ESS2 related occupational health and safety risks. Restocking warehouses and supplying equipment for rapid disaster response stations, planned under Component 2, also has ESS2 related occupational health and safety risks, ESS3 related environmental pollution, and ESS4 related community health and safety. The utilization of financial services, the Risk-Sharing Facility, under Component 3 has ESS9 related risks that will require the Financial Intermediary to put in place and maintain an Environmental and Social Management System for environmental risk management. Furthermore, Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Technical assistance is also planned under Component 5 that will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC. Downstream effects of the technical assistance Project screening based on the project activities anticipate that the direct environmental and social risks related to the TA activities to be minimal. Component 4 utilizes IDA funds in complement to provide a financial incentive mechanism to increase the interests of the private sector to construct and operate mobile broadband network infrastructure. Downstream effects of Component 4

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include civil works related to potential environmental risks as appraised for those related to activities under Components 1 and 3. ESS4 related community health and safety risks are also associated with all interventions requiring face-to-face interactions in all Components of the project, particularly those involving heavy machinery use, earth movement and excavations, work at heights, etc. Moreover, such interactions can lead to the transmission of communicable diseases such as COVID-19. Contextual risk and capacity constraints are also considered, due to the use of security forces and the capacity of institutional agencies (EDM and FUNAE) to manage the risks consistent with the requirements set out in the ESF, mainly associated with a context of remote areas of the country, dealing with contextual factors and risks associated with the insurgents and IDP communities, and the sensitivity of the receiving environment. The Environmental Risk Rating also considers the lack of experience in implementing the World Bank Environmental and Social Framework within all PIUs.

Social Risk Rating

Substantial

The Social Risk Rating is classified as Substantial due to potential land acquisition under Component 3, that may result in physical and economic displacement of people. Overall, the implementation of the project is likely to result in other risks and impacts such as disturbance of community health and safety, labor influx, elite capture of project benefits, GBV/SEA/SH and Violence Against Children (VAC). The risk of conflict among stakeholders may stem from unclear selection criteria of project areas and beneficiaries. The project is also likely to face institutional risks, particularly regarding limited capacity of some agencies (MIREME and MTC) to manage social issues, including GBV/SEA/SH and VAC. Moreover, MIREME and MTC have no prior experience in implementing ESF projects, thus increasing institutional risks. The project will ensure that social assessment is guided by World Bank’s Directive on Addressing Risks and Impacts on Disadvantaged and Vulnerable Individuals and Groups. A GBV assessment will be conducted based on planned activities, and the results of the assessment presented as an annex to the PAD. An overall SEA/SH action plan will be included in the ESMF with provisions for additional assessment and mitigation measures at the subproject level. The SEA/SH action plan will be included. The plan would include a Code of Conduct, mapping of resources, awareness measures, and procedures for further assessment at the subproject level. Given the rural nature of the Projects, the unknown size of the infrastructure and the possible use of worker camps, the GBV Action Plan and PIU staff should be in place as early as possible. The implementation of specific activities, such as increasing access to grid-connected electricity services for households (under Component 1), should consider systemic, knowledge, and sociological risks. Systemic risks relate to the electricity and broadband services’ ability to regularly provide electricity and broadband at affordable prices for the rural and vulnerable households and, institutions. Since the project will specifically focus on supporting access to services (demand), the risk is on the ability of the service to address the demand. The knowledge risk is linked to persisting low demand for improved broadband services in project targeted provinces, especially in isolated and rural areas. While major mitigation measures are clearly identified, a more systematic approach to community mobilization and participation is paramount to address risks of service adherence and knowledge. The project will consider the potential adverse social impacts of the Project in rural areas, which could result from imbalanced power dynamics between service providers and vulnerable households, elders, and child-headed households, particularly in resettlement camps. The proposed project activities will require strong stakeholder engagement, community awareness interventions and adequate mitigation measures to address factors outside the control of the Project with potentially significant adverse impacts on the social performance and outcomes of the Project. The security risk is a pre-existing condition due to the militancy in Cabo Delgado province, with a consequent large number of refugees settling in Nampula. Also, considering the project will support electrification in already established ‘resettlement camps’ of IDPs, potential adverse impacts on land use and rights and livelihoods of host communities should be assessed as part of the project due diligence. Aspects of vulnerability, disability and inclusion, and poverty should be considered as

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critical in the selection process under Components 1 and 3. Overall, the project will have positive social benefits in supporting energy supply in rural communities including health centers, schools, and temporary resettlement camps, camps, and increasing grid connectivity to households, businesses, and public facilities in peri-urban areas.

