



4TH 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



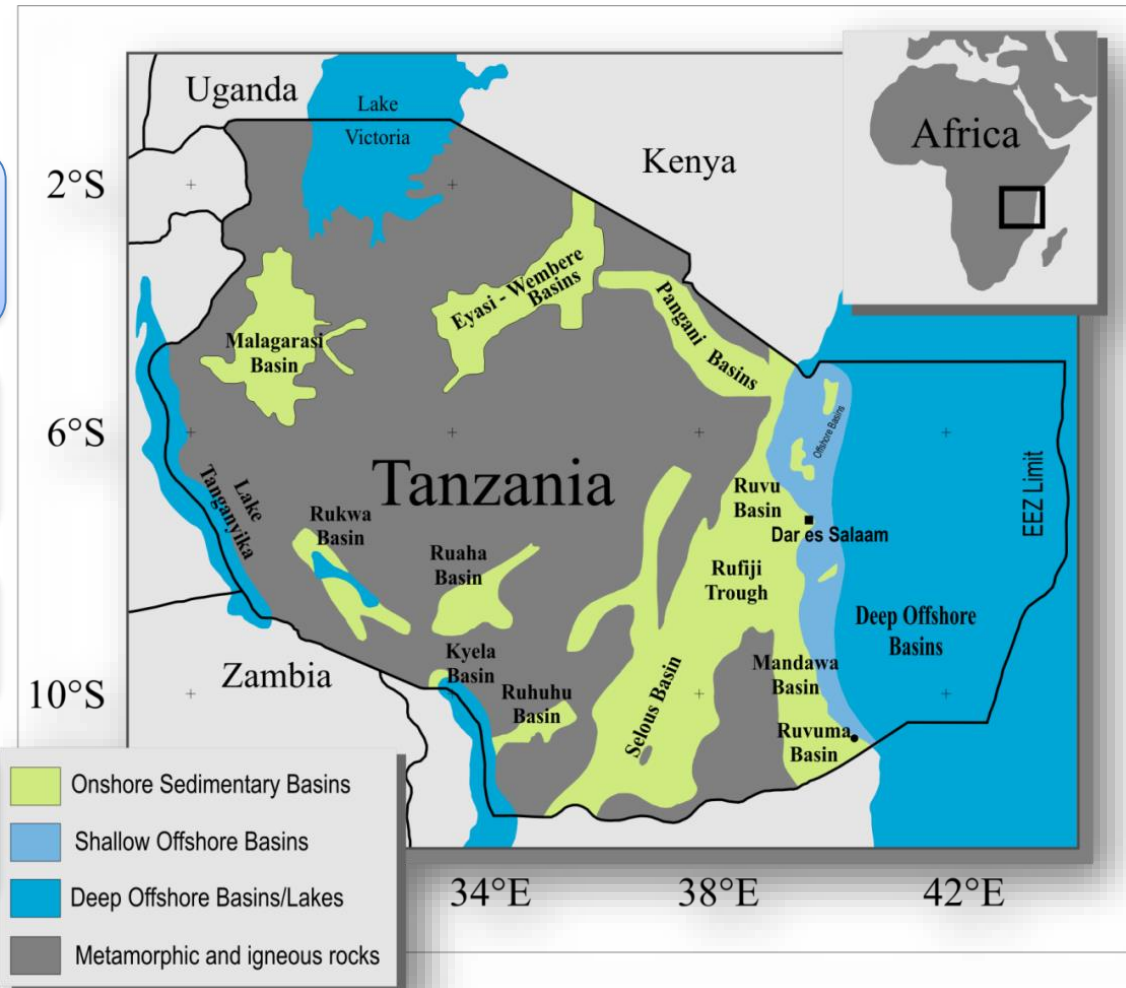
Potential Oil & Gas Sedimentary Basins

Inland Basins and Modern Rift System 114,000km²

