



## 4<sup>TH</sup> ANNUAL SADC INDUSTRIALISATION WEEK

# Overview of Oil and Gas Industry in Tanzania



TPDC  
August, 2019

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## Introduction



- Energy Policies are formulated in the Ministry of Energy
  - Energy Policy
  - Natural Gas Policy
- TPDC is the National Oil Company of Tanzania that implements Government Policies related to Upstream and Downstream Oil and Gas Sector
- TPDC is regulated by Petroleum Upstream Regulator – (PURA) for upstream activities and Energy and Water Utilities Regulatory Authority - EWURA for downstream activities



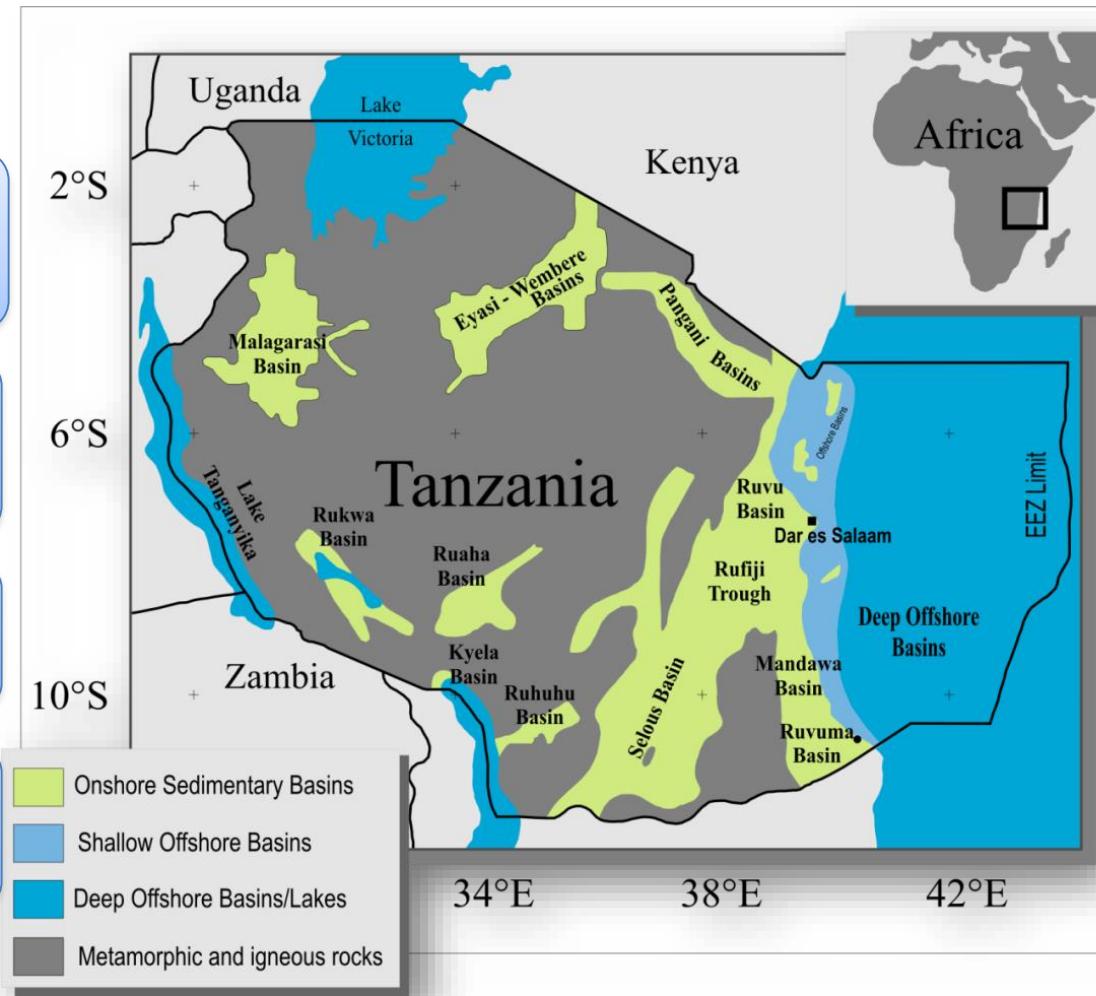
## Potential Oil & Gas Sedimentary Basins

Inland Basins and Modern Rift System 114,000km<sup>2</sup>

Coastal and Continental Shelf Basin 280,000km<sup>2</sup>

Deep Sea Basins 140,000km<sup>2</sup>

Total is 534,000km<sup>2</sup>  
56% of country size

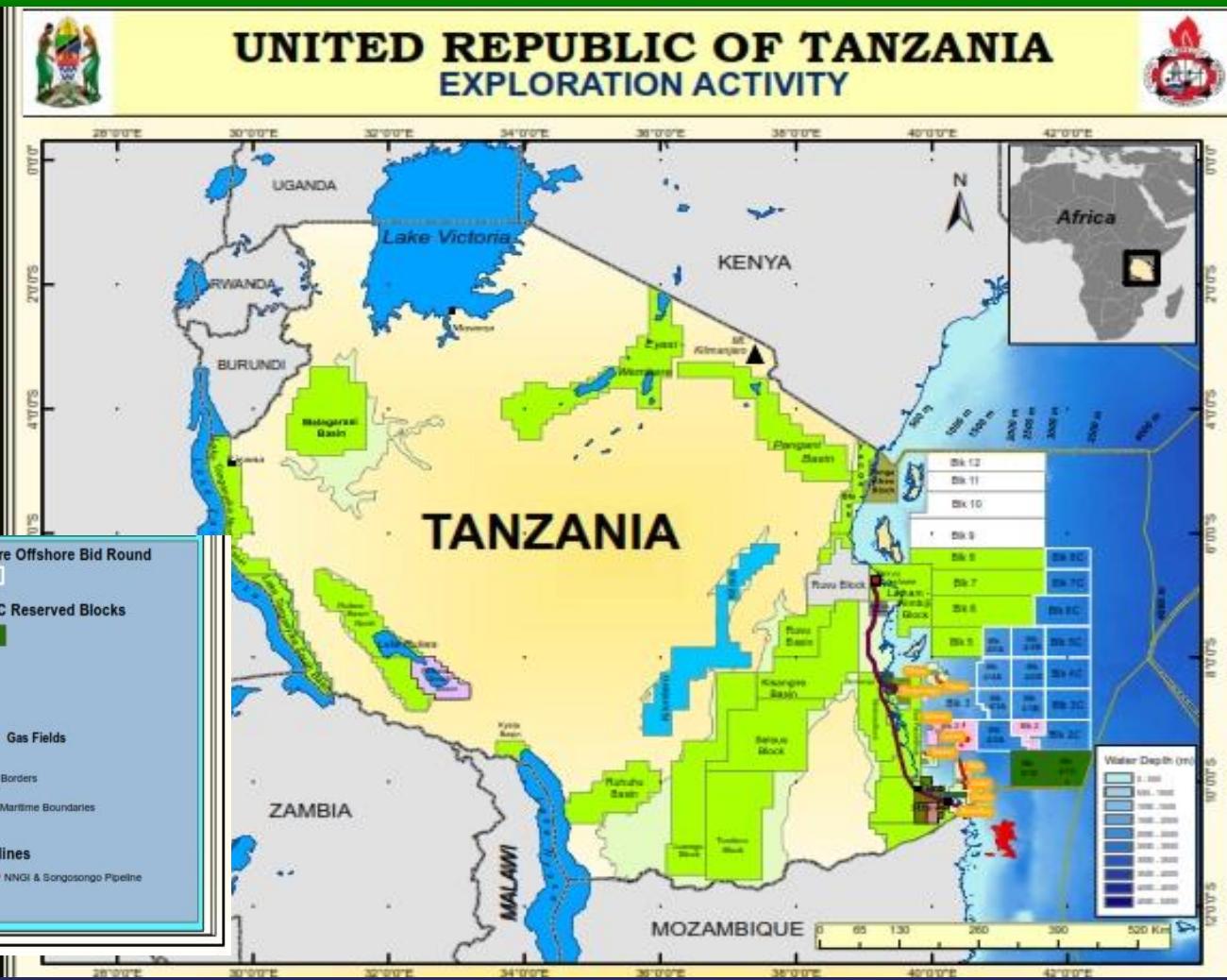
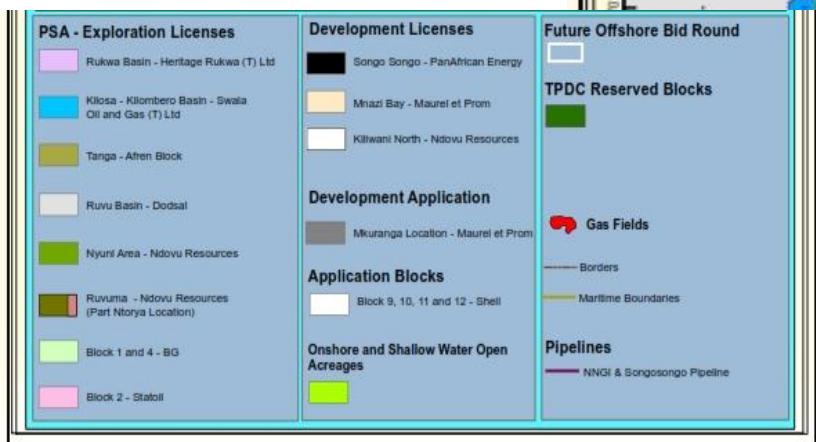


