Ministry of Energy and Minerals



United Republic of Tanzania

TERMS OF REFERENCE Scaling-up Renewable Energy Program in Tanzania TECHNICAL MISSION



January 14 to 18, 2013

Dar es Salaam

Tanzania







CONTEXT OF THE MISSION

- 1. Tanzania is a pilot country selected to benefit from the Scaling-Up Renewable Energy Program in Low Income Countries (SREP). SREP operates under the Strategic Climate Fund (SCF), which is part of the Climate Investment Funds (CIF). The objective of the SREP is to pilot and demonstrate the economic, social and environmental viability of low carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy. Multilateral Development Banks (MDBs) provide support to Governments in preparing and implementing their SREP Investment Plan. In the case of the SREP Tanzania, the African Development Bank (AfDB) and the World Bank Group (WBG), including the International Finance Corporation (IFC), jointly provide support to the Government, with the African Development Bank (AfDB) acting as the lead institution.
- 2. Tanzania has been assigned US\$50 million of SREP concessional funding towards scaling up renewable energy and to assist it in transforming its energy production to one that is less carbon intensive. These funds are expected to leverage about US\$150 million in other public and private financing for renewable energy. The GoT, supported by the MDBs, has undertaken a number of preparatory activities, including: (i) the appointment of Mr. Edward Leonard Ishengoma, Assistant Commissioner Renewable Energy at the Ministry of Energy and Minerals as the SREP National Focal Point; (ii) the formulation of a National SREP Task Force; (iii) a scoping mission including a technical workshop and consultations with national stakeholders; and (iv) the preparation of a draft IP by the SREP National Task Force. The GoT submitted the draft IP to the MDBs for their review. While commending the effort made by the preparation team, the MDBs review noted a number of areas where improvements to the draft IP are needed.
- 3. Therefore, it was agreed with the GoT that a Technical Mission was needed to improve the draft IP before it is shared with national stakeholders during the Joint Mission. *The main objective of the Technical Mission is to get the draft IP ready for public consultations*, with a clear story line, a good understanding of main sector challenges that need to be addressed in order to scale up renewable energy in the country, and strong rationale for the proposed SREP investments.
- 4. The main expected output of this mission is an improved version of the draft IP that will be ready for the Joint Mission a few weeks later.

TECHNICAL MISSION ACTIVITIES

- 5. Main MDB observations on the draft IP are provided in Annex 3; more detailed comments have been provided to the National Task Force in mid-December 2012 for their consideration.
- 6. MDBs will support the Government of Tanzania in fine-tuning the draft Investment Plan. To do so, a small group composed of MDBs staff and members of the SREP National Task Force will work together to fine tune the draft IP. More specifically, the activities planned during the Technical Mission are as such:

- (i) Review the updated version of the IP that will be made available by the GoT in early January 2013 before the Mission;
- (ii) Make sure that main comments provided by MDB in late 2012 have been addressed, and if not, provide support to the GoT in addressing them effectively (see Annex 3);
- (iii) Gather missing information as needed and conduct additional analyses such as economic/financial analysis of renewable energy options;
- (iv) Help prioritize SREP investments based on SREP selection criteria (Annex 2);
- (v) Improve the draft IP in accordance with the comments provided and the SREP guidelines in order to have a version that is available for public consultations during the Joint Mission.
- 7. In accordance with the SREP "programming guidelines", the IP will consist of the sections mentioned in Annex 2. The MDBs will work with the SREP national Task Force during the mission to make sure all sections of the IP are drafted and ready for public consultations during the Joint Mission.

COMPOSITION OF THE MISSION

- 8. The mission will consist of a small number of experts from the three MDBs. Some experts will be on site with the Government, while others will join by audio conference as needed during the week. The areas of expertise covered by experts on site will be as such:
 - Energy Specialist Power Engineers
 - Renewable Energy Specialists
 - Private Sector Experts

Annex 4 shows the list of Government Team and MDB Mission Team Composition.

MAIN CONTACTS (MDB & GOVERNMENT)

