THE UNITED REPUBLIC OF TANZANIA

PROGRAM FOR RESULTS RURAL ELECTRIFICATION EXPANSION PROGRAM

ENVIRONMENT AND SOCIAL SYSTEMS ASSESSMENT (ESSA) ADDENDUM

DRAFT REPORT - NOT FOR PUBLIC DISCLOSURE

Prepared by the World Bank

ACRONYMS AND ABBREVIATIONS

AF Additional Financing

BISR Bank Implementation Status Report
BP&BD Bank Policy and Bank Directive

BP&BD World Bank Policy and Bank Directives

CL Credit Line

CRB Contractor Registration Board
CSO Civil Society Organization
DLIS Disbursement-linked Indicators
DLIS Disbursement –Linked Indicators
EIA Environmental Impact Assessment
EMA Environmental Management Act

EMO Environmental Management Officer (in District LGAs)

ESHS Environment, social, health and safety

ESIA Environmental and Social Impact Assessment
ESMP Environmental and Social Management Plans
ESSA Environmental and Social Systems Assessment
EWURA Energy and Water Utilities Regulatory Authority
EWURA Energy and Water Utilities Regulatory Authority

GBV/SEA Gender Based Violence and Sexual Exploitation and Abuse

GDP Gross Domestic Product GoT Government of Tanzania

GRM Grievance Redness Mechanism

HSSE Health, safety, social and environmental IDA International Development Association

IPP Independent Power ProducerISM Implementation Support MissionISR Implementation Status Report

JNHPP Julius Nyerere Hydropower Plant And Dam

kV Kilovolt

LGAs Local Government Authorities

LV low voltage

MCDGEC The Ministry of Community Development, Gender, Elderly and Children

MLE Ministry of Labour and Employment

MLHHS Ministry of Lands, Housing, and Human Settlements Development

MoE Ministry of Energy
MOF Ministry of Finance
MTR Mid –Term Review
MV Medium voltage

NEMC National Environmental Management Council

NREP National Rural Electrification Program

OP Operational Policy

OSHA Occupational Safety and Health Authority

PAP Project-affected Person

PDO Program Development Objectives

PfoR Program for Results
PforR Project for Results

PMC Program Management Consultant

PO-RALG President's Office – Regional Administration and Local Governance

PPAP Parent Program Action Plan
PPE Person Protective Equipment

PPSF Project Preparation Support Facility

PSMP Power System Master Plan
RAP Resettlement Action Plan
REA Rural Energy Agency
REB Rural Energy Board

REF Rural Electrification Fund

RMF Resettlement Management Framework

RPF Resettlement Policy Framework SEP Stakeholder Engagement Plan

SESIA Strategic Environmental and Social Assessment

SPP Small Power Producers

SREP Scaling-up Renewable Energy Program

SWORT Strengths-Weakness-Opportunity –and-Threats

TANESCO Tanzania Electric Supply Company Ltd.

TEDAP Tanzania Energy Development and Access Project
TPDC Tanzania Petroleum Development Cooperation
TPDC Tanzania Petroleum Development Cooperation
TREEP Tanzania Rural Electricity Expansion Program

VPOE Vice-President's Office – Environment

TABLE OF CONTENTS

| ACRONYMS AND ABBREVIATIONS | ii |
|--|----|
| EXECUTIVE SUMMARYv | ii |
| 1. INTRODUCTION | 1 |
| 2. BACKGROUND | 3 |
| 2.1. Update on the Energy Sector in Tanzania | 3 |
| 2.2. Covid Effect | 5 |
| 2.3. Summary of Progress and Results under the Parent Program | 5 |
| 2.4. Description of the Additional Financing | 8 |
| 2.4.1. Results Area One | 9 |
| 2.4.2. Results Area Two | 9 |
| 2.4.3. Results Area Three | 0 |
| 2.4.4. Scope: Program Key Results and Disbursement Linked Indicators | 0 |
| 3. SCOPE AND METHODOLOGY1 | 3 |
| 4. NATIONAL ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS1 | 5 |
| 4.1. Laws and Regulations for Environmental Management in Tanzania | 5 |
| 4.2. Legal Framework for Social Risks and Management in Tanzania | 9 |
| 4.3. Institutional Framework for Energy, Environment and Social Matters2 | 2 |
| 4.4. Institutional Capacity | 6 |
| 4.5. National Mechanism on Gender Based Violence/Sexual Exploitation and Abuse 2 | |
| 5. POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS OF THE PROGRAM | |
| AND EXCLUSION CRITERIA | 0 |
| 5.1. E&S Management for Technical Assistance | 0 |
| 5.2. Electrical and Electronic Equipment Waste (e-waste) | 0 |
| 5.3 Climate-related Risks to the Program | 1 |
| 5.4 Climate-related Risks of the Program | 2 |
| 5.5. Labour Related Effects | 3 |
| 5.6. Other Potential Risks | 4 |
| 5.7. Exclusion Criteria | 4 |
| 6. OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY | |
| ASSESSMENT3 | 5 |
| 6.5. E&S Management Capacity and Performance during TREEP Phase One | 5 |
| 6.6. World Bank and Independent Auditor's Findings on Safeguard Compliance | 1 |

| 6.7. | The | e findings of an Independent Auditor's Report | 41 |
|------|--------|--|----|
| 6.8. | Saf | eguard Capacity for Phase Two | 43 |
| 6 | .8.1. | Steps Taken to Improve and Strengthen REA Safeguard Capacity | 43 |
| 6 | .8.2. | E&S Management System Assessment Details | 43 |
| 6.5 | Integr | rated Risk Assessment | 64 |
| 7. | RECO | OMMENDED MEASURES TO IMPROVE SYSTEM PERFORMANCE | 67 |
| 8. | STAF | KEHOLDER CONSULTATIONS | 73 |
| REI | FEREN | ICES | 79 |
| AN. | NEXE: | S | 80 |

LIST OF TABLES

| Table 1: Measures to Strengthen System Performance for Environmental and Social Management | xi |
|--|----|
| Table 2: Status of Key Development-Linked Indicators | 6 |
| Table 3: PforR Program Results | 12 |
| Table 4: Status of Environmental and Social Elements of the Original Program Action Plan | 35 |
| Table 5: Environmental and Social Management Remedial Action Plan of August 2019 | 40 |
| Table 6: Risk Assessment and Management | 65 |
| Table 7: Measures to Strengthen System Performance for Environmental and Social Management | 68 |

EXECUTIVE SUMMARY

Background. Since it became effective in 2017, the Program for Results (PforR) operation – *Tanzania Rural Electrification Expansion Program (TREEP)* – has been supporting the Government of Tanzania's National Rural Electrification Program (NREP) with an IDA credit of USD 200 million and a grant of USD 9 million. The PforR approach innovatively links the disbursement of funds directly to the delivery of defined results and builds on increased reliance on borrower safeguard and oversight systems. The Program Development Objectives (PDO) of the operation are (i) to increase the number of rural electricity connections, and (ii) to scale-up renewable electricity generation in rural areas while strengthening sector institutional capacity. The Program is implemented by the Rural Energy Agency (REA) and the Ministry of Energy (MoE).

TREEP has made important progress in expanding access to electricity, having already exceeded its target of 585,000 new connections, but the Government needs more support to meet its NREP targets. It has therefore requested additional financing (AF) in the amount of USD 340 million. The AF will have the same PDO as the Parent Project and will be active in the same three results areas.

- Results Area 1: Expanding rural access to electricity (US\$320 million). The proposed AF will continue to support activities related to grid extension and densification works to achieve an estimated of 1,000,000 additional grid connections. Activities will be designed to increase resilience of transmission and distribution infrastructure to climate hazards such as floods.
- Results Area 2: Increasing supply of renewable electricity in rural areas (US\$10 million IDA and US\$5 million Grant). The proposed AF will provide funding for the implementation of the Renewable Energy Strategy and Roadmap currently being developed under the Parent Program, including support to: (i) operationalize the renewable projects planned under the Government's Power System Master Plan and Renewable Energy Roadmap; (ii) identify the critical public investments needed to unlock private investments in renewables; and (iii) consulting services to aid in the preparation of new generation projects. In addition, funding will be provided to a result based financed (RBF) program for quality verified Solar Home System and clean cooking solution targeting households in remote rural areas which are not expected to be provided with grid electricity in the near future.
- Results Area 3: Strengthening the Capacity of the Sector to Deliver the NREP (US\$5 million). The program will continue to support the annual capacity-building plan, with a focus on enhancing technical and managerial expertise and skills to plan and deliver rural electrification projects identified in the NREP and to scale up renewable energy generation. The annual capacity-building plan will cover REA and other key actors in the sector, including TANESCO, renewable energy project developers, and related market actors such as project financiers. Results Area 3 will also support the design and implementation of a

sector wide M&E framework to facilitate project tracking/monitoring and evaluation by the MoE, as well as collaboration between various sector agencies and stakeholders.

In terms of environmental and social management, Project for Results (PforR) employs a risk management approach in which process requirements are adapted to the Program context. For each proposed PforR operation, the Bank assesses—at the Program level—the borrower's authority and organizational capacity to achieve environmental and social objectives against the range of environmental and social impacts that may be associated with the Program. An Environmental and Social Management System Assessment (ESSA) for the Parent Program was completed in 2016 and needed to be updated to reflect: environmental and social management performance under the Parent Program; changes in Tanzania's legal, regulatory, and institutional framework for environmental and social management systems; changes in the E&S management capacities at REA and other relevant entities (TANESCO, NEMC, financial intermediaries); and the replacement of the World Bank's Operational Policy 9.00 - Program-for-Results Financing by Bank Policy: Program-for-Results Financing in July 2015. The updating has been accomplished through the preparation of this ESSA Addendum rather than a new ESSA; this approach is appropriate because (i) the PDO and the technical content of the AF are the same as those of the Parent Program, hence there is no significant change in the environmental and social risks as described in the original ESSA, and (ii) the principles in the new Bank policy are not significantly different from those in OP 9.00 against which the original assessment was conducted.

Methodology. The overall approach for the Addendum has been to identify and present only what is different from the original ESSA. It therefore needs to be read in conjunction with the original ESSA. To facilitate this approach, the report is organized in the same way, so that the section headings correspond. As an example, Section 5 (National Environmental and Social Management Systems) in the Addendum describes relevant legislation or regulations that have been newly enacted, amended, or superseded since Section 5 of the original ESSA was written. An introductory note in each Addendum section explains the scope, which can range from little or no change in original ESSA content to complete revision and replacement of the original.

To prepare the ESSA Addendum, the following activities were undertaken:

- Adjustments to accommodate the changes that occurred in 2015 in the Bank's guiding policy and procedure for ESSA, and in their subsequent revisions in 2017, 2020, and 2022;
- Review of the relevant laws, regulatory frameworks, and guidelines;
- Assessment of the potential environmental and social risks of the additional financing;
- Review and assessment of the institutional roles and responsibilities for environmental and social management and analysis of current capacity and performance to carry them out in the additional financing,

- Review of completion of the Parent Program Action Plan and preparation of environmental and social inputs to the Program Action Plan as necessary for the additional financing; and
- Public disclosure and stakeholder consultation.

Information for the Addendum was obtained from: legal and regulatory analysis, review of World Bank Implementation Status Reports (ISR) and mission Aides Memoire (AM) for the parent program, joint REA-Bank field visits to villages with active grid extension projects, an independent E&S Audit, monthly and quarterly reports prepared by the Program Management Consultant (PMC), and discussions with REA, PMC, and TANESCO.

National Environmental and Social Management Systems. The two significant developments in environmental legislation and regulations since 2016 are adoption in 2021 of a new National Environmental Policy that replaces the one in place since 1997, and issuance in 2018 of regulations amending the Environmental Impact Assessment and Audit Regulations, 2005.

Among the relevant institutions, there have been several developments. The National Environmental Management Council (NEMC) has strengthened its capacity for monitoring, oversight, and training by posting four or five environmental officers in each of its nine zonal offices. TANESCO has expanded its environmental and social unit to 22 persons; they remain centralized and are deployed to facilities and projects as needed. Posting of E&S staff to TANESCO zonal offices to assist in supervising TREEP projects as envisioned in the Parent Program Action Plan has not materialized, but REA has compensated by assigning field supervision of E&S management to the PMC. REA has in addition increased its E&S staffing from one to three and has issued its Environmental and Social Procedural Manual that governs all of its activities including those supported by TREEP. TIB Development Bank has joined TREEP as a financial intermediary for implementation of activities in Results Area 2. The Tanzania Investment Bank (TIB) is a government-owned institution that has environmental and social management capacity in its Business Development units in its zonal offices and headquarters. Its safeguards procedures have been updated to ensure consistency with the REA procedural manual and issued as Environmental and Social Risks Management Manual 2022.

Potential Environmental and Social Effects of the Additional Financing. The potential effects of grid extension and densification and renewable energy generation projects remain the same as in the original ESSA, with the exception of the risk of spreading COVID-19 in workplace and communities – a risk that did not exist in 2016. An aspect of risk not covered in the original were risk associated with technical assistance projects that TREEP may support, such as feasibility studies and ESIAs for generation projects. While the studies themselves will not have impacts, investments that may be undertaken based on them may have adverse social or environmental impacts. World Bank policy requires that the studies be assigned the same level of environmental and social risk as the potential downstream investments. High-risk or Category

'A' investments are not eligible for PforR program support. Because the Tanzanian system does not assess environmental and social risks of studies, REA will consult with the Bank before approving funding to ensure that studies for high-risk projects – large hydroelectric power for example – are excluded from TREEP financing.

Operational Performance and Institutional Capacity Assessment. All but two of the actions in the Parent Program Action Plan (PPAP) have been completed, although with substantial delays. Preparation of a Strategic Environmental and Social assessment (SESIA) of renewable energy development in Tanzania was deferred at the request of the Ministry of Energy, to be carried out as required by Tanzanian regulations in connection with its ongoing development of the National Renewable Energy Strategy. Having TANESCO locate E&S staff in its zonal offices proved unfeasible; field E&S supervision is being provided by the PMC instead.

The delays in completion of PPAP actions had adverse effects on environmental and social management performance during REA 3 Round 1 (the first round supported by TREEP) of grid extensions in Results Area 1. The first Small Power Projects (SPPs) loan was only approved in February 2022, and so the delays have not affected and will not affect Results Area 2 (off-grid). Most significant were the nine-month delay in hiring the additional E&S staff needed at REA, the one-year delay in getting a working draft of the Environmental and Social Procedural Manual, the additional one year that elapsed before official adoption of the Manual and the two-year delay in engaging the PMC. There were no significant adverse environmental impacts, but the delays affected labor management, occupational health and safety (although there were no serious accidents) and contractor environmental and social management and reporting. The most significant effects on Results Area 1 as identified in Bank supervision missions were:

- Land donation for grid extension wayleaves not systematically documented.
- Workers did not have employment contracts, in violation of the Employment and Labour Relations Act of 2004.
- Contractors did not have environment, social, health and safety (ESHS) plans.
- Contracts did not have clear and specific requirements for ESHS management.
- There were no ESHS staff at the worksites.
- Workers' accommodations were substandard.
- First aid equipment and fire extinguishers were not available at most locations.
- Provision and use of personal protective equipment (PPE) varied from site to site, although there were some notable examples of good practice.
- Contractors did not have a system for recording and reporting workplace accidents and injuries, in violation of the Occupational Health and Safety Act of 2003.

The Bank downgraded TREEP's Environmental and social rating Satisfactory (S) to Moderately Satisfactory (MS) in October 2017 because the PAP actions due in September 2017 had not been completed. The rating was further downgraded to Moderately Unsatisfactory (MU) in April 2019, because of continuing delays in completing E&S items in the PAP and findings of Bank

Implementation Support Missions (ISM) that the Round 1 grid extension contractors were not familiar with the Procedural Manual and generally were not implementing E&S requirements in their projects. REA and the Bank agreed on a Remedial Action Plan for E&S management in August 2019. During the Mid-Term Review (MTR) in March 2020, the safeguards rating was upgraded to MS, because REA had by then completed all of the remedial actions. The rating was increased to Satisfactory (S) in October 2021. By then, the Procedural Manual including the Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) had been adopted, along with the Voluntary Land Acquisition Framework, the Program Management Consultant (PMC) was on board with environmental and social team members including field staff to support REA's safeguards unit, and contractor performance and reporting had improved.

The findings of an independent safeguards audit conducted for REA in mid-2020 were consistent with the conclusions of the Bank supervision missions. The auditors provided a set of recommended actions that REA has largely implemented through the fulfillment of the original Program Action Plan and the Safeguards Remedial Action Plan of August 2019 and the implementation of safeguards management improvements designed by the Program Management Consultant.

The analysis for the ESSA Addendum concludes that Tanzania's environmental and social management system has adequate capacity to manage the risks of the Additional Financing. The analysis also identifies a number of actions that will ensure satisfactory performance of environmental and social due diligence in TREEP as it goes forward with the Additional Financing. These measures are linked closely with the Disbursement-linked Indicators (DLIs) for the PforR operation. The measures are defined in Table 1 below. Key actions from Table 1 will be embedded in the Program Action Plan for the AF.

Table 1: Measures to Strengthen System Performance for Environmental and Social Management

| Target Objective | Measures to be taken | | |
|--|--|-------------------|---|
| | Strengthen capacity for monitoring, supervision and enforcement of HSSE management measures by restarting the EMO training | | |
| Ensure effective | program. | | |
| implementation of the | | | |
| Tanzanian To ensure that ESIAs approved for SPPs adequated hydrology, stream ecology, and downstream use/users | | | |
| | | social management | hydros; prevention of exploitation of natural forest for biomass, |
| system for the PforR | and e-waste disposal for all; REA will receive and review ESIA | | |
| program | drafts prior to submission to NEMC. REA will consult with the | | |
| | Bank during the review. REA will monitor ESMP | | |
| | implementation and E&S impacts on SPP projects, calling in | | |

experts as needed. REA will ensure that TREEP ESMPs incorporate e-waste management procedures consistent with The Environmental Management (Control and Management of Electrical and Electronic Equipment Waste) Regulations, 2021. If and when national guidelines are issued by the Vice-President's Office, REA will ensure that ESMPs prepared thereafter incorporate relevant management measures. Replace the recently-retired staff person at NEMC dedicated to project processing for TREEP. Optional, depending on whether REA considers it is still beneficial. REA will review TORs for feasibility studies and ESIAs proposed by TANESCO for TREEP funding to ensure they are eligible – i.e., the underlying projects do not pose high social or environmental risks. REA will consult with the Bank as needed. Ensure program is implemented in conformance with the Procedural Manual and its included SEP and GRM, and with the Voluntary Land Access Framework. Update these instruments as and when required. Keep in place the resources established for E&S management – REA's environmental, social, and gender specialists and, for Component 1, the PMC. Ensure TIB-D and other financial intermediaries maintain their E&S capability. Continue efforts to raise E&S reporting to an acceptable standard. Ensure all contracts for grid extension and SPP development include Chance Finds Procedure REA to engage with MoE, TFS, and MNR&T to develop guidance for wayleave clearances in forest reserves. Prepare Strategic Environmental and Social Assessment (SESA) of renewable energy development in Tanzania in parallel with development of the national Renewable Energy Strategy and Implementation Plan. REA will maintain effective collaboration with OSHA and

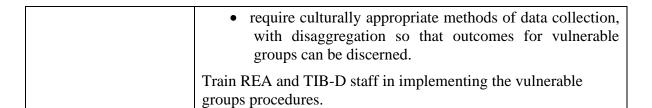
and labor management issues.

Ministry of Labour and Employment (MLE) on health, safety,

Protect project workers

and local communities

| | Operationalize the Workers' code of conduct including GBV/SEA prevention and response. | |
|---|---|--|
| | Include OSHA and MLE as stakeholders in SEP when Procedural Manual is next revised. | |
| | Mainstream Ministry of Health COVID-19 Management Protocol in all civil works and public consultation and engagement. | |
| | Train contractors on basics of the Employment and Labour Relations Act, No. 6 of 2004. Ensure employment contracts are consistent with the Act. | |
| | Ensure REA's GRM is publicized to all affected people and contract workers. | |
| | Confirm that acquisition of the land needed for off- grid generation (mini-hydro and solar) follows the principles and procedures in the TREEP RMF. | |
| | Ensure that land and wayleaves for on-grid projects are obtained according to the REA Voluntary Land Access Framework | |
| Ensure land and way leave acquisitions proceed in accordance with Tanzania law and | With advice from World Bank, refine and elaborate the Procedural Manual measures to ensure equitable treatment of any vulnerable groups that may be affected by grid-extension and off-grid activities. This should: | |
| REA's procedures for TREEP | provide guidance for screening to detect the presence of vulnerable or disadvantaged groups, and measures for their consultation and participation so that that project plans and designs take into consideration their needs, priorities, and preferences; | |
| Strengthen procedures to promote equitable allocation of benefits | define mechanisms whereby vulnerable and disadvantaged groups will be provided with relevant project information in Kiswahili language and in form and manner socially acceptable to them; | |
| and impacts of rural electrification | specify that any project planning to acquire land in an area where vulnerable groups are present will undertake free, prior and informed consultation leading to broad community support; | |
| | emphasize that each project will utilize the GRM; and | |



1. INTRODUCTION

The Government of Tanzania's Rural Electrification Program has been supported with an IDA credit of USD 200 million plus USD 9 million in grants through the World Bank's Program-for-Results (PforR) financing instrument. The PforR, entitled *Tanzania: Rural Electrification Expansion Program* (TREEP) became effective on March 17, 2017. The instrument builds on increased reliance on borrower environmental and social (E&S) safeguard and oversight systems. The Program Development Objectives (PDO) are to (i) increase the number of rural electricity connections, and (ii) scale-up renewable electricity generation in rural areas while strengthening sector institutional capacity. TREEP has achieved the first PDO indicator, 585,000 new grid connections, ahead of schedule, but GoT requires additional support to achieve its overall objective for rural electricity access. GoT has requested additional financing of USD 335,000.