# Exploration

## II Active PSA

## 8 - Exploration Phase

## 3 - Development Phase



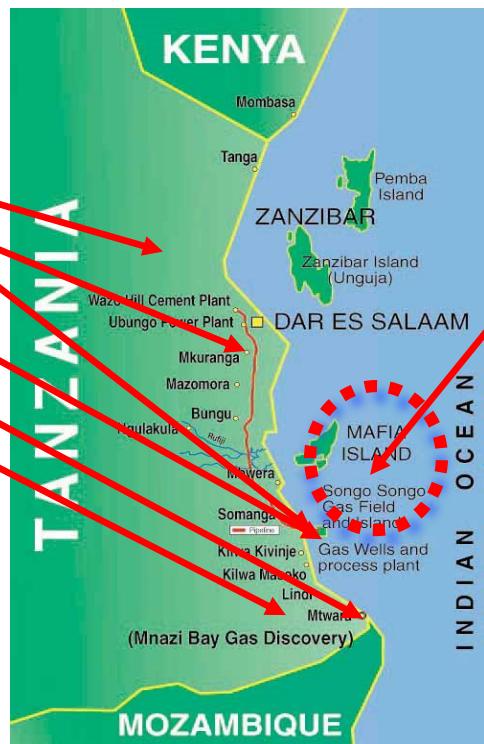
# Location of Natural Gas Discoveries

## Reserves

### Onshore and Shelf

Mambakofi 2015 (2.17 Tcf)  
 Mkuranga 2007 (0.2 Tcf)  
 Songo Songo 1974 (2.5 Tcf)  
 Kiliwani 2008 (0.07 Tcf)  
 Mnazi Bay 1982 (5 Tcf)  
 Ntorya 2012 (0.178 Tcf)

Total onshore = 10.47  
 TCF



### Deep Sea

Oct 2010 – August 2015  
 47.08 TCF

Total Deep Sea = 47.08 TCF

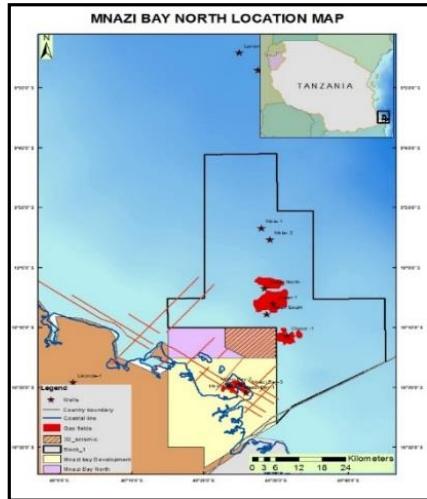
TOTAL GIIP (May 2016):  
 57.54 TCF

## TPDC STRATEGIC BLOCKS

- Mnazi Bay North
- West Songo
- Songo
- Block 4/1B and 4/1C
- Eyasi Wembere
- Lake Tanganyika



## Mnazi Bay North



### Hydrocarbon Prospectiveity:

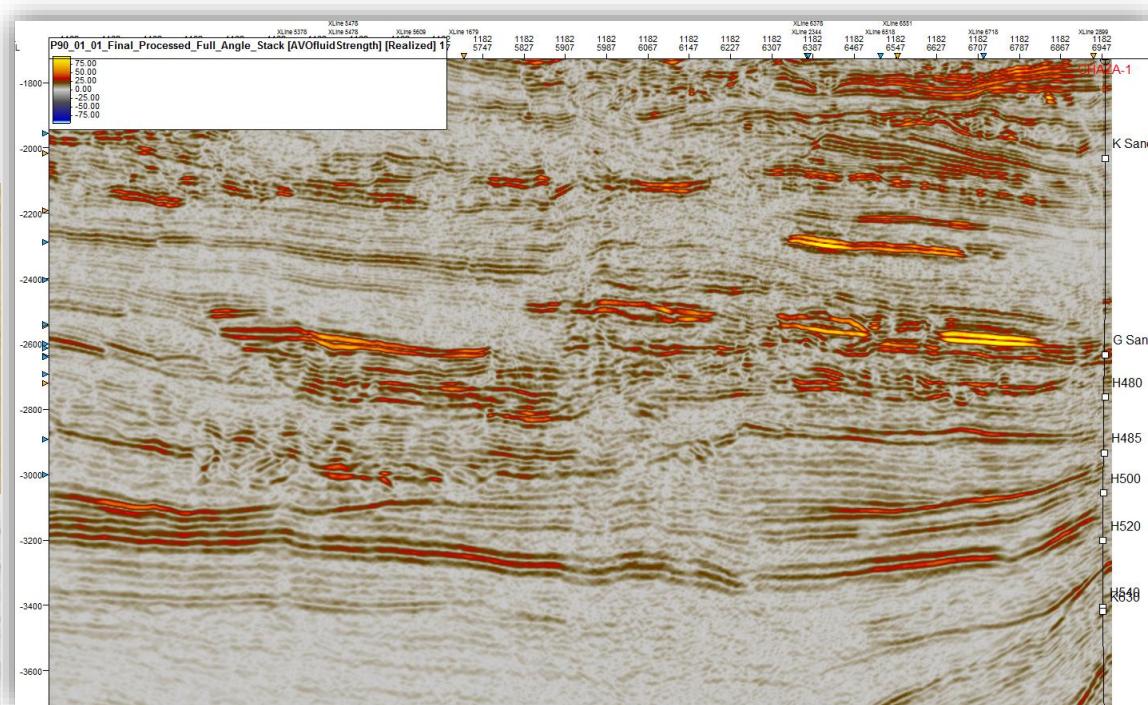
- Identified prospects within Lower & Upper Miocene.
- Possible Gas Reservoir