Coastal and Continental Shelf Basin 280,000km²

Deep Sea Basins 140,000km²

Total is 534,000km²
56% of country size

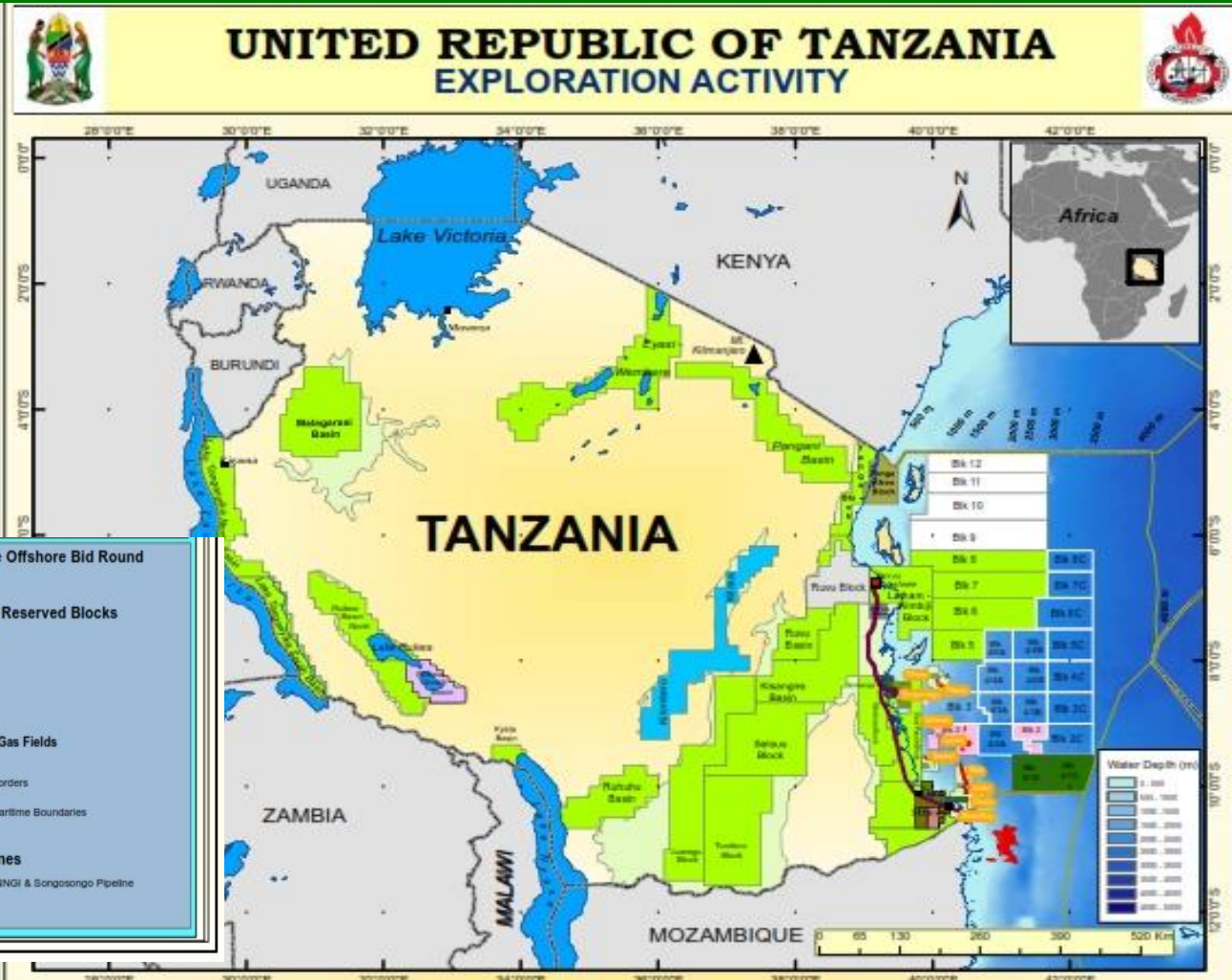


Exploration

