# Renewable Energy and Economic Opportunities in Tanzania

Dr.-Ing. Matthew Matimbwi Email:matimbwi@gmail.com



#### 1.0 Outline of the presentation

- Showing the impacts of lack of economic activities
- Enabling environment to invest in renewable energy in Tanzania
- Renewable energy livelihood opportunities while improving lives of communities in Tanzania



#### 2.0 Employment Status in Tanzania

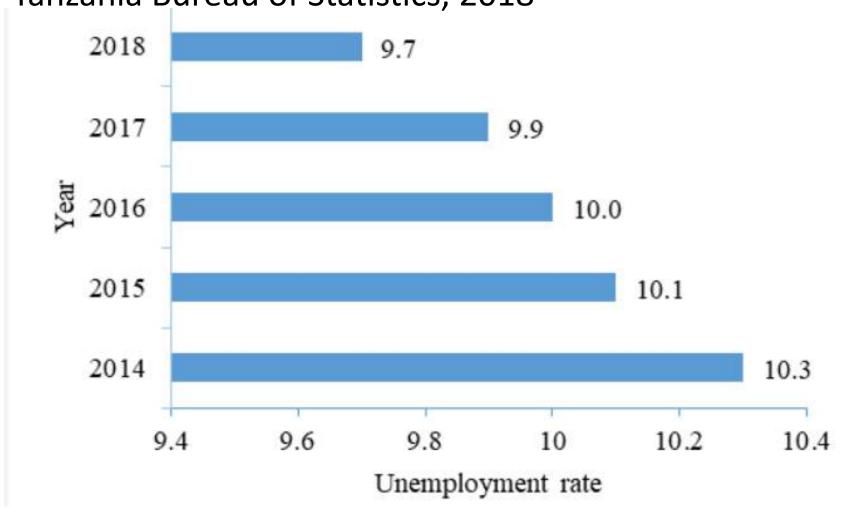
### Formal Employment Created by Sector in Tanzania Mainland 2013/14 – 2017/18

Sector	2013/14	2014/15	2015/16	2016/17	2017/18
Government	49,615	44,797	71,496	82,302	18,000
Government Dev. Projects	172,245	271,920	124,178	132,147	397,009
Private Sector	408,756	257,323	195,002	239,017	137,054
Total	630,616	574,040	390,676	453,466	552,063



#### **Tanzania Mainland Unemployment**

Tanzania Bureau of Statistics, 2018





### 3.0 Impacts of Unemployment Immigration to Europe for Search of Green Pasture

Year	Sub-Saharan African Asylum A	pplicants to Europe
2010	58,000	
2011	84,000	
2012	74,000	100 A 1
2013	91,000	WATER AND
2014	139,000	
2015	164,000	
2016	196,000	
2017	168,000	



#### 4.0 Renewable Energy Enabling Environment in Tanzania

- National Energy Policy 2015
- Electricity Act 2008 (under review)
- Rural Energy Act 2005
- Net Metering Regulations 2008
- VAT Act 2014
- EAC Customs Management Act 2004 (Rev. 2016)
- Small Power Projects Regulations 2019
- Electricity Installation Law 2019



- Standardized Power Purchase Agreement
- Standardized Power Purchase Tariffs
- EIA of small solar projects Check list



## 5.0 Results of the Existing Tanzania Energy Policy, Regulations, Laws and Acts

- Installed capacity 1,601.9MW (June, 2019)
- Target 10,000MW by 2025
- Households electrification rate 55% (grid 29% and off-grid solar 26%) in 2018 increasing from 6.6% (grid 4.6% and solar 2%) in 2012 [National Bureau of Statistics June, 2019]
- Grid connected renewables:
  Hydro: Mwenga 4MW; Yovi 0.95MW; Matembwe 0.59MW;
  Darakula 0.32MW; Andoya 1MW; and Tulila 5MW
  Biomass: Tanwat 1.5MW and TPC 9MW



- SPP to be connected to the grid 2019/2020
  Hydro: Lugarawa 1.7MW; Maguta 1.2MW; Luponde 1MW; and Suma 1.4MW
  Wind: Mwenga 2.4MW
- Operating mini grids (solar, hydro and biomass) 120 schemes
- Tendered projects planned by Dec, 2020 Solar photovoltaic 150MW Wind 200MW
- IPP German Developer 300MW of Wind in Makambako



- Off-grid renewable energy powering productive uses:
  - Industries (e.g. co-generation at Illovo-Kilombero Sugar company
  - Agriculture (smallholder irrigation, oil press)
  - Cattle (milk chilling)
  - Forestry (timber cutting)
  - Small entrepreneurship (Metal works, carpentry, tailoring, ice block making)
  - Fishing (fishing lights)
  - Community services (street lights, control lights, medical and education facilities, information centre, communication)



### 6.0 Challenges and Opportunities of Renewable Energy to Youth in Tanzania

- Limited vocational training in renewable energy trade practices
  - Support of on-going private sector and Rural Energy Agency training efforts
  - Provide support for the artisans to be self-employed
- Lack of accreditation scheme for renewable energy artisans
  - VETA to establish accreditation program of renewable energy artisans through Recognition of Prior Learning Assessment (RPLA) to increase employability



- Limited access to the financial support on renewable energy artisan entrepreneurship
  - Support poor youth to be self employed as retailers and/or installation and maintenance artisans
- Lack of coordination of labor force in the sector of renewable energy technologies at the artisan level
  - Establishment of public office that can coordinate youth employment at the level of artisans with the renewable energy companies
- Limited of communication between renewable energy companies and training institutes
  - Establish communication between training institutes and companies

#### 6.0 Recommendations

Development partners to support renewable energy entrepreneurship development in Sub Saharan Countries that youth can access economic activities in the home countries.



#### THANKS FOR LISTENING