### Work Plan:

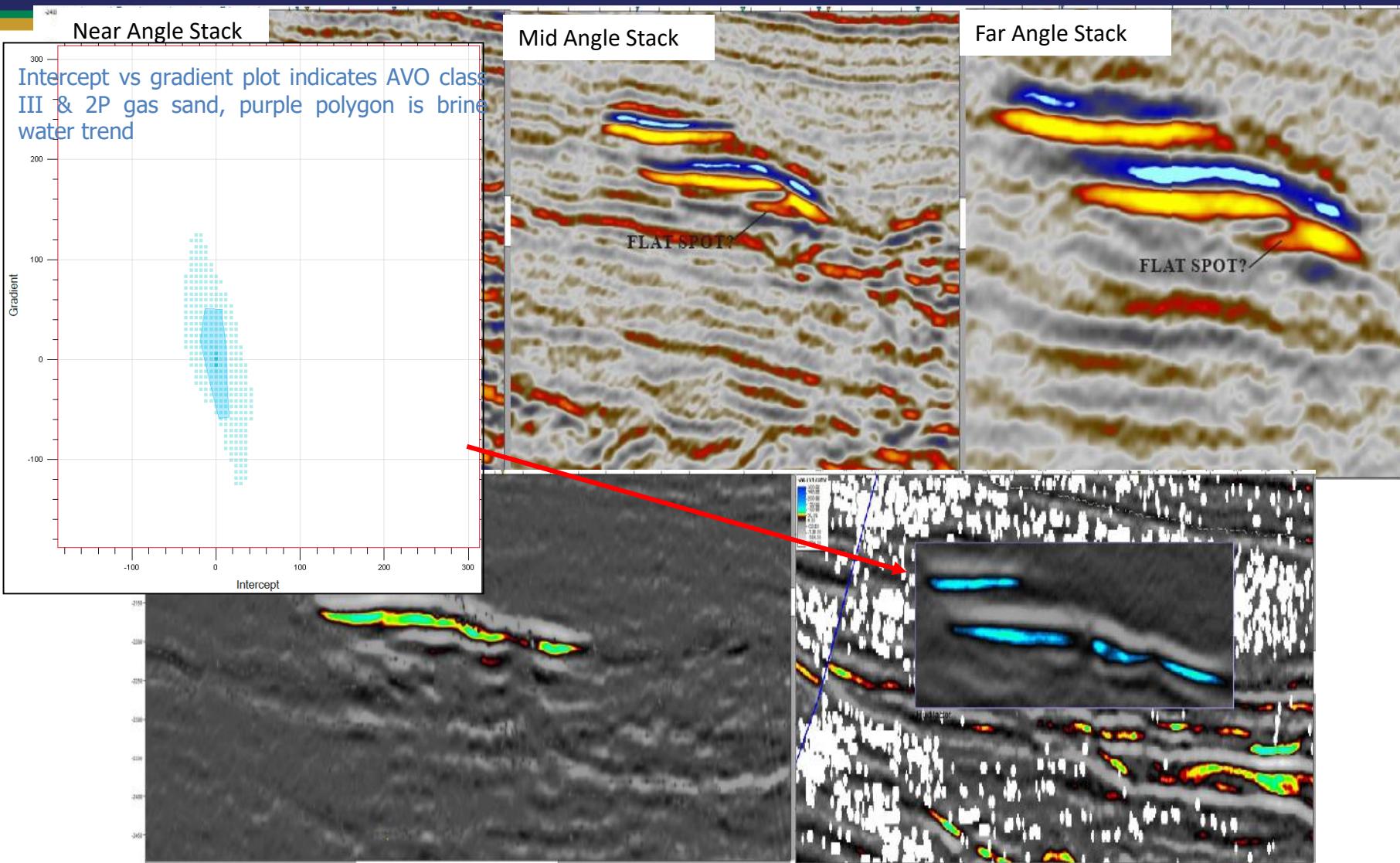
Acquire additional 3D seismic data & Drill 2 Wells

### Available data:

- 2D Seismic data 240 Lkm.
- 3D Seismic data - 131 sq.km.



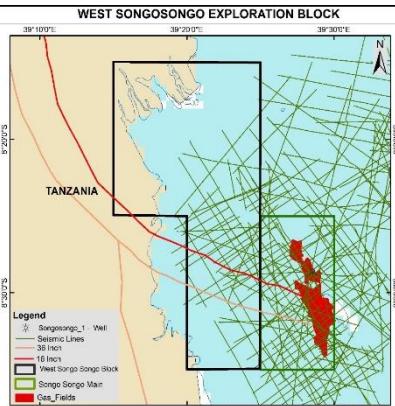
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## West Songo Songo

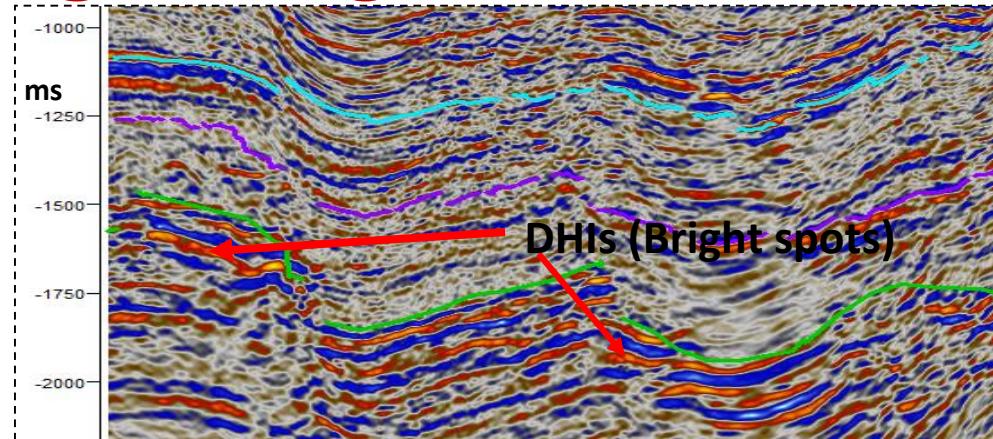
### Available data

- Magnetic and Gravity data.
- Airborne Gravity Gradiometry (AGG) Data.
- 2D Seismic data 240 Lkm.