To inform the preparation of the parent PforR operation, the World Bank conducted an Environmental and Social Management System Assessment (ESSA) of Tanzania's existing environmental and social management system reflected in the national legal, regulatory, and institutional framework that will be used to address environmental and social effects of the activities financed by the PforR operation. The ESSA defined measures to strengthen the system, and they were integrated into the overall PforR operation. The ESSA was undertaken to ensure consistency with six Core Principles outlined in the guidelines to the World Bank's OP/BP 9.00 *Program-for-Results Financing* in order to effectively manage Program risks and promote sustainable development. The final version of the ESSA was issued on April 11, 2016.

Since that date, OP 9.00 and BP 9.00 have been superseded by *Bank Policy: Program-for Results Financing* and *Bank Directive: Program-for-Results Financing*, respectively. Environmental and social management capacity in relevant Tanzanian agencies has improved, both as a result of implementation of the parent Program Action Plan and unrelated actions, and in 2018 there was an amendment to the key environmental assessment regulation. Four years of the parent Program's safeguards performance and actual impacts have been assessed in Bank implementation support missions and an independent audit. For all of these reasons, the original ESSA required updating. If the PDO, technical content, and potential impacts of the additional financing were different from those of the parent Program, a new ESSA would have to be undertaken. Since they have not changed, updating has been accomplished by means of an Addendum to the 2016 ESSA.

The six Core Principles in the new Bank Policy are slightly different from those expressed in OP 9.00, but the changes are mainly in wording, not in substance.

a) Promote environmental and social sustainability in the Program design; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the PforR Program's environmental and social impacts;

- b) Avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the PforR Program;
- c) Protect public and worker safety against the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the PforR Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the PforR Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards;
- d) Manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards;
- e) Give due consideration to the cultural appropriateness of, and equitable access to, PforR Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups; and
- f) Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

In preparing the ESSA Addendum, the Bank team reviewed the laws and institutions summarized in the original ESSA and, in Section 4 of this Addendum, presented the changes that have occurred since 2016. The Bank team analyzed the environmental and social management system in its present form and capacity – i.e., with those changes - to assess applicability for each of the Core Principles and ensure consistency with those that apply. The gaps identified in the Addendum and the actions recommended to fill those gaps are expected to directly contribute to the Program's anticipated results in the Energy sector under the additional financing. This Report presents an analysis of the existing system vis-à-vis the relevant Core Principles for environmental and social management in the Bank Policy and Bank Directive as revised in 2022, and an Action Plan that will be incorporated into the overall Program under the additional financing.

This Addendum is to be read together with the original ESSA, since each Addendum section presents only what is different from the corresponding section of the original ESSA. At the beginning of each section, an introductory note describes the extent of the post-2016 changes.

2. BACKGROUND

2.1. Update on the Energy Sector in Tanzania

Tanzania has made impressive progress in increasing the electrification rate in recent years, however approximately two-thirds of the population remain without access to electricity.

Electricity access in Tanzania has increased from seven percent in 2011 to 37.7 percent in 2020, which is one of the fastest access expansion rates in the Sub-Saharan Africa region. However, despite these achievements, a large disparity remains between electricity access rates in urban (73.2 percent) and rural areas (24.5 percent); and between grid coverage (78.4 percent) and overall access/connectivity rate (37.7 percent). The GoT is committed to further accelerating access to modern energy services and has set a goal to extend the grid to all settlements by 2022 and to achieve universal access to modern energy services by 2030.² These targets are enshrined in the National Energy Policy (NEP) 2015 and the 2020 Power System Master Plan Update, and they are planned to be achieved through the ongoing National Rural Electrification Plan. The NREP sets out the strategy for deployment of investments and focuses on electrifying settlements through three different approaches: (a) electrification by densification (that is, the connection of new customers to the grid in already electrified settlements); (b) electrification by grid extension (adding new connections to the grid); (c) electrification through off-grid investments (including mini-grids). The government has, with support from development partners, electrified 4,385 out of 7,873 (56%) unelectrified settlements that were identified at the initiation of the NREP in 2013. The remaining 3,488 settlements are expected to be connected under the last round of the NREP grid extension works (REA3 Round2) that was recently initiated and expected to be completed by 2023.

Tanzania has set ambitious goals to rapidly increase the share of renewable energy in its energy mix.

Tanzania has an estimated renewable energy generation potential of 8 GW. Harnessing the country's abundant hydro, solar, wind, and geothermal resources will play a key role in the country's sustainable economic development, transition to the use of modern energy by households and small and medium-sized enterprises (SMEs), and in meeting the country's national and international climate change goals.³ The 2003 and 2015 NEP have enshrined the

¹ Rural Energy Agency, Energy Access and Use Survey II in Tanzania Mainland 2019/20

² Ministry of Energy, Power System Master Plan 2020 Update

³ These include the recently updated Nationally Determined Contribution (NDC) that were submitted to the United Nations Framework Convention on Climate Change (UNFCC) on July 30, 2022, highlighting Tanzania's intent to enhance the use of renewable energy potential across various sectors to meet its commitment to avoid 30-35% of its Business As Usual emissions by 2030

PSMP update, Tanzania aims to increase its share of renewable energy generation in the energy mix from 37.4 percent in 2020 (2.9 GWh) to 78.2 percent by 2030 (28.45 GWh). However, the development of renewable energy has been undertaken in an ad hoc manner due to the lack of clearly articulated strategies and plans, and has, to date, failed to attract adequate private sector investments in large renewable power projects.⁴ There is currently only one large-scale independent power producer (IPP) – the 189 MW Songas natural gas power plant, which makes up twelve percent of the country's total installed generation capacity. In August 2019 TANESCO also initiated a procurement program for a total of 100 MW wind projects and 150 MW of solar PV projects, which received a very good response from international bidders.⁵

The ongoing Small Power Producer (SPP) program, which targets power projects with an installed capacity of up to 10 MW, has also faced regulatory challenges in recent years.

In June 2019, EWURA formally published a new set of Small Power Purchase Agreement (SPPA) rules, but TANESCO has been reluctant to sign long-term SPPAs on the basis of these rules with standardized tariffs, as they are concerned that cost of power generation and end-user tariffs may fall in the near future when the Julius Nyerere Hydropower Plant (JNHPP) is commissioned. TANESCO has opted to negotiate both the terms and tariffs with individual SPP developers on a project-by-project basis. Hitherto, seven SPP projects have signed SPPAs with TANESCO following this approach. However, in the future, it will be critical to avoid these types of delays around regulation and long cumbersome negotiations to foster investor confidence. To address this and to strengthen the policy and regulatory framework, a renewable energy strategy and implementation plan is being prepared by the MoE under the Parent Program.

Significant investments will be required to meet the GoT's ambitious access and renewable energy targets.

The GoT has invested approximately US\$ 700 million in rural electrification in the last four years. The next and last round of grid extension works under NREP (REA 3 round2) and the next densification round (Densification 2c) is estimated to require funding of roughly US\$ 2 billion. The GoT is expected to continue to provide partial funding for these projects for the foreseeable future, however a significant funding gap remains. Meeting the Government's ambitious generation expansion targets will also require significant investments and depends critically on an improved investment climate to de-risk and accelerate private sector financing for renewable energy power generation, and to ensure the availability of concessional financing towards public sector investments.

⁴ EWURA, Electricity Subsector Regulatory Performance Report for the Financial Year 2019/20

⁵ The evaluation of bids and negotiations with preferred bidders has been completed, but no power purchase agreements have been signed yet.

2.2. Covid Effect

The COVID-19 pandemic severely disrupted economic activity in Tanzania, and the latest firm level data suggest that the situation had only modestly improved by the end of 2021. ⁶ Tanzania has faced four waves of Covid-19 since the epidemic erupted in early 2020. Cumulatively, Tanzania has reported 30,564 cases and 740 deaths as of January 3, 2022. ⁷ The GDP growth rate slowed significantly in 2020 and 2021, as shocks to export-oriented sectors such as tourism, manufacturing, and related services diminished business revenue and labor income, which adversely affected domestically oriented firms of all sizes across all sectors. The exception is gold mining which benefitted from rising prices since the onset of the pandemic. Although the Government did not impose a lockdown, the pandemic initially spurred precautionary behaviors that slowed down domestic economic activity.

2.3. Summary of Progress and Results under the Parent Program

The Development Objectives of the Parent Program are: (i) to increase access to electricity in rural areas; and (ii) to scale up the supply of renewable energy in rural areas while strengthening sector institutional capacity. The Parent Program is comprised of three result areas: i) Results Area (RA) 1: Expanding rural access to electricity; ii) RA 2: Increasing supply of renewable electricity in rural areas; and iii) RA 3: Strengthening the capacity of the sector to deliver the NREP.

The TREEP Parent Program has made important progress towards the achievement of the program development objectives, and progress towards achieving both the PDO and overall implementation progress is rated Satisfactory. Implementation of the Results Area 1 (Expanding Rural Access to Electricity) has progressed well, and the targeted number of connections (585,000) has been achieved. Results Area 2 (increasing supply of renewable energy in rural areas) has just begun to achieve results. There has been significant progress made over the last few months towards achieving financial closure for loans amounting to US\$ 9 million for an estimated 11 MW SPP projects (hydropower and solar PV) against the revised end target of 13 MW, and the first of these loans was just approved in February 2022, for 0.36 MW mini-hydro project. Results Area 3 (sector capacity strengthening support) has been progressing well, and most planned key activities have been completed. Further details regarding DLI status are set out in Table 2 below. The performance of technical, fiduciary, environmental and social, M&E systems are currently rated as Satisfactory.

TREEP is in its fifth year of implementation and its overall disbursement rate currently stands at 81 percent (US\$166.8 million IDA and US\$2.25 million SREP grant). With the recent completion of the restructuring, an additional US\$ 22 million disbursed in February, which

⁶ Tanzania Economic Update 16th Edition, 2021.

⁷ It appears that the ongoing fourth wave has peaked, and number of new cases being reported are on the declining trend. Tanzania's response to Covid surges has been modest by global standards as it did not limit people's mobility or strict lockdown and economic activity was not restricted.

increased the disbursement rate to 91 percent. Table 2 summarizes the program's disbursements as of January 15, 2021.

Table 2: Status of Key Development-Linked Indicators

| DLIs | Baseline | DLR/Target | Achievements |
|----------------------|----------|--------------------------------------|---------------------------------------|
| DLI 1: | 0 | 1: 585,000 connections made under | Achieved. The targeted 585,000 |
| Cumulative | | the program. | connections have been reached. |
| number of grid | | | |
| electricity | | | |
| connections, | | | |
| including those | | | |
| under mini-grids, | | | |
| made under the | | | |
| Program | | | |
| DLI 4: Annual | 0 | 4.1: Annual Capacity Building | Achieved. |
| capacity building | | Plan for FY 2016/17 submitted not | |
| and project | | later than three (3) months after | |
| preparation | | Effective Date | Achieved. |
| activities | | 4.2: Annual Capacity Building | |
| completed | | Plan for FY 2017/18 submitted by | Achieved. |
| | | July 31, 2017 | |
| | | 4.3: Plan to strengthen the capacity | |
| | | of the department for planning and | Preparation ongoing. Draft |
| | | preparation of REA approved by | REMP expected to be completed |
| | | the Rural Energy Board | by June 2022. |
| | | 4.4. (i) Draft Rural Electrification | |
| | | Master Plan is submitted to the | |
| | | Ministry of Energy; and (ii) Draft | |
| | | Rural Electrification Master Plan is | Achieved |
| | | approved by the Ministry of | |
| | | Energy | Achieved. |
| | | 4.5: Targeted Communities | |
| | | Program approved by the Rural | |
| | | Energy Board | Achieved. |
| | | 4.6: Annual Capacity Building | |
| | | Plan for FY 2018/19 approved and | |
| | | submitted by REA to the | Achieved. |
| | | Association | |
| | | 4.7: Feasibility studies for grid | |

| DLIs | Baseline | DLR/Target | Achievements |
|-------------------|----------|---------------------------------------|----------------------------------|
| | | connections for all twenty-four | Preparation ongoing. Feasibility |
| | | (24) regions in the Recipient's | studies/ environmental impact |
| | | territory completed | assessments commented on by the |
| | | 4.8: Annual Capacity Building | Bank in October 2022. |
| | | Plan for FY 2019/20 approved and | Finalization of the reports are |
| | | submitted by REA to the | ongoing. |
| | | Association | |
| | | 4.9: Four (4) consulting services, | Achieved. |
| | | under terms of reference | |
| | | acceptable to the Association, | Achieved. |
| | | completed to support TANESCO's | |
| | | new power | Under implementation, expected |
| | | 4.10: Annual Capacity Building | to be achieved in FY23. |
| | | Plan for FY 2020/21 approved and | |
| | | submitted by REA to the | Under implementation, expected |
| | | Association | to be achieved in FY23. |
| | | 4.11: Annual Capacity Building | |
| | | Plan for FY 2021/22 approved and | |
| | | submitted by July 31, 2021 by | |
| | | REA to the Association | |
| | | 4.12 Capacity development | |
| | | program for renewable energy | |
| | | submitted by REA to the | |
| | | Association | |
| | | 4.13 Preparatory studies for at least | |
| | | eight (8) renewable energy projects | |
| | | completed by REA | |
| DLI 5: | 0 | 5.1: Study under NEP for | Achieved. |
| Implementation | | unlocking electricity connection | |
| of the National | | challenges in rural areas completed | |
| Energy Policy of | | 5.2: Strategy under NEP for | Procurement ongoing; expected |
| 2015 ("NEP") to | | enhancing access to modern energy | to be achieved by June 2023 |
| enhance access to | | services approved by the Minister | |
| modern energy | | of Energy | Procurement ongoing, expected |
| services in the | | 5.3 Renewable energy strategy and | to be achieved by June 2023 |
| Recipient's rural | | implementation plan approved by | |
| areas completed | | the Minister of Energy | |
| DLI 6: | 0 | 6: US\$16.5 million equivalent of | Under implementation, expected |
| Cumulative value | | eligible SPP loan for Small Power | to be achieved by June 2023. |

| DLIs | Baseline | DLR/Target | Achievements |
|------------------------------|----------|---------------------------|--------------|
| (\$) of eligible | | Projects and RE Sub-loans | |
| SPP Loan for | | reaching financial close | |
| Small Power | | | |
| Projects and | | | |
| Renewable | | | |
| Energy Sub-loans | | | |
| reaching | | | |
| Financial Close ⁸ | | | |

2.4. Description of the Additional Financing

The Parent Program's Development Objectives are: (i) to increase access to electricity in rural areas; and (ii) to scale up the supply of renewable energy in rural areas while strengthening sector institutional capacity. The program is comprised of three result areas: i) Results Area (RA) 1: Expanding rural access to electricity; ii) RA 2: Increasing supply of renewable electricity in rural areas; iii) RA 3: Strengthening the capacity of the sector to deliver the NREP; The PDO and Results Areas remain the same for the additional financing.

The proposed AF is aimed at strengthening the development impact of the TREEP Parent Program. Expanding access to electricity remains a key objective and priority for both the GoT and the Bank. As a result of the strong political commitment and support for rural electrification expansion, Tanzania has made higher-than expected progress under NREP. However, the GoT needs continued support to achieve its access target. The Project is performing well, with the Result Area 1 (Grid extension and on-grid connections) targets successfully achieved ahead of the planned time frame projected during preparation. The availability of additional resources under the proposed AF in the amount of USD 340 million will expand the impact of Results Area 1, and it is envisaged that 1,000,000 additional connections will be supported. Moreover, the proposed AF will provide critical technical assistance, capacity strengthening and policy support to enable the GoT to meet its ambitious renewable energy and access goals. The AF will furthermore attract additional support from other development partners and the private sector.

To ensure that the TREEP AF Program activities are accepted and sustainable, the proposed AF will provide support activities aiming at strengthening citizen engagement. This will include among others, support to activities that aim at promoting interactions between TREEP AF Program workers, beneficiaries, the local population, local government authorities and other relevant stakeholders. Such engagement will build rapport with the citizens, leading to smooth Program implementation and meeting E&S requirements. Citizen engagement in TREEP AF is envisaged to support the exchange of Program information with beneficiaries, the local population and relevant stakeholders, including that related to AF's scope, benefits, available

-

⁸ **DLI6** is the new indicator that replaced **DLI 2** (Cumulative number of proposed megawatts ("MW") covered by SPP Loans for Small Power Projects reaching Financial Close under Part B.1 of the Program) and **DLI 3** (Cumulative value (\$) of eligible SPP and Renewable Energy Sub-loans reaching Financial Close under Part B.2 of the Program) as part of the program restructuring.

employment opportunities, rights and responsibilities, as well as E&S risks and impacts. Citizen engagement will be guided by REA's E&S Procedural Manual and the SEP and GRM. REA staff and TANESCO Regional Public Relation in collaboration with government officials at district and village levels will spearhead citizen engagement events. The agenda of meetings will be adjusted depending on the stakeholder needs and the stage of implementation of the various subprojects.

2.4.1. Results Area One

The PforR AF will continue to support activities related to the implementation of the NREP (phase 3 and 4) including: (i) the design and construction of MV [33 kV and 11 kV] and LV lines; (ii) installation of MV/LV distribution transformers; (iii) procurement and installation of service cables and meters; (iv) procurement and installation of materials for connection and metering of new rural customers as set out more specifically in the NREP. Activities under this Results Area will be designed to increase resilience of the T&D infrastructure to climate hazards such as floods. The proposed AF is expected to support grid extension works leading to 600,000 ne connections under NREP REA Phase 3-Round 2 (REA3-R2)⁹ and densification works under Densification Round 2C to achieve over 400,000 additional grid connections. The total amount for RA 1 is USD 320 million.

2.4.2. Results Area Two

Under RA 2, the proposed AF will provide support the implementation of the Renewable Energy Strategy and Roadmap currently being developed under the Parent Program. This will include support to operationalize the renewable projects planned under the Government's PSMP and Renewable Energy Roadmap as well as identify the critical public investments needed to unlock private investments in renewables. This will include support for consulting services to aid in the preparation of new generation projects¹⁰ and, based on the outcomes of the Renewable Energy Roadmap may include:

- a) Feasibilities studies to confirm proposed project sites/identify alternative sites, size solar and wind projects and define public investments needed;
- b) Site studies as applicable including topography and geotechnical studies to verify soil and terrain suitability;
- c) Site specific grid interconnection studies;
- d) Environmental and Social Impact Assessments (ESIA) including land acquisition and resettlement action plans as needed and in line with country-specific environmental and social regulations;

9

¹⁰ REA3 refers to Phase 3 of REA's implementation of NREP, and R2 refers to Round 2. REA issues multiple contracts in Rounds, with each round covering multiple districts. REA3-R1 was completed in the Parent Program. REA3-R2 began in the Parent and will be completed in the AF.

n keeping with the PforR Policy, RA 2 will not include support for preparatory studies of prospective generation projects judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people.

- e) Site specific Energy Resource Mapping Assessments using time series data possibly correlated with ground-based measurements to refine assessments of local resources;
- f) Other studies, including but not limited to: dust, flood risk, seismic activity, climate change impacts and water availability depending on the location of selected sites; and
- g) Transaction advisors including technical, financial and legal support through the project bidding and procurement process.

Furthermore, the proposed AF will provide additional support for preparatory studies for Small Power Producers (SPP) aligned with the Project Preparation Support Facility (PPSF) established under the Parent Program and for a SHS and cooking RBF program. The program will support provision of quality verified solar home system and cooking solution to households living in rural off-grid areas. The SHS will be sold by approved solar distributors and the grant would be provided to bringing down the cost to end users and to incentivizing solar distributors targeting households in remote rural areas which are not expected to be provided with grid electricity in over the next 3-4 years.

2.4.3. Results Area Three

The program will continue to support the annual capacity-building plan, with a focus on enhancing technical and managerial expertise and skills to plan and deliver rural electrification projects identified in the NREP and to scale up renewable energy generation. The annual capacity-building plan will cover REA and other key actors in the sector, including TANESCO, renewable energy project developers, and related market actors such as project financiers. The activities in the annual capacity-building plan are to be aligned with the efforts of other DPs, according to a recent agreement on joint coordinated Technical Assistance (TA) aligned with the GoT capacity-building plans¹¹. The RA3 will also support the design and implementation of a sector wide M&E system, to facilitate project tracking, evaluation as well as collaboration between the sector organizations. The total amount for RA 3 is USD 5 million.

2.4.4. Scope: Program Key Results and Disbursement Linked Indicators

The following indicators have been selected to measure progress towards the PDOs:

• People provided with access to electricity under the PforR by the number of household connections (grid extension);

¹¹ According to most recent Tanzania Joint Energy Sector Review 2019, REA and MoE lack qualified personnel to follow up and supervise quality performance of rolling out the ambitious rural electrification program. Both agencies require additional technical experts, program managers and necessary software applications in order to manage the increased workload. To be more specific, REA needs i) additional zonal coordinators to follow up and supervise projects in the field, and ii) systems to identify training needs that are linked to its strategic plan. Meanwhile, MoE needs to strengthen its planning capacity.

- Number of non-residential electricity connections under the Program (grid extension);
- People provided with access to electricity under the PforR by the number of household connections (off-grid);
- Cumulative number of proposed MWs covered by SPP and renewable energy sub-loans reaching financial close under the Credit Line;
- Capacity for delivery of energy access and renewable energy generation strengthened

Table 3 provides an overview of the results of the PforR, including the linkages between the areas under the national rural electrification program, the PforR support, the PDO indicators, and the DLIs against which Bank disbursements to REA will be made. The choice of DLIs is based on the following justifications: (i) the importance of the indicator to signal a critical action/output along the results chain; (ii) a perceived need to introduce a strong financial incentive to deliver the result; (iii) practical aspects of verifying achievements; and (iv) capacity of REA to achieve the DLI during the implementation period of the PforR.

