RENEWABLE ENERGY IN TANZANIA: GOVERNMENT INITIATIVE TO MEET DEMAND IN RURAL AREAS

OPPORTUNITIES FOR GERMAN INVESTORS

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1. Introducing Tanzania

- Officially known as the United Republic of Tanzania;
- One of the Eastern African nations bordering the Indian Ocean, between Kenya and Mozambique;
- Its geographical coordinates being 600S, 3500E and comparative area being slightly larger than twice the size of California;

1. Introducing Tanzania (cont...)

- Shares borders with Kenya, Uganda, Rwanda, Burundi, Democratic Republic of Congo (DRC), Zambia, Malawi, Mozambique, and the Indian Ocean on the east;
- Of those eight, six are land locked countries and these are: Uganda, Rwanda, Zambia Malawi, DRC, and Burundi. Traditionally, these countries have been using Tanzanian ports for transiting their cargoes.

1. Introducing Tanzania (cont...)

- Tanzania a large country, Least Developed Country (LDC), and limited with financial resources.
- Making energy and other necessary infrastructure available to all parts of Tanzania is a challenge. Most beneficiaries are urban areas.
- A need to enact a law that promotes energy services in the rural areas of the Mainland Tanzania.
- Renewable energy is central.
- Renewable energy include: solar, wind, bio-mass, geo-thermal, etc.

2. Rural Energy Act (REA), 2005

- REA, an Act No. 8 of 2005
- <u>Aim of REA</u>: It establishes (i) Rural Energy Board; (ii) Rural Energy Agency; and (iii) Rural Energy Fund.
- Responsibility: (i) Promotion of improved access to modern energy services in rural areas of Mainland Tanzania; (ii) To provide grants and subsidies to developers of rural energy projects and for related consequential matters.
- The Act therefore focuses more on Renewable Energy to meet demands in the rural areas where there are no transmission line(s).

3. Rationale for REA

Modern energy supply to rural areas:

- Promotes growth in economic production and productivity;
- Makes sustainable development achievable;
- Makes the Government fulfil its role as a facilitator of activities and investments by the private and community entities;
- Makes the Government role manageable and accountable; and
- Facilitate the provision of financial support for the capital costs of investments, TA to projects preparation, and C/B.

4. Rural Energy Board

Objective: To promote rural socio-economic development.

Through:

- (i)Supporting the provision of modern energy services through projects that are developed by private, public enties, cooperatives and local community organizations,
- (ii) Facilitating the provision of TA to qualified developers taht contributes to the provision of modern energy services in rural areas, and
- (iii) Allocating grants to subsidize the capital costs of projects, taking into account project's social and economic benefits, regional equity in the allocation of funding resources, and the project's sustainability.

5. Rural Energy Agency

<u>Purpose</u>: Facilitating the provision of modern energy services in rural areas of Mainland Tanzania.

Through:

- (i)Implementing the Board's strategies and decisions;
- (ii) Facilitating provision of TA, R&D, training and other forms of C/B to qualified developers by suitably qualified experts related to the planning and preparation of a project prior to an application for a grant.

6. Rural Energy Fund (REF)

<u>Purpose</u>: Provision of grants to qualified project developers. The Fund Provides resources for:

- Grants towards the capital costs of projects implemented by private and public entities, co-operatives, and local community organizations.
- TA, training and other forms of C/B to qualified developers by qualified experts related to the planning and preparation of a project prior to an application for a grant.

6. Rural Energy Fund (REF) cont...

• The provision of financial assistance. Co-financing investments in innovative pilot and demonstration projects and applications for renewable energy when Special Purpose Funds for rural energy available for that purpose.

6. Rural Energy Fund (REF) cont...

Funding sources:

- Govt through annual budgetary allocation;
- International financial institutions, multilateral and bilateral agencies and other DPs;
- Up to 5% levy on the commercial generation of electricity to the national grid, as fees in respect of programmes, publications, seminars, consultancy services and other services provided by the REA;
- DPs' contributions to Special Purpose Funds for rural energy; and
- Interest or return on investments.

6. Rural Energy Fund (REF) cont...

TRUST AGENT

A Trust Agent (currently)

Tanzania Investment Bank – TIB) is responsible for disbursement of grant payments from the Fund and ensuring that any pre-conditions set by the Board for making a grant payment are met by developers, verification and monitoring activities.

7. Other initiatives for Rural Energy

- Small Power Generation and Distribution (SPGD);
- Sustainable Solar Market Development (SSMD) and Sustainable Solar Market Packages (SSMP);
- Other financing windows:
 - (i) Matching Grant;
 - (ii) Connection Performance Grant;
 - (iii) Credit Line;
 - (iv) Carbon Financing (based on Kyoto Convention);
 - (v) Green Generation Performance Grant.