### Hydrocarbon Prospectiveity:

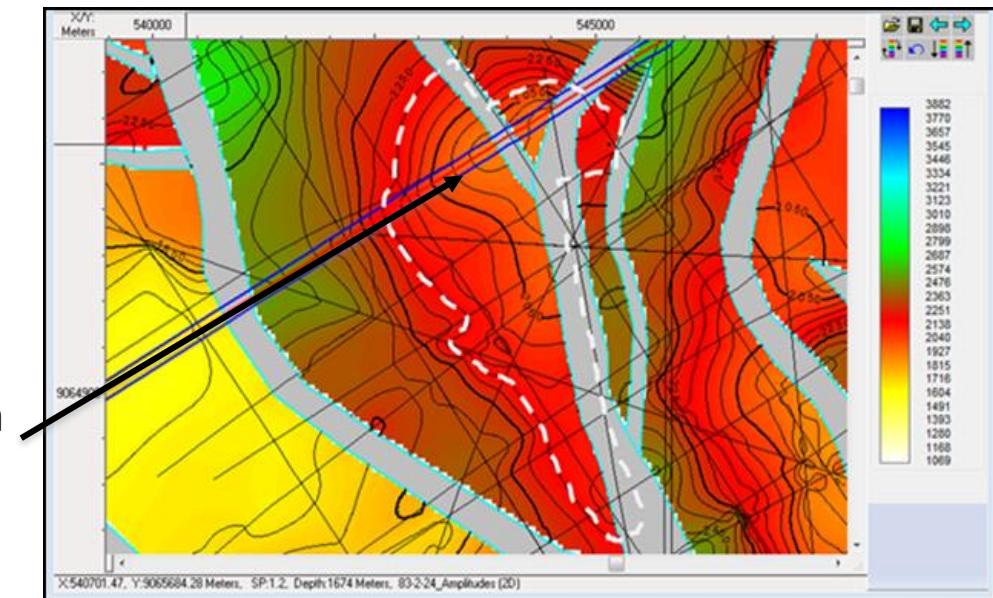
- Identified prospect within Campanian and Neocomian Sands.
- Possible Gas Reservoir



### Work Plan:

Acquire 183.1.sq.km of 3D seismic data & Drill one well

Top Chocha prospect

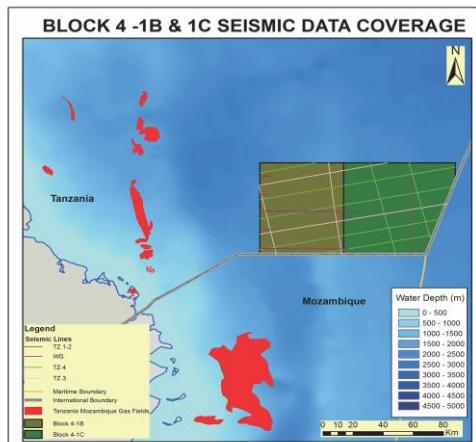


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# 4/1B and 4/1C

## Data available:

# 2682 line km of 2D Seismic Data

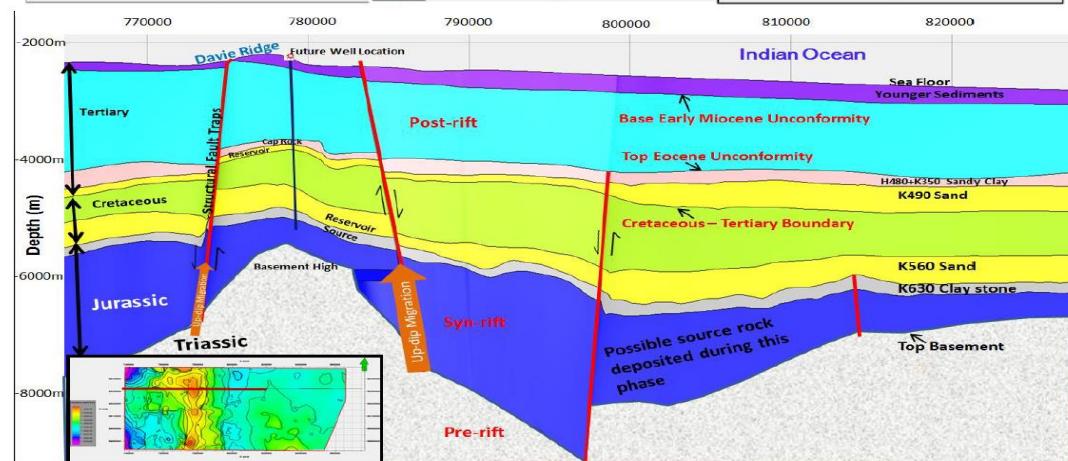
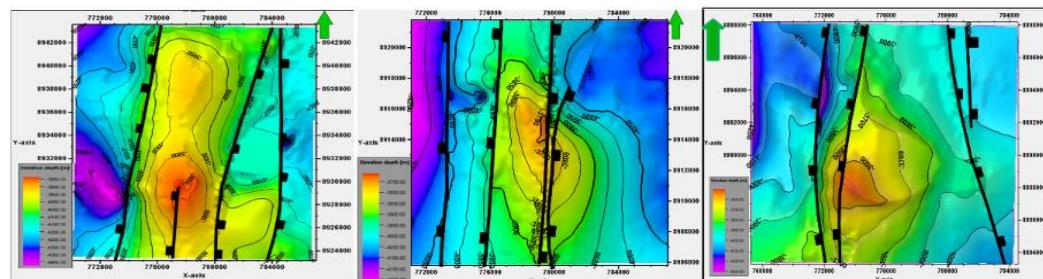
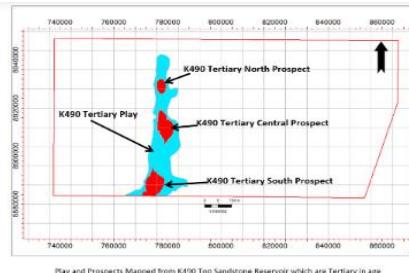


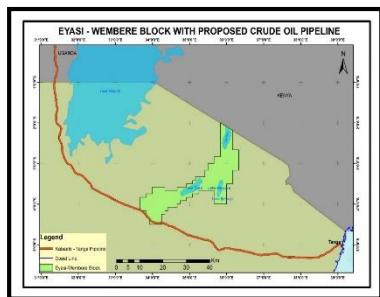
## Hydrocarbon Prospecting:

- Cretaceous and Tertiary plays identified
- Possible Gas Reservoir

## Work Plan:

Acquire 600sq.km of 3D seismic data & Drill one well

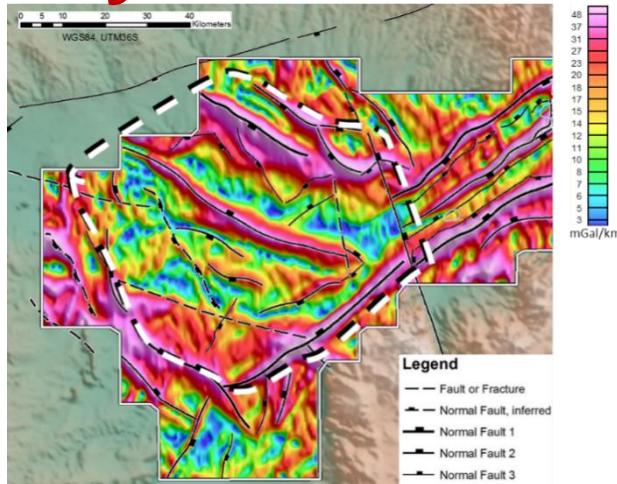




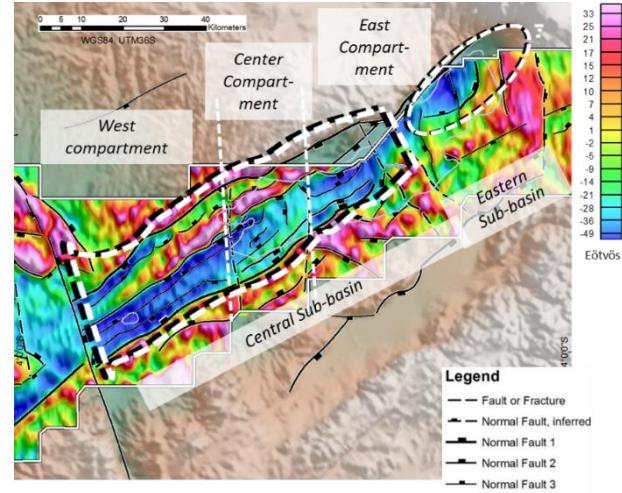
## Eyasi Wembere

### Available data:

Data: (Airborne Gravity Gradiometry (AGG ) of about 11323 line km.



Western Eyasi Sub-Basin



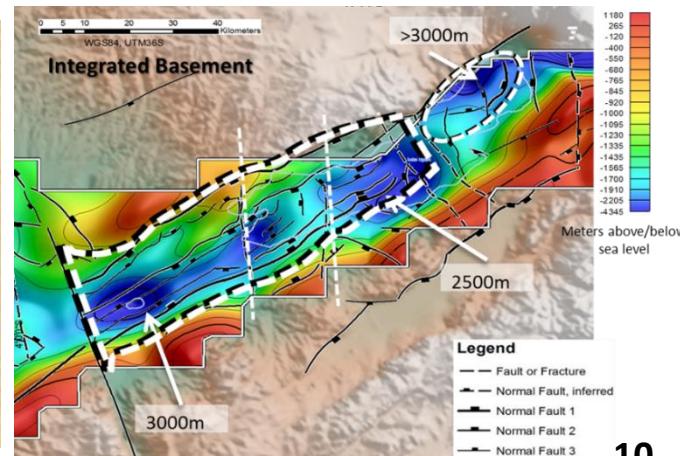
Central & Eastern Eyasi

### Work Plan:

Drill three (3) Shallow borehole  
Acquire 150 line km of 2D seismic data

**Hydrocarbon Prospective:**

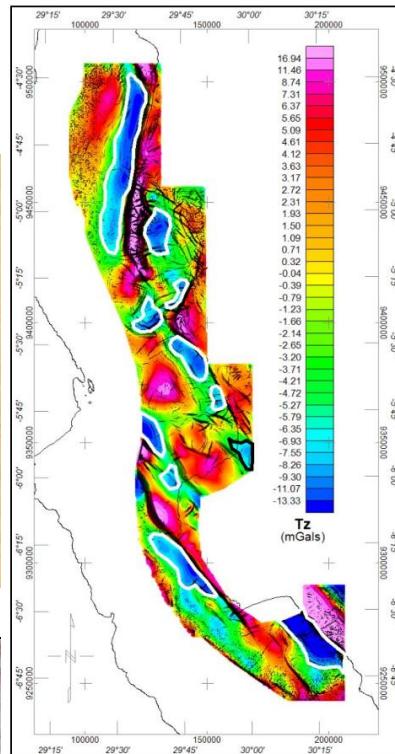
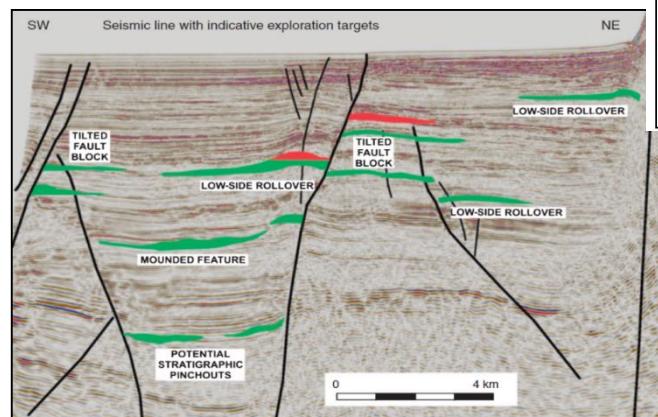
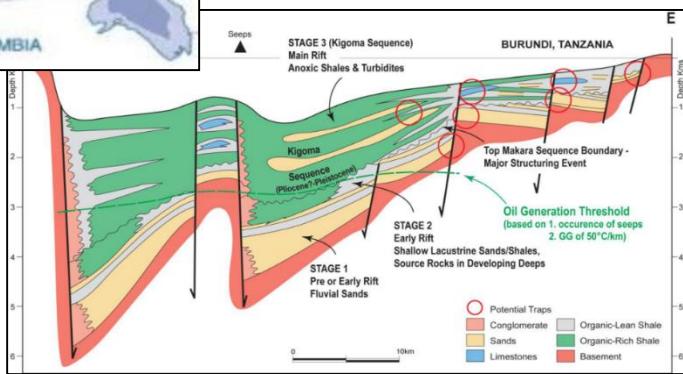
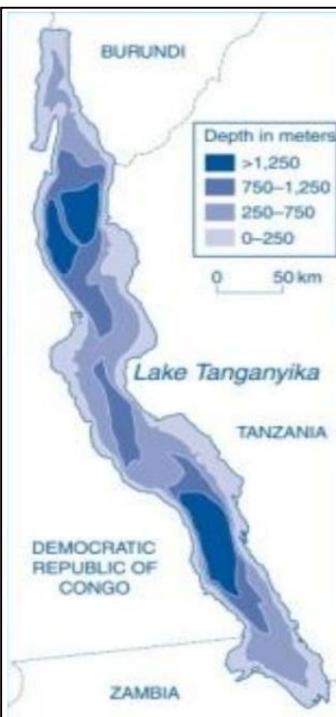
- Deep enough for hydrocarbon maturation
- Favorable structural framework to hold hydrocarbon
- Block is located near EACOP Pipeline



