

SCALING-UP RENEWABLE ENERGY PROGRAMME (SREP) - TANZANIA INVESTMENT PLAN

SREP Sub-Committee Meeting

Istanbul – Turkey

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1. Country Profile and Location

- Located in East Africa;
- Total Area: 945,000 km²;
- Population: 44 millions – 75% live in rural areas

2. Energy Balance

- Biomass: 90%;
- Electricity: 1.2%;
- Petroleum and Related Products: 8%; and
- Renewable (Excluding Biomass) and Other Sources: 0.8%

3. Available Energy Resources

Proven Potentials:

- Hydro 4.7GW;
- Natural Gas (33 Trillion Cubic Feet of Proven Reserves);
- Coal (1.2 Billion Tones of Proven Reserve);
- Small Hydropower (480 MW);
- Geothermal (650 MW);
- Solar (4 – 7 KWh/m²/day);
- Wind Energy (8 – 9 m/s in Central Tanzania and Southern Highlands);
- Biomass

4. Power Sector Situation

- Total Installed Capacity (Electricity):
 - Total (Country-wide): 1438.24MW,
 - Hydropower: 561MW; and
 - Diesel/Gas: 877.24MW

- Access to electricity
 - National Average: 18.4%;
 - Urban: 39%;
 - Rural: 6.6%.

5. Achievements in RE

- Institutional framework in place, as well as some elements of the policy and regulatory frameworks;
- Completion of a number of projects in mini-micro hydroelectricity and solar energy (grid-connected or off-grid);
- Geothermal development at early stages;
- Ongoing mapping of wind resources under 7 sites, as well as a number of feasibility studies for mini and small hydro.

6. Renewable Energy Contribution to the Electricity Sub-sector

S/N	Renewable Energy Technology	Total Capacity (MW)	Own Use Capacity (MW)	Capacity Fed to Main-Grid (MW)
1.	Biomass	35.5	25.0	10.5
2.	Small Hydropower	15.0	4.8	10.2
3.	Solar	6.0	6.0	0
4.	Wind	0.3	0.3	0
	Total	56.8	36.1	20.7

7. Challenges for the development of RE

- Climate variability impacts on hydro resources;
- Inadequate human capacity with technology know-how;
- Lack of awareness for decision makers, local financial institutions;
- High initial investment capital costs;
- Lack of proper regulations for feed-in tariffs;
- Inability to afford to pay for electricity services;
- Lack of proper infrastructures;
- Limited local manufacturing capacity;
- Mobilization of the private sector.

8. Ongoing Prioritization Process

The Task Force is currently screening the potential investments against a set of national & SREP criteria:

- Energy Access
- Potential to scale up & leveraging for additional resources
- Potential for new direct beneficiaries
- Cost effectiveness (USc/KWh)
- Contribution to base load/strategic relevance
- Avoiding duplication/crowding out
- Project readiness (e.g. availability of studies)

Other appropriate SREP criteria will be taken into account while designing the proposed investments.

9. Emerging Priorities Under SREP

- Geothermal Power Development Project ;
- Mini-Grid Systems (Connecting Rural Areas to Alleviate Energy and Economic Poverty):
 - Solar Mini-Grids;
 - Small Hydropower Mini-Grids;
 - Biomass (Biogas) Mini-Grids;
 - Hybrid Mini-Grids.
- Intensive Capacity Building on Geothermal and other RETs;
- Studies on:
 - General Energy Management;
 - Demand Side Management e.g. efficient lighting;
 - Energy Efficiency Regulations and Standards for Industries, Hotels, High Rise Buildings Including Integration of solar PV, Efficiency Standards for Hotels and High-rise Buildings.

10. Institutional Arrangement for SREP - Tanzania

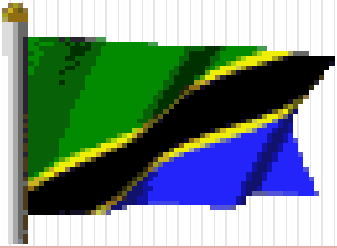
- Focal Point: Ministry of Energy and Minerals;
- Focal Person and Chairperson: Assistant Commissioner for Renewable Energy, Ministry of Energy and Minerals;
- Task Force Membership: 6 Members Including Chairperson, One Member from each Institution named):
 - Ministry of Energy and Minerals (MEM);
 - Rural Energy Agency (REA);
 - Tanzania National Electric Company Limited (TANESCO);
 - Geological Survey of Tanzania (GST);
 - Energy and Water Utilities Regulatory Authority (EWURA);
 - Tanzania Traditional Energy, Development and Environmental Organization (TaTEDO).

11. Proposed Schedule of Delivering the Final SREP IP

S/N	Event / Activity	Scope of Consultation	Responsible Team	Duration	Expected Outputs
1.	Stocktaking Analysis	Meetings and Discussions.	MEM, REA, TANESCO, MDBs Mission.	Sept.– Oct. 2012	Inputs in the draft IP
2.	Scoping Mission	Stakeholders meetings with private sector, NGOs, etc.	PS MEM, MDB Mission, Experts Team.	Sept. 2012	Stakeholders informed - Agreeing on Milestones and Schedules.
3.	Mobilization of Task Force	Mobilizing Appointment of Members.	MEM, REA, EWURA, TANESCO, GST, & TaTEDO.	Oct. 2012	Formation of Task Force.
4.	Consultations	Scope of Work, Methodology.	Task Force, AfDB Local Focal Point.	Oct. 2012	Zero Draft of IP Document.
5.	Istanbul Turkey	Present progress on IP preparation to SREP Sub-	Chair Person – Task Force SREP Tanzania.	Oct. 2012	Comments on the proposed investments

12. Proposed Schedule of Delivering the Final SREP IP

S/N	Event / Activity	Scope of Consultation	Responsible Team	Duration	Expected Outputs
6.	IP Document Development	Inputs from Istanbul & Stakeholders	Task Force, Key Energy Sector Stakeholders	Nov. – Dec. 2012	First Draft of IP
7.	Joint Mission / IP Finalization	AfDB Local Focal Point and other MDBs	Task Force, AfDB Local Focal Point, MDB Joint Mission.	Jan. 2013	Final Draft IP
8.	Present IP to MEM	Meeting to Present and Discuss Final Draft	MEM, REA, EWURA, TANESCO, GST, & TaTEDO Management & Task Force.	Feb. 2013	Final Document of Tanzania IP
9.	Submission to SREP Sub-Committee	Submission of IP for Consideration by Sub-Committee	PS MEM	End March 2013	SREP Program Approval for Tanzania.



THANK YOU FOR YOUR KIND ATTENTION

UNITED REPUBLIC OF TANZANIA

Ministry of Energy and Minerals

Website: www.mem.go.tz