Table 3: PforR Program Results

| | Government Program | PforR Areas | PDO Indicators | DLIs |
|--|-----------------------------|---|---|---|
| Tanzania Rural Electrification Program | Densification | Result Area 1: | PDO Indicator 1: People provided | |
| | Grid Extension | Expanding rural access to electricity | with access to electricity under the program by household connections | DLI 1: Cumulative number of grid electricity connections under the program |
| | Off-grid Electrification | Result Area 2: Increasing supply of renewable electricity in rural areas | PDO Indicator 2: Number of nonresidential connections implemented under the program PDO Indicator 3: Cumulative number of proposed MWs covered by SPP and renewable energy sub-loans reaching financial close under the | DLI 6: Cumulative value of Solar PV loans reaching financial close DLI 7: Implementation of the Renewable Energy Strategy and Roadmap and RE off-grid activities under the Rural Access Strategy DLI 8: Cumulative number of off-grid electricity connections and efficient cook stove sold under the RBF Program |
| | Capacity Development | Results Area 3: Strengthening the capacity of the sector to deliver the NREP | PDO Indicator 4: People provided with access to electricity via off-grid supplies under the program (SPP and solar PV) PDO Indicator 5: Capacity and policy for delivery of energy access and renewable energy generation strengthened | DLI 4: Annual capacity building and project preparation activities completed DLI 5: Implementation of the National Energy Policy of 2015 completed |

3. SCOPE AND METHODOLOGY

To prepare the ESSA Addendum, the following activities were undertaken:

- (i) Adjustments to accommodate the change that occurred in 2015 in ESSA guiding policy and procedure. OP/BP 9.00 were replaced by the *Bank Policy* and *Bank Directive for Program-for-Results Financing*.
- (ii) Review of the relevant laws, regulatory frameworks, and guidelines. Any relevant amendments or new instruments are reported in the Addendum and analyzed for consistency with the Bank Policy and Bank Directive (BP&BD) as revised in March 2022.
- (iii) Assessment of the potential environmental and social risks of the additional financing. Those that differ from the risks of the parent program are explained in the Addendum.
- (iv) Review and assessment of the institutional roles and responsibilities for environmental and social management and analysis of current capacity and performance to carry out those roles and responsibilities in the additional financing, consistent with the principles in the Bank Policy and Directive. The primary focus of these activities is REA, with secondary attention to NEMC and TANESCO.
- (v) Preparation of environmental and social inputs to the Program Action Plan as necessary for the additional financing.
- (vi) Consideration of public participation that included Government Institutions; Private energy sector; Donors, Community representatives and CSOs working with Vulnerable Groups, and NGOs working with people living with disabilities; Regulatory authorities and Ministries.

The process included: (i) evaluating of the implementation of the Program Action Plan (PAP) for the parent program; (ii) assessing of the safeguards performance of REA, TANESCO, and NEMC in implementing the parent program; (iii) assessing the safeguards implementation capacity of those agencies for the additional financing, taking into account capacity strengthening resulting from PAP implementation, actions taken to remedy deficiencies identified during supervision, and capacity-building initiatives independent of TREEP; and (iv) developing a set of viable actions to strengthen the system and improve performance to the extent found to be necessary during the foregoing analyses. The World Bank has worked closely with REA to develop the Addendum and to agree on the Action Plan items as a guide to identify and mitigate impacts and strengthen the environmental and social management system.

The Addendum has drawn on various inputs, including:

- Legal and regulatory analysis;
- Desk review of World Bank implementation status reports (ISR) for the parent program;

- Desk review of Aides Memoire from World Bank implementation support missions;
- Joint REA-Bank field visits during implementation support missions to villages with active projects in REA Phase III Round 1 (REA3R2) of grid extension supported under Results Area 1;
- Review of the findings and recommendations of the independent audit of grid extension projects conducted in April-June 2020;¹²
- Review of monthly and quarterly reports prepared by the Program Management Consultant (PMC); and
- Meetings and discussions with REA, TANESCO, and the PMC.

The system analysis in the ESSA Addendum was conducted using the same Strengths-Weaknesses-Opportunities-and- Threats (SWOT) approach that was employed in the original ESSA. The "weaknesses," or gaps with the Bank Policy and Directive, are considered on two levels: (i) the system as written in laws, regulation, procedures and applied in practice; and (ii) the capacity of Program institutions to effectively implement the system. The analysis focuses on the strengths, gaps, potential actions, and risks associated with the systems currently in use in the Energy sector to address the environmental and social effects commensurate with the nature, scale and scope of operations. This is structured to examine arrangements for managing the environmental and social effects (i.e., benefits, impacts and risks) of the Program. The analysis also examines how the system as written in policies, laws, and regulations is applied in practice at the national and local levels. In addition, the analysis examines the efficacy and efficiency of institutional capacity to implement the system as demonstrated by performance thus far.

The analysis examined the questions of whether the current system: (i) mitigates adverse impacts; (ii) provides transparency and accountability; and (iii) performs effectively in identifying and addressing environmental and social risks. The overarching objectives are to ensure that the risks and impacts of the additional financing activities are identified and mitigated, and to strengthen the system and build capacity to deliver the Program in a sustainable manner. This Addendum also proposes measures to strengthen the system.

14

_

¹² The field visits and the audit were limited to grid extension projects, as the first small power producer project under Results Area 2 only began implementation in February 2022.

4. NATIONAL ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS

In this section of the Addendum, laws and regulations that came into being since 2016 are identified and described. In addition, the descriptions of a number of policies, laws, and regulations that were covered in the original ESSA have been revised to better reflect their content and to highlight elements that relate to aspects of World Bank policy and procedure that have received greater emphasis since 2016, e.g., labor management, workplace health and safety, and gender-based violence/sexual exploitation and abuse (GBV/SEA). Laws and regulations related to those topics that were not in the original ESSA, whether pre- or post-2016 are included here as well.

4.1. Laws and Regulations for Environmental Management in Tanzania

National Environmental Policy (2021): The National Environmental Policy (NEP) provides the framework for incorporating and mainstreaming environmental and social considerations into decision-making in Tanzania. The original NEP was issued in 1997 and led to notable achievements in environmental management, including the enactment in 2004 of its main implementing legislation, the Environmental Management Act (EMA). However, the Government has recognized that despite the positive results of implementing the 1997 policy, there are still significant limitations that constrained effective implementation. These concerns include: inadequate coordination among sectors in managing environment; low public awareness and knowledge on environmental management; inadequate land use planning at various administrative levels; inadequate enforcement and compliance of legislation related to environmental management; inadequate alternative sources of energy and dependence on charcoal and firewood as the main source of energy; increased encroachment of water sources; limited capacity in terms of human and financial resources, infrastructure, technology, and tools; and inadequate environmental research, data and information on environmental issues. Furthermore, new environmental challenges have emerged that were not explicitly addressed in the 1997 policy. These include: climate change; invasive species; electrical and electronic equipment wastes (e-wastes); genetically modified organisms; management of oil and gas; and sound management of chemicals. For these reasons, the NEP has been revised.

The specific objectives of NEP 2021 are:

- To strengthen coordination of environmental management in sectors at all levels;
- To enhance environmentally sound management of land resource for socioeconomic development;
- To promote environmental management of water sources;
- To strengthen conservation of wildlife habitats and biodiversity;
- To enhance conservation of forest ecosystems for sustainable provision of environmental goods and services;

- To manage pollution for safe and healthy environment;
- To strengthen the national capacity for addressing climate change impacts;
- To enhance conservation of aquatic systems;
- To ensure safety in application of modern biotechnology;
- To promote gender considerations in environmental management;
- To promote good governance in environmental management at all levels; and
- To ensure predictable, accessible, adequate and sustainable financial resources for environmental management.

The EMA continues to be the principle implementing law for the NEP, and the Ministry Responsible for Environment continues to have the role of overall coordination of policy implementation. The NEP defines responsibilities of other relevant actors including line ministries, Minister of Finance, NEMC, regional and local governments, development partners, and NGOs.

The National Energy Policy, 2015: The National Energy Policy provides the framework for provision of energy services and legal, regulatory and institutional frameworks for petroleum, electricity, renewable energies, energy efficiency as well as local content issues. The Tanzanian energy sector faces numbers of bottlenecks including: low private sector participation in large scale power generation; over-reliance on few generation sources; unreliable and expensive energy supply; overdependence on government subsidies; low access to modern energy services; inadequate human resource with requisite skills and knowledge; low participation of government and Tanzanians in the petroleum value and supply chain; inadequate financial resources to develop the sector; and inadequate research and development.

The NEP of 2015 has been formulated, among other things to address these limitations and improve performance and promote efficient use of energy resources. It aims at improving business environment to attract more private investments and local participation in the Energy Sector. The policy also sets the targets for increasing access to modern energy services and increasing the share of renewable energies in electricity generation mix, thereby serving as one of the guiding instruments for NREP. =

National Occupational Health and Safety Policy (2010). Tanzania recognizes the importance of occupational health and safety services in sustainable development in the country. They help to reduce occupational accidents and diseases as well as helping increasing productivity at the workplaces. Unsafe working environment can cause accidents and injuries which can cause huge economic burden to individuals, enterprises and the nation as whole. In recognition of this, in 2010 Tanzania developed the National Occupational Health and Safety Policy. Its main objective is to reduce number of work-related accidents and diseases in Tanzania. To attain this, the policy requires employer to maintain highest degree of safety and healthy working conditions and

environment for the facilitation of optimal social, mental and physical wellbeing of workers as well as safety of property.

The policy identifies various challenges that limit promotion of occupational health and safety at enterprise and national including: Inadequate effective institutional framework to enhance commitment of the social partners; Low awareness of occupational health and safety matters amongst workers, employers and general public at large; Low compliance to OHS standards; Poor working environment in the informal sector; Inadequate OHS training and skills development; Lack of financial commitment by social partners to enhance occupational safety and health activities; Fast technological development and globalization; Inadequate OHS information; and Inadequate programmes to address cross cutting and Sectoral issues like gender, HIV and AIDS, migrant workers, disabled people and people living in abject poverty. To address the aforementioned challenges, chapter seven (7) of this ESSA have put in place procedures that will ensure project workers and local communities are protected from occupational health and risks hazards.

Electricity Act 2008: This is principle legislation that govern electricity matters in Tanzania. It provides for facilitation and regulation, transmission, transformation, distribution, supply and use of electric energy, to provide for cross—border trade in electricity and planning and regulation of rural electrification and to provide for related matters. The act has provisions and directives on: operating license (Part III), electricity tariff and charges (Part IV), monitoring, inspections and compliance (V), access to land for installations of electricity infrastructure (Part VI), rural electrification (Part VII), reorganization of the electricity market (Part VII), and dispute settlements. This act is relevant for TREEP AF because apart from guiding on electricity matters in general it also clarifies issues related to rural electrification, and access to land for installations of electricity infrastructure which is central for TREEP AF.

The Rural Energy Act, 2005: The act establishes Rural Energy Board (REB), Fund and Agency to be responsible for promotion of improved access to modern energy services in the rural areas of mainland Tanzania. The Rural Energy Development is guided by the following principles: (i) the supply of modern energy in rural areas should target or aim to promotes growth in economic production and productivity a s well a s social welfare; (ii) involvement of private and community initiatives is central in promotion of modern rural energy services for sustainable development; (iii) the role of government in rural energy service provision is that of a facilitator of activities and investments made by private and community entities; (iv) the fulfilment of Government's role shall be best managed through an institution that is independent of, but accountable to, the central organs of Government; (v) the public institution designed to facilitate rural energy service provision shall have a small core administrative capacity, and shall rely on the technical and financial capacity of qualified private sector entities; and (vi) facilitation of rural energy service provision shall take the form of financial support for the capital costs of investments, technical assistance to project preparation, training and other forms of capacity

building. The law is relevant for TREEP AF as it clarifies the functions of Rural Energy Board, Fund and Agency and the role of private sector in rural energy supply.

The Environmental Impact Assessment and Audit Regulations of 2005 and its amendments of 2018

The Environmental Impact Assessment and Audit Regulations No.349 of 2005 were made pursuant to Section 82 (1) and 230 (h) and (q) of the Environmental Management Act Cap 191 of 2004 and its amendment in 2018. The regulations provide the procedures and requirements for undertaking ESIA for various types of development projects with significant environmental impacts. In addition, the Regulations provide a list of projects that qualify for Environmental Assessment procedures in Tanzania. Regulation 46(1) classifies projects into two types: (i) Type A Projects requiring a mandatory ESIA; and (ii) Type B projects requiring a Preliminary Environmental Assessment (PEA). The First Schedule lists typical examples of Type A and B projects. The Regulation was amended in 2018 by The Environmental Management (Environmental Impact Assessment and Audit) (Amendment) Regulations, 2018, in which and project categorization was changed to "A" category for Mandatory Projects, "B1" category for Borderline Projects, "B2" category for Non-Mandatory, and "Special Category. ESIA is mandatory for Category "A" projects and may or may not be required for Category B1 depending on NEMC's findings when it reviews the Project Brief and Scoping Report that include a proposed ESMP. Processing times for EIA Certificate applications are shortened in the amendment. The amendment also allows the Minister to issue a Provisional Environmental Clearance on advice from NEMC for industrial or agro-processing projects and projects determined by the Minister to be in the national or public interest. The recipient of a Provisional Environmental Clearance is obligated to submit the project ESIA within four months and to comply with other conditions that may be in the clearance.

The Strategic Environmental Assessment Regulations, 2008 requires SEA of all bills, regulations, policies, strategies, plans or programs, unless exempted by the Minister responsible for environment. SEA is to commence at the beginning of preparation of the item and to continue until it is promulgated in final form. Sector ministries are obliged to inform the Minister before undertaking preparation of one of these instruments in order to find out whether SEA is necessary. The SEA report must explain the likely impacts of implementation of the instrument on the environment and health and must consider alternatives to the undertaking. SEA's are to be submitted to the Minister for approval. The regulation specifies the steps involved in SEA. National Guidelines for Strategic Environmental Assessment, 2017, were issued from the Vice-President's Office. These regulations and guidelines would be applicable to the Renewable Energy Strategy and Implementation Plan being prepared by MoE with support from TREEP under Results Area 2.

The Environmental Management (Control and Management of Electrical and Electronic Equipment Waste) Regulations, 2021: The main and primary objective of the Regulations is to promote proper management of e-waste to protect human health, and environment while ensuring sustainable development. The Regulations applies to all categories of electrical and electronic equipment wastes with respect to generation, collection, storage, transportation, importation, exportation, distribution, selling, purchasing, recycling, refurbishing, assembling, dismantling and disposal of electrical and electronic equipment waste or components, and their movement into and outside Mainland Tanzania. The Regulations include provisions and directives on administration and institutional arrangement on e-waste (Part IV), control and management of e-waste (Part V), in country movements of e-waste (Part VI), transboundary movement of e-waste (Part VII), responsibilities of a person in possession of e-waste, government departments, manufactures, and consumers (small and bulk), (Part VIII), compliance and enforcement (Part IX), general provision (Part X). The Regulations directs that the Minister may, in the execution of the powers vested upon him/her by these Regulations in managing ewaste, shall be assisted in the discharge of his/her duties under these Regulations by the Director of Environment, the Council, Regional Environmental Management Expert, local government, the Environmental Inspectors. Small solar power plants to be implemented under AF are likely to generate e-waste and thus shall observe this law.

The Environmental Management (Registration and Practice of Environmental Experts) Regulations, 2021. This regulation was introduced for the essence of regulating the practice and general conduct of registered experts and firms of environmental experts in the country and also act as one of the measures to address the issue of quality of ESIAs. It prescribes eligibility for experts to undertake ESIA for different projects with reference to their classifications i.e. qualifications and experience; experts are categorized in classes. It provides for registration, categorization, practicing and conduct of environmental experts and firms of environmental experts registered and certified under these Regulations.

4.2. Legal Framework for Social Risks and Management in Tanzania

Employment and Labour Relations Act, Act No. 6 of 2004 and the Labour Institutions Act, Act No. 7 of 2004. While the Employment Act provides for labor standards, rights and duties, the Labour Institutions Act constitutes the governmental organs charged with the task of administering the labor laws. Subsequently, in 2007 several pieces of subsidiary legislation were promulgated to facilitate the enforcement of labor rights and standards stipulated in the Employment Act. The new laws further enact employment and labor standards which conform to the labor standards set by the International Labour Organization. The Employment and Labour Relations Act sets out provisions for fundamental rights and protections, which include forced labor, child labor, discrimination, and freedom of association. It also sets out employment standards, wage parameters, working hours, and dispute regulations, among others. To ensure inclusiveness in the workplace, Section 7 of the Employment and Labour Relations Act (2004)

prohibits direct and indirect discrimination in the workplace including discrimination based on sex, gender, pregnancy, marital status, disability, HIV/AIDS, and age. Sexual harassment is also prohibited as articulated in Section 7(5). The law also prohibits night work for pregnant mothers under certain circumstances, whilst guaranteeing maternity leave as a right for mothers and paternity leave for fathers. This objective intended to strengthen implementation of national ILO Minimum Labour Standards.

The Workers Compensation Act, 2008: The Act established a fund to be known as the Workers Compensation Fund consist of the assessment paid by the employers under this act; any other money paid by employers to the fund under this Act. Penalty imposed under this act other than a court; any interest on investments of the fund; any observation from the Government; and any other money legally acquired. The Act also established board of trustees of the workers' compensation which can sue and be sued, purchasing, or otherwise acquiring, holding, charging, and disposing of property, movable or immovable; and entering contracts and performing all such other acts for the proper performance of its functions under this Act which may lawfully be performed by a body corporate. This Act provides for compensation to workers for injuries suffered in the course of their employment, which result into disease causing disablement or death. This Act needs to be complied with as Project workers will be exposed to various dangerous and hazardous environments during project implementation.

The Occupational Health and Safety Act (No. 5, 2003): This is a principal law that governs Occupation, Health and Safety (OHS) matters in Tanzania. The law aims at improving health, safety, and general wellbeing of workers and workplaces by promoting occupational health and safe practices in order to eliminate occupational accidents and diseases, hence achieve better productivity in the workplaces. In addition, it provides for the protection of persons other than those at work against hazards to health and safety arising out of or in connection with activities of persons at work. Section 15 gives powers to the Registrar of factories and workplace to enter any factory or workplace to perform his duties as provided by the Act. Section 16 requires that factories and workplace should register with Registrar of factories and workplaces before commencing operations.

Part V of the Act emphasizes the provision of adequate clean, safe, and wholesome drinking water, sufficient and suitable sanitary conveniences and washing facility. Part VI of the Act deals with special safety provisions for working places involving handling hazardous chemicals, hazardous processes or hazardous equipment. This Act is relevant for the TREEP AF Program during construction and operation since it involves high voltage electricity, working at heights, and use of machines and instruments that may affect workers or other people. The need to ensure that all workers and workstations adhere to the laws is imperative. Personal protective gear during all times the worker is at the site must be enforced to the maximum, and people who are not relevant to the site should be prohibited.

The Occupational Health and Safety (First aid and Welfare Facilities) Rules, 2015: These occupational health and safety (first aid and welfare facilities) rules provide for the duty and responsibilities of the employer, first aider and employees, regarding first aid and welfare facilities. The law has provisions and directives on first aid and supplies of basic facilities such as: first aid attendant qualifications; basic requirements related to equipment, supplies, facilities, first aid attendants and services; first aid procedures and information on post exposure; sanitation, accommodation for clothing, change-rooms and dining room; prohibition, seats, and condition of rooms and facilities; first aid attendant, first aid records, first aid attendant responsibilities; and offences and penalties. The law is relevant to TREEP AF. Activities such as construction of medium voltage (MV) and low voltage (LV) lines; installation of MV/LV distribution transformers; procurement and installation of service cables and meters; and supply of renewable electricity in rural areas will require numerous laborers that will require welfare facilities including drinking water, accommodation, toilets and other sanitation facilities. Therefore, the employer/contractor and or consultant will be required to abide to the provisions contained in this law as will not only ensure health and safety of workers but will avoid unnecessary burden to the host communities.

Law of the Child Act (2009): The act provides standards for identifying, referring, and responding to cases of child abuse and other forms of violence. They incorporate the essential elements required to build a protective environment, including a child-friendly justice system. Child abuse is defined in detail as "contravention of the rights of the child which causes physical, moral or emotional harm including beatings, insults, discrimination, neglect, sexual abuse and exploitative labour." Employment and Labour Relations Act, Act No. 6 of 2004 define a child as a person under the age of 14 years; provided that for the employment in hazardous sectors, child means a person under the age of 18 years. The law prohibits child labour. Section 78 providing that no person "shall not employ or engage a child in any kind of exploitative labour" Whilst night work by a child and forced labour are also prohibited in Section 79 and 80 respectively.

Sexual exploitation is prohibited through Section 83 and is comprehensively defined to include any work/trade (paid or unpaid) that exposes the child to activities of a sexual nature. In terms of character, this would include inducement or coercion in the encouragement of a child to engage in any sexual activity; children in prostitution or other unlawful sexual practices or children in pornographic performances or materials. The punishment is a fine of not less than 1 million shillings and nor more than 5 million or to imprisonment for a term of not less than 1 year and not more than 20 years or both. In instances where a child is a witness on sexual offence, the Act complements the Evidence Act by noting that "Notwithstanding the provisions of this section, where in any criminal proceedings involving sexual offence the only independent evidence is that of the child or victim of the sexual offence, the court shall receive the evidence and may after assessing the credibility of the child or victim of sexual offence, on its own merits, notwithstanding that such evidence is not corroborated, proceed to convict for reasons to be

recorded in the proceedings, if the court is satisfied that the child is telling nothing but the truth" To support the implementation of the Act four regulations have been developed including Children Court Rules, Foster Care Regulation, Children Care and Protection Regulation and Approved Residential Establishment Regulation. The TREEP AF will require to abide to all directives as stipulated in this law.

Gender Policies: There are a number of policies positively impacting gender. Important among them include the following: (i) Gender Policy, (ii Affirmative Action Policy, (iii) Sexual Offenses Act (1998), and (iv) Action Plan against Gender Based Violence (since 2010).