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:

ESS1 is considered relevant. Overall, the project will have positive environmental benefits increasing usage of renewable resources from solar panel installation and usage and decreased GHG and air pollutants emissions as a result of improved grid connections. The project will also result in an increased contribution to climate change benefits by supplying high-efficiency lamps (LED lamps) and decreased environmental pollution by expanding the implementation of clean cooking movement.

Key potential environmental risks and impacts are related to occupational health and safety from small and medium civil works to install electrification grids and from operation of TI systems, ERP systems, fiber-optic network, etc.; environmental pollution caused from disposal and management of waste from minor civil works, from storage and final disposal of used batteries containing hazardous waste, and from disposal and recycling of solar panels; community health and safety, including temporary impacts caused by civil works, co-existence with workers, presence, and movement of heavy machinery and equipment, road traffic safety, and increased dust and noise and some disturbances at the neighborhood level, among others; potential damage to ecologically sensitive areas, natural and/or critical habitats such as erosion on internal areas or of coastal zones from the movement of machines and equipment, transportation and disposal of raw materials, increased dust and noise, etc.; and potential damage to cultural heritage. There are no significant and/or irreversible adverse environmental issues anticipated from the project components.

The main social risks and impacts are related to economic impacts on PAPs due to temporary or permanent land acquisition, disturbance of community health and safety, labor influx, pressure on natural resources, community health system, elite capture of project benefits, Sexual Harassment (SH), and, GBV/SEA risks, capacity risks of the sectoral implementing agencies (EDM, FUNAE, and MTC) in terms of managing social, GBV/SEA/SH and VAC risks and impacts lack of experience in implementing ESF. Considering the project will support electrification in already established 'resettlement camps' of IDPs, potential adverse impacts on the land use and rights and livelihoods of host communities should be assessed as part of the project due diligence.

The project applies the ESF, WBG EHS General Guidelines, WBG EHS Guidelines for Electric Power Transmission and Distribution, Climate Change Screening Tool, Risk Hazard Assessment (RHA), and management guidelines for solar batteries and panels to better identify and manage potential E&S risks. Although the specific locations of subproject activities are not yet known, the location of project activities will be mainly in conflict areas. During implementation, special attention to security issues will be paid and a Security Risk Assessment (SRA) will be carried out. Based on the SRA, a Security Management Plan will be prepared to provide guidance on different approaches to security in specific sites/areas/activities. The ESMF has been drafted to identify and address environmental and social risks and impacts and to outline relevant mitigation measures in a manner consistent with the ESF. The finalized ESMF, which will be disclosed within three months of Project Effectiveness, will include specific action plans such as: (1) Resource Efficiency & Pollution Prevention and Management Plan; (2) Emergency Response Plan; (3) Chance Finds Procedures;



(4) Environmental and Social Impact Assessment; (5) Security Management Plan, as a result of the proposed Security Risk Assessment; (6) SEA/GBV Assessment and Action Plan; (7) Labor Management Procedures; and (8) Occupational Health and Safety Plan (including for COVID 19); and, (9) Community Health Plan (including for COVID 19); and others following Bank internal guidance, as needed. In addition, the finalized ESMF will include the SRA, Labor Management Procedures (LMP), and measures for limiting COVID-19 transmission.

In addition, the technical assistance (TA) activities that fall under Type 3 (capacity building activities) will be designed and implemented as a complementary action to previous TA activities already offered by other projects such as PERIP, ProEnergia, and TREP. Project screening based on the planned project activities anticipates that the direct environmental and social risks related to the TA activities to be minimal. During project preparation, the scope of the TA activities to be supported will be elaborated and the Bank will conduct its due diligence to ensure that any direct or downstream impacts from the TA activities are appraised. Regarding the TA components of the project, the Terms of References will include all relevant ESF requirements.