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

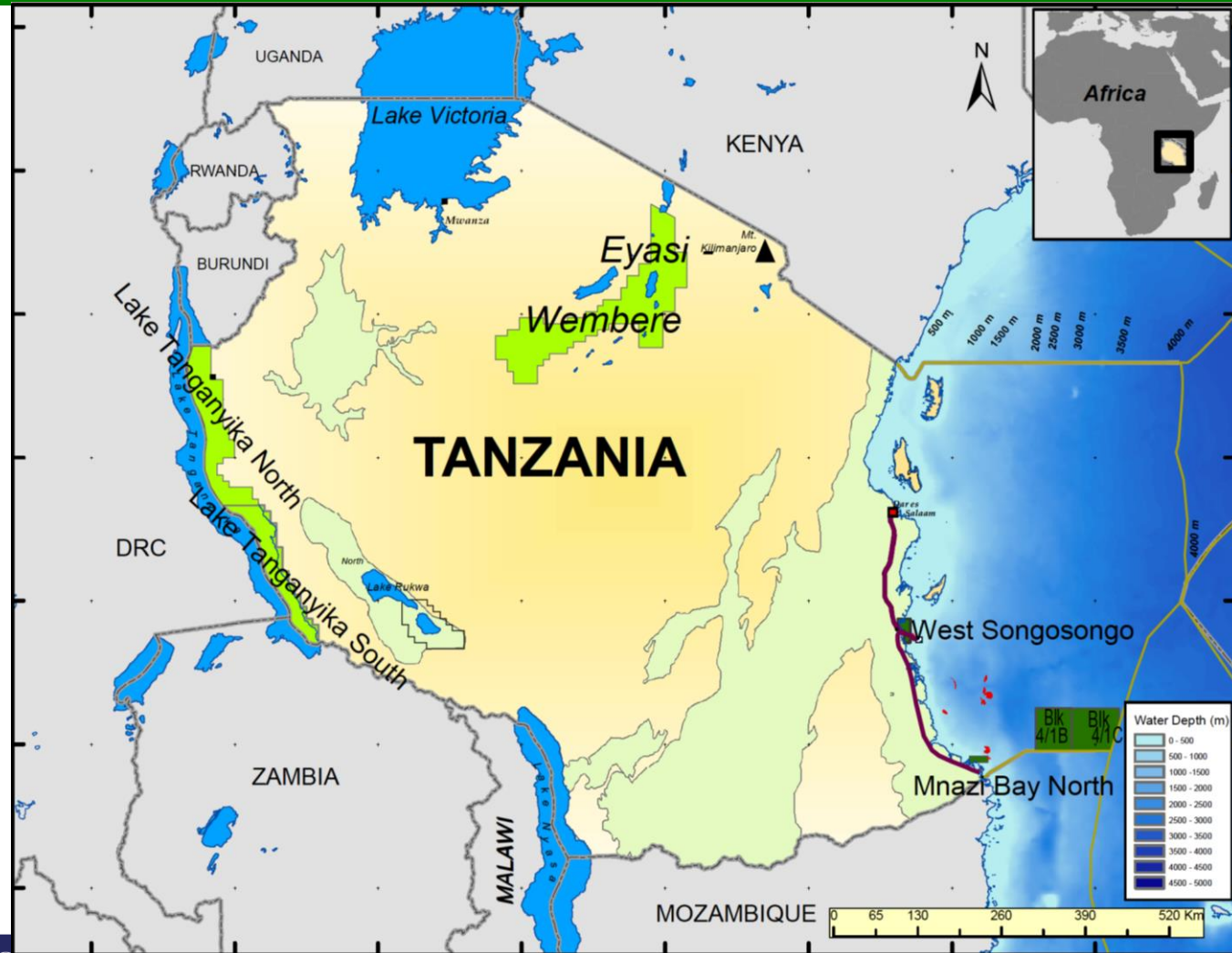
Oct 2010 – August 2015
47.08 TCF

Total Deep Sea = 47.08 TCF

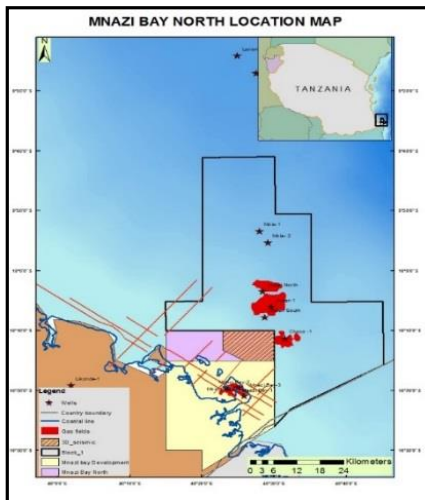