Government

Mr. Edward Leonard Ishengoma

Assistant Commissioner - Renewable Energy, Ministry of Energy and Minerals

Email: e leonardishe@yahoo.co.uk

Tel. No. +255 22 2117156-9 Fax No. +255 22 2120799

Multilateral Development Banks

African Development Bank

Mrs Mafalda Duarte CIF Coordinator

E-mail: m.duarte@afdb.org

World Bank

Mr. Gevorg Sargsyan CTF/SREP Coordinator

Email: gsargsyan@worldbank.org

IFC

Mrs Joyita Mukherjee CIF/SREP Coordinator

Email: JMukherjee 1@ifc.org

Annex 1: Criteria for the Sub-Committee to Assess the Investment plan

- a) Increased installed capacity from renewable energy sources: A high priority for most low income countries is expanding their generation capacity in order to ramp up modern energy use and energy access. Therefore, SREP-funded investments should result in increased MW from renewable energy, as well as increased energy (GWh) per capita in the country.
- b) Increased access to energy through renewable energy sources: SREP may support grid extensions and decentralized energy systems with a view to expanding the percentage of the population with access to non-fossil-fueled electricity. Investment proposals should demonstrate how the investments are part of the Government's long term commitment to increasing energy access.
- c) Low Emission Development: SREP may support the use of renewable energy technologies for electricity generation and services to replace fossil fuel technologies that would be deployed in a business-as-usual scenario aimed at substantially increasing commercial energy use in low income countries. In particular, benefits from SREP investments will often arise from "leapfrogging" technologies, in which low income countries will be assisted to mainstream renewable energy technologies into the overall energy system.
- d) Affordability and competitiveness of renewable sources: Affordability is essential for increasing access and for ensuring the long term renewable energy market development. SREP funding should address clearly-defined cost barriers to adoption of renewable energy technologies, such as connection costs for rural consumers, higher capital costs of new technologies, transmission costs related to grid-connected renewables, and risk adjusted rates of return sought by investors.
- e) **Productive use of energy**: SREP programs should promote the generation and productive use of energy.
- f) **Economic, social and environmental development impact**: Investment proposals for SREP financing should demonstrate the generation of economic, social and environmental benefits.
- g) **Economic and financial viability**: Investment proposals should demonstrate the economic viability of investments and the financial viability with the inclusion of time bound SREP resources.
- h) **Leveraging of additional resources**: Activities should maximize the leverage of funds from other partners.
- i) **Gender:** SREP investments should seek to strengthen the capacity of women to be active participants in the economic sector and avoid negative impacts on women.
- j) Co-benefits of renewable energy scale-up: SREP investments should include decreased air pollutants from energy production and consumption as well as the potential to reduce stress on forest resources. Investments and activities should elaborate on the potential positive effects on air quality and natural resource management through the adoption of renewable energy technologies.

Annex 2: Suggested Structure for the Investment plan

I. Proposal Summary (2 pages)

- Objectives
- Expected outcomes
- Program criteria, priorities and budget

II. Country Context (3-4 pages)

- Energy sector description (market structure, demand supply, and dispatch composition, electricity cost and pricing) incl. renewable energy status
- Gap/barrier analysis; needs assessment

III. Renewable Energy Sector Context (3-4 pages)

- Analysis of RE options (technology, cost, mitigation potential, barriers)
- Government plans or strategy for the sector (willingness to move towards renewable energy investments, existing or envisioned policy, regulation, plans, and resource allocation)
- Institutional structure and capacity (technical, operational, financial, equipment supply, information)
- Role of private sector and leverage of resources
- Ongoing/planned investment by other development partners

IV. Contribution to National Energy Roadmap (2 pages)

- Likely development impacts and co-benefits of SREP investment
- How SREP investment will initiate a process leading towards transformational low carbon growth

V. Program Description (6-8 pages)

- Capacity building and advisory services
- · Investment preparation activities
- Technology deployment investments
- Parallel activities to be funded by other development partners
- Environmental, social and gender co-benefits

VI. Financing Plan and Instruments (3-4 pages)

- Budget envelop for investments
- · Costs and sources of funding
- SREP assistance (grant, concessional debt, etc.)
- Recipients of funding

VII. Additional Development Activities (2-3 pages)

• Leverage complementary co-financing with other development partners such as bilaterals, private sector, and financial institutions

VIII. Implementation Potential with Risk Assessment (2 pages)

- Country/regional risks institutional, technology, environmental, social, financial
- Absorptive capacity for SREP and leveraged resources

IX. Monitoring and Evaluation (1/2 page)

Results framework table

Annexes

Information should be included in annexes on the following areas:

- assessment of country's absorptive capacity
- stakeholder consultations
- co benefits
- existing activities in the field of renewable energy, particularly activities of other development partners

For each project to be implemented under the Investment Plan, an investment concept brief (maximum two pages) will be prepared as part of the Annex to the Investment Plan.