4.3. Institutional Framework for Energy, Environment and Social Matters

Relevant institutions in Tanzania with key responsibilities for environmental and social management in the energy sector not already included or not sufficiently addressed in the original ESSA are described below.

The Ministry of Energy (MoE): provides oversight and coordination of TREEP. The ministry is mandated to formulate and monitor implementation of policies on energy, oil and gas. It is also responsible for energy and petroleum resource management; value addition in petroleum; oil and gas infrastructure development; bulk procurement of oil; urban and rural electricity programmes; local content in energy and petroleum; renewable and nonrenewable sources of energy; performance improvement and development of human resources; and to facilitate mobilization of resources into areas where market forces fail to ensure adequate energy services. The mission and vision of MoE are to create a vibrant energy sector that contribute significantly to economic growth and improved quality of life of Tanzanians. This is envisioned to be implemented through its mission which targets to provide 'reliable, affordable, safe, efficient and environment friendly modern energy services to all while ensuring effective participation of Tanzanians in the sector'. The MoE has four institutions including: The Rural Energy Agency (REA); The Tanzania Electric Supply Company Limited (TANESCO); Energy and Water Utilities Regulatory Authority (EWURA); Tanzania Petroleum Development Corporation (TPDC); The Petroleum Upstream Regulatory Authority (PURA); and The Petroleum Bulk Procurement Agency (PBPA).

Tanzania Electric Supply Company Limited: The main supplier of electricity in Tanzania is TANESCO, a state-owned monopoly (parastatal). TANESCO will be the off-taker of electricity transmitted into the national grid by SPPs and the owner and operator of the medium-voltage and low-voltage power lines and transformers installed by REA. TANESCO's roles during power line construction include provision of specifications, technical supervision, and quality control. Unlike REA, TANESCO has engineering staff at regional and district levels and so is better equipped to perform these functions, which it will provide during implementation of the program. It has expanded its environmental and social unit from 18 in 2017 to 22. However, the environmental and social staff are centralized; it does not have environmental or social

specialists at regional or district levels, and so its supervision does not extend to oversight of the contractor's implementation of environmental and social impact management measures.

Rural Energy Agency (REA) is an autonomous body under MEM and will be the lead implementing agency for the program. Its main role is to promote and facilitate improved access to modern energy services in rural areas of mainland Tanzania. REA was established by the Act of Parliament No. 8 of 2005 and became operational in October 2007. REA promotes and facilitates rural energy development by working in partnership and collaboration with private sector actors, NGOs, community based organizations (CBOs), TANESCO, and Government entities. The main functions of REA are the following.

- Promote, stimulate, facilitate, and improve modern energy access for productive uses in rural areas in order to stimulate rural economic and social development;
- Promote rational and efficient production and use of energy, and facilitate identification and development of improved energy projects and activities in rural areas;
- Finance eligible rural energy projects through REF;
- Prepare and review application procedures, guidelines, selection criteria, standards, terms, and conditions for grants allocation;
- Build capacity and provide technical assistance to project developers and rural communities; and
- Facilitate preparation of bid documents for rural energy projects.

REA, in partnership with project developers, identifies energy projects and facilitates investment in energy supply in rural areas. The goal is to provide access to modern energy services for rural households, schools, health centers and other social infrastructures to contribute to poverty reduction initiatives in the country. To ensure alignment with Tanzania's regulatory framework, REA works closely with TANESCO and with EWURA, which is responsible for technical and economic regulation of the energy and water sectors in Tanzania. REA is responsible for the environmental and social management of the on-grid and off-grid components of TREEP. It has expanded its environmental and social unit, adding a gender specialist and an environmental/social specialist to join the one environmental specialist that was on board in 2016. The unit supervises off-grid developments, and REA has engaged a Program Management Consultant (PMC) that has two E&S specialists and ten field supervisors that have been trained to monitor E&S performance at grid extension project locations.

Office of the Vice President – Director of Environment (VPOE): The Vice President' Office has the overall mandate to oversee environmental issues in Tanzania. The EMA Cap.191 Section

13 give powers to the Minister for Environment to issue guidelines and regulations relating to the environment, including the articulation of policy guidelines for its promotion, protection and sustainable management, and designate duties to relevant entities. The Division of Environment (DoE) within the Vice President Office is led by the Director for Environment. The EMA, Cap. 191 Section 14 direct the Director for the Environment to coordinate and report on environmental related aspects and activities in the country. Consequently, the Division is responsible for overseeing and coordinating environmental policy, the Environmental Management Act and EIA Guidelines; approving, signing and issuing Environmental Certificates; advising government on all environmental matters; enforcing and ensuring compliance with national environmental quality standards; and providing policy direction and leadership on all environmental matters.

The National Environment Management Council (NEMC): NEMC is a corporate body established under EMA (2004) Section 161. It has mandates for enforcement, compliance, review and monitoring of EIAs, including the facilitation of public participation in environmental decision making. NEMC has five key divisions each on the relevant aspects of environmental management (Compliance and Enforcement; Environmental Impact Assessment; Environmental Information, Communication and Outreach; Environmental Planning and Research).

To ensure compliance, project must be issued an environmental license or permit, which confirms that all necessary environmental and social due diligence requirements have been fulfilled. NEMC also provides periodic oversight, monitoring the national portfolio of activities to ensure that no adverse cumulative impacts result. NEMC further provides oversight and technical assistance at the district level when required. Overall, NEMC performs three critically important roles:

- (i) Oversee the Environmental and Social Impact Assessment (ESIA) process;
- (ii) Train district officials to carry out environmental and social due diligence monitoring; and
- (iii) Monitor implementation of environmental and social safeguards.

NEMC is also responsible for:

- Ensuring that operators comply with Tanzania's environmental laws and requirements, a function it carries out with the assistance of the environmental officers assigned to district and regional governments;
- Receiving, reviewing, issuing comments and requests for revision, and providing clearance of completed ESIAs or PESAs, when they are required, for subprojects prior to issuance of environmental permits and disbursement of financing from the fund;

- To establish officer and appoint officers across the country to further its responsibilities for environmental management more effectively.
- Reviewing and compiling monitoring reports for the district coordinators;
- Issuing directives, based on monitoring and evaluation (M&E) reports, to the operators and district environmental coordinators; and
- Conducting, in cooperation with other ministries, programs to enhance environmental education and increase public awareness.

Since 2016, NEMC has substantially expanded its capacity to carry out those functions, especially the third one which is related to monitor implementation of environmental and social E&S management through posting additional staff in the field. To ensure effective monitoring implementation of environmental and social safeguards the country is divided into have streamlined operations covering all administrative Regions. There are nine (9) Zonal Offices namely: (i) Northern Zone - Arusha, Kilimanjaro and Manyara regions; (ii) Lake Victoria Zone - Mwanza, Mara, Shinyanga, Geita and Simiyu; (iii) Central Zone - Dodoma, Singida and Tabora; (iv) Western Zone - Kigoma, Kagera and Rukwa; (v) Southern Highlands Zone - Mbeya, Iringa, Njombe and Songwe; (vi) Southern Zone - Ruvuma, Mtwara and Lindi; (vii) Eastern Zone (North) - Tanga, Bagamoyo, Chalinze; (viii) Eastern Zone (South) - Kigamboni, Temeke and Ilala; and (ix) Morogoro and Rufiji Special Zone. In a change since 2016, there are now four or five environmental officers in each of nine NEMC zonal offices. TREEP AF will benefit from this decentralized capacity.

Institutional Gaps: Although the NEMC officers at the head office and zonal offices are well qualified and possess the requisite skills necessary for ensuring environmental assessments (i.e. ESIA, Audit) are compliant with regulatory requirements, inadequate staffing and funding limit the agency's capacity to supervise all on-going projects scattered over a large geographical area and enforce compliance with license obligations and regulations through on-site monitoring. NEMC officers, therefore, focus mostly on the review and monitoring of high-risk projects at the expense of other projects. In the end, monitoring is often left to self-monitoring by the proponent of a project with little oversight from NEMC independent view particularly at LGAs and other lower levels. One way forward at NEMC currently in terms of reviews of ESIA is to have a capacity-building program for newly-recruited staff to enable them to have required knowledge for review of projects with consideration of current environmental and socio-economic challenges.

Ministry of Labour and Employment (MLE) and Occupational Safety and Health Authority (OSHA): The Ministry of Labour and Employment (MLE) provides oversight and coordination on labour matters in Tanzania. The OSHA was set up in 2001 under the MLE to administer occupational health and safety at workplaces in the country. It provides directives, technical advice, enforces legislations, proposes amendments, allocates resources, oversees all

activities carried out by OSHA and ensures that OHS rules and regulations are adhered to and maintained at workplaces. Therefore, the ministry defines role of each stakeholder in respect of occupational health and safety matters which are enforced by OSHA.

The enforcement of occupational health and safety standards is accomplished through: workplace registration, undertaking statutory inspections (electrical inspection, pressure vessels inspection and lifting equipment inspection); risk assessment; training and information on occupational health and safety, scrutiny and approval of workplace drawings/ plans. Other activities include; diagnosis of occupational diseases; occupational health surveillance, work environment monitoring, investigation of accidents; authorization of private OHS Providers.

4.4. Institutional Capacity

Institutional Capacity: The OSHA has three main directorates each headed by director: The Director of Training, Research and Statistics; The Director of Technical Support (Health and Safety); and the Director of Business Support Services. OSHA is represented in six (6) zones across the country which are Coastal Zone, Northern Zone, Lake Zone, Central zone, Southern highlands zone and Southern zone. The officers at these zones are qualified and possess the requisite skills necessary for managing health and safety risks. However, the offices are understaffed, with the capacity assessment findings revealing that most officers are not able to cover their regions within the zones as required. The officers are also not given enough resources (including budget) to cover the wide regions assigned. This has made it difficult for the staff to enforce and monitor the health and safety requirements as per the OSHA and WB requirements, especially for infrastructure projects. Due to capacity problems, monitoring and enforcement by OSHA are mostly missing in many projects, with many active construction sites not being registered or visited by an officer as required by the national framework on safety.

In fulfillment of its responsibility of identifying hazards at workplaces and assessment of risks with a view of preventing accidents, diseases and damage to property, the Authority will play a key role in the program by inspecting and auditing of workplaces to promote best practices and ensure compliance with safety and health standards as set out in Occupational Health and Safety Act, 2003 and its subsidiary legislations.

Authorities (**LGAs**): Local Government authorities (LGA) at the Council level (City, Municipal, Town and District councils) are obliged by section 36 (1), (2) of EMA (2004) to designate an Environmental Management Officer (EMO) and to form Environmental Management Committees. The EMA 2004 delineates the roles and functions of officers and committees for environment management at the level of local government administration. LGAs are to appoint an environment management officer to oversee day-to-day management of environmental aspects in collaboration with city, municipal or district environment management committees. The functions of the EMO are to:

 Advice the environmental management committee to which he/she belongs on all matters related to the environment. • Promote environmental awareness in the area he/she belongs on the protection of the environment and the conservation of natural resources

LGAs maintain Environmental Management Committees the membership of which typically consists of:

- District planning officer, who coordinates the planning process;
- District natural resources officer, who manages the development of natural resources/forestry, wildlife, beekeeping, fisheries, and so forth;
- District agricultural and livestock development officer, responsible for land use and management;
- District water engineer;
- District health officer; and
- Co-opted members (depending on nature of project).

The Committees are supported by a designated or appointed Environmental Management Officer, employed by the District LGA but linked to and trained by NEMC, and having these main functions:

- Issuance of ESIA registration forms to developers and operators and provision of information on relevant policy, legal, and other administrative requirements at the district level;
- Coordination of the ESIA/PESA process at the district level for Category C projects;
 and
- Linkage with NEMC on all undertakings within the district.

4.5. National Mechanism on Gender Based Violence/Sexual Exploitation and Abuse

The Ministry of Community Development, Gender, Elderly and Children (MCDGEC) is a newly-established ministry responsible for overseeing and coordinating the implementation of five policies and two laws which foster social protection and addressing vulnerability issues. The policies and laws are: Community Development Policy (1996); Women and Gender Development Policy (2000); National Non-Governmental Organization Policy (2001); National Aging Policy (2003) and Child Development Policy (2008). While Laws include Non-Governmental Organization Act No.24 (2002) and Law of the Child Act No.21 (2009).

Together, these policies and strategies emphasize and provide strategies for gender equity in all aspects of social, political, and economic life; gender equity in decision making; rights of the girl child to education; protection of minors against sexual abuses and other forms of violence; and establishment of anti-VAWC platforms at community level.

In addition, the ministry is responsible for overseeing institutions that are designed to foster social development namely; Tengeru Institute of Community Development, Community Development Training Institutes, Elders Homes, Kurasini National Children's Home, Retention Homes, Irambo Approved school, Institute of Social Work and Kisangara Institute of Social Work. These institutions have been established to advance and promote development issues related to gender, elderly and Children.

According to Government Notice No. 144 of 22nd April, 2016 the CDGEC is mandated for: (i) Policies on Community Development, Gender, Elderly and Children and their implementation; (ii) Coordination of NGOs dealing with the functions under this Sector; (iii) Facilitate collaboration with International Organizations mainly: UNICEF and UN-WOMEN; (iv) Performance Improvement and Development of Human Resources under this Ministry; as well as (v) working in collaboration with Extra - Ministerial Departments, Parastatal Organizations, Agencies, Programs and Projects under this Ministry.

In summary the ministry has been entrusted to coordinate gender-related work in Tanzania.

The other main bodies at the national, regional and local levels which provide services for survivors of GBV and social protection are:

- i) The Prime Minister's Office (PMO); The President's Office Regional Administration and Local Government (PO-RALG); The Ministry of Home Affairs (MoHA Police, Prison and Immigration Human trafficking); The Ministry of Constitution and Legal Affairs (MoCLA); Registration, Insolvency, and Trusteeship Agency (RITA); The Ministry of Education, Science and Technology (MoEST); Tanzania Social Action Fund (TASAF); Commission for Human Rights and Good Governance (CHRAGG); The Ministry of Agriculture, Livestock Development and Fisheries (MoALF), Ministry of Industry, Trade and Investment (MoITI), the Ministry of Energy(MoE), The Ministry of Finance and Planning (MoFP Commissioner of Budget); Tanzania Commission for AIDS (TACAIDS); Tanzania Food and Nutrition Centre (TFNC), National Bureau of Statistics (NBS), and representatives of development partners.
- ii) At the Local level, (inclusive of regions, districts, wards, and villages)¹³. There is also a National Plan of Action to End Violence against Women and Children in Tanzania 2017/8-2021/2 (NPA-VAWC 2017/18 2021/22). The NPA-VAWC Protection Committees have been established at National, Regional, District, Wards and Village levels to lead operationalization of NPA VAWC¹⁴.

Together with this initiative the government has established One Stop Centres to provide free counselling and legal aid services to GBV survivors. There are also designated centres within Hospitals in Tanzania Mainland at; Amana Hospital in Dar es Salaam Region and the Regions of

¹³ United Republic of Tanzania 2011, Violence Against Children in Tanzania: Findings from National Survey 2009, Page 26

¹⁴ United Republic of Tanzania, Beijing Plus 25, Page 15

Kilimanjaro at Hai, Mbeya, Iringa, Simiyu, Mwanza and Shinyanga and it is expected to open another one soon in Kibaha, in coastal region. To ensure effective implementation of NPA-VAWC, the government work in partnership with development partners, NGOs, CSOs, and FBOs through a range of programmes and initiatives including public awareness activities, such as commemoration of 16 Days of Activism against Gender-Based Violence, the International Day of Families, International Women's Day, the Day of African Child, and International Day of Girl Child. The Judiciary has also been working in collaboration with other institutions like the police, prosecutors, and investigators to prosecute, where possible, the perpetrators of GBV and VAC cases.

The Tanzanian Police Force (TPF) has strengthened response to cases of VAWC, including the establishment of the Tanzania Police Female Network. The TPF have also developed comprehensive guidelines on the establishment of these desks. Both State and Non-State actors have played critical roles in providing various support services to survivors of GBV and violence against children, including legal aid services, shelters and counselling services, civic/awareness education, children's services such as paying school fees, feeding services and sanitary services and now providing Coronavirus protective materials. Through an Umbrella Coalition (Mkuki) Non-state actors are engaged with government implementation of NPA-VAWC from national, regional district, wards and village level.

5. POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS OF THE PROGRAM AND EXCLUSION CRITERIA

The grid extension, densification works, SHS RBF program and preparatory studies for renewable energy generation projects (over 10MW and SPP projects) to be carried out under the TREEP AF will be similar to those in the TREEP parent program, thus their impacts remain generally the same as in Section 6 of the original ESSA. A few additions are presented below. The extent to which any of the benefits and risks of grid-related projects have actually materialized is covered in Section 6 of this addendum. Since no RE generation project or Small Power Projects (SPP) have yet been implemented under TREEP, no history of actual impacts is available.

5.1. E&S Management for Technical Assistance

One overall E&S issue not covered in the original ESSA is technical assistance projects supported under Results Area 2. To date they have included preparatory studies for three renewable energy projects for TANESCO. Going forward, the TREEP AF will support additional feasibility studies for energy projects as well as preparation of a national investment program for renewable energy. Section 104 of the Environmental Management Act of 2004 specifies that for a program such as the one for renewable energy investment, a Strategic Environmental Assessment (SEA) is required. However, there is no safeguards requirement in the Tanzanian system for feasibility studies.

World Bank policy recognizes that TA activities such as feasibility studies, while not in themselves posing environmental or social risk, may lead to projects that would have potential impacts. Accordingly, it defines the risks of TA projects according to the environmental and social risk that would be associated with the prospective downstream investment. There is thus a gap between Tanzanian and Bank E&S requirements for TA. This gap will be filled by Bank prior review of proposed studies to ensure that none of them would lead to activities "that are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people" and would therefore not be eligible for Program-for-Results financing. The Bank will also review study terms of reference to ensure that environmental and social aspects as presented in the six Core Principles are adequately covered.

5.2. Electrical and Electronic Equipment Waste (e-waste)

E-waste was not explicitly recognized in the original ESSA. Off-grid renewables projects will generate e-waste that will have to be taken into account in the ESIAs and ESMPs, including spent batteries, exhausted solar panels, and various components of electronic circuits. The

Environmental Management (Control and Management of Electrical and Electronic Equipment Waste) Regulations, 2021 described in Section 6 above govern all aspects of e-waste management.

5.3 Climate-related Risks to the Program

Climate-related risks are addressed in the Program Paper and a supporting document "Climate and Hazard Considerations. This material is summarized here. Relevant risks to be taken into account in design and environmental management for this project include wildfire, flooding, seismic and landslide activity, drought and extreme heat. Wildfire is recognized as a 'high' risk in Tanzania under current climate conditions1, and climate change is expected to exacerbate this. However, this risk varies geographically, and is highest in the western part of the country. TANESCO maintenance of vegetation in wayleaves will mitigate the wildfire risk. Use of steel poles is also under consideration.

Flooding is considered as 'high' risk for Tanzania, although the risk varies geographically. Climate change models show that increases in precipitation are expected in most parts of the country, as much as 28 percent by 2100 in the Lake Victoria Basin and North-Eastern Highland regions. In the Southern Coast Zone, decreases of approximately 7 percent are expected as early as 2050. Where siting infrastructure outside flood-prone regions cannot be avoided, ensuring that a assets and resulting damages.

The risk for 'extreme heat' in current climate conditions is rated as 'medium' in Tanzania1, although climate change is expected to increase median and extreme temperatures by 1.7-3.4 degrees Celsius, depending on the region. Extreme heat has impacts on energy demand (cooling for buildings), transmission and distribution efficiency, transformer life, and potential increases to other hazards already a concern in the region, including wildfire risk. Extreme heat reduces the efficiency of photovoltaic panels between 0.3-0.5 percent per increase in degrees Celsius above the standard operating temperature of 25 degrees Celsius. Solar power installations can be designed with excess capacity to mitigate this effect. For transmission and distribution infrastructure operating at full capacity, increases in ambient temperature reduce the efficiency of transmission. Figure 3 shows the increased annual 7-day maximum average temperature for each decade, relative to the historical values. In most locations, the increase in maximum temperatures over a 7-day average across each decade is approximately 1.5-2°C in the median model for the 2030 decade, while the higher end model shows increases of 2-3°C.

Given the importance of hydropower for the country's supply of electricity, and TREEP's support for mini-hydropower plants, it is also very important to consider the impact of climate change on hydropower availability. While it is a complex topic and results will vary with geography, the work done in the context of the Integrated Resource and Resilience Planning (IRRP) supported by USAID, show that Tanzania's hydropower system will be affected by "changing rainfall patterns, rising temperatures, and more frequent and intense floods and

droughts."15 This is important for energy planning and to ensure energy security. It is also relevant from a climate mitigation perspective as limited availability of hydropower would mean higher reliance on thermal sources (and hence additional emissions). The report showed a high sensitivity of existing and planned hydropower projects to droughts. For example, under a drought scenario, over the 25-year period, total hydropower production could be reduced by as much as 12% relative to a baseline scenario. The report also highlighted the need to better integrate projected changes in the risk analysis of each new hydropower plant project. At the power system levels, adjustments can also be done (or planned for) to better plan for drought events, adapt hydropower operations during drought, and coordinate with the agricultural sector to manage competing water uses and maximize water use efficiency. With respect to individual mini-hydro projects, REA and TIB-D will ensure that AMDAL and UKL-UPL studies adequately consider both flood and drought risk, so that designs include sufficient emergency spillway capacity and protection of powerhouse and switchyard from floods, and provision of release ports for minimum environmental flow. Operating rules should also take extreme events into account. Developing management and emergency plans for hazard mitigation as well as response training will be an important part of REA's response.