TOTAL GIIP (May 2016):
57.54 TCF

TPDC STRATEGIC BLOCKS

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

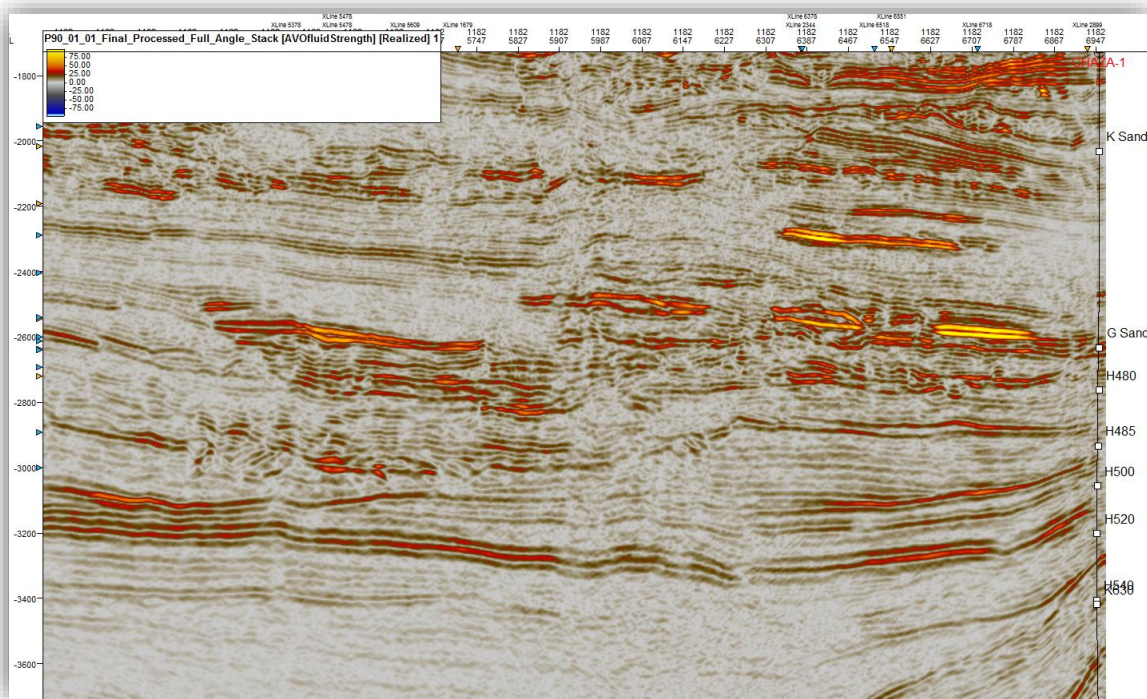


Mnazi Bay North



Available data:

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



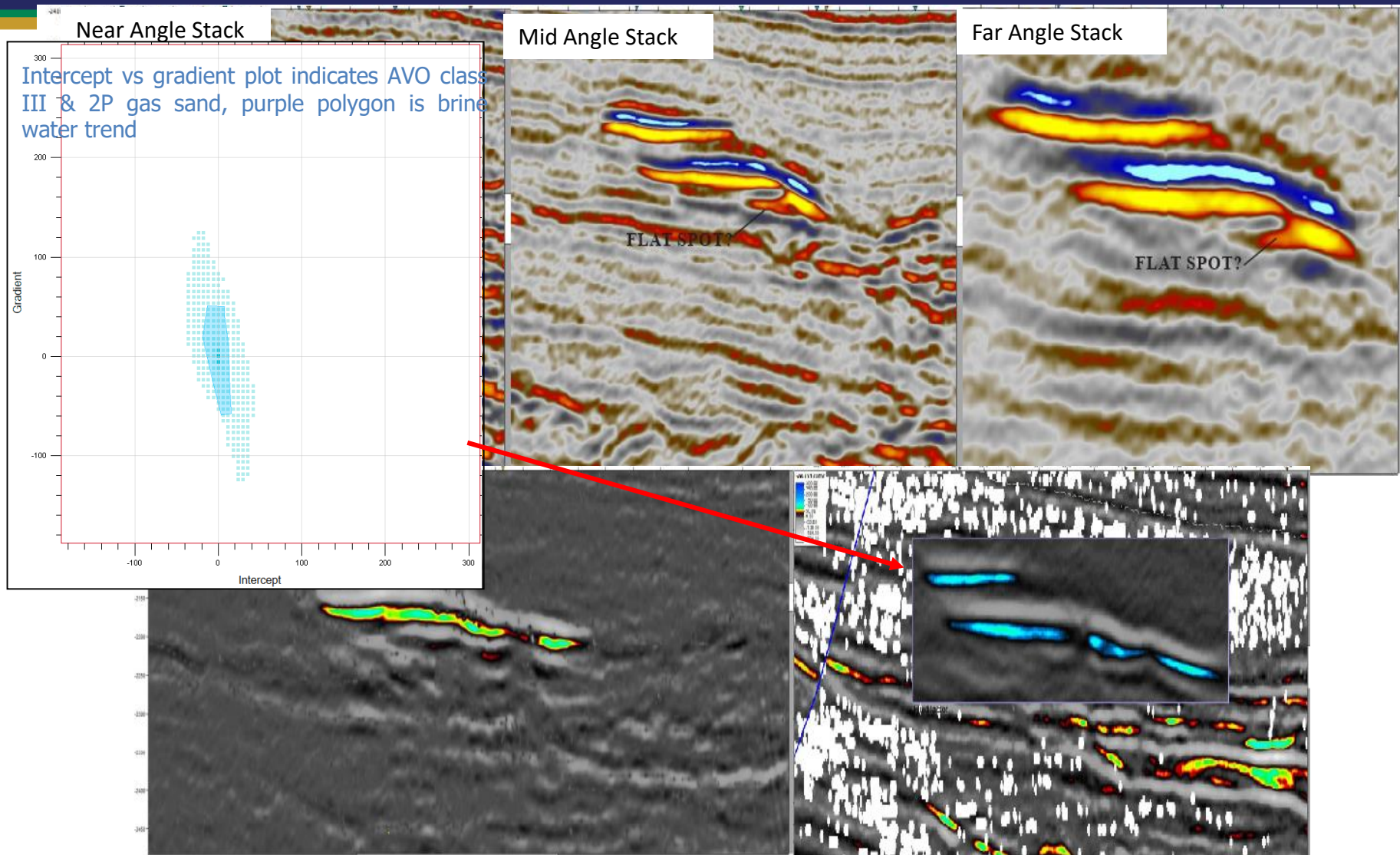
Hydrocarbon Prospectivity:

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

Work Plan:

Acquire additional 3D seismic data & Drill 2 Wells

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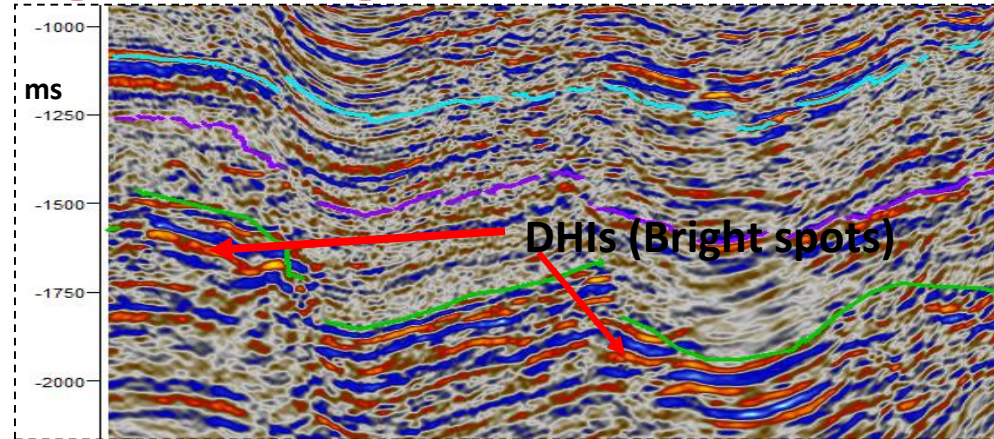
Gas Anomaly Indicator