Furthermore, the utilization of financial services, the Risk-Sharing Facility, under Component 3 has ESS9 related risks that will require the Financial Intermediary to put in place and maintain an Environmental and Social Management System for environmental risk management consistent with the WB ESF.

In relevance to the ESF, the implementation agencies (EDM and FUNAE) will prepare an overall and comprehensive area-based ESIA in four parts, one for each province that will be targeted for project intervention (Cabo Delgado, Nampula, Niassa, and Zambezia), taking into account the typology of the proposed subprojects. The ESIA will provide a more detailed description of each area, its current environmental and social characteristics, the typology of projects being considered, the results of preliminary consultation with stakeholders, and a preliminary approach to the application of the mitigation hierarchy in each area. The scope of the comprehensive ESIA should encompass the Social Impact Assessment including SRA, SEA/SH risk assessment, social conflict and elite capture risks, identification of factors to guide the inclusive targeting and engagement of project beneficiaries and potential PAPs. Linkages to the SEP in terms of engaging stakeholders in the assessment process and identifying community groups and the challenges and opportunities they pose to the Project should be emphasized. This proposed comprehensive area-based ESIA will provide inputs for the site-specific ESMP.

A social assessment, considered as part of these ESIAs, will analyze the security situation and its impact on communities particularly poor, vulnerable, and marginalized groups, and present recommendations for strengthening the inclusion of such groups. The Borrower will also require the civil works contractor(s), to develop C-ESMP that will include an HSE plan, a waste management plan, and adequate measures for resource efficiency as per the ESMF, area-based ESIAs, and ESMPs. An Occupational Health and Safety (OHS) management plan is one of the components of the ESMF to set the standard for contractor plans and address issues related to direct workers. Given the nature and size of some subprojects, the project design and management plans will consider the use of shared facilities (for waste management, training, etc. where possible) and adoption of standardized environmental and social codes and procedures that could be used for certain subproject categories (in lieu of ESMPs) in accordance with screening criteria set out in the ESMF. Regarding subproject specific ESMPs, the ESIA will address E&S impacts and mitigation requirements of the operations phase to be addressed in more detail in subproject specific ESMPs. If the existence of associated facilities and ancillary works is identified and confirmed, including material sources, stocking and staging areas, access roads, etc., this will be considered in the project E&S studies during project preparation.

The Borrower has developed a draft stand-alone Resettlement Policy Framework (RPF) to provide guidance for the preparation of site-specific Resettlement Action Plans (RAP) as required before civil works consistent with ESS5. Both EDM and FUNAE E&S capacity has been established during the implementation of previous WB funded projects (including Environmental specialist and Social specialist), however, their ability to cover project areas across the



country is still limited and is likely to present challenges given the nature of the project’s potential environmental and social risks and impacts in particular those related with GBV/SEA/SH and VAC, considering the fact that no GBV capacity to monitor such risk is currently available.

ESS10 Stakeholder Engagement and Information Disclosure

Electricity and broadband service projects require a systematic and intensive engagement of stakeholders at an early stage of the project preparation and through its implementation guided by the World Bank’s Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups. Since the site and project selection will play a major role in ensuring equitable access and avoiding elite capture, the stakeholder mapping and outreach should be included from the earliest stages of the Project and in the design of the Stakeholder Engagement Plan (SEP) to ensure the project is designed and implemented effectively and successfully. The borrower will undertake and prepare a SEP during the project preparation stage.

The SEP will map out the various stakeholders and set out a strategy on how they will be engaged throughout the life cycle of the project; how and what project information will be shared at the different levels; how stakeholder concerns and feedback will be considered during the project design and implementation phases; and how the project intends to manage grievances through the implementation of a project Grievance Redress Mechanism (GRM) sensitive to GBV/SEA/SH risks. The SEP should allow for meaningful consultation in a participatory manner and should be tailored to ensure the involvement of disadvantaged and vulnerable groups in the communities, including specific provisions for the use of local language and information methods and communication technics appropriate to the level of literacy of the stakeholders (particularly beneficiaries) and take advantage of focus groups consultation with women and youth.

The SEP will outline means of consultation, especially in a COVID-19 situation in line with World Bank guidance and GoM’s policies. The SEP to be presented at appraisal will need to contain evidence of extensive early engagement including outreach to vulnerable groups and specific strategies to achieve and maintain engagement of disadvantaged and vulnerable groups.