5.4 Climate-related Risks of the Program

Rural areas are currently found to be reliant on inefficient small diesel gensets, which can produce between 1.2—2.4 kgCO2e per kwh15, in addition to significant local air pollution. Mainland Tanzania's grid is estimated to generate 0.34 kgCO2e per kWh16 at present with renewables making up 37.4 percent of generation in the energy mix. Based on the 2020 Power Sector Master Plan update, by 2030, the share of renewables in the energy mix is expected to make up 78.2 percent, corresponding to approximately 0.16 kgCO2e per kWh from grid supply, with a one-time and limited impact on land use from the construction of feeder lines. To provide equivalent around-the-clock services at least cost using solar PV with diesel backup would result in ongoing emissions between 0.9—1.8 kgCO2e per kWh, at least three times the emissions of current grid service, and possibly as much as 11 times the estimated emissions per kWh from grid supply expected in 2030. While batteries can be used to mitigate the usage of diesel in hybrid mini-grids, such below-the-grid services provide less functionality than a grid connection that can support expanding productive use. Biomass generation would generate carbon emissions, but thus far in the mix of SPP projects in TEDAP and TREEP, it has played a limited role compared to mini-hydro and solar.

_

¹⁵ USAID – "Risky Business? Climate Change, Power Planning, and Resilience in Tanzania" – July 2019 - https://pdf.usaid.gov/pdf_docs/PA00TZPJ.pdf

¹⁶ International Financial Institutions Working Group Harmonized Grid Factors 2021, v3.2

5.5. Labour Related Effects

Spread of Diseases: The presence of construction activities has the potential to result in increased transmission of communicable and sexually transmitted diseases including HIV/AIDS with potential of increasing unwanted pregnancies. In addition, high number of workers involved in construction sites are likely to increase the spread of coronavirus disease (COVID-19) if not well managed.

Forced and Child Labour: The use of forced labour is not considered likely within the project given the limited nature of construction, the use of national contracting and that workers will be employed subject to standard contracts. Furthermore, consulting firms and contractors to undertake the construction activities are selected based on their skills and qualifications which include due diligence on labour and working conditions. Employment of children by contractors might however occur as child labour is known to exist in the construction industry in Tanzania.

Violation of Workers' Rights: Construction staff face the risk of exploitation and unfair treatment by employers including long working hours, lack of rest periods, irregular payments, and lack of contracts. Unskilled and semi-skilled workers unlike skilled workers may lack knowledge of their rights or be willing to waive these rights to gain employment.

Gender Based Violence and Sexual Harassment: The presence of non-local and local workers for the civil works under AF could exacerbate the risk of GBV, sexual harassment and/ or other sexual offenses including rape. The situation might be complicated given the project scope which is big covering considerable number of regions in the country where GBV cases are prevalent¹⁷. Construction workers may engage in sexual fraternization and transactional sex with younger women and girls. This can support the spread of Sexually Transmitted Diseases (STDs) including HIV/AIDS as well as unplanned pregnancies. In addition, it can lead to domestic conflicts, GBV and domestic violence at a household level. Women who seek employment may also face sexual harassment including demands for sexual favours before being employed. When employed, women may face continuous and/ or unwanted demands for sex under threat of being dismissed or missing out on other benefits or opportunities such as overtime. In addition, female workers may also be sexually assaulted by their male colleagues. Therefore, to address this potential social risks TREEP AF will devise mechanisms to protect both local population and civil workers against GBV and SEA.

¹⁷ Nationally, 40 percent of all women aged 15-49 years have experienced physical violence, while 17 percent have experienced sexual violence. Of women aged 15-49, 44 percent have experienced either physical or sexual violence by an intimate partner. Spousal violence prevalence is highest in rural areas, averaging 52 percent while the prevalence in urban areas averages 45 percent. Almost 30 percent of girl's experience sexual violence before the age of 18. About 58 percent of women and 40 percent of men believe that a husband is justified in beating his wife under certain circumstances. Among never-married women, 16 percent have experienced physical violence and 9 percent experienced sexual violence. And only 54 percent of women in Tanzania who experienced physical or sexual violence seek help (TDHS 2015-2016).

5.6. Other Potential Risks

Social Exclusion of Disadvantaged and Vulnerable Groups such as female/child headed household, disabled and elderly persons from the benefits of the project. This might happen if TREEP AF will lack adequacy criteria in identification of Vulnerable Groups; and lack of mechanisms to ensure greater participation of vulnerable groups in decision making which affects their lives and access to their fundamental rights. To this end, AF will develop and adopt measures to ensure inclusive consultations and grievance redress with the vulnerable and unreached/disadvantaged people to safeguard them from exclusion from the Project benefits.

5.7. Exclusion Criteria

The exclusion principle applies to Program activities that meet these criteria, regardless of the borrower's capacity to manage such effects. In the PfoR context, the concept of exclusion means that an activity is not included in the identified program of expenditures. Also, an activity is not included if it requires the completion of a non-eligible activity to achieve its contribution to the Project Development Objective (PDO) or any specific Disbursement Linked Indicators (DLI). The six Core Principles under the PforR Policy will apply to all investments as a mechanism for avoiding, minimizing, or mitigating adverse environmental and social impacts. The program shall exclude projects that are likely to involve:

- a) Significant conversion or degradation of critical natural habitats or cultural heritage sites.
- b) Air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems.
- c) Workplace conditions that expose workers to significant health and personal safety risks.
- d) Activities that warrant land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people, or the use of forced evictions without demonstration of mechanism to mitigate it.
- e) Large-scale changes in land use or access to land and/or natural resources.
- f) Adverse E&S impacts covering large geographical areas, including transboundary impacts, or global impacts such as greenhouse gas (GHG) emissions.
- g) Significant cumulative, induced, or indirect impacts.
- h) Activities that involve the use of forced or child labour.
- i) The marginalization of, or conflict within or among, social groups; or
- j) Activities with high risk of GBV and SEA.
- k) Activities that would (a) have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation; (b) cause the relocation of VMGs from land and natural resources that are subject to traditional ownership or under customary use or occupation; or (c) have significant impacts on cultural heritage that is material to the identity and/or cultural, ceremonial, or spiritual aspects of the affected communities.
- Technical assistance activities (e.g., feasibility studies; technical, ESIA, or engineering design studies; or preparation of bid documents) for prospective comments that would meet these exclusion criteria.

6. OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY ASSESSMENT

6.5. E&S Management Capacity and Performance during TREEP Phase One

For the purposes of assessing performance for this Addendum, the Program is divided into two phases. The first phase is defined as the period from loan effectiveness through the completion or near completion of the REA 3 Round 1 grid extension projects in Results Area 1 (on-grid). All of the safeguards-related actions in the Program Action Plan (PAP) were to have been completed within the first year of this period. Table 4 shows the content and status of proposed program actions in first 2016 ESSA. The second phase begins with contracting for REA 3 Round 2 of grid extension. This section of the Addendum completely supersedes Section 7 in the original ESSA.

Table 4: Status of E&S Elements of the Original Program Action Plan

| Action Description | Due | By | Indicator | Status | |
|---------------------------------|------|------|---------------|------------------------------|--|
| Strengthen capacity for ESIA | 3/18 | REA | qualification | Qualification system that | |
| preparation, review, and | | | system and | was already operating was | |
| approval through: (a) | | | training | incorporated in the REA | |
| preparation of a Strategic | | | programs | Procedural Manual (see its | |
| Environmental and Social | | | operating; | status below). Training | |
| Impact Assessment for | | | dedicated | given 47 individuals; more | |
| development of renewable | | | staff in | may not be needed. | |
| energy in Tanzania; (b) an ESIA | | | place | Dedicated staff at NEMC | |
| consultant qualification system | | | | established, but incumbent | |
| at the REA; (c) training for | | | | retired in 2021 and needs to | |
| ESIA consultants, implemented | | | | be replaced. SESIA was | |
| by the REA and NEMC; and (d) | | | | deferred in 10/21 to be | |
| dedicated staff for PROGRAM | | | | conducted in parallel with | |
| processing at the NEMC. | | | | preparation of national | |
| | | | | Renewable Energy Strategy, | |
| | | | | at request from MoE. | |
| Strengthen capacity for | 3/18 | REA | Annual | Annual capacity-building | |
| monitoring, supervision, and | | NEMC | capacity | plans approved on schedule. | |
| enforcement by (a) adding staff | | TANE | building | REA added one E&S | |
| and equipment to the REA's | | SCO | plan | specialist and a gender | |
| environmental and social unit; | | | | specialist in 12/18. REA | |
| (b) placing environmental staff | | | | had no equipment needs. | |
| in TANESCO's zonal offices to | | | | Placing environmental staff | |

| support district office supervision of grid-extension projects; and (c) continuing the EMO training program which began under TEDAP and is conducted by the NEMC | | | | in TANESCO zonal offices proved unfeasible; ESHS field supervision is provided instead by PMC consultant, which has 10 field supervisors that received training in ESHS supervision. Problems in delivery by NEMC limited training for EMOs to 3 out of 7 regions; REA is preparing a proposed new approach. |
|--|---------------|-----|---|---|
| Strengthen the REA's capacity for informing and consulting with all stakeholders, including district and local Governments through formulation and adoption of a Stakeholder Engagement Plan, and administer training in its application | 11/17 | REA | SEP in place; training initiated | SEP is included in Procedural Manual (see its status below). Training has been administered to REA staff and contractors for REA 3 Round 2 of grid extension. |
| Prepare a detailed REA Environmental and Social Procedural Manual | 11/17 | REA | Procedural manual adopted by REA | Final draft of Procedural Manual received and approved by the Bank 11/18. Minor adjustments agreed 8/19 at REA/Bank E&S workshops with REA staff and grid extension contractors. Manual officially adopted and issued by REA 12/19. Originally planned as part of the Manual, land acquisition was covered instead in a Voluntary Land Access Framework issued in 2020. |
| Monitoring and annual reporting by the REA on social and environmental performance | begin 3/18 | REA | Annual report by REA. Audit | Reporting framework for use in field supervision by REA, TANESCO, and PMC |

| including its compliance with | | | report by | approved by REA 4/17. | |
|----------------------------------|------|-----|-------------|------------------------------|--|
| existing land and compensation | | | third-party | Lack of effective reporting | |
| laws in wayleave acquisition, | | | auditor | by grid extension | |
| with verification by third party | | | | contractors has delayed | |
| engaged by REA. Monitoring | | | | inclusion of environmental | |
| by REA and the third party | | | | and social performance in | |
| monitor engaged by REA | | | | annual reports. Monthly | |
| should be sensitive to outcomes | | | | reporting template for | |
| experienced by vulnerable | | | | contractors that was | |
| groups. | | | | prepared by PMC and | |
| | | | | approved 10/21 is now in | |
| | | | | use, and REA's quarterly | |
| | | | | progress reports are | |
| | | | | including E&S. Third party | |
| | | | | verification of the projects | |
| | | | | safeguard performance | |
| | | | | under REA3 Round1, | |
| | | | | including compliance | |
| | | | | related to land access and | |
| | | | | recommendation for REA3 | |
| | | | | Round2 was carried out by a | |
| | | | | local consultant between | |
| | | | | 3/21-6/21/2020. | |
| Project Management Consultant | 6/17 | REA | | PMC engaged 11/19 and on | |
| will be hired by REA | | | | the ground 8/20 after Covid- | |
| | | | | related delays. | |

All but two of the Program Action Plan (PAP) elements that pertain to environment have been implemented, but with delays, as shown in Table 1. TANESCO was not able to station environmental/social staff in its zonal offices to provide field supervision for grid extension projects. REA has compensated by including safeguards supervision in the PMC's scope of services, and the PMC has 10 supervisors with E&S supervision training in the field.

The preparation of a Strategic Environmental and Social Assessment for development of renewable energy in Tanzania has been deferred, at MoE's request, to be accomplished in parallel with formulation of the Renewable Energy Strategy and Implementation Plan being supported under Results Area 2 and scheduled for completion in 2023. This timing change was requested because the Strategic Environmental Assessment Regulations, 2008, require SEA for policies, strategies, programs and plans. The SESA will be national in scale, not limited to rural electrification, and will encompass all renewable energy sources under consideration for the

Strategy. E&S impacts including cumulative impacts of alternative energy source mixes and configurations will be examined in consultation with government and non-government stakeholders, to support selection of a preferred strategy and implementation plan that is environmentally and socially sustainable.

Monitoring of environmental and social performance was not fully implemented because of inadequate reporting from contractors. The first contractor's monthly report that included ESHS information was issued for August 2021, and the first quarterly report with ESHS information covered July-September 2021 and was issued on October 31st 2021; an annual report has not been prepared. The PMC is working to ensure that contractors abide by the safeguard reporting template standard as has been agreed.

The delays in completion of actions had adverse effects on environmental and social performance during REA 3 Round 1 of grid extensions in Results Area 1. Most significant were the nine-month delay in hiring the additional safeguards staff needed at REA, the one-year delay in getting a working draft of the Environmental and Social Procedural Manual, and the additional one year that elapsed before official adoption of the Manual. The cascading effects on Results Area 1 are explained in detail below. It is important to note that no significant environmental and social impacts have occurred, and that although there have been shortfalls in OHS management by contractors, injuries to workers and community members have been few and not serious. There have been no SPP projects implemented to date, and so the delays have not affected and will not affect Results Area 2 (off-grid).

TREEP's Environmental and social rating was downgraded from Satisfactory (S) to Moderately Satisfactory (MS) in the Implementation Status Report (ISR) prepared in October 2017 because the actions due in September 2017 had not been completed. The MS rating was continued in the December 2018 because a draft of the Procedural Manual had been produced and deemed satisfactory by the Bank. The rating was downgraded to Moderately Unsatisfactory (MU) in the ISR prepared in April 2019, because of two major reasons:

- a) Continuing delays in completing E&S items in the Project Action Plan; and
- b) Findings of Bank Implementation Support Missions (ISM) that the Round 1 grid extension contractors were not familiar with Procedural Manual and generally were not implementing E&S requirements in their projects.

The MU rating continued after the ISM in August 2019, during which REA and the Bank agreed on a Remedial Action Plan for E&S Management s (see Table 5), and after the ISM in December 2019. A special safeguards field supervision mission took place in January 2020, during which progress on the remedial actions was also assessed. During the Mid-Term Review (MTR) in March 2020, the safeguards rating was upgraded to MS, because REA had by then completed all of the remedial actions. The rating was increased to Satisfactory (S) in October 2021. By then,

the Procedural Manual including the Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) had been adopted, along with the Voluntary Land Acquisition Framework; the Program Management Consultant (PMC) was on board with environmental and social team members to support REA's E&S Unit; and contractor performance and reporting had improved.

Table 5: E&S Management Remedial Action Plan of August 2019

| | | ement Remediai Action Fian of August 2019 | Target |
|----|---|--|-----------------|
| (| Overall Action | Steps | Date/Completion |
| | O (0.1 0.1.1 1.1 0.1 0.1 0.1 0.1 0.1 0.1 0 | ~ | Date |
| | | 1.1. REA/TANESCO direct contractors to abate | |
| | | community safety hazards common at sites visited, | |
| | | e.g., unattended pole excavations without | SEP 2019/DEC |
| | | barricades, pole support cables not properly | 2019 |
| | | terminated, substandard house connections. | 2017 |
| | | TANESCO follow-up | |
| 1. | Urgent actions | 1.2. REA/TANESCO direct contractors to provide | |
| | to | satisfactory worker accommodations, sanitary | |
| | abate/prevent | facilities, drinking water. Certified 1 st Aiders, well | |
| | hazards and | equipped 1st Aid boxes as well as trained Safety | SEP 2019/DEC |
| | deficiencies at | Representatives should be present at each of the | 2019 |
| | existing grid | ongoing project activities. All main stores to obtain | |
| | extension sites | OSHA registration and compliance certificates as | |
| | | well as Fire Certificates. TANESCO follow-up | |
| | | 1.3. REA direct contractors to provide written contracts | SEP 2019/DEC |
| | | to all employees. REA follow-up | 2019 |
| | | 1.4 REA ensure Program Management Consultant | SEP 2019/DEC |
| | | provides sufficient number of HSES experts to allow | 2019 |
| | | periodic (ideally every four months) field supervision | 2017 |
| 2. | REA E&S | 2.1. REA make adjustments to Manual content as agreed | AUG 2019/DEC |
| | Procedural | at Dodoma Workshop | 2019 |
| | Manual made | 2.2. REA distribute to REA staff, TANESCO district | SEP 2019/DEF |
| | operational | offices, contractors, etc. | 2019 |
| | | 2.3. REA incorporate relevant Manual provisions in bid | SEP 2109/MAR |
| | | documents and contracts. | 2020 |
| 3. | Prepare and | 3.1. REA submit draft for World Bank review | SEP 2019 |
| | issue guidance | 3.2. World Bank provide comments | SEP 2019/MAR |
| | on procedures | | 2019 |
| | and | 3.3. REA issue and distribute to staff and other users, | OCT 2019/MAR |
| | documentation | e.g. TANESCO, Contractors, and include with bid | 2019 |
| | for voluntary | documents and contracts | |
| | land donations | 3.4. REA conduct training for users | NOV 2019/MAR |
| | | | 2019 |
| 4. | Stakeholder | 4.1. SEP training for REA and TANESCO | NOV |
| | Engagement | | 2019/DEC2019 |
| | Plan Roll-out | 4.2. Implement SEP in villages where grid extension | NOV 2019/DEC |

| | | activities have not started | 2019 |
|----|-----------|---|--------------|
| | | 4.3 Retrofit SEP to villages with grid extension | DEC 2019/DEC |
| | | completed | 2019 |
| 5. | Establish | 5.1. REA designate manager to manage set-up and | SEP 2019/MAR |
| | Grievance | operation of GRM. | 2019 |
| | Redress | 5.2. REA prepare GRM forms and awareness materials | OCT 2019/MAR |
| | Mechanism | | 2019 |
| | | 5.3. REA begin rolling out GRM to districts on a phased | NOV 2019/MAR |
| | | basis, including provision of materials and training | 2019 |

6.6. World Bank and Independent Auditor's Findings on Safeguard Compliance

In the period between November 2018 and January 2020, REA and the Bank conducted four field supervision missions for safeguards in nine regions. These are the consolidated findings of the missions.

- No significant adverse environmental impacts were observed.
- REA had already started to operationalize Voluntary Land Acquisition Framework which to large extent has increased Program acceptability by the communities.
- Community engagement was generally satisfactory, except in some villages where there
 was dissatisfaction about the scope of the project from residents in areas to which the grid
 was not being extended.
- Workers did not have employment contracts, in violation of the Employment and Labour Relations Act of 2004.
- Contractors did not have environment, social, health and safety (ESHS) plans.
- Contracts did not have clear and specific requirements for ESHS management.
- There were no ESHS staff at the worksites.
- Workers' accommodations were substandard.
- First aid equipment and fire extinguishers were not available at most locations.
- Provision and use of personal protective equipment (PPE) varied from site to site, although there were some notable examples of good practice.
- Contractors did not have a system for recording and reporting workplace accidents and injuries, in violation of the Occupational Health and Safety Act of 2003. One of the missions was made aware of two accidents an employee who broke and arm, and a community member who dislocated a hip from falling into an excavation made for a distribution line pole and neither had been reported.

6.7. The findings of an Independent Auditor's Report

The findings of an Independent Auditor were largely consistent with the observations of the Bank supervision missions. During April, May, and June, 2020, an independent consultant

engaged by REA conducted document review, field visits to a sample of six districts drawn from four regions, and stakeholder consultations involving government agencies, village leadership, and villagers. The consultant's report, "Evaluative Assessment of Environmental, Social and Resettlement Practices and Management of the Turnkey III Project", was issued on June 20, 2020, and its findings were similar to observations reported in the Aides-Mémoire of the Bank supervision missions. The report contains ten recommendations.

- REA is required to provide sound, consistent, and effective approaches for managing the ESHS performance of engineering, procurement, and construction (EPC) contractors to ensure compliance with ESHS requirements through the entire cycle of the project i.e., tendering, supervision, mobilization, construction and decommissioning;
- REA should require EPC contractors to develop site specific Environmental Social Health and Safety Management Plan (ESHS-MP);
- TANESCO should have competent personnel to oversee ESHS Performance of Contractors;
- REA either directly or through TANESCO should be responsible for managing ESHS risks in the project, and it must, therefore, proactively monitor the ESHS performance of contractors and subcontractors;
- REA should ensure that EPC contractors employ qualified ESHS personnel to oversee ESHS performance, and that contractor staffing, and resources are commensurate with the magnitude and timing of work and potential ESHS risks.
- On a day-to-day basis, EPC contractors should monitor their own ESHS performance and that of all its subcontractors throughout mobilization, the main construction phase, operation, and demobilization;
- REA should develop clear responsibilities and reporting lines so as to avoid duplication of effort and/or gaps in monitoring. Timely reporting of ESHS performance and results enables REA to identify opportunities for improvement, prevent poor performance issues, and assist contractors if remedial action needs to be taken:
- Other stakeholders such as OSHA, District Environmental Management Officer (DEMO), and Labour Department should also be brought on board. This should be detailed in the Stakeholder Engagement Plan (SEP)
- Voluntary land donations should be clearly documented via contracts and overseen by village councils; and
- There should be regular meetings between clients and contractors, and between contractors and their subcontractors. These are essential to ensure contractor performance is satisfactory and that project specifications are being met.

Through the fulfillment of the original Program Action Plan and the E&S Management Remedial Action Plan of August 2019 and the implementation of E&S management improvements designed by the Program Management Consultant, REA has taken all of the actions that the Independent Auditor recommended except that the SEP in the Procedural Manual needs to be amended to include MLE and OSHA at the zonal level. TANESCO has competent personnel in

its 22-person environmental and social unit, but as all of them are in headquarters, the task of day-to-day supervision of contractor E&S performance is being carried by REA and the PMC.

6.8. Safeguard Capacity for Phase Two

For the purpose of this ESSA addendum, the second phase encompasses the next round of grid extension projects, REA 3 Round 2, and SPP projects that will be implemented in Results Area 2.