## Lake Tanganyika

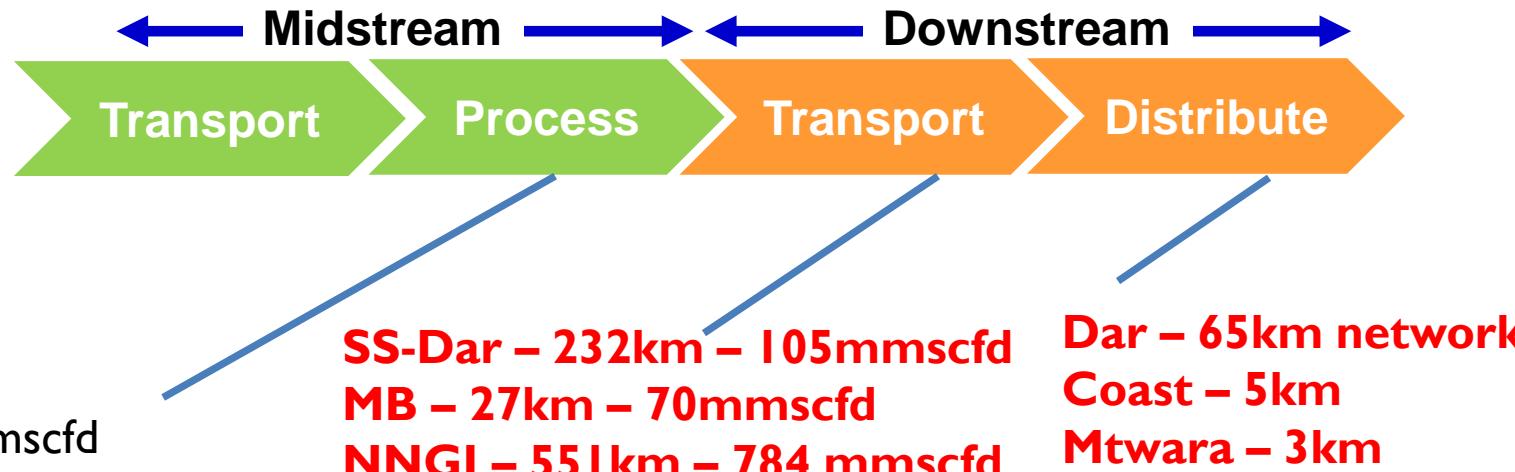
### Hydrocarbon Prospectiveity:

- Confirmed all key elements for Hydrocarbon generation
- Common AVO effect (Type III AVO effect) in the shallow section.
- oil seep in the northern part of the lake



The play type identified in Lake Tanganyika are typical with Lake Albert Rift basin.

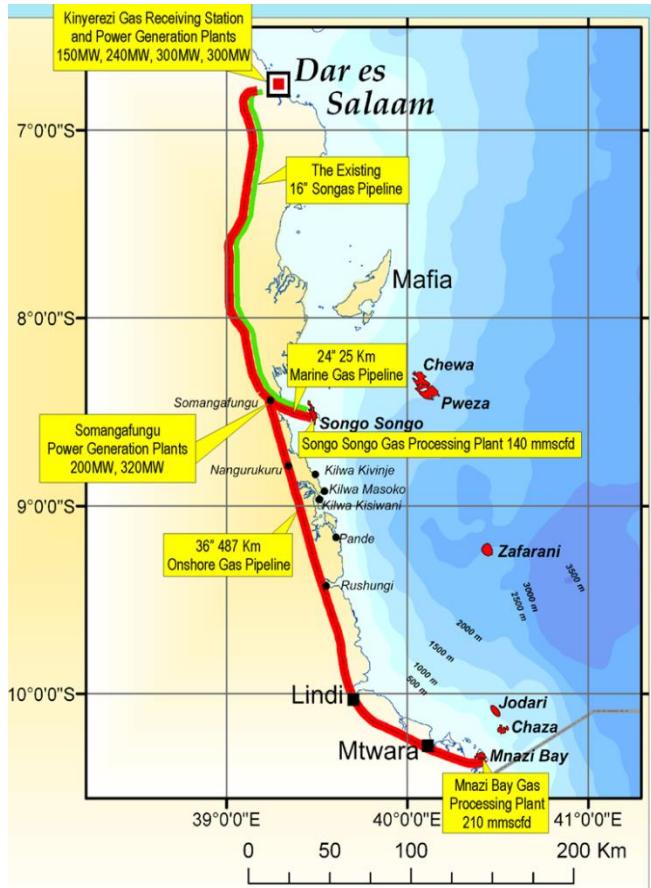
## Midstream & Downstream Operations



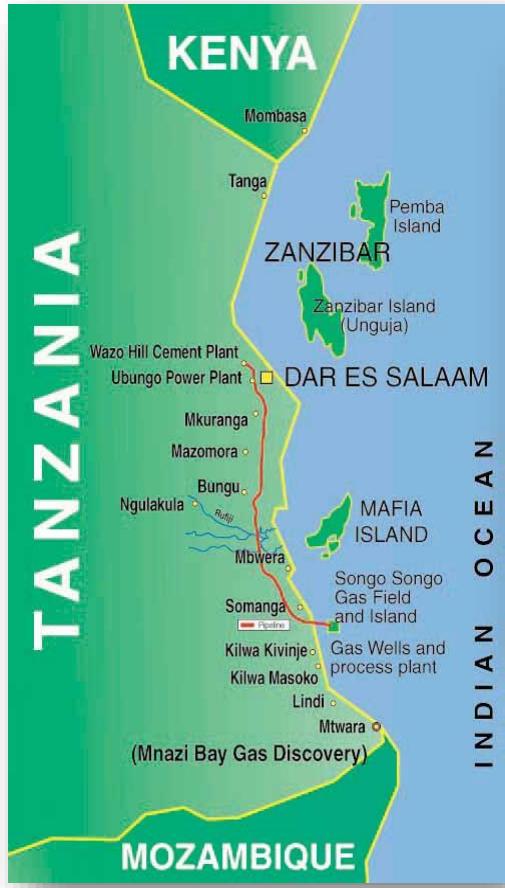
SS 110mmscfd  
MB10mmscfd  
Madimba 210mmscfd  
SS 140mmscfd  
**TOTAL = 470 mmscfd**



