

# **Technical Workshop on Needs-Based Climate Finance (NBF) for East Africa 19-20 February 2020**

**Overview of sources of climate finance-  
Experience and Lessons from TIB Development  
Bank**

**Presented by Oswald Leo  
Director Fund Mobilisation –TIB Development Bank  
19 February 2020**

- **TIB Philosophy in Climate Finance**
- **Key TIB Interventions in the Energy Sector – Sources of Climate Finance**
- **Pipelines for Climate Finance**
- **What needs to be done to Scale up public and private sector finance for priority projects**

# TIB'S Philosophy in respect of Climate Finance

- The bank's focus on climate finance is driven by the need to diversify energy sources to reduce over-dependency on non-commercial energy, particularly **bio-mass in form of firewood, charcoal, and agricultural and animal residues**.
- In Tanzania **biomass energy accounts for 90%** of total energy consumption. Over 80% of rural population relies on energy sources such as wood charcoal, crop waste and manure for cooking and heating and kerosene for lighting.
- The energy consumption contributes to the current rate of deforestation estimated at 400 000 ha/year.
- Forestry biomass energy demand is increasing over the years and is **unsustainable**. Demand for wood energy has led to increasingly negative environmental, agricultural and other local and macro-impacts.



# TIB'S Philosophy in respect of Climate Finance

- In order to address the overdependence on biomass TIB is increasing supporting the generation and supply of electricity in Tanzania and other sustainable sources of energy.
- Though Tanzania has negligible contribution to the generation of greenhouse gases from energy sources, TIB supports projects which are critical in reducing **global emission while achieving sustainable growth**. TIB supports intervention on **renewable energy & diversification of energy sources**.



# Key TIB Interventions in the Energy Sector – Sources of Climate Finance

## 1. Arranged funding in respect of Gas to power projects

In 2015 TIB provided loan of USD 27.2 million to Tanzania Petroleum Development Corporation as advance payment to gas supply company, Maurel et Prom (Mnazi bay gas operator) to ensure consistent supply of gas to power plants for electricity generation.

In 2015 TIB provided a loan of USD 20 million to Wentworth Gas Limited for exploration and production of gas for selling to TPDC for utilisation by TANESCO as fuel source to power electrical generation plant serving the National Grid.

### Main Sources of Funding

The sources of financing to these projects were **long term lines of credit** from **Sub-regional DFIs** and **short term deposits from domestic markets**. Given the high price of these funds, the final cost is passed on to customers in terms of high tariff rates thus limit accessibility of electricity.



# ...Key TIB Interventions in the Energy Sector – Sources of Climate Finance

## 2. TIB Act as Agent for Rural Electrification Agency Fund

On 24<sup>th</sup> August 2010, the Rural Energy Agency (REA) contracted TIB to administer credit line for rural renewable energy projects under Tanzania Energy Development and access project (TEDAP) supported by the **World Bank** and **Global Environmental Facility** to help develop off-grid and renewable energy projects in Tanzania and later on the bank acted as agent for successor project **Rural Electrification Expansion Project (TREEP)**. Which provided funding for Small Power Producers (SPPs) and for Renewable Energy Companies (RECs).

### TIB's role

Monitor the projects and collect repayment from Participating Financial Institutions (PFIs) and remit to REA as well as execute roles related to operationalization of the TREEP program



# ...Key TIB Interventions in the Energy Sector – Sources of Climate Finance



## 3. TIB As Agency to Administer SNV funds for Rural Solar Energy Penetration

TIB Development Bank Ltd signed an agency agreement with SNV Netherlands Development Organization to administer a result-based fund phase II for **rural solar energy penetration (market development)** in lake and central zones of Tanzania worth EUROS 1.5 million. The fund aims to facilitate introduction and **sustained usage of solar power** solutions particularly pico-solar and small solar home systems in target rural remote areas.

### TIB's role

Day to day management of the funds; incentive assessments & effecting of payments.



# Potential Pipelines for Climate Financing

## TPDC - Dar Es Salaam Ring Main Project–City Gas Distribution Network

The project aims to construct gas distribution network in Dar Es Salaam with intention to connect approximately **30,000 households** and convert about **8,000 vehicles to use Compressed Natural Gas(CNG)**. Parallel to this, the project also involves the construction of 3 main track line of approximately 65km and construction of 3 Mother CNG stations and 12 Daughter CNG stations. All these connections will be implemented into phases. Currently the project is under review where, Dar Es Salaam shall be zoned into four (4) gas supply zones, about 75% of the market zone shall be franchised openly to interested investor(s). The total investment is estimated at USD 118,000,000.

## Miombo Hewani Wind Energy Facility (Windlab)

A high resource wind Energy project to deliver 300 MW (first phase 100 MW) to TANESCO located near Makambako in Njombe Region. The total project cost is estimated to be US\$178.2 Million; with a proposed debt: equity ratio of 75%:25%. This translates to a total debt requirement of US\$133.7 Million. Out of this, TIB has been requested for debt financing of up to US\$20 Million





# Potential Pipelines for Climate Financing

## TPDC – Gas Distribution Project from DSM to Bagamoyo Through construction of Natural Gas Transmission Pipeline from Tegeta Gas station To Bagamoyo

The project is located at Dar es Salaam and Coastal Region.-The project aims to construct 16-inch gas transportation pipeline from Tegeta to Bagamoyo industrial zone which can also be extended to other regions such as Tanga. - The pipeline is expected to transport up to 250mmscfd of natural gas,- The project will supply gas to power plants, industrial customers, commercial and non-commercial, vehicles as well as for domestic utilization

## Turiani Hydro Power Project

The project is about a construction of a 5MW Hydro power plant in Turiani, Morogoro region. The entire project cost is around USD 14.4 Million and the client is looking for a debt of USD 7 Million so as to complete the project.



# Potential Pipelines for Climate Financing

## Lunyamacho Hydropower Project

The 3MW small hydropower project is being promoted by the Ludewa Capacity Building Association. The aggregate project implementation cost amounts to US\$ 7.44 million.

## Lwega Hydro and Mini-grid Project

Project is about a construction of an off grid hydro power plant with 3 MW power generation Capacity in Tanganyika district - Katavi. The project is subject to REA RBF grant which will be part of equity (TZS 3.51 Billion). The entire project cost amounts to TZS 14.594 Billion, the project expects to be funded through equity contribution of TZS 8.377 Billion and a loan of TZS 6.217 Billion from TIB. The funding will go towards financing among other things, the purchase of turbines, generators, transformers and construction of penstock, transmission line and power house



# What needs to be done to Scale up public and private sector finance for priority projects

- Ensure prioritization of Climate Finance at Country Policy and Strategy Formulation Stage; Put in Place clear Intervention, costing and sources of funds
- Enhance technical support for project preparation (funding for pre-feasibility & feasibility studies on projects).
- Support operationalization of Green Climate Fund (accreditation & sensitization); earmark few projects for Identify few projects for demonstration purposes.
- Guarantee to developers offered by local bank's & counter guarantee by international organisation.



# What needs to be done to Scale up public and private sector finance for priority projects

- Smart use of public resources to attract private sector investment; Blended Climate Financing with the principal of minimum concessionality (funds invested at concessional (below market rates) blended with finance by TIB or any other development bank to support development in specific sector which would not otherwise happened or would happen at high cost.
- Innovation /Incentives to use of renewable energy e.g. model of Result Based Finance under SNV which works by product bonus to end retailers, and capital bonus to import-suppliers as based on end retail sale volumes.



# Asanteni Sana na Karibu Zanzibar