The SEP should provide explicitly for engagement in the Project preparation phase, which includes consultations and stakeholder feedback on the project and the E&S instruments to be described in the SEP (and summarized in other documents as relevant) as presented at appraisal.

The SEP forms an important part of the project and will be disclosed alongside the ESMF, RPF, and the ESCP prior to project appraisal.

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 is considered relevant to the program. ESS2 is considered relevant to the project. Project interventions have potential risks associated with occupational health and safety, working conditions, and risks associated with labor

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influx. The program interventions will involve direct workers (people employed or engaged directly by the Borrower and relevant project implementing agencies), contract workers (workers under the contractor(s) for civil works and the supervision consultants and consultants to support the project implementation), civil servants, and consultants to provide a range of activities from capacity building and technical assistance to civil works. The engagement of community workers is still not determined at this point.

Component 4 will involve project direct workers in different implementing agencies- EdM, MIREME, FUNAE and MTC. Components 1 and 3 will involve contracted workers. However, it is not possible to estimate the volume of direct and contracted workers under the Project until the level of works for direct workers and contracted workers (civil works) are defined. An estimate of the workforce and the types of workers required will be part of the Labor Management Procedures (LMP) to be prepared to comply with the ESS2 requirements. The use of community workers should be encouraged. The LMP content should feature GBV and SEA/H issues in connection with labour influx; it shall include relevant risks, mitigation measures, including a basic Code of Conduct, mapping of resources, awareness measures, and procedures for further assessment at the subproject level.

Both during construction and the operation of Components 1 and 3, there is a potential risk related to occupational health and safety and poor working conditions. Occupational health and safety hazards associated with construction works include those specific to electric power transmission and distribution projects such as danger from working around live power lines; working at heights; electric and magnetic fields; exposure to chemicals. Occupational health and safety hazards associated with operation and management of systems including the IT system, ERP system, etc. is the risk of spread of communicable disease; lack of PPE; etc. Key risks associated with ESS2 will be assessed in the ESMF and area-based ESIA and bridging measures proposed in the LMP. The Borrower will also require the winning civil works contractor(s), to develop C-ESMP that will include a Health, Safety, and Environmental (HSE) plan in line with Good International Industry Practice (GIIP), a waste management plan, and adequate measures for resource efficiency as per the ESMF, area-based ESIA, and ESMPs. Only trained workers will be allowed to install, maintain, and repair electrical equipment and build transmission lines.

The project interventions may involve labor influx, which has the potential for the spread of communicable diseases such as COVID-19. In addition, the risk of the spread of communicable diseases is associated with all project interventions that require face-to-face interactions. The ESMF (including LMP) and area-based ESIA will assess these risks and include measures to prevent, or if needed minimize, the spread of communicable diseases.

A GRM for workers will be established for the workers of the project. As such, there is a need for the project to ensure the importance of the respect of the right of the workers, and the need to ensure a respectful workplace. In addition, Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Technical assistance is also planned under Component 5 that will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC. Although downstream effects of the technical assistance Project screening based on the project activities anticipate that the direct environmental and social risks related to the TA activities to be minimal, ESS2 related risks will be identified, assessed, and management during the design, preparation, and implementation of the TA activities. Regarding the TA components of the project, the Terms of References will include all relevant ESS2 requirements. Furthermore, Component 3 plans to utilize financial services, the Risk-Sharing Facility. The entity to be the Risk-Sharing Facility has not been identified, however, the identified Financial Intermediary will be required to put in place and maintain an Environmental and Social Management System to manage E&S risks including ESS2 related risks.



ESS3 Resource Efficiency and Pollution Prevention and Management

ESS3 is relevant to the project.

In relation to the civil works in Components 1 and 3, potential adverse risks and impacts related to waste management, environmental pollution, water usage, and GHG and air pollutants emissions are foreseen from construction activities. Inadequate solid waste management of construction wastes and municipal wastes from the worker camps may leave an environmental footprint. In addition, potential risks of environmental pollution is also associated with activities of Component 3 such as transportation, installation, storage, operation, and disposal of used batteries containing hazardous waste and of solar panels. Water usage is expected during the construction and operation of the grid connections and mini-grids. Modest quantities of GHG and air pollutants emissions may be produced during the construction phase, but overall GHG and air pollutants emissions are expected to decrease as a result of improved grid connections.

