

**JICA TRAINING AND DIALOGUE ON  
ENERGY POLICY FORMULATION  
(YEAR 2014)  
COUNTRY REPORT - TANZANIA**

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# Presentation Outline

- Country General information
- Current Energy Policy and Measures
- Energy Demand and Supply Statistics
- Major Difficulties/Challenges and Bottlenecks Currently faced in formulating Energy Policy
- Subjects of Interest

## Country General Information

- Location of Country :
  - Longitude 290 and 410 East and Latitude 10 and 120 South
  - Coverage area – 945,000 sq km
  - Population – about 46 million people with 80% living in rural areas
- GDP:
  - Per capita – 438 USD (2012 est)
  - Average GDP growth rate – 7% per annum
- Abundant natural resources i.e gold, diamonds, tanzanite and other gemstones, natural gas, wildlife and tourism, National Parks e.t.c

# Current Energy Policy and Measures

- **National Energy Policy**

- First formulation – 1992, part of the overall socio-economic reforms, 1990.
- First review – 2003,
  - due to a number of structural changes politically, socially and economically (nationally and internationally)
  - Aimed at liberalising the energy sector with much focus on attracting private capital

- **Implementation of 2003 Energy Policy**

- Establishment of Rural Energy Agency and Rural Energy Fund, 2007
- Access to electricity (10%, 2003 to 36%, 2014)

# National Energy Policy continues.....

Implementation of 2003 Energy Policy continues.....

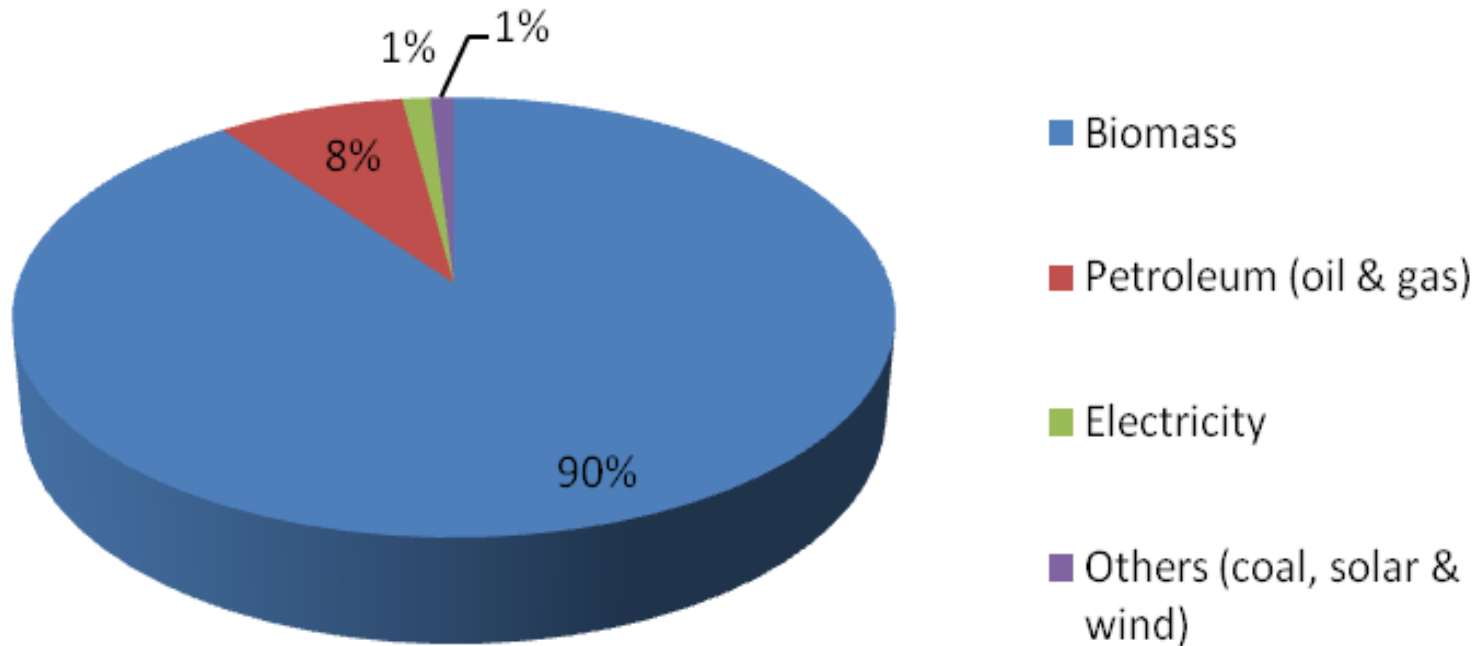
- Establishment of the Energy and Water Utilities Regulatory Authority, 2006
- Formulation of Electricity Act, 2008 – opened doors for private sector participation to generate electricity
- Increased discoveries of natural gas (on and off – shore), necessitated the formulation of The Natural Gas Policy, 2013
- **Currently Tanzania is reviewing the 2003 National Energy Policy**