West Songo Songo

Available_data

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



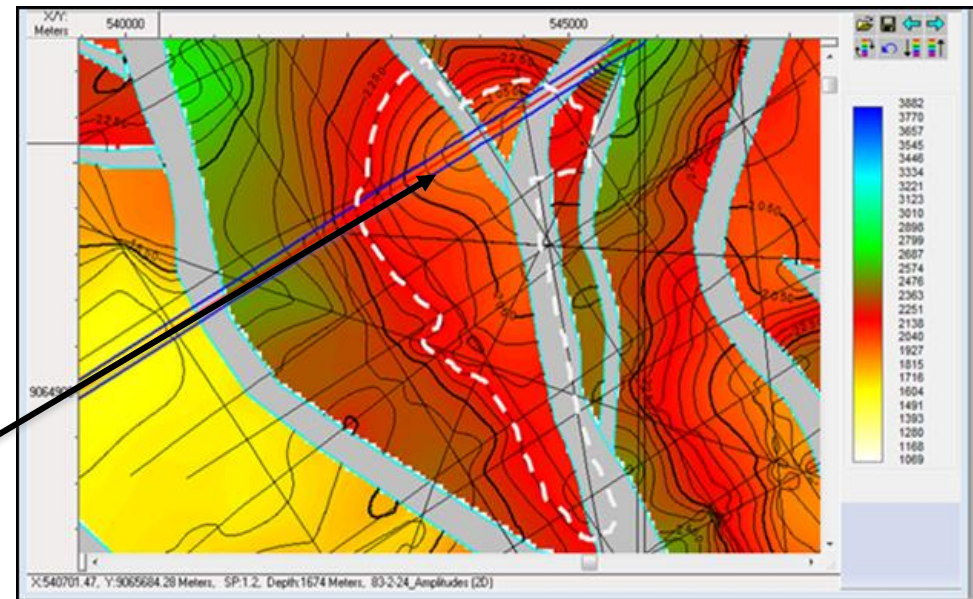
Hydrocarbon Prospectivity:

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

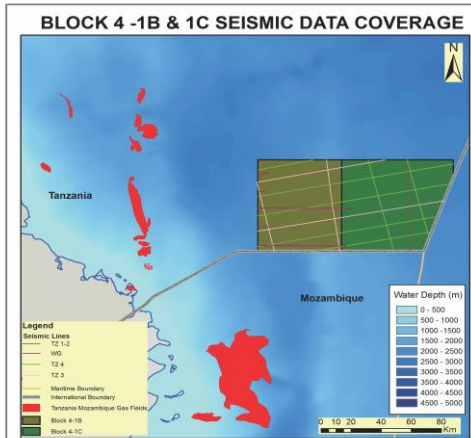
Work Plan:

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

Top Chocha prospect

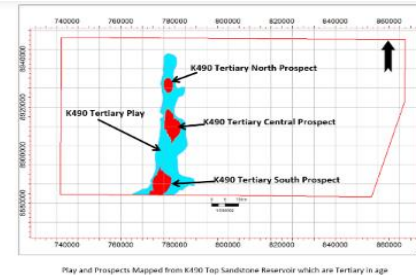


4/1B and 4/1C



Data available:

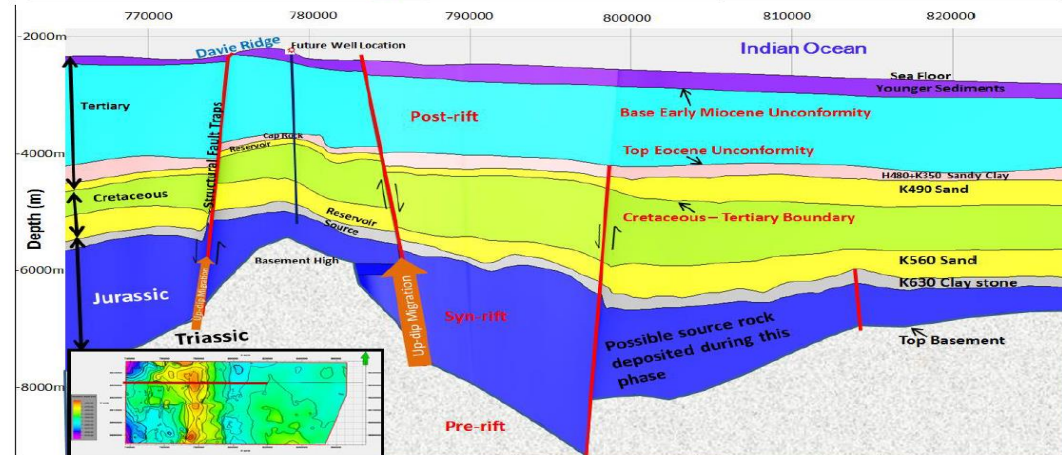
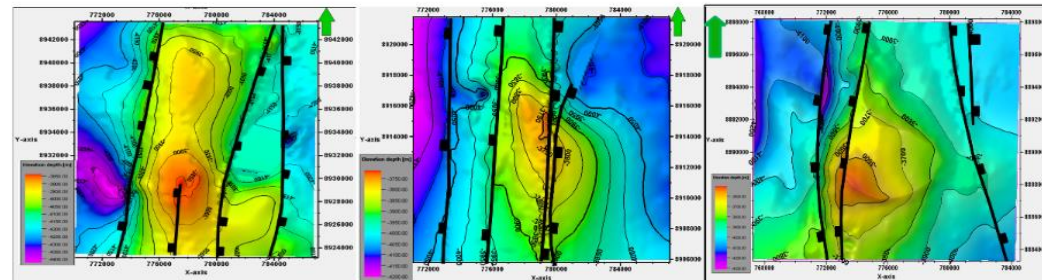
2682 line km of 2D Seismic Data