8. Conclusions and Recommendation

- The Government of Tanzania has taken initiatives in addressing energy challenges that the rural population face, especially on those areas where there are no transmission lines.
- The enactment of the Rural Energy Act of 2005, which focuses more on Renewable Energy, addresses those challenges.
- The world community, including people from German, are more than welcome to support the Government of Tanzania in its endeavour.

1. PEOPLE:

- Pop = 45m (2011 est), growing at 2.9%. About 60% are young people (<35 years). Workforce = 19.5 m. Primary and secondary school enrolment increasing from --% () to 94% (2011) and 22% (2007) to 36% (2011) respectively;
- Diverse and rich culture, polite & friendly: huge potential for development of cultural tourism, entertainment industry, creative arts Makonde carvings;
- Growing urban population: 4% growth for Dar-es-Salaam and rise of middle-class consumers.

2. LAND

- The 31st largest country in the world and largest in East Africa, covering a total area of 945,090 km2;
- 44m ha of arable land o/w only 24% is cultivated: enormous potential to be the food granary of the GLR etc. (maize, rice, wheat, barley, sugar, beans, oil seeds, nuts, coconuts, palm oil, floriculture, horticulture, tropical fruits, vineyards, spices, potatoes, cassava, bananas; and industrial raw materials cotton, tobacco, coffee, tea, sisal, cashew nuts, etc).

- 33,428 ha (40% of the land area of TZ Mainland) is covered by forests: This is an opportunity for production of honey & related products, timber & related products, wattle, medicinal plants, carbon trading, etc.
- Livestock- 19.2m cattle, 13.7m goats, 13.7m sheep: Meat & Dairy industry, leather goods, poultry, etc.
- Wildlife: lions, elephants, giraffes, rhinos, zibras, wilderbeasts, hippos, crocodiles, antelopes, gazzeles, chimpanzees, monkeys & baboons, birds, snakes, etc.

3. WATER

• 62,500sq.km. of land covered by water (Lakes-Victoria, Tanganyika, Rukwa, Nyasa, Eyasi and Rivers), with natural inland ports: These offer great chances for devt of the fishing industry, irrigation, marine transportation, hydro-power generation, water-front developments.

4. MINERAL RESOURCES

- Abundant mineral wealth 3rd largest producer of gold in Africa, diamonds, only producer of tanzanite, phosphates, 29 tcf of natural gas, ruby, nickel, tin, iron ore, soda ash, etc. These offer a huge opportunity for the development of related industries petrochemicals, fertilizers, cement, etc.
- Wide range of energy sources hydro, natural gas, coal, bio-mass, solar, wind, geo-thermal, ocean waves, uranium, etc.

5. STRATEGIC GEOGRAPHICAL LOCATION

• Natural economic hub and gateway to the sea for 5 landlocked countries (Uganda, Rwanda, Burundi, Zambia, Malawi) and shortest route to the sea for Eastern DRC; and to the fastest growing economies in South East Asia.

6. TOURIST ATTRACTIONS

• Tanzania is a tourist paradise: Spicy Island of Zanzibar; Long coast line (1,400km) with serene beaches; 144,258sq.km. of land (16%) reserved for national and game parks will all kinds of wildlife; Mt. Kilimanjaro - the roof top of Africa at 5,895m; potential marine parks; unspoiled environment; beautiful scenery (Eden of Africa)

7. POLITICAL STABILITY

- Political stability, peace & harmony since independence in 1961; 120 tribes free from ethnic fragmentation and united by one language Kiswahili; Stable union between Tanganyika and Zanzibar since 1964;
- Young generation of Leaders committed to democratic governance & accountability; Multi-party democracy (about 18 parties) and smooth transfer of power; Government and Party structures extending all the way to the ward, village and street levels.

8. MACROECONOMIC STABILITY

• GDP = US\$24bn growing at an average of 6.8% p.a. since 2000 (4% per capita growth); GDP per capita = US\$551;

9. GROWING PRIVATE SECTOR

- Liberalised economy
- Fastest growing sectors: Transport & Communications (11.3%), Financial intermediation (10.7%), Construction (9%), Trade (8.1%)
- Over 21m Cellphone subscribers:

10. DARLING OF MANY!

- Warm Bilateral, Regional and Multilateral relationships
- AGOA, EBA, Middle and Far East SDT, PACT, etc
- SDT offered by Multilateral and International Organizations.

10. Reaction after getting information

- If you are not aware, you will have no reaction.
- Now that you are aware of opportunities for Tanzania, you will react positively:

To be Good ambassadors.

• We call upon Germans to invest in our trade and investment opportunities, especially in energy in:

Upstream, Midstream, Downstream, and other related activities.