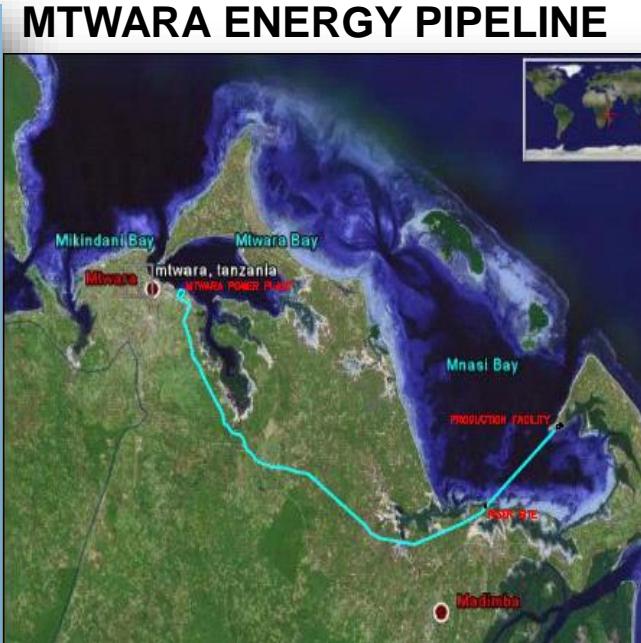
## Transmission Infrastructure



**NNGI PIPELINE**



**SONGAS PIPELINE**



**Songas – 232km**  
**MB – 27km**  
**NNGIP – 551km**  
**TOTAL= 810 km**

## Distribution Networks



- 65km in Dar es Salaam
- 5km network in Pwani
- 3km network in Mtwara

### Industries and Institutions:

- ▶ 43 – Industries, 96 - Households
- ▶ 2 – Institutions

### Compressed Natural Gas (CNG):

- ▶ 1 – Hotel, 250+ Converted Vehicles

# Major Natural Gas Users in Tanzania



KIOO LIMITED



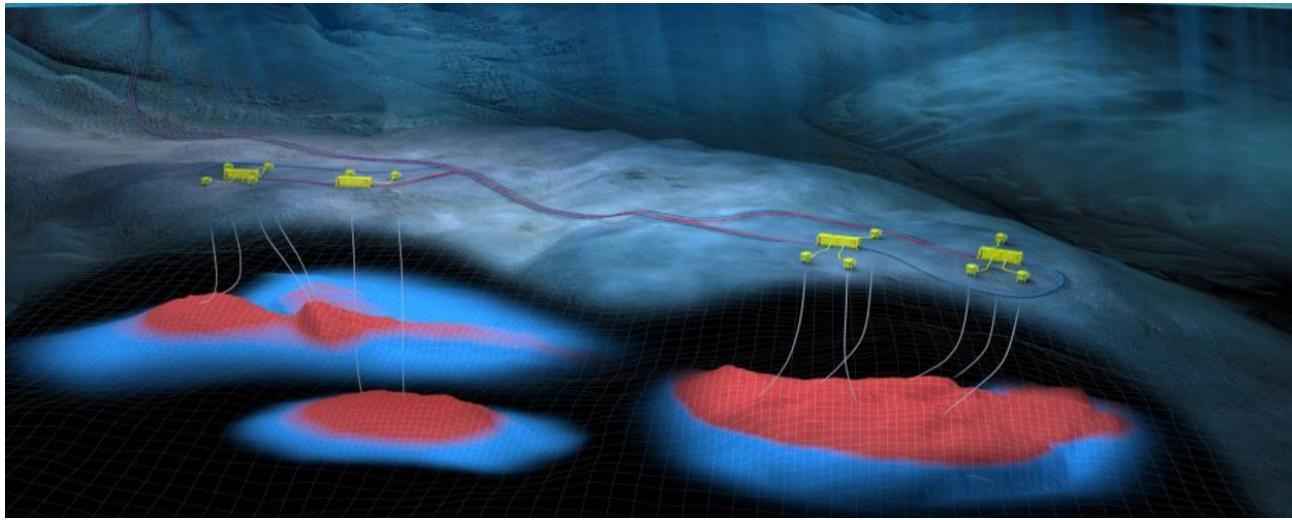
SERENA HOTELS  
KENYA • TANZANIA • ZANZIBAR • UGANDA • MOZAMBIQUE • RWANDA



# Tanzania LNG Project

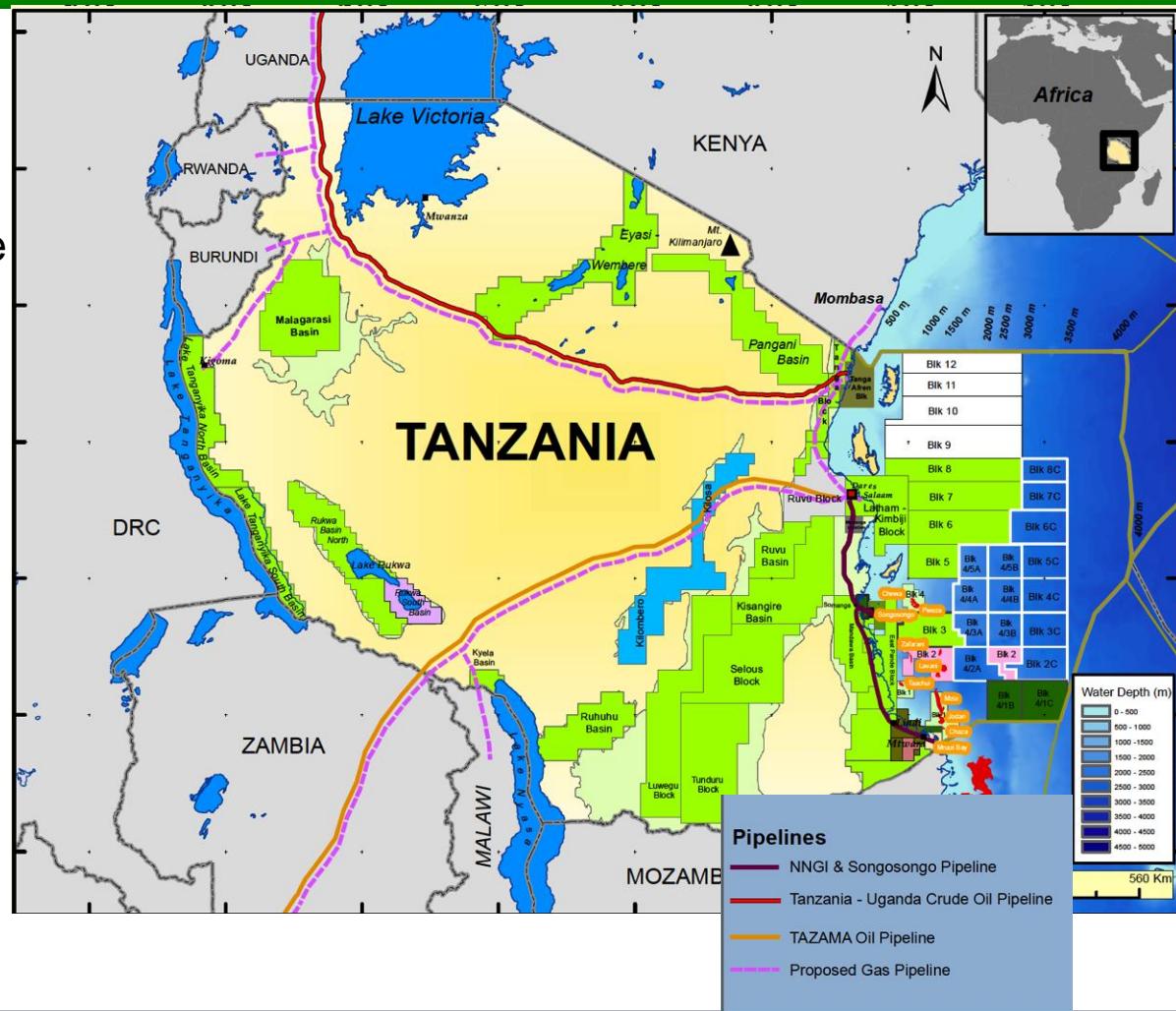
Four mega projects to be delivered in parallel