North

Central

South



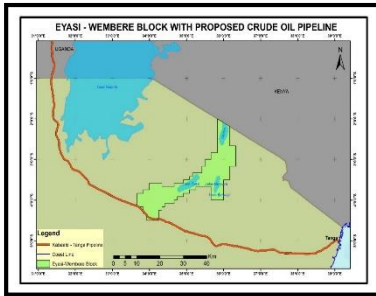
Hydrocarbon Prospectivity:

- Cretaceous and Tertiary plays identified
- Possible Gas Reservoir

Work Plan:

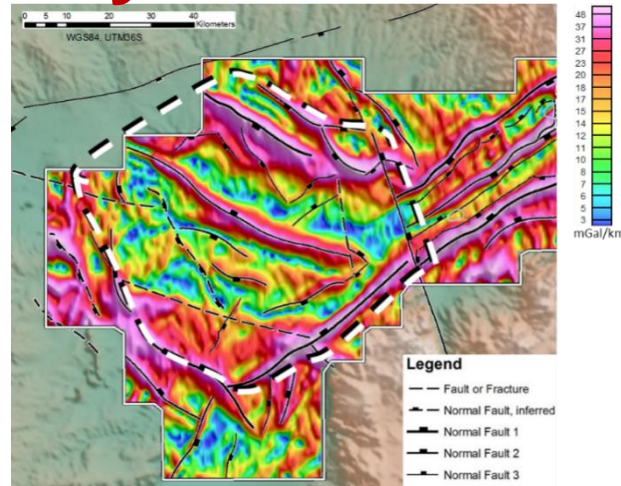
Acquire 600sq.km of 3D seismic data & Drill one well

Eyasi Wembere

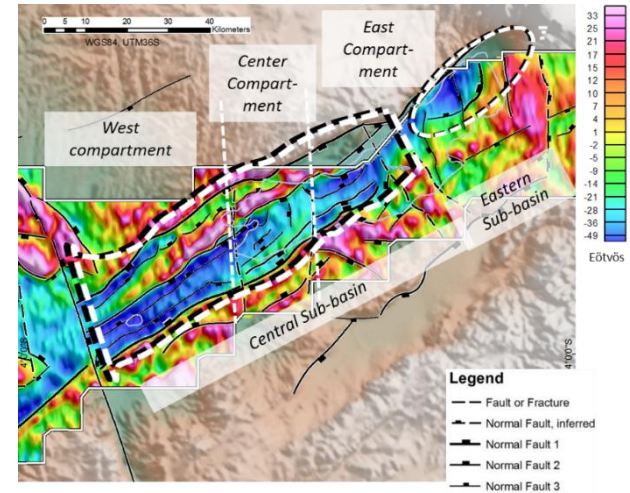


Available_data:

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



Western Eyasi Sub-Basin



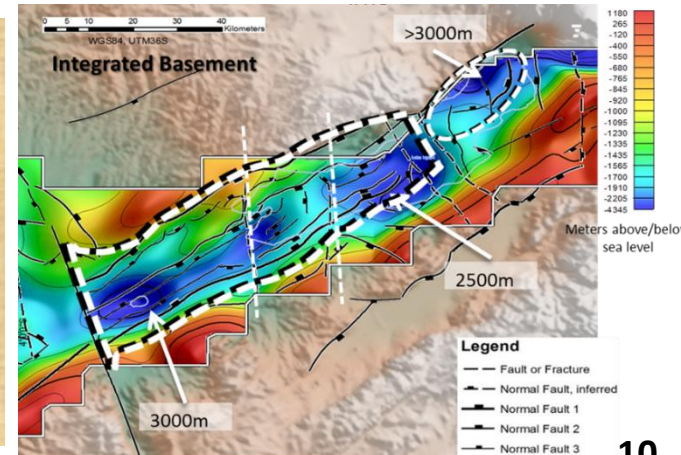
Central & Eastern Eyasi

Work Plan:

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

Hydrocarbon Prospectivity:

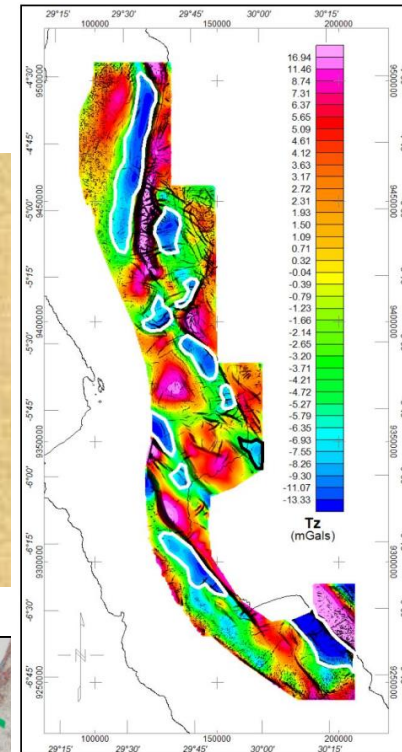
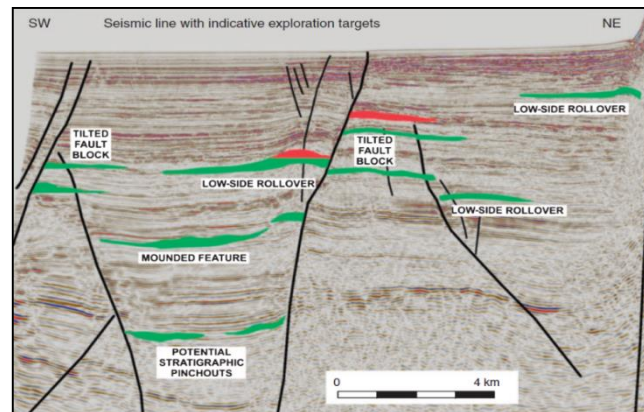
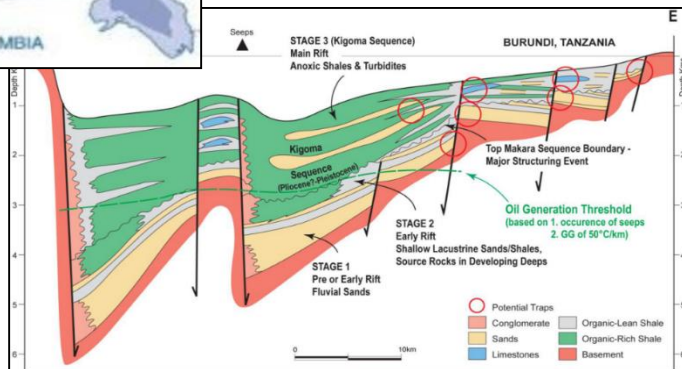
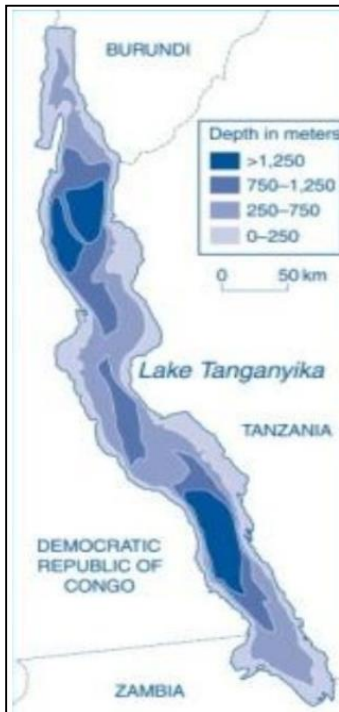
- Deep enough for hydrocarbon maturation
- Favorable structural framework to hold hydrocarbon
- Block is located near EACOP Pipeline



Lake Tanganyika