To address ESS3 requirement, a specific study on the estimate of GHG emissions will be prepared, following WB guidance related to Greenhouse Gas Emission Accounting under the ESF. The resource efficiency issue including raw material, water and energy uses in both construction and operation stages of the project need to be discussed more systematically by referring to ESS3 requirements and WBG EHS Guidelines that are applicable to the project. The assessment of the above issues and adequate mitigation measures will be addressed in the final ESMF, ESIA, and ESMPs. WBG EHS Guidelines for Electric Power Transmission and Distribution and solar batteries and panels management guidelines will be applied. Civil works contractor(s) will be required to develop C-ESMP that will include an HSE plan, a waste management plan, and adequate measures for resource efficiency as per the ESMF, ESIA, and ESMPs.

In addition, Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Technical assistance is also planned under Component 5 that will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC. Although downstream effects of the technical assistance Project screening based on the project activities anticipate that the direct environmental and social risks related to the TA activities to be minimal, ESS3 related risks will be identified, assessed, and management during the design, preparation, and implementation of the TA activities. Regarding the TA components of the project, the Terms of References will include all relevant ESS3 requirements. Furthermore, Component 3 plans to utilize financial services, the Risk-Sharing Facility. The entity to be the Risk-Sharing Facility has not been identified, however, the identified Financial Intermediary will be required to put in place and maintain an Environmental and Social Management System to manage E&S risks including ESS3 related risks.

ESS4 Community Health and Safety

ESS4 is considered relevant to the project.

Component 1 includes civil works to provide electricity services nationwide. Component 3 includes the utilization of financial services, the Risk-Sharing Facility, and civil works to supply and install solar systems for non-electrified facilities. In addition, Component 4 utilizes IDA funds in complement to provide a financial incentive mechanism to increase the interests of the private sector to construct and operate mobile broadband network infrastructure. Civil works from Components 1 and 3 may cause dust, noise, and vibration that are associated with potential adverse impacts on community health and safety. Community health and safety issues related with Electric Magnetic Fields are also associated with the operation of energy and broadband infrastructure. If EMF levels are confirmed or expected to be above the recommended exposure limits, application of engineering techniques should be considered to reduce the EMF produced by power lines, substations, or transformers. Relevant measures will be outlined in the



ESMF and the site-specific ESMPs. ESS4 related community health and safety risks are also associated with all interventions requiring face-to-face interactions in all Components of the project, particularly those involving heavy machinery use, earth movement and excavations, work at heights, etc. Moreover, such interactions can lead to the transmission of communicable diseases such as COVID-19. In addition, labor influx that is expected during construction activities under Components 1 and 3 may also increase the risk of exposing the communities to transmissible infections and HIV/AIDS and COVID 19.

A GBV/SEA/SH risk assessment has been conducted during project preparation. Relevant mitigation measures to address these risks (e.g. integrating Codes of Conduct with GBV/SEA/SH-related protections into community consultations and mapping activities to identify potential service providers, and establishment of GRM sensitive to GBV/SEA/SH with procedures and channels to enable safe, confidential and ethical reporting of GBV incidents) under an overall GBV Action Plan is included in the draft ESMF with provisions for additional assessment and mitigation measures at the subproject level. The plan includes the basic Code of Conduct, mapping of resources, awareness measures, and procedures for further assessment at the subproject level. Given the rural nature of the projects, the unknown size of the infrastructure, and the possible use of worker camps the GBV Action Plan and PIU staff should be in place as early as possible.

During the construction phases of civil works of Components 1 and 3, the transportation of construction materials will likely cause traffic congestion. Assessment of potential traffic increases and adequate measures will be reflected in the area-based ESIA and ESMPs. Traffic Management Plan and Communications Plan will be prepared, to address community relations and Health and Safety issues, as required.

Area-based ESIA and ESMPs will also assess the risks associated with Electric and Magnetic Fields according to international standards and outline mitigation measures to ensure that inhabitable structures remain outside the Right of Way. A community sensitization plan will be required to be included in the site-specific ESMPs to alert the nearby communities of the risks of electrocution. To prevent any incidents, the site-specific ESMPs will also contain adequate measures, such as constructing fences around transformers and storing and maintaining fire prevention equipment.