Project Status:  
HGA Negotiations



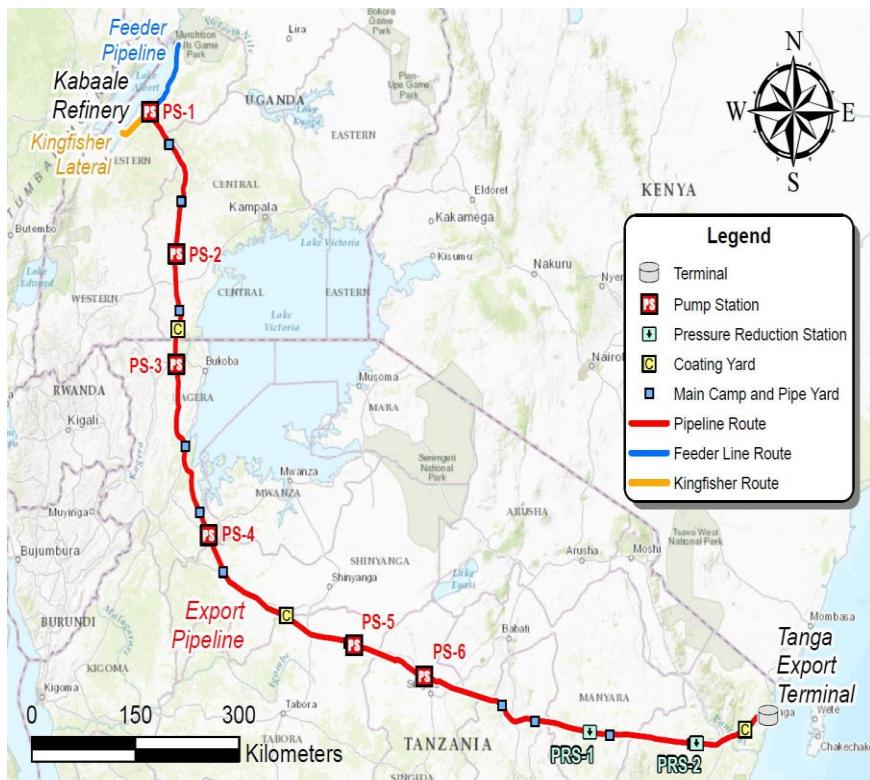
## Cross-Border Projects

- EACOP
- TAZAMA-Crude Oil Pipeline
- TAZAMA-White Products
- Zambia – Gas Pipeline
- Kenya – Gas Pipeline
- Uganda – Gas Pipeline



## EACOP

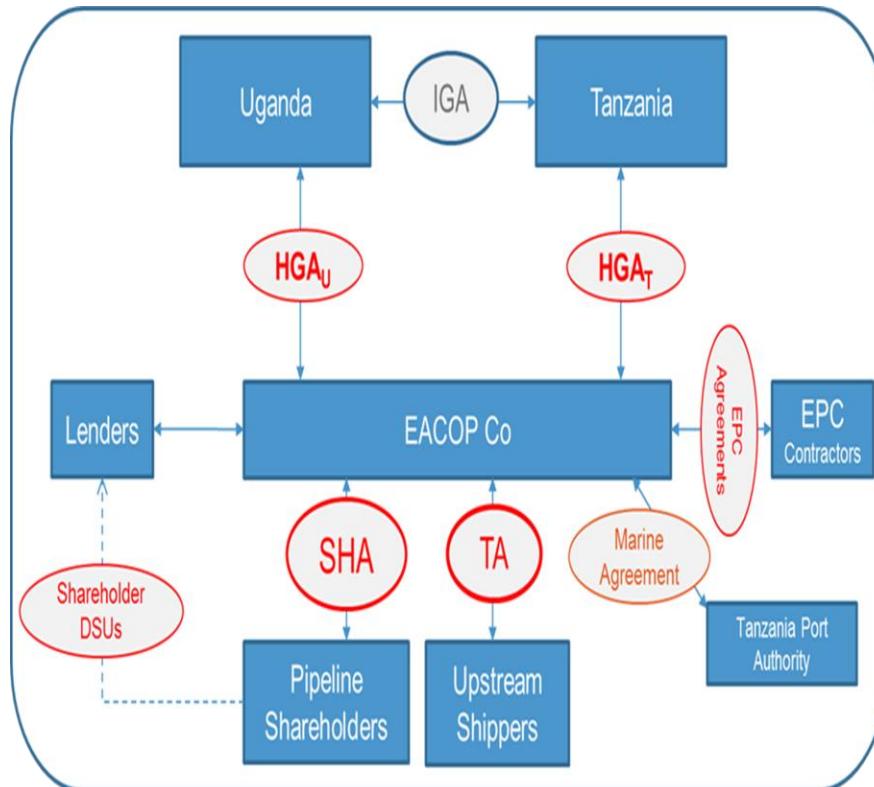
- **East African Crude Oil Pipeline (EACOP)**



**Involves construction of:-**

- **1443 kms heated pipeline, 1147kms are in Tanzania.**
- **6 pump stations, 4 in Tanzania.**
- **2 Pressure Reduction Stations in Tanzania.**
- **Marine Storage Terminal and loading and offloading facilities in Chongoleani Tanga.**

# EACOP



## Progress of the project:-

- Host Government Agreement negotiation in progress.
- Shareholding agreement with TPDC in progress.
- Concession agreement with TPA in progress.
- Land acquisition for priority areas in progress.
- Detailed Engineering design and procurement in progress with Worley Parson (UK).
- All project studies have been completed.
- Final Investment Decision to be made by the end of this year.

## Oil Pipeline

### Tanzania Zambia Mafuta (TAZAMA)

#### Crude Oil Pipeline

- **Commissioned in 1968 with design capacity to transport 22,000 barrel of crude oil per day to Ndola- Zambia.**
- **1,710 Km long.**

### TAZAMA White Product Pipeline

- **To be constructed parallel with the existing crude oil pipeline.**
- **Consensus between Tanzania and Zambia have been reached on execution of the project.**
- **Feasibility study of the project to be conducted the Financial Year.**



## Future Outlook

- Huge potential exists in Tanzania in terms of hydrocarbons to be explored and produced
- TPDC will continue to work closely with Upstream and Downstream partners to develop the upstream and downstream part of the petroleum industry in Tanzania
- The discovered natural gas resources of Tanzania is under developed to meet the country demands with surplus to export to the neighbouring countries and in the world market



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