6.8.1. Steps Taken to Improve and Strengthen REA Safeguard Capacity

REA's E&S procedures and capacity have been strengthened to a level adequate to achieve effective ESHS management. REA's environmental and social unit is at full strength. The Environmental and Social Procedural Manual had been issued, with the SEP, GRM, and consultant qualification system included. REA issued the Voluntary Land Acquisition Framework originally planned as part of the Manual as a separate document. REA staff received training on these instruments. The PMC is in place and actively supporting REA in contracting for REA 3 Round 2. Explicit ESHS requirements have been included in the grid extension contracts, and contractors have received the monthly reporting templates. REA has trained contractors for 32 of 39 lots of grid extension and will provide training for the other seven after their contracts are awarded. REA has begun submitting quarterly reports that include ESHS topics.

The PMC and REA engineers are aggressively supervising contractors for REA 3 Round 2 to prevent the sorts of E&S lapses that occurred in Round 1. PMC is checking to ensure that contractors have complete C-ESMPs for their projects and have posted the two ESHS staff at their worksites that their contracts require. REA3 R2 contractors have received the reporting templates that PMC developed for REA and conducted training on them. Monthly reports from the PMC include results of field supervision, highlighting non-conformities such as failure to have the ESHS staff present, lax use of PPE, and absence of safety equipment. Reports also cover grievances as well as community and workplace safety issues including accidents. E&S reporting by contractors is still less than satisfactory, with approximately 50 percent of contractors filing reports as of February 2022. To address shortcomings, on 5th April 2022, PMC conducted training to the contractors to improve E&S reporting. The reports specify the planned follow-up actions. More details on the current capacity of REA and other relevant institutions are presented in the tables below.

6.8.2. E&S Management System Assessment Details

The six tables below in which the capacity of the Tanzanian safeguards system to achieve results consistent with World Bank safeguards principles for PforR financing are in form nearly the

same as the tables in the original ESSA. Minor differences are due to the replacement of OP/BP 9.00 *Program-for-Results Financing* that guided the original ESSA by the Bank Policy: Program-for-Results Financing and Bank Directive: Program-for-Results Financing, issued in July 2015 and revised several times, most recently in March 2022 The content of the tables reflects the capacity of the safeguards system applicable to TREEP in its present form – i.e., incorporating the remedial actions taken and improvements made by REA, improvements at TANESCO and NEMC, and changes in relevant legislation or regulations, all of which have been described in the preceding sections of this ESSA Addendum.

Core Principle 1: General Principle of Environmental and Social Management

PforR Program Systems (a) promote environmental and social sustainability in the PforR Program design; (b) avoid, minimize or mitigate adverse impacts; and (c) promote informed decision-making relating to the PforR Program's environmental and social impacts.

Key Planning Elements: PforR Program Systems will:

- Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments, mitigation, management and monitoring at the PforR Program level.
- Incorporate recognized elements of good practice in environmental and social assessment and management, including: (i) early screening of potential impacts; (ii) consideration of strategic, technical, and site alternatives (including the "no action" alternative); (iii) explicit assessment of potential induced, cumulative, and transboundary impacts; (iv) identification of measures to mitigate adverse environmental or social risks and impacts that cannot be otherwise avoided or minimized; (v) clear articulation of institutional responsibilities and resources to support implementation of plans; and (vi) responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and responsive grievance redress mechanisms.

Applicability

Core Principle 1 is considered applicable in terms of environmental and social management (ESM) for the rural electrification subsector, as a key component of good service delivery (i.e. measures included under the Program's system-strengthening actions for enhanced accountability and oversight mechanisms).

Summary Findings

There is an adequate national regulatory framework in Tanzania, and technical guidelines exist for environmental and social due diligence with respect to the potential impacts of the Program. In the past, implementation has not been consistently up to standards, and the

assessed weaknesses have been systemic, related to insufficient resources – financial, personnel, and skills - for preparing and implementing EIAs and overseeing and monitoring implementation of impact management measures. However, REA has substantially strengthened its environmental and social impact management capacity to the point that its performance of these functions has been rated as Satisfactory.

System Strengths. The EMA, the Environmental Assessment and Audit Regulations, and the procedures established thereunder by NEMC provide the basis for full achievement of objectives defined for this core principle. One of NEMC's functions is to promote clean energy in Tanzania, and it has recently been gaining experience on the job and through study tours with environmental aspects of small solar power plants and solar-powered minigrids. NEMC has strengthened its capacity by posting additional personnel in its nine zonal offices and has refined its risk categories, screening procedures, and ESIA/ESMP preparation processes in a 2018 revision to the Environmental Assessment and Audit regulations.

Recently, the government formulated a specific law to deal with e-waste (Control and Management of Electrical and Electronic Equipment Waste) Regulations, 2021. This will help to guide disposal and handling of solar power and other e-waste likely to be generated by SPP.

REA's one-person environmental and social unit has been expanded by the addition of a gender specialist and an environmental/social specialist, and has gained experience and skill in environmental and social impact management during the parent program. Under the parent Program Action Plan, REA staff prepared the REA *Environmental and Social Procedural*

Gaps

Although the NEMC has well qualified staff at the headquarter and zonal offices, insufficient staffing and funding limit the agency's capacity to supervise all on-going projects scattered over a large geographical area and enforce compliance with license obligations and regulations through on-site monitoring. NEMC officers, therefore, focus mostly on the review and monitoring of high-risk projects at the expense of other projects

The Tanzanian system screening system does not assign ESIA categories to technical assistance activities. However, feasibility studies routinely include sections on the natural and human environments, and both feasibility studies and ESIAs consider project alternatives.

Manual that defines and explains the safeguards procedures to be applied in all TREEP projects, both grid extension and small power producer (SPP). The Manual was officially adopted in December 2020 and circulated in March 2021. It contains a Stakeholder Engagement Plan (SEP) and a Grievance Redress Mechanism (GRM). It also requires health and safety to be included in ESMPs, and it describes REA's consultant qualification system. REA staff and contractors have received training on the Manual.

In addition, REA has engaged a Program Management Consultant (PMC) that is providing, among other resources, two ESHS specialists and 10 field supervisors. The latter have been trained in safeguards supervision and are distributed among the regions where REA3 R2 is underway. The PMC has already conducted site visits to grid extension projects, prepared the safeguards language that is included in the REA3 R2 bidding documents and contracts, developed a reporting template to be used by contractors that includes ESHS performance, reviewed the C-ESMPs submitted by the contractors, confirmed that contractors have ESHS personnel on site, and trained contractors in safeguards monitoring and reporting,

TANESCO provides technical field supervision for REA's grid extension projects. It has a 22-person environmental and social unit with abundant experience in implementation of environmental and social impact management instruments prepared for Bank-supported projects. However, the unit is centralized, and field supervision of safeguards on grid extension projects is

conducted by REA through the PMC.

REA and TANESCO have an agreed procedure to ensure grievances TANESCO receives at the local level are handled in accordance with the REA GMR.

TIB Development Bank has been approved as a financial intermediary for Results Area 2. TIB-D has an Environmental and Social Risk Management Policy and an ESMS to implement the policy. Its Investment Appraisal Manual includes a section on environmental and social assessment. It has dedicated staff for ESHS in its Technical Services Department.

Under TEDAP, REA provided EIA training to a group of local consultants in order to improve the quality of EIAs it was receiving from SPPs, and NEMC conducted training for Environmental Management Officers (EMOs) at regional, district, and town levels in all regions of Tanzania mainland to build their capacity to carry out the monitoring, supervision and reporting they are required to do. EMOs training continued in the parent program, and REA will engage with NEMC under the additional financing to ensure that all EMOs receive the training.

- Actions and Opportunities
 Continue the EMO training program
- Replace the recently-retired staff person at NEMC dedicated to project processing for TREEP.
- Monitor implementation of TANESCO-REA arrangements for handling grievances in accordance with the REA GRM.
- REA to review draft ESIAs for SPP

Risks

 Mini-hydro systems will be designed and operated without adequate attention to hydrologic impacts and related ecological and social risks and impacts. Biomass gasification facilities will not be designed and operated to minimize explosion and fire hazard and to prevent air, water, and soil pollution. The overall risk for CP 1 is Moderate. projects prior to submission to NEMC, in consultation with the Bank as needed.

- REA will consult with the Bank in determining the eligibility of proposed power project feasibility studies and ESIA preparation for TREEP funding.
- REA amend the SEP to include MLE and OHSA as stakeholders.

Core Principle 2: Natural Habitats and Physical Cultural Resources

PforR Program systems avoid, minimize or mitigate adverse impacts on natural habitats and physical cultural resources resulting from PforR Program.

Key Planning Elements: PforR Program Systems will:

- Identify, and screen, for adverse effects on potentially important biodiversity and cultural resource areas and provide adequate measures to avoid, minimize, or mitigate adverse effects.
- Support and promote the protection, conservation, maintenance, and rehabilitation of natural habitats; avoid the significant conversion or degradation of critical natural habitats; and if avoiding the significant conversion of natural habitats is not technically feasible, include measures to mitigate or offset the adverse impacts of the PforR Program activities.
- Take into account potential adverse effects on physical cultural property and provide adequate measures to avoid, minimize, or mitigate such effects.

Applicability

The provisions in Core Principle 2 are considered as part of the ESIA process analyzed under Core Principle 1. The Program will not support investments that would either impact or convert critical natural habitats and will avoid conversion of natural habitat. This Core Principle is applicable to the program, however, because (i) clearance of power line way leaves and installation of small hydros could affect natural habitat and result in chance finds of physical cultural resources, and (ii) operation of small hydros will have some impacts on aquatic ecosystems.

System Strengths

The Tanzanian ESIA process considers physical cultural resources, including screening for archaeological, historical and cultural sites. The assessment shows that impacts on cultural sites are taken into account in program design and implementation and appropriate mitigation measures adopted.

Aside from the provisions of the EMA, National Environmental Action Plan (2013-18), Forest Policy 2007, Wildlife Policy 2007, among other relevant regulatory activities, the GoT is revising the National Biodiversity Strategy and Action Plan of 2001 to be able to meet the UN Aichi Biodiversity Targets agreed in 2010, which will set the parameters for conservation and natural habitats – aquatic, terrestrial and agro-biodiversity. This has also been strengthened by the establishment of a national coordinating body that will oversee all aspects, from environmental safeguards to information dissemination. The Antiquities Act and its related regulations and institutions provide an adequate basis for protection of physical cultural resources.

Gaps

There are no significant inconsistencies between the Bank Policy and Tanzania's policies, laws, and regulations related to natural habitats.

Actions and Opportunities

The opportunities and actions identified for strengthening the system for Core Principle 1 are applicable to Core Principle 2. REA will review drafts of environmental assessments for proposed mini-hydro systems prior to submission for NEMC review to ensure they provide measures to mitigate potential impacts on downstream hydrology, aquatic ecology, water uses and

Risks

The risks identified for strengthening the system for Core Principle 1 are applicable to Core Principle 2. In addition, there is the risk that natural habitat will be degraded or converted in the course of clearing wayleaves and developing feedstock sources for biomass gasification systems. The overall risk for CP 2 is low.

water users, consulting with the Bank as needed, and REA will not support biomass generation that would degrade or convert natural habitat.

REA will engage with MoE, TFS, and MNR&T to develop guidance for wayleave clearances in forest reserves.

Core Principle 3: Public and Worker Safety

PforR Program Systems protect public and worker safety against the potential risks associated with (i) construction and/or operations of facilities or other operational practices under the program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the PforR Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Key Planning Elements: PforR Program Systems will

- Promote adequate community, individual, and worker health, safety, and security, through the safe design, construction, operation, and maintenance of Program activities; or, in carrying out activities that may be dependent on existing infrastructure, incorporate safety measures, inspections, or remedial works as appropriate; promote measures to address child and forced labor.
- Promote the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated under the PforR Program; promote the use of integrated pest management practices to manage or reduce pests or disease vectors; and provide training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with the relevant international guidelines and conventions.
- Include adequate measures to avoid, minimize, or mitigate community, individual, and worker risks when the PforR Program activities are located in areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or affected by climate events.

Applicability

Core Principle 3 is applicable. Physical infrastructure and civil works proposed under the program including: (i) construction of SPP, (ii) grid extension, and (iii) improper management of e-waste likely to be generated by SPP (solar projects) that can expose the public and workers to risks such as dust, air pollution, noise, water pollution, solid waste, and toxic or

hazardous materials at sites during civil works, which might directly or indirectly result in occupational safety impacts; and spread of STDs as well as the coronavirus disease (COVID-19).

Strengths

Tanzania has legal and institutional framework that advances workers health and safety. Public and worker safety are adequately covered in the EMA and its regulations, the OSHA Act, TANESCO's safety instructions, and the CRB, and there are no major inconsistencies between the system and Core Principle 3.

OSHA has been mandated for this and is represented in six (6) zones across the country: Coastal Zone, Northern Zone, Lake Zone, Central zone, Southern highlands zone and Southern zone.

The ESIA process contains robust procedures for worker safety, requiring plans for accident prevention as well for health and safety of workers and communities, which are also part of contracts for civil works. The Occupational Health and Safety Act and TANESCO's safety instructions cover workplace and electrical safety. TANESCO publishes a brochure for the public on electrical safety that is also available on its website

Tanzania has a **Contractor Registration Board** (CRB) that enforces best practice and monitors and enforces occupational health and safety regulations with regard to construction works. The Rules of Conduct require that contractors must maintain accident registers, provide workers with protective gear, and standards for construction sites and post warning signs visible to the public and workers about

Gaps

Although the OSHA has well qualified staff at the headquarter and zonal offices to ensure public and workers safety however, certain areas are large in terms of landmass and this limits the capacity of OSHA to supervise all on-going projects. Therefore, many active construction sites are not being registered or visited by an OSHA officer as required by the national framework on safety. Similar situation faces *Contractor Registration Board* (CRB).

requirements for personal protective equipment.

REA's Environmental and Social Procedural Manual specifies that community and workplace health and safety are to be addressed in ESIAs and health and safety management is to be included in ESMPs. The PMC consultant reviews ESMPs to ensure compliance and is confirming that contractors' ESHS plans are in place and their ESHS personnel are on site at all locations for the second round of gridextension contracts. PMC field supervisors include health and safety in their inspections. The reporting template that the PMC developed for REA includes health and safety performance and incident report requirements.

To address further spread of COVID-19 virus. The Government of Tanzania (mainland) through its Ministry of Health (MOH) has developed several guidelines on how to limit further spread of Corona virus e.g.

- Guideline on How to Manage the Spread of Covid-19 at Schools, Colleges, Universities and Other Education Institutions, the Second Edition July, 2021;
- Guideline on How to Manage the Spread of Covid-19 through Intervention of Control of Public Gathering without Affecting Economic Activities, Second Edition, July 2021.

These guidelines can be customized to suit construction activities.

Actions and Opportunities

- REA to maintain close collaboration with OSHA to support the Agency on Occupation, Health and Safety risk management and national OSHA requirements including: workplace registration, undertaking statutory inspections, risk assessment; training and information on occupational health and safety, diagnosis of occupational diseases especially at work camps; occupational health surveillance, work environment monitoring, investigation of accidents; and authorization of first aiders. (
- REA to maintain close collaboration with Labour Department at the Ministry of Labour and Employment (MLE) to fosters workers' rights especially for unskilled laborers.
- REA will ensure MOH COVID-19
 Guidelines are followed in all civil works and public consultation and engagement.
- REA to mainstream code of conduct with special attention to GBV/SEA.

Note. The opportunities and actions identified for strengthening the system for Core Principle 1 are also applicable to Core Principle 3. Capacity-building for REA staff, environmental consultants, and district environmental officers will include training in workplace health and safety procedures and enforcement and in preparing and enforcing health and safety provisions in construction and operating contracts.

Risks

The risks identified for strengthening the system for Core Principle 1 are applicable to Core Principle 3. The overall risk for CP 3 is Moderate.

Core Principle 4: Land Acquisition

PforR Program Systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards.

Key Planning Elements: PforR Program Systems will:

- Avoid or minimize land acquisition and related adverse impacts;
- Identify and address economic and social impacts caused by land acquisition or loss of
 access to natural resources, including those affecting people lacking full legal rights to
 resources they use or occupy;
- Provide compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid before taking land or restricting access;
- Provide supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment);
- Restore or replace public infrastructure and community services that may be adversely affected by the PforR Program; and
- Include measures in order for land acquisition and related activities to be planned and implemented with appropriate disclosure of information, consultation, and the informed participation of those affected.

Applicability

Core Principle 4 is applicable. Some of the infrastructures under component 1, Grid Extension, and component 2, Off Grid power generation, could need land and would impact crops, livelihoods, and possibly even structures. Activities under Component 1 include construction of approximately 9600 km of medium-voltage (MV) distribution lines, installation of approximately 7500 km of low voltage lines to consumers, and provision of transformers, in 500 subprojects across the country. Some of these activities could require land or could affect livelihoods and some community infrastructure or cultural features such as cemeteries. TANESCO's way leave, or right of way (ROW) width specifications for 33 and 11 kV lines are 10m and 5m, respectively, and they apply to lines constructed by REA. The impact will be minimal given that these lines are passing mainly through rural areas. Nonetheless, given that the project covers all regions in the country and in each the grid extension can be substantial, this is one of the risks that need mitigation.

In Component 2, SPP plants need land for access roads and small buildings and, in the case of solar power generation, approximately 2 ha/MW of cleared and graded land for the panels, Way leaves will be required to connect the plants to the national grid or to mini-grids.

Summary Findings

The experience in similar projects (such as TEDAP) is that physical relocation of households and businesses has been avoided or minimal. Most impacts have been related to trees and crops, land (agricultural and residential), and some small structures. The practice used by TANESCO (but not by REA) for 33 and 11 kV lines has been that the actual area where the pole is going to be put is purchased and compensated. However, the ROW of 10 meters in total for 33kV and 5 meters for 11kV is given by the PAPs voluntarily, according to TANESCO and REA. This is mainly because utmost care is taken not to affect residential houses or businesses, and even though there is an official restriction on cultivation under these lines, in practice people have not been stopped unless they plant trees or build houses. Nonetheless, there are people who could lose part of their livelihoods in forms of fruit-bearing trees.

Information collected during stakeholder consultations indicates that most PAPs who resist volunteering their land are those losing a significant fraction of their land or permanent crops such as cashew nut trees, or are not direct beneficiaries of the project, or both. Loss of access to natural resources is a low risk, given that the lines do not constitute a barrier to passage and the fact that protected areas and sensitive natural features will be avoided as measures for compliance with GP1.

System Strengths

Land laws and acts and clear staff roles and responsibilities. The Land

Acquisition Act 1967, the first systematic and the principal legislation governing the compulsory acquisition of land in Tanzania; and the Constitution of Tanzania (1977 as amended, 1998) provides that every persons has the right to own property and the right to have his or her property protected in accordance with the law. In 1995, the Government adopted a National Land Policy 1995 that set out the fundamental principles guiding land rights and land management. The National Land Policy was followed by the adoption of the Land Act and Village

Gaps

While there are policy gaps between OP/BP 9.00 and the Tanzanian system for land acquisition and resettlement, there are no direct conflicts between the Tanzanian land laws and OP/BP 9.00, which indicates that gap-filling measures in the Program (if required) will not be contrary to the law should it be required.

Tenure: Tanzanian law has clear procedures for landholders and generally extends eligibility for compensation to recognized or customary land users or occupiers lacking full title, but does not recognize tenants, squatters or encroachers as being entitled to assistance or any allowances for transportation, disturbances, etc.

Market value: Tanzania law provides for the calculation of compensation on the basis of the

Land Act in 1999.

The Land Regulations provide steps that need to be followed for projects requiring land acquisition, including the ones under TREEP, participation of Project Affect People (PAPs), and a clear approvals process. At the local level, some LGAs also have land surveyors and valuation officers that play a role in this process. If they don't, then for projects they are able to obtain these staff from neighboring Districts. While this system is operating, a bill that that codifies the valuation process is under preparation and has been sent to Cabinet.

Together with the aforementioned laws, REA has developed a Voluntary Land Access Framework for grid extension projects that has been accepted by the Bank.

In addition, Part III of the Environmental Management (Environmental Impact Assessment and Audit) (Amendment)
Regulations, 2018 on *Project Registration and Screening* direct that 'in preparing ESIA, the project description shall include the proof of land ownership; and the Minister shall issue the Provisional Environmental Clearance if he is satisfied that the developer or proponent has attached proof of land ownership from relevant authorities; and that there is a clear explanation on land Acquisition Process (Relocation or Compensation) and has attach Resettlement Action Plan.

Grievance procedures and dispute resolution There is a system where

market value of the lost land and unexhausted improvements, plus a disturbance, movement, and accommodation allowance, and loss of profits where applicable. However, the depreciated replacement cost approach is used, that does not result in full replacement cost of the lost assets which is inconsistent with OP/BP 9.00. Additionally, market values and valuation procedures tend to be outdated and there is little baseline data for land values, which risks the valuation being at the discretion of the Land Valuation Officer.

Lost Assets and Livelihood Restoration:

"Replacement assets" under the Land Act in Tanzania are restricted to land and developments on land, and where relevant, loss of profits. OP/BP 9.00 goes beyond physical assets and includes livelihoods and standard of living, seeking to improve them or at least to restore them to predisplacement levels. While profit losses are included in Tanzanian law, this is more narrowly defined as formal business profits and compensation for crops. While the Land Act does entitle compensation for business losses, there are no legal provisions requiring the government to restore livelihoods or to provide assistance towards the restoration of such livelihoods. Land users such as tenant farmers are only entitled to compensation for crops (the valuation method is outlined in the 2001 Regulations).