Although the specific sites are not yet known, it is expected that some civil works will be in density areas of the peri-urban sites of these communities, where traffic of heavy machines or equipment will cause temporary impacts, requiring the definition of mitigation measures to adequately address potential impacts or even the occurrence of small/medium civil works in areas close to schools or other public services. More information is still needed to define if activities related to ecosystem services are expected, as well as whether the project includes installation and/or management of transformers and construction/operation/maintenance of substations, which will demand the inclusion of specific measures to adequately address the management of hazardous materials.

Where security services may be used in the project area, risks associated with violence are anticipated. A security management plan (SMP) will be required for the project areas utilizing security services during both the construction and operation phases; and, also covering potential use of public as well as private security as well as any use of the military or similar to execute/deliver project activities. The security situation in Cabo Delgado will be analyzed in a Security Risk Assessment (SRA) and possibly a Security Management Plan (SMP) will be prepared subject to confirmation through the SRA. The SMP will include adequate measures to secure project areas, to respond to emergency situations, and to evacuate under need. This Assessment and Plan will present means for delivery of activities in the context of the security situation and also provide inputs for the selection of areas.

In addition, Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Technical assistance is also planned under Component 5 that will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC.



Although downstream effects of the technical assistance Project screening based on the project activities anticipate that the direct environmental and social risks related to the TA activities to be minimal, ESS4 related risks will be identified, assessed, and management during the design, preparation, and implementation of the TA activities. Regarding the TA components of the project, the Terms of References will include all relevant ESS4 requirements. Furthermore, Component 3 plans to utilize financial services, the Risk-Sharing Facility. The entity to be the Risk-Sharing Facility has not been identified, however, the identified Financial Intermediary will be required to put in place and maintain an Environmental and Social Management System to manage E&S risks including ESS4 related risks.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The ESS5 is relevant as increasing access to grid-connected electricity services (Component 1) and off-grid energy and broadband service delivery (Component 3) in rural areas may involve land acquisition, restriction of access to natural resources, and livelihood impacts resulting in the physical or economic displacement of Project Affected People (PAP). Potential social impacts and risks are expected including economic impacts on PAPs and temporary or permanent land acquisition, restriction of access to land causing livelihoods impacts. The Borrower is developing a stand-alone Resettlement Policy Framework (RPF), that might include a Process Frameworks (PFs) (if required for potential restrictions on access to legally designated parks and protected areas), that include the procedures and approaches for land acquisition, restriction of access to natural resources, the application of the creation of Partial Protection Zones (PPZs), under the Mozambican Land Law to the infrastructure newly built or expanded under the Project, and will provide guidance for the preparation of site-specific Resettlement Action Plans (RAP) or livelihood plans as required before civil works commence on selected specific sub-projects. Resettlement Action Plans (RAPs) will be prepared, consulted upon, cleared by the Bank, and implemented prior to commencement of any construction and/or land acquisition. RAPs will be approved before calls for bids and implemented before construction starts for the respective subprojects. The RPF is under preparation, will be consulted upon, and disclosed by Project Appraisal, and its implementation included as a condition in the ESCP.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

ESS6 is considered relevant to the project.

Civil works are planned under Components 1 and 3. Component 1 includes civil works to provide electricity services nationwide. Component 3 includes the utilization of financial services, the Risk-Sharing Facility, and civil works to supply and install solar systems for non-electrified facilities. In addition, Component 4 utilizes IDA funds in complement to provide a financial incentive mechanism to increase the interests of the private sector to construct and operate mobile broadband network infrastructure. Downstream effects of Component 4 include civil works related to potential environmental risks as appraised for those related to activities under Components 1 and 3. As the exact locations of physical infrastructure are not identified, the potential risks and impacts of these civil works relevant to ESS6 are not known. It is expected that activities will mostly occur within the modified habitats. Initial screening for critical habitats at project geographical area has been conducted using IBAT tool and the following sites were identified: Cabo Delgado province – Quirimbas National Park and part of Niassa Special Reserve; Niassa Province: part of Niassa Special Reserve, Lake Niassa Reserve and Njesi plateau Key Biodiversity Area (KBA); Nampula province: part of Primeiras & Segundas Environmental Protection Area (EPA), Baixo Pinda Forest Reserve (FR), Matibane FR, Mecuburi FR, Mupalué FR, Ribáuè FR and Netia KBA; Zambezia province: part of Primeiras &



Segundas Environmental Protection Area (EPA), Gile National Reserve, Derre Forest Reserve and five KBAs (Moebase, Mabu, Namuli, Morrumbala, and Chipirone).