# Energy Demand and Supply Statistics

- Primary energy supply:
  - Biomass (charcoal & firewood), 90%
  - Petroleum (oil & gas), 8%
  - Electricity, 1.2%
  - Others (coal, solar & wind), less than 1%
- Potential energy sources
  - Hydropower, 4.7 GW
  - Coal reserve, about 1.9 – 5 billion tones with 25% proven
  - Natural gas, 46.5 TCF

# Primary Energy Supply continue.....

## Primary Energy Supply by Sources



# Energy Demand and Supply Statistics continues.....

- Overall current interconnected grid system, 1,501.24 MW out of which
  - 561.84MW (37.43%) – hydro based
  - 501MW (33.37%) – natural gas
  - 438.4MW (29.20%) – heavy oil plants.
- **Power System Master Plan (PSMP)**
  - Firstly developed in 2008, updated in 2012
  - Provides a detailed assessment of load demand projections and generation requirements
  - Fundamental objective – to attain stable power supply in order to achieve economic growth, energy security and environmental protection



# Total Electricity Sales, Generation and Peak Demand Forecast

Year		2010	2015	2020	2025	2030	2035
Total Sales (GWh)		4,175	8,874	15,821	22,244	30,325	40,083
Sales by customer categories	T1	2,024	3,549	6,017	9,318	13,642	18,828
	T2	593	1,576	2,713	3,601	4,763	6,314
	T3	1,559	3,749	7,092	9,345	11,920	14,942
Distribution Losses	GWh	1,027	1,576	2,589	3,339	4,148	4,961
	Rate (%)	20,	15	14	13	12	11
Transmission Losses	GWh	291	575	883	1,160	1,570	2,057
	Rate (%)	5.2	5.1	4.5	4.3	4.3	4.3
Net generation (GWh)		5,591	11,122	19,391	26,840	36,141	47,199
Sum of Peak Demand (MW)		1,062	2,089	3,573	4,724	6,085	7,645

## **Total Electricity Sales, Generation and Peak Demand Forecast continue.....**

- T1 – customers with general use of electricity including domestic low usage tariff such as residential, light commercial, light industrial and public
- T2 – Low voltage demand including low voltage supply eg milling machines and small industries
- T3 – High voltage usage tariff, high intensive supply energy eg agriculture and mining sites.

## **Major difficulties / Challenges and Bottlenecks in Formulating Energy Policies**

- Rapid growth of the energy sector that has provided challenges in reviewing/formulating policies on time;
- Low capacity (human resource) in the planning and formulating of policies;
- Limited involvement of local communities in policy formulation process which could lead to little support from the community to ensure proper implementation of energy projects in the local community areas;
- Limited flow of private capital investment in the power sector resulting to failure to reach the government strategies as stipulated in the energy policy;

## **Major difficulties / Challenges and Bottlenecks in Formulating Energy Policies continues.....**

- Acquiring proper information/statistics necessary to justify the need for policy review/formulation;
- Inadequate and untimely financing of power sector from the Government Budget to implement the energy projects;
- Limited long-term financing especially for small/isolated rural energy projects in order to reach 80% of rural households; and
- Political interest from the politicians.

# Subjects of Interest

- ❖ Energy Policy formulation and review process;
- ❖ Methods of energy supply – demand forecasting;
- ❖ Energy balance and energy best mix; and
- ❖ Strategising, monitoring and evaluating the operationalisation of the Policy



***END***

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***THANK YOU FOR LISTENING***

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