Wayleave: With respect to the wayleave, as noted above, even though there is not much of a policy gap on paper, in practice land for 33kV and 11kV, lines is given voluntarily in recognition of the benefits of receiving electricity, according to REA and TANESCO. REA tries to avoid any structures, rerouting the wayleave when necessary to do so. As a result, the principles discussed

complaints could be channeled upward, starting with the Mtaa¹⁸, Ward Executive Officer, District Commissioner, then to the Region. If still unsatisfied PAPs can seek recourse for grievances in the courts (specifically the Court of Land Arbitration). The processes related to addressing the complaints related to land issues at the local level is community based. In the urban areas it is handled through Mtaa and in the rural area, which is related to this ESSA, through Village Land Committee. The system is developed as such to resolve the complaints at the community level. If the aggrieved party is not satisfied then the next steps are Ward, District and eventually the court. The majority of the complaints are addressed and resolved at the local level. In practice, though, the system does not always work well. At the village level due to lack of information among some affected people and due to the village committees being overwhelmed with the number of cases (since they deal with all land related issues), the system may not be able to address all the grievances in a way that meets the requirements of Core Principle 4. In addition, there is no requirement that the affected people should be represented in the Village Land Committee.

Consultations: Community land consultations is an integral part of the land acquisition process, and is followed at the community level to ensure there is consensus on the donated land and if there

below in the Actions and Opportunities section need to be followed.

Community Infrastructure: It does not appear that public infrastructure is specifically addressed in the Land Act and Regulations. For projects/programs prioritized and implemented by the community, risks that community infrastructure will be impacted is low.

Consultation and Disclosure: As resettlement in practice is done as part of the ESIA, consultation and disclosure generally follow this process with the addition of a sensitization meeting with PAPs as part of the valuation process. PAPs are also publicly informed toward the end of the process when they can collect their compensation payments. Community Development Officers have a role during this process as well, as do Ward Officers. However, this process is geared only toward the land valuation process, and may not include tenants, informal land users, and other types of resettlement and compensation that are not covered by Tanzanian law.

Measures to be taken to meet the spirit of this core principle 4 with respect to voluntary provision of the land for the wayleave are presented in the Action column,

There is no clear budget or source of finance stipulated for paying compensation and hence a challenge when it comes to project implementation.

Affected businesses should be given enough compensation to establish their business elsewhere; this usually includes the compensation for land, inventory and 36 months profit.

 $^{^{\}rm 18}$ A small urban area or geographical division of a ward.

are impacts on any group community mitigation measures are undertaken. For land acquisition, the valuation process includes a sensitization meeting with PAPs, which must be attended by local leaders as well. The intent is to explain the program, the valuation process, valuation rates, and arrangements for physical inspection of properties.

Analysis and Guidance. There is good guidance on resettlement and compensation in Tanzania that goes beyond the Land Act and Regulations there has been a comprehensive gap analysis between World Bank OP 4.12 and the Tanzanian system, and all of the elements of Core Principle 4 are visible in any existing Resettlement Policy Framework for Bank supported projects, including the Resettlement Policy Framework (RPF) for TEDAP updated in 2015 for as the Resettlement Management Framework (RMF) for TREEP. For any unanticipated emerging risk, the RMF will be used to provide guidelines for mitigating the land acquisition related risks.

Actions and Opportunities

Technical Guidance and Implementation Capacity:

Given that the existing practice is to give the land voluntarily for such lines, if land is given voluntarily it should be consistent to the principles contained in Voluntary Land Access Framework which REA has shared with the WB.

Grievance related to land donation:

• In addition, a phone number

Risks

The risk of not taking the proposed actions to address the gaps identified described above could go contravene PfoR principles on land. The risk is relatively low, since there is minimal land acquisition, but the impact on individual livelihoods could be severe.

For mini-hydro and solar power plants and ancillary facilities (workshops, access roads, transmission lines), there will be more land acquisition, e.g. approximately 2 ha per MW for

should be provided to all PAPs and communities to voice their concerns to REA through phone calls or text on all issues.

• REA should inform the PAPs of the grievance mechanisms that will be established in the affected villages and also should ensure that the Village Land Committees are informed about and follow the procedures detailed in the manual. Any grievance mechanisms at the village level should include at least one affected person.

The needs still exist for REA to continue to (a) increase transparency when land and livelihoods are involved, (c) put special care in managing voluntary land contributions, by observing principles contained in REA' Land Donation Framework (d) operationalize its GRM (e) and ensure provisions for community participation. The procedural manual details all the above requirements. The updated TEDAP RPF, now known as the TREEP RMF, provides extensive guidance for implementing these measures. Acquisition of the land needed for off- grid generation (mini-hydro and solar) should follow the principles and procedures in the TREEP RMF

solar), but with low risk if PAPs are compensated by the developers and site selection considers avoiding areas with major impact.

The overall risk for CP 4 is moderate.

Core Principle 5: Indigenous Peoples and Vulnerable Groups

PforR Program Systems give due consideration to the cultural appropriateness of, and equitable access to, PfoR Program benefits, giving special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups.

Key Planning Elements: PforR Program Systems will:

- Undertake meaningful consultations if the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities are potentially affected (positively or negatively), to determine whether there is broad community support for the PforR Program activities;
- Ensure that the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
- Give attention to groups vulnerable to hardship or discrimination, including as relevant the poor, the disabled, women and children, the elderly, ethnic minorities, racial groups, or other marginalized groups; and
- If necessary, take special measures to promote equitable access to the PforR Program benefits.

Applicability

Core Principle 5 is applicable. Resettlement and environmental degradation tend to disproportionately impact the poor and vulnerable groups, documented in both academic studies on environmental justice in Tanzania as well as operational documents for other Bank projects/programs. The analysis confirmed that, at present, there is currently no specific legislation or policy in place in Tanzania on or for Indigenous Peoples.

While considering the applicability of this Core Principle, the analysis found that it was relevant in terms of ensuring that vulnerable groups are included in the planning process (especially needs prioritization), implementation and monitoring of program activities; that vulnerable groups have access to program benefits; and that the needs of vulnerable groups are considered with respect to the Programs impacts. For the ESSA, the analysis of vulnerable groups focused on children, persons with disabilities, youths (unemployed, females, youths with unreliable incomes), people living with long illnesses (e.g. HIV/AIDS, TB, etc.), women (female headed households, widows and those not able to support themselves), drug addicts and alcoholics, and disadvantaged communities such as pastoralists and hunters. The approach of the Government is to ensure that all vulnerable groups are consulted and benefit from Government programs.

System Strengths

Tanzania has a longstanding practice of extensive consultation and participation at local levels which is consistent with the principle of free, prior and informed consultation leading to broad community support. This approach is enshrined in legislation, such as the Local Government Act, 1982 which promotes public meetings at the local level and encourages village residents in "undertaking and participating in communal enterprises" and to "participate, by way of partnership or any other way, in economic enterprises with other village councils."

The ESIA process in Tanzania does take into account social issues in screening, impact assessment, and mitigation measures. Part of NEMC's screening criteria for ESIAs is to assess if impacts vary by social group or gender, and if resources are impacted that vulnerable groups depend upon. Additionally, there is currently an initiative within NEMC and supported by donors to better mainstream social issues such as gender and HIV/AIDS in the ESIA process.

Tanzania also has policies specific to some vulnerable groups such the National Gender Policy and National Policy on HIV/AIDs, in order to prevent discrimination and promote equity. There is also strong guidance for community participatory planning by PMO-RALG through the "Opportunities and Obstacles to Development Handbook", which promotes inclusion of some of the vulnerable groups throughout the planning and implementation process. Such a process is

Gaps

The analysis identified a number of critical gaps in the system as written, including:

Identification of Vulnerable Groups: While vulnerable groups are generally included in the screening process for ESIA through EMA or in the Tanzanian system for land acquisition and resettlement, there is some risk that this may not be adequately handled in the program.

Resettlement: While the Tanzanian ESIA process includes analysis of impacts on vulnerable groups there are no specific requirements for considering gender and vulnerability in resettlement and compensation processes beyond payment of compensation for lost land.

The experience with vulnerable groups of PAPs could benefit from further information and action - it is clear that at least in donorfunded programs with Environmental and Social management/and or Resettlement Action Plans, vulnerability is screened for and taken into consideration; however, there is little information on how vulnerability is considered the actual practice compensation and/or relocation where necessary.

Monitoring: Monitoring of gender, poverty, economic and social vulnerability, and HIV/AIDS in the development planning process is in need of strengthening. In the energy sector there is no common method of analysis and collection of baseline to aid development planning on these issues.

being followed by the Tanzania Social Action Fund (TASAF) to support the poor in participating communities across the country.

Weaknesses

There is no system in place that defines Indigenous Peoples in Tanzania.

Even though some of the vulnerable groups are covered under above polices and guidance, there is no specific policy for them that might be affected by different projects, including TREEP.

Actions and Opportunities

Technical Guidance and Implementation Capacity: While there are some criteria for vulnerable groups in the ESIA process, these need to be strengthened. If requested by the Government, the project may support the current undertaking by NEMC to better mainstream vulnerability, gender and HIV/AIDS in the environmental and social assessment process and to ensure socially appropriate benefit-sharing.

Addressing Resource Constraints: It is unclear if any staff in the REA is trained to provide inputs on identifying, consulting with, and assisting vulnerable groups that may be impacted by the types of activities that will be financed by TREEP and/or promoting social inclusion in development planning process. The Program capacity building and training plan can include measures for good practices on inclusive consultations, monitoring and feedback of all groups of people.

To mitigate some of the negative impacts on vulnerable groups and to enhance positive

Risks

It is clear from the analysis that if the gaps identified and opportunities presented in this core principle (where applicable) are not addressed, the Program would be at risk of not generating the desired environmental and social effects for all potentially-affected people and would remain inconsistent with the guiding principles of the Bank Policy. Multistakeholder consultations have indicated that different social groups have benefited from TREEP Parent Program. Therefore, the the overall risk for CP 5 is low.

impacts, free, prior, and informed consultation will be done with them before projects under TREEP are finalized. In addition, some rapid social assessment will be done to assess the situation with regard to vulnerable and disadvantaged groups and to propose measures to ensure that the development process fully respects their dignity, rights, economies, and social characteristics and needs.

Additionally, unless there is free, prior and informed consultation leading to broad community support, program activities would not: (i) commercially develop socioeconomic resources and knowledge of vulnerable groups; (ii) displace vulnerable groups from traditional or customary land; or (iii) commercially develop natural resources within customary lands under use that would impact livelihoods or the social values of vulnerable groups.

Core Principle 6: Social Conflict and Equity

PforR Program Systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

Key Planning Elements: The PforR Program considers conflict risks, including distributional equity and cultural sensitivities.

Applicability

Tanzania is not a fragile or post-conflict state, and there are no areas subject to territorial disputes. However, there can be issues of distributional equity in extension of electric service in rural areas that could lead to conflict. Core Principle 6 is therefore applicable.

Summary Findings: It has been noted in some areas that REA projects by-pass certain villages and leave them out while in many areas, 33kV or 11kV lines pass over the villages without providing electricity to those villages. This is not only raising concerns to the villages but it will threaten peace because, in most of these areas, land has been acquired and people have not been compensated. In one area for example, local people refused the construction of

| the power lines and force has to be used to ensure the contractor is working. | | | |
|---|---|--|--|
| System Strengths | Gaps | | |
| Project areas do not have social conflicts | The core principle should consider land use conflicts as the major type of social conflict in Tanzania mainly between farmers and pastoralists or between famers themselves due to encroachment to other people's land. | | |
| Actions and Opportunities | Risks | | |
| The opportunities and actions identified for strengthening the system for Core Principles 1, 4 and 5 are applicable to Core Principle 6 | If citizens do not receive compensation to restore livelihoods, there could be conflicts, vandalism of the infrastructure, delays in project implementation, and, as a result, additional costs to the project. | | |
| | Where the distribution line goes through a village, and that particular village is not benefiting from the project, residents could be resisting the line's construction and hence delay the project. | | |

6.5 Integrated Risk Assessment

Based on the findings of the ESSA Analysis, Table 6 aggregates the risks discussed above, and proposed measures to mitigate those risks. The overall environmental and social risk of the Program is considered moderate. Whereas mini-hydro projects have potential adverse impacts that require specific management plans, and land acquisition has potential adverse impacts on livelihoods, these impacts are of limited scale and are manageable under the Tanzanian system when strengthened by the actions REA has already taken in the Parent Program and others recommended in this addendum. Grid extension and densification activities have proven to have low environmental and social risk. This risk assessment is included in the Program's integrated risk assessment.

Table 6: Risk Assessment and Management

| Risk Description | Risk Management | |
|---|---|--|
| Potential Environmental Impacts of the project are not identified, mitigated, and monitored; | TREEP's environmental, health, and safety risks are moderate overall. With the exceptions of risks associated with mini-hydro and biomass generating plants and solar home system maintenance, they can be mitigated with application of good practice and other well understood mitigation measures. | |
| | Mini-hydro SPP projects require analysis of stream flows, management of the catchments, aquatic ecology, and downstream uses to arrive at environmental flows and operating rules to preserve environmental services that may be important to communities. Biomass gasification SPP plants require design features for proper waste management, prevention of explosion and fire, and avoidance of exploitation of natural forest. The risks can be mitigated (i) applying exclusion criteria for SPPs project and (ii) Strengthening REA management and increasing PMC service scope for SPPs management (e.g. review of EA instruments, monitoring and reporting). E-waste needs to be managed. REA with informal advice from the Bank will endeavor to ensure that ESIAs and ESMPs address these issues. | |
| | Field supervisors will ensure that contactors properly manage health and safety risks to workers and communities and comply with OHSA requirements. REA has prepared, adopted, issued, and given training on its <i>Environmental and Social Procedural Manual</i> . Monitoring and supervision of due diligence measures related to environmental, social, health and safety issues will be a part of World Bank supervision. | |
| Potential social impacts of the project are not | The potential social impacts are moderate. Social impacts of most concern are: | |
| identified, mitigated or monitored. | • Loss of sources of livelihood resulting from wayleave clearing, chiefly valuable trees and crops and those emanating from loss or acquisition of land. | |
| | Termination of electric service to social infrastructure because of non-payment | |
| | Marginalization of vulnerable groups | |
| | Complaints in villages "skipped" in grid extensions | |
| | Impairment of environmental services of importance to communities downstream of mini-hydro generating plants | |
| | Spread of COVID-19 in workforce and communities | |

| | • Occurrence of GBV/SEA The project will continue to implement the REA Voluntary Land Acquisition Framework for wayleave acquisition and the REA Environmental and Social Procedural Manual. REA will also have procedures to screen for the presence of vulnerable groups, to engage them in free, prior informed consultation, and to ensure they are treated equitably in the project. REA has put in place a Grievance Redress Mechanism (GRM) with necessary protocols to ensure safety and confidentiality of all aggrieved persons including but not-limited to survivors of Gender Based Violence/Sexual Exploitation and Abuse- Sexual Harassment (GBV/SEA-SH). It will also develop code of ethical conduct on GBV that will clearly stipulate that project will not tolerate any forms of GBV and will constitute grounds for |
|--|---|
| | penalties and/or termination of employment. |
| Weak protection of workers' rights especially unskilled. | REA will work closely with the Labour Department to foster workers' rights especially for unskilled laborers. In particular contractors will be required to be trained on basics on the Employment and Labour Relations Act, No. 6 of 2004. |

The analysis above shows that Tanzanian system for environmental and social management, with strengthening provided under the Parent Program and Program-specific gap-filling measures, has adequate capacity to manage the environmental, social, health and safety risks of the Additional Financing. The analysis has also identified measures to further improve ESHS performance, explained in Section 7.

7. RECOMMENDED MEASURES TO IMPROVE SYSTEM PERFORMANCE

The analysis presented above confirms that, with the strengthening already accomplished within the Parent Program, Tanzania's environmental and social management system is adequate to effectively address the environmental, health, safety, and social risks associated with the AF. It also identifies opportunities to further strengthen environmental and social management capacity and enhance performance at the program level.

The analysis identified the following main areas for action in order to ensure that the AF interventions are aligned with the Core Principles 1, 2, 3, 4, and 5 of Bank Policy: Program-for-Results Financing. These could be further defined during the consultation process and during implementation, as required. The Addendum therefore recommends the following key measures to be taken for improved environmental and social due diligence in the Program (Table 7). This section completely replaces the corresponding section in the original ESSA.

 Table 7: Measures to Strengthen System Performance for Environmental and Social Management

| Target Objective | Measures to be taken | Timeframe | Responsible | Instrument |
|---|---|---|---------------------------------|---|
| | Strengthen capacity for monitoring, supervision and enforcement of HSSE management measures by restarting the EMO training program. | Within 6 months of AF effectiveness | REA REA | Training materials and schedule. |
| | To ensure that ESIAs approved for SPPs adequately address hydrology, stream ecology, and downstream use/users for minihydros; prevention of exploitation of natural forest for biomass, and e-waste disposal for all, REA will receive and review drafts prior to submission to NEMC. REA will consult with the Bank during the review. REA will monitor ESMP implementation and E&S impacts on SPP projects, calling in experts as needed. | Whenever NEMC review process occurs | TIB-D etc. SPP developers | ESIAs submitted to NEMC meet REA standards. |
| Ensure effective implementation of the Tanzanian environmental and social management system for the PforR program | REA will ensure that TREEP ESMPs incorporate e-waste management procedures consistent with The Environmental Management (Control and Management of Electrical and Electronic Equipment Waste) Regulations, 2021. If and when: national guidelines are issued by the Vice-President's Office, REA will insure that new ESMPs incorporate relevant measures from the Guidelines. | When new ESMPs are prepared | REA PMC | ESMPs incorporate management measures. Training given to the REA staff and contractors. |
| | Replace the recently-retired staff person at NEMC dedicated to project processing for TREEP. Optional, depending on whether REA considers it is still beneficial. | Within 3 months of AF effectiveness | REA NEMC | Replacement identified |
| | REA will review TORs for feasibility studies and ESIAs proposed by TANESCO for TREEP funding to ensure they are eligible – i.e., the underlying projects do not violate the exclusion criteria or otherwise pose high social or environmental risks. REA will consult with the Bank as needed. | Prior to funding approval | REA WB TANESCO | WB confirmation |

| | | | 1 | |
|-------------------------|--|------------|----------------------------|---|
| | Ensure program is implemented in conformance with the | Continuous | REA PMC | Progress |
| | Procedural Manual and its included SEP and GRM, and with the Voluntary Land Access Framework. Update these instruments as and when required. | | TIB-D etc. | reports |
| | Keep in place the resources established for E&S management – REA's environmental, social, and gender specialists and, for Component 1, the PMC. Ensure TIB-D and other financial intermediaries maintain their E&S capability. | Continuous | REA | Progress reports |
| | Continue efforts to raise E&S reporting to an acceptable standards | Continuous | REA PMC | Progress reports |
| | Ensure all contracts for grid extension and SPP development include Chance Finds Procedure | Continuous | REA TIB-D | Contracts |
| | REA to engage with MoE, TFS, and MNR&T to develop guidance for wayleave clearances in forest reserves. | July 2022 | REA MoE TFS MNR&T | Guidance document |
| | Prepare Strategic Environmental and Social Assessment (SESA) of renewable energy development in Tanzania in parallel with development of the national Renewable Energy Strategy and Implementation Plan. | 2022-23 | МоЕ | Consultant TOR; Completed SESA |
| Protect project workers | REA will maintain effective collaboration with OSHA and MLE on health, safety, and labor management issues. | Ongoing. | REA OSHA MLE | Progress reports |
| and local communities | Operationalize the Workers' code of conduct including GBV/SEA prevention and response. | Ongoing | REA PMC | Include in progress reporting |

| | All REA project to get registered with OSHA to enable them get statutory inspections. Include OSHA and MLE as stakeholders in SEP when Procedural Manual is next revised. | Within 6 months of AF effectiveness | REA | OSHA registration certificate. MLE and OSHA included |
|---|--|--|-----------------------|--|
| | Mainstream Ministry of Health COVID-19 Management Protocol in all civil works and public consultation and engagement | Ongoing | REA PMC | Include in progress reports |
| | Train contractors on basics of the Employment and Labour Relations Act, No. 6 of 2004. Ensure employment contracts are consistent with the Act | Within 3 months of contract award | REA PMC | Training given; any new contracts made consistent |
| | Ensure REA's GRM is publicized to all affected people and contract workers. | Throughout project cycle | REA PMC | Information on GRM made available |
| Ensure land and way leave acquisitions | Confirm that acquisition of the land needed for off- grid generation (mini-hydro and solar) follows the principles and procedures in the TREEP RMF. | In review of any SPP project | REA TIB-D | Confirmation by REA in review process |
| proceed in accordance with Tanzania law and REA's procedures for TREEP | Ensure that land and wayleaves for on-grid projects are obtained according to the REA Voluntary Land Access Framework | In oversight of on-grid projects | REA TANESCO PMC | Field supervision reports |

| | With advice from World Bank, refine and elaborate the Procedural Manual measures to ensure equitable treatment of any vulnerable groups that may be affected by grid-extension and off-grid activities. This should: | Within 6 months of AF effectiveness | REA PMC WB | New section on vulnerable groups to be added to the |
|---|---|---|--------------------|--|
| | provide guidance for screening to detect the presence of vulnerable or disadvantaged groups, and measures for their consultation and participation so that that project plans and designs take into consideration their needs, priorities, and preferences; | | | Procedural Manual. |
| Strengthen procedures to promote equitable | define mechanisms whereby vulnerable and disadvantaged groups will be provided with relevant project information in local languages and in form and manner socially acceptable to them; | | | |
| allocation of benefits and impacts of rural electrification | • specify that any project planning to acquire land in an area where vulnerable groups are present will undertake free, | | | |
| | emphasize that each project will utilize the GRM; and | | | |
| | require culturally appropriate methods of data collection, with disaggregation so that outcomes for vulnerable groups can be discerned. | | | |
| | Train REA and TIB-D staff in implementing the vulnerable groups procedures. | When procedures are finished | REA TIB-D WB | Training materials prepared; training delivered |

8. STAKEHOLDER CONSULTATIONS

The original ESSA process included extensive stakeholder consultations and disclosure of the ESSA Report following the guidelines of the World Bank's Access to Information Policy. Feedback from stakeholders was instrumental in designing and revising the original Program Action Plan.