If risks and impacts related to ESS6 are to be identified during the project design stage with specific routes, identified risks and relevant mitigation measures, such as a Biodiversity Management Plan, will be addressed in the area-based ESIA and ESMPs through field surveys and in consultations with relevant stakeholders. Potential loss of livelihoods will also be assessed in association with the details of the project design that will be confirmed during project implementation.

In addition, Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Technical assistance is also planned under Component 5 that will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC. Although downstream effects of the technical assistance Project screening based on the project activities anticipate that the direct environmental and social risks related to the TA activities to be minimal, ESS6 related risks will be identified, assessed, and management during the design, preparation, and implementation of the TA activities. Regarding the TA components of the project, the Terms of References will include all relevant ESS6 requirements. Furthermore, Component 3 plans to utilize financial services, the Risk-Sharing Facility. The entity to be the Risk-Sharing Facility has not been identified, however, the identified Financial Intermediary will be required to put in place and maintain an Environmental and Social Management System to manage E&S risks including ESS6 related risks.

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

The ESS7 is not relevant. There are no known Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities in the project areas.

ESS8 Cultural Heritage

ESS8 is considered relevant to the project.

Civil works are planned under Components 1 and 3. Component 1 includes civil works to provide electricity services nationwide. Component 3 includes the utilization of financial services, the Risk-Sharing Facility, and civil works to supply and install solar systems for non-electrified facilities. In addition, Component 4 utilizes IDA funds in complement to provide a financial incentive mechanism to increase the interests of the private sector to construct and operate mobile broadband network infrastructure. Downstream effects of Component 4 include civil works related to potential environmental risks as appraised for those related to activities under Components 1 and 3. Although precise project locations of the civil works will be confirmed during project implementation, nature of civil works are associated with potential risks to the ESS8.

Chance Find procedures are included in the ESMF and will be included in are-specific ESIA and ESMPs to lay down the guidance for mitigation measures when physical cultural resources are encountered during construction/rehabilitation works.

In addition, Component 3 also includes technical assistance and expansion in the operation of the results-based financing and grants facility being developed under ProEnergia (165453). Technical assistance is also planned under Component 5 that will provide technical assistance and implementation support to MIREME, FUNAE, EDM, and MTC. Although downstream effects of the technical assistance Project screening based on the project activities anticipate that the direct environmental and social risks related to the TA activities to be minimal, ESS8 related risks will be



identified, assessed, and management during the design, preparation, and implementation of the TA activities. Regarding the TA components of the project, the Terms of References will include all relevant ESS9 requirements. Furthermore, Component 3 plans to utilize financial services, the Risk-Sharing Facility. The entity to be the Risk-Sharing Facility has not been identified, however, the identified Financial Intermediary will be required to put in place and maintain an Environmental and Social Management System to manage E&S risks including ESS8 related risks.

ESS9 Financial Intermediaries

The ESS9 is relevant to the project.

Component 3 plans to utilize financial services, the Risk-Sharing Facility. The entity to be the Risk-Sharing Facility has not been identified, however, the identified Financial Intermediary will be required to put in place and maintain an Environmental and Social Management System to manage E&S risks.

B.3 Other Relevant Project Risks

None

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

B.3. Reliance on Borrower’s policy, legal and institutional framework, relevant to the Project risks and impacts

Is this project being prepared for use of Borrower Framework? No

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

None

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower: Ministry of Economy and Finance

Implementing Agency(ies)

Implementing Agency: MIREME

Implementing Agency: Ministry of Mineral Resources and Energy (MIREME)

Implementing Agency: Fundo de Energia (FUNAE)

Implementing Agency: Ministry of Transport and Communications (MTC)

Implementing Agency: Electricidade de Moçambique (EdM)

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VI. APPROVAL

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