A suggested outline of an Investment Concept Brief includes:

- Problem statement (1-2 paragraphs)
- Proposed contribution to initiating transformation (1-2 paragraphs)
- Implementation readiness (1-2 paragraphs)
- Rationale for SREP financing (1-2 paragraphs)
- Results indicators
- Financing plan
- Project preparation timetable
- Requests, if any, for investment preparation funding

Annex 3: Main Comments from MDBs on the Draft IP

- SREP Tanzania storyline/rationale. At this stage, it is still difficult to clearly understand what the story line of the IP is. The IP needs to lay out more clearly what are the key constraints/bottlenecks in the RE sector, and how the GoT expects the SREP to address these barriers. Also, the "strategic vision" of the GoT for SREP interventions needs to be refined because this will help build the rationale for the proposed investments. The proposed projects have to fit into an overall strategic/programmatic framework that has some coherence to achieve the expected results. And the IP must demonstrate how the SREP investments are a part of the national energy development plan where the "seeds" that SREP sows and nurtures lead to transformative change in how energy is produced.
- Rationale and selection of projects. At the moment, the IP appears to be a collection of disparate sub-projects without a clear rationale of how these projects tie into GoT's strategic vision for RE development in Tanzania. A stronger case/justification for each of the proposed projects is required. Namely, what are the key barriers that these projects/programs will help overcome (what is the rationale for picking them), how do these projects meet the SREP criteria, how would these proposed projects/programs help scale up RE in Tanzania? These arguments will need to be clearly stated in the IP.
- Role of the private sector. One of the key objectives of SREP is to promote the engagement of private sector in renewable energy and the SREP Sub-Committee is keen to ensure that SREP financing complements and leverages private sector financing. While the GoT has taken substantive steps in establishing a regulatory regime and tariff policy to support renewable energy development, the current version of the IP is heavily focused on public sector interventions and lacks a discussion on the role of the private sector and on projects/programs where the private sector can play a role. During the Scoping Mission, some key barriers that prevent the private sector to further engage in the sector had been identified and SREP could help address these barriers for future private sector investments. There may also be some opportunities for SREP to support private sector investments in some of the areas (geothermal, minigrids, etc.) identified in the IP. The role and scope of private sector projects/programs in the IP needs to be further strengthened.
- Missing sections. Finally, while comparing the current version of the IP and an outline
 for an IP suggested by SREP, some sections still need to be written such as
 "Contribution to National Energy Roadmap", "Financing Plan and Instruments", as well
 as "Monitoring and Evaluation". See Annex 1 for a comparison of draft IP and suggested
 form of the SREP IP.

Annex 4: SREP Government Team and Technical Mission MDB Team Composition

SREP Government Task Force Team							
Institution	Name	Title	E-mail				
Ministry of Energy and Minerals	Edward Leonard Ishengoma	Assistant Commissioner – Renewable Energy	e_leonardishe@yahoo.co.uk				
Rural Energy Agency	Elineema Mkumbo	Acting Project Identification and promotion Manager	emkumbo@rea.go.tz				
TANESCO	Kato Kabaka	Research Manager	Kato.kabaka@tanesco.co.tz				
Geological Survey of Tanzania (GST)	Taramael Mnjokava	Principal Geochemist	mnjott@yahoo.co.uk				
EWURA	N'ganga Kiboko	Principal commercial Officer	kiboko@ewura.go.tz				
TaTEDO	Jensen Shuma	Resource Mobilization	Jensen.shuma@tatedo.org				

MDBs							
Institution	Name	Expertise	E-mail	Joining the Mission on site	Joining the Mission by audio conference		
AfD	3						
AfDB	Alemayehu WUBESHET- ZEGEYE	Mission co-leader; Chief Power Engineer	A.WUBESHET- ZEGEYE@AFDB.ORG		✓		
AfDB	Mafalda DUARTE	Mission co-Leader; CIF Coordinator	m.duarte@afdb.org		✓		
AfDB	Florence RICHARD	Senior Climate Change Specialist	f.quintanilha@afdb.org		✓		
AfDB	Stella MANDAGO	Senior Energy Specialist	s.mandago@afdb.org	✓			
AfDB	Umang GOSWAMI	Private Sector Specialist	u.goswami@afdb.org	✓			
AfDB	Magdaline Nkando	Knowledge Management Specialist			✓		
AfDB	Amel Makhlouf	M&E Specialist	a.makhlouf@afdb.org		✓		
WB							
WB	Gevorg Sargsayan	SREP Program Coordinator	gsargsayan@worldbank.org		✓		
WB	Dana Rysankova	Senior Energy Specialist	drysankova@worldbank.org	✓			
WB	Stephanie Nsom	Energy Specialist	sgbanerjee@worldbank.org	✓			
WB	Krishnan Raghunathan	Renewable energy finance specialist (consultant for a WB project)		✓			
WB	Chris Purcell	PV specialist (consultant for a WB project)		✓			
WB	Anders Pedersen	Renewable energy specialist	apedersen@worldbank.org		√		

IFC						
IFC	Murefu Barasa	Renewable Energy Specialist	murefu.barasa@camcoglobal.com	✓		
IFC	Itotia Njagi	Program Manager, Lighting Africa	Anjagi@ifc.org		✓	
IFC	Joyita Mukherjee	CIF/SREP Coordinator	JMukherjee1@ifc.org		✓	
IFC	Laura Gaensly	Operations Officer, Climate Investment Funds	lgaensly@ifc.org		✓	