Given the scope of the project and the amount of the funds requested by the government, the World Bank safeguard team conducted multi-stakeholders' consultation meetings for TREEP AF project. The meetings were held from 12th to 15 March 2022 through a Hybrid Method (Virtual and Physical Meetings). The overall objective was to share the draft Environment and Social Safeguard Assessment Addendum findings with the key Stakeholders and thus provide opportunity for them to give their comments, suggestions and concerns. About 54 stakeholders representing government institutions; private investors from energy sector; donors, community representatives and CSOs working with vulnerable and marginalized Groups; NGOs working with people living with disabilities; regulatory authorities; and ministries attended the meetings in Dodoma and Dar es Salaam regions (Annex 1&2).

The consultations aimed to seek stakeholders' contributions on how TREEP AF can be implemented without adversely affecting the environment and people. The key areas for consultations were: stakeholders perception of the project; environmental and social issues relevant to program; potential threats/risks or challenge associated with the program; steps to be taken to address those threats/challenges; the role stakeholders can play during execution of the program; environmental and social programs that should be executed by the project implementers; stakeholders' specific needs to be considered during project designs or in the implementation process; and steps to be taken by the project implementers to enhance the grievance handling process.

Overall Findings and Key Observations: Generally, stakeholders' participants highly commended the TREEP AF as it will contribute in meeting the National Rural Electrification Program (NREP) objectives of improving rural access to electricity. They pointed out that electricity connection has not only improved quality of life but also triggers entrepreneurial initiatives in various villages. Conversely, residents of villages that have not been covered by the project have always expressed dissatisfaction and disappointment because of the missed opportunities. Indeed, participants indicated that, there is a strong need for electricity and high expectations for connections among residents. They also accepted and agreed with the ESSA's findings and the proposed actions to address the anticipated project environmental and social risks and impacts.

The following table summarizes key observations, comments, concerns and suggestions:

| S/N | Question/Comment | Response |
|-----|--|--|
| 1. | The Program suggests generation of electricity through supporting of minihydro projects. These technically rely on rivers. However, the project doesn't not put any weight on conservation of forests resources which are key to sustenance of water sources. We recommend for the program to consider conservation aspects. | Agreed with observation. However, conservation is out of the Program' scope. The Program will indirectly benefit forest conservation efforts through the generation of electricity from renewable energy sources, and encouraging villagers to use electricity in cooking. This will reduce pressure on natural forests. |
| 2. | The TREEP Parent Program hardly involved the Local Government Authorities especially the district Environmental Management Officers (EMOs), during monitoring and supervision of E&S issues. | Agreed. Institutional collaboration and coordination between the Ministry of Energy (MoE), the Rural Energy Agency (REA) and the President's Office – Regional Administration and Local Governance is central. MoE and REA to strategize on how EMOs will be involved in TREEP AF. |
| 3. | The Environmental Management Act (2004) have given powers to EMOs to oversee E&S matters at district level. Contractors who will implement TREEP AF activities should share Environmental and Social Management Plan (ESMP) with EMOs. | Agreed. This will still require close coordination between REA, TANESCO, Project Management Consultant, and contractors. |
| 4. | Local government officials sometimes get challenges in responding to questions from villagers about REA activities implemented under TREEP Parent program. In most cases, contractors consult District Commissioners' Offices when REA project face challenges. How is the TREEP AF prepared to address this challenge? | This often happens wherever there is weak involvement of stakeholders at all levels. TREEP AF will strengthen stakeholders' engagement through operationalization of Stakeholders Engagement Plan (SEP), which will be updated in the Program Implementation Manual. |
| 5. | REA should work closely with Occupational Safety and Health Authority (OSHA) and ensure TREEP AF contractors get registered. | Agreed, this is also a legal requirement. |
| 6. | Enforcement of workplace health and | REA will consult the relevant authorities |

| safety is challenging when tools are not | whenever the need arises. |
|--|--|
| clear. The responsible authorities to assist on this so that workable tools are generated. | |
| In some cases, contractors and TANESCO have cleared forest areas for wayleave without knowledge of forest owners. This has happened in Iringa and Mlele village in Gairo district in Morogoro. How is TREEP AF financing prepared to address this? It is very important for REA to observe other sectors laws and regulation during execution of its projects. | REA, MoE are in discussion with the Ministry of Natural Resources and Tourism (MNRT), and the Tanzania Forest Services (TFS) to prepare a framework which will be adopted at the national level for compliance while undertaking development activities within forest reserves. |
| REA has shown commitment to engage Small Power Producers (SPP) in generation of electricity to cater for rural needs. However, the number of SSP is declining year after year. The Government of Tanzania and WB should find mechanisms to motivate SPP especially financially. REA to set aside some emergency funds for developers. | TREEP supports SPP though a Credit Line managed by Tanzania Investment Bank (TIB) and through matching grant for predatory studies thought the Renewable Energy Project Preparation Support Facility. |
| TREEP AF to consider to setting some fund to compensate time of stakeholders who might be willing to support the project especially at local government authorities e.g. community development officers, and EMOs. | The project will ensure that the coordination with local government authorities are strengthen. It is not envisaged that the TREEP AF will include funding support to local government. |
| Although PIGOSs forum (An organization that advance rights of the indigenous pastoralist and hunters in Tanzania) have not received any complaints from marginalized communities on REA project observations suggest that 'REA project tend to systematically skip villages located within conservation areas. A case in point is Manyara region where none of the villages within the Ngorongoro Conservation area (about | A number of villages, not only those in Ngorongoro, but countrywide are yet to be electrified due to various reasons including distance from the nearby tapping point from existing electricity infrastructure. TREEP E&S Procedural manual stipulates criteria to be followed during identifying of REA project and subsequent selection of villages for rural electrification (See |
| | assist on this so that workable tools are generated. In some cases, contractors and TANESCO have cleared forest areas for wayleave without knowledge of forest owners. This has happened in Iringa and Mlele village in Gairo district in Morogoro. How is TREEP AF financing prepared to address this? It is very important for REA to observe other sectors laws and regulation during execution of its projects. REA has shown commitment to engage Small Power Producers (SPP) in generation of electricity to cater for rural needs. However, the number of SSP is declining year after year. The Government of Tanzania and WB should find mechanisms to motivate SPP especially financially. REA to set aside some emergency funds for developers. TREEP AF to consider to setting some fund to compensate time of stakeholders who might be willing to support the project especially at local government authorities e.g. community development officers, and EMOs. Although PIGOSs forum (An organization that advance rights of the indigenous pastoralist and hunters in Tanzania) have not received any complaints from marginalized communities on REA project observations suggest that 'REA project tend to systematically skip villages located within conservation areas. A case in point is Manyara region |

| | Another example is drawn from Babati | page 5&6 of E&S Procedural manual). |
|-----|--|--|
| | district where Kakoi village situated | |
| | within conservation area has been bypassed by REA. | In addition, currently the government is in process of identifying villages located in reserve areas, deltas and islands for electrifying using mini-grids or standalone solar power systems. This process is done in consultation with other sectors, including, natural resource, Forestry, Wildlife, and local Government authority. |
| | | We expect that through this initiatives and arrangements, villages within or closer to conservation areas including Ngorongoro will benefit. |
| 11. | The representative of marginalized groups complemented government efforts to electrify rural areas. Out of 22 representatives only two reported that REA projects have not reached their villages. The only dissatisfaction was related to project' scope. | Thanks for complement. |
| 12. | Majority of youth from marginalized groups particularly livestock keepers have not been involved in supplying labour. | We always insist our contractor to involve local communities and to source labors from the communities. Where local labor has been provided, the youth involved are obtained through recommendation of their village leaders who know them. We think, may be the youth from the livestock keepers are not involves because of the mobility and pastoralist-nature of their day-to-day activities. REA would be happy to recommend to future Contractors to get supply from the groups/communities who raised concern if their specific locations/villages are known. |
| 13. | There is a belief that Government does not involve marginalized people especially livestock keepers and hunters during project. REA should take deliberate effort to consult marginalized group. | Noted. The SEP to be integrated in E&S Procedural Manual will stress that efforts should be done to cover all segments of population in project area. More awareness and engagement campaigns need to be done. |
| 14. | Participants from marginalized groups reported that some projects under parent TREEP took much time to be energize. | We have cases where contractors could not deliver the project on time, and in some cases the contractors failed to |

| | A case in point is Ngelai-Lubwa and Ngenai Merungo in Lungido district where it has taken over four years. In those villages poles and electric wires were planted since 2018 and until the day of this consultation, none of them had electricity. | complete the project because of several reasons including poor planning, company insolvency. The Agency has engaged other contractors to complete the uncompleted works |
|-----|---|---|
| 15. | Include water pollution as one of anticipated impacts of mini-hydro construction. | Agreed |
| 16. | Three years ago REA and WB were working on renewable energy project. Is this the same project? | Yes, this is the same project. The Parent Program's Development Objectives were: (i) to increase access to electricity in rural areas; and (ii) to scale up the supply of renewable energy in rural areas while strengthening sector institutional capacity. The proposed AF is aimed at strengthening the development impact of the TREEP Parent Program. Some of its objectives are to increase supply of renewable electricity in rural areas; and to strengthen the capacity of the sector to deliver the NREP objectives. |
| 17. | The TREEP AF to include e-cooking campaign in its program. There is a belief that e-cooking is costly, but evidences show that this is not the case in reality. Behavior shifting is required among stakeholders which can be achieved through education and campaigns. REA should think to work with organization which promote e-cooking like TATEDO. REA also can facilitate research on impact of indoor pollution which are associated with the use of firewood. Such data can highly help to promote e-cooking. | It is not envisaged that TREEP AF will support c-cooking campaign. |

| 18. | ESSA has recommended several actions to meet the E&S requirements which government might face difficult to meet. How REA is prepared to meet them? | The proposed actions are doable. REA has enhanced its capacity to meet E&S requirements. |
|-----|---|---|
| 19. | How does the project design consider accommodation of people living with disabilities? How will stigma and communication issues be handled? | People with Disabilities will be consulted throughout the project cycle and they will be made aware of the project benefits and associated risks and impacts. |
| 20. | One of the anticipated project risks and impacts is GBV and Sexual Exploitation and Abuse; Sexual Transmitted Diseases, and HIV/AIDs. How is the project prepared to protect civil workers and local population against such risks? | The following will be done: Contractors in collaboration with PIU will prepare Code of conduct on GBV issues to protect civil workers and local population. Every project worker and contractor will be required to sign such Code before employment placement. Community sensitization and awareness on GBV and SEA; STDs, HIV/AIDs will be undertaken throughout the project cycle. Also, the community will be made aware on the existence of Grievance Redress Mechanism for GBV/SEA. During preparation of Code of conduct, consideration will be made to national strategies e.g. The National Plan of Action to End Violence against Women and Children in Tanzania 2017/8-2021/2 (NPA-VAWC 2017/18 – 2021/22). |
| | | Make use of policy gender desk in orienting stakeholders on GBV issues. |

Together with this, consultations with the PIU and contractors will be an ongoing activity and will be carried out in accordance with the Stakeholder Engagement Plan contained in REA's Environmental and Social Procedural Manual.

REFERENCES

In addition to the laws, policies, and regulations cited in this report, the ESSA has drawn from a range of sources including Government documents, technical reports, evaluations, and project documents. This annex lists some of key sources that were consulted in the preparation of the ESSA Addendum.

- Assessment of Environmental, Social and Resettlement Practices and Management of the Turnkey III Project. TANSHEQ, 2020¹⁹.
- Bank Guidance: Program-for-Results Financing Additional Financing. World Bank, 2018
- Bank Procedure: Additional Financing for Program-for-Results Financing. World Bank, 2018
- Bank Guidance: Program-for-Results Financing Environmental and Social Systems Assessment. World Bank, 2020.
- Concept Note on a Proposed Additional Financing Credit in the Amount of S\$350 million to the United Republic Tanzania for the Rural Electrification Expansion Program. World Bank, 2022.
- Demographic and Health Survey (DHS) National Bureau of Statistics (2015-2016). Dar es Salaam, NBS.
- Gap Analysis between REA Environmental and Social Procedural Manual and TIB Development Bank Environmental and Social Management System (ESMS). REA, 2020
- Implementation Status and Results Reports (ISR). Ten ISRs for TREEP were reviewed. World Bank, 2017-2021.
- Implementation Support Mission Aides-Memoire. World Bank, 2018-2021.
- Quarterly report No. 005 (1st July 2021 30th September 2021) Project Management and Supervision of REA's Rural Electrification Expansion Program, Phase III, Round 2. Mercado-Aries International, 2021.²⁰
- REA Environmental and Social Procedural Manual. REA, 2021
- REA TREEP Mid-term Review Report, Annex 1: Environmental and Social Safeguards Report. REA, 2020.
- REA Voluntary Land Access Framework. REA, 2021.
- Rural Electrification Expansion Program: Environmental and Social Systems Assessment (ESSA). World Bank, 2017.
- TIB Development Bank Environmental and Social Risks Management Manual TIB-D, 2022.

-

¹⁹ TANSHEQ is the third-party safeguards auditor engaged by REA.

²⁰ Mercado-Aries International is the Program Management Consultant.

ANNEXES

Annex1: List of the Persons Consulted During Preparation of the Addendum

| s/n | Name and Position | Institution |
|-----|---|---|
| 1 | Ms. Lilian Lukambuzi, Director of ESIA | National Environmental Management Council |
| 2 | Mr. Benjamin Dotto, | NEMC Zonal Manager - Western Zone. |
| 3 | Mr. Baraka Lellah, Senior Forest Conservator - Special Zone – Katavi | Tanzania Forest Service, |
| 4 | Mr. Valentine Msusa, Principal Forest Conservator Headquarters | Tanzania Forest Service, |
| 5 | Mr. Duncan Rusule, Environment Manager | Rural Energy Agency |
| 6 | Mr.Aziz A. Abbu, Social & Environmental Specialist | Rural Energy Agency |
| 7 | Mr. Fikirini Mtandika, Environmental Engineer | TANESCO |

Annex 2: Multi-stakeholders Consultation Meetings Participants

| | Amiex 2. Winti-stakeholders Consultation Meetings 1 at ticipants | | | | | |
|----|--|------------|-------------------------|-----------------------------------|--|--|
| 1. | NAME | INSTITUTE | DESIGNATION | CONTACT | | |
| | | | | | | |
| 2. | AZIZ. A. ABBU | REA | Social & | 0784770559 | | |
| | | | Environmental | aabbu@rea.go.tz | | |
| | | | Specialist | j j | | |
| 3. | DR. CONSOLATHA | MNRT | Ag. DPP | 0754365641 | | |
| | KAPINGA | | _ | Consolatha.benedict@maliasili.go. | | |
| | | | | tz | | |
| 4. | ENG. ROBERT MASHINJI | OSHA | Occupation Society | 0766364020 | | |
| | | | Manger | | | |
| 5. | ROBERT JACKSON | MUFINDI DC | HEAD OF DEPT | 0756717049 | | |
| | SUNGURA | | COMMUNITY | sungurarobert@gmail.com | | |
| | | | DEVELOPMENT | | | |
| 6. | ISAYA WILSON | GAIRO DC | HEAD OF DEPT | 0754750985 | | |
| | MIHINZO | | COMMUNITY | mihinzo@yahoo.com | | |
| | | | DEVELOPMENT | | | |
| 7. | AUGUSTINO | DC GAIRO | District Administrative | 0736129129 | | |
| | NICHOLAUS CHAZUA | | Secretary | Augustinochazua78@gmail.com | | |
| | | | | | | |
| 8. | NURATH HUSSEIN | Gairo DC | Head of Environment & | 0754327402 | | |
| | | | Sanitation | Nnshaiji@gmail.com | | |
| 9. | RAMADHANI | MUFINDI DC | HEAD OF | 0767940176 | | |
| | MACHEMBA | | DEPARTMENT | Machemba86@gmail.com | | |

| | | | ENVIRONMENT | |
|-----|--|----------------------------|--------------------------------------|---------------------------|
| 10. | ANDREW. C. CHUNGA | MUFINDI DC | District Administrative | 0758842454 |
| | | | Secretary | manchunga@gmail.com |
| 11. | GASTON ROBERT | Kilolo DC | District Environmental | 0762449663 |
| | MASALU | | management Officer (DEMO) | Masaluoffice2gmail.com |
| 12. | ZENA IBRAHIM JIRIM | CHAMWINO DC | District Environmental | 0713764959 |
| | | | management Officer (DEMO) | Jirini2003@gmail.com |
| 13. | EDWARD M. LUCHAPA | BAHI DC | Social Community | 0713797756 |
| | | | Development Officer (SCDO) | edoluchapa@yahoo.com |
| 14. | | BAHI DC | District Environmental | 0715050606 |
| | MPANGALA | | management Officer (DEMO) | Mpangalaw14.wm@gmail.com |
| 15. | WANJALA J. MGAYWA | MNSCT-Ddm | SFO | wanjalajolen@yahoo.com |
| 16. | JEREMIAH MAPOGO | BAHI DC | District Administrative | 0784428481 |
| | | | Secretary | jerrpogo@gmail.com |
| 17. | NEEMA NYALEGE | CHAMWINO DC | District Administrative Secretary | 0785905799 |
| 18. | DENIS V. VAGELA | CHAMWINO DC | DCDO | 0784558311 |
| | | **** 6* 6 5 6 | | Dvagela1983@gmail.com |
| 19. | | KILOLO DC | District Administrative Secretary | 0784657923 |
| 20. | SCHOLASTICA GIBORE NYASIRO | KILOLO DC | DCDO | jacksonscola@gmail.com |
| 21. | SPORA SULLE | MoE DODOMA | Environmental Officer | Spora.sulle@nishati.go.tz |
| 22. | MARY NDIMBO | TARI-VYOLE | BEAN | |
| 23. | SUED J. MTONI | CHAMKINO DC | DEREVA | 0754242358 |
| 24. | IDDY GEKA | DRV. KILOLO | District Administrative Secretary | 0756277553 |
| 25. | STEPHE S. MWAMASIKA | MUFINDI DC | DEREVA | 0620640089 |
| 26. | HAMADI A. KOMBOZA | TANZANIA ASSOCIATION OF | CHAIRPERSON | 0754555031 |
| | | THE DISABLED | | |
| 27. | MANENO J. J. KATYEA | TaTEDO | SENIOR ENERGY ADVISOR | 0783558599 |
| 28. | JOHN K. MLAY | SNV-TANZANIA | SENIOR ENERGY ADVISOR | 0767904504 |
| 29. | GWAKISA MWAKYUSA | TANZANIA | SECRETARY | 07844577510 |
| | | ENVIRONMENT | GENERAL ADVISOR | |
| | | EXPERTS' | | |
| | | ASSOCIATION | | |
| 2.5 | THE TAX AND THE TA | (TEEA) | | |
| 30. | TITUS KAFUMA | TK Solar Tz LTD | Managing Director | 0754711126 |
| 31. | | DAUDI SANGA | DAUDI SANGA | DAUDI SANGA |
| 32. | | MOSHI SHABANI | MOSHI SHABANI | MOSHI SHABANI |
| 33. | Sr. Emakulata Mlowe | Sr. Emakulata Mlowe | Sr. Emakulata Mlowe | Sr. Emakulata Mlowe |

| 34. | DR. SAMWEL MHAJIDA | DR. SAMWEL MHAJIDA | DR. SAMWEL MHAJIDA | DR. SAMWEL MHAJIDA |
|-----|---------------------------|---------------------------|--|------------------------|
| 35. | SAMWUELI BOYAYE COUZER | SAMWUELI BOYAYE COUZER | SAMWUELI BOYAYE COUZER | SAMWUELI BOYAYE COUZER |
| 36. | MABILE JACKSON | MABILE JACKSON | MABILE JACKSON | MABILE JACKSON |
| 37. | YOHANA TERENGO | YOHANA TERENGO | YOHANA TERENGO | YOHANA TERENGO |
| 38. | HAPPY YOHANA | KITETO | Representative of Marginalized Groups – Kiteto District | 0683109213 |
| 39. | MARY MASALU | TABORA | Representative of Marginalized Groups – Tabora | 0764795365 |
| 40. | RENATA JOHN | SIMIYU | Member, Hadzabe council services | 0748073913 |
| 41. | BEATHER PASCAL | СНЕМВА | Representative of Marginalized Groups – Nchemba District | 0785474829 |
| 42. | AFRIKANUS ROBATI | KONDOA | Livestock Keeper | 0625046904 |
| 43. | BRIGITHA AMMAS | SINGINDA | MUWINDAJI ASILI | 0766923878 |
| 44. | EVAMARY DAMIAN | SIHA | Representative of Marginalized Groups – SIHA District | 0687766771 |
| 45. | VALENTNA VENANCE | BAGAMOYO | MWKITI C. C. W. T. O | 0783789364 |
| 46. | SAMWEL BOAY | SONGWE | Researcher | 0786423192 |
| 47. | NAVAYA NDASKOI | PINGO'S FORUM | | 0754453192 |
| 48. | AUGUSTINO A. MONGODA | BABATI KIJIJINI | Representative of Marginalized Groups – Babati District | 0766699935 |
| 49. | JULIUS K. MEGIRORY | KILOSA | Representative of Marginalized Groups – Kilosa District | 0687998899 |
| 50. | FLORA ANDERSON | RUVUMA | Representative of Marginalized Groups – Ruvuma District | 0759355494 |
| 51. | ALPHONCIA JACKSON | RUVUMA | Representative of Marginalized Groups – Ruvuma | 0620288121 |
| 52. | KULWA MNATI | RUVUMA | Representative of Marginalized Groups – Ruvuma | 0693409062 |
| 53. | GITIGISHI SHEMBI | SINGIDA | Representative of Marginalized Groups – Singida | 0687710427 |
| 54. | LAWRENCE THOMAS | PINGO'S FORUM | Driver | 0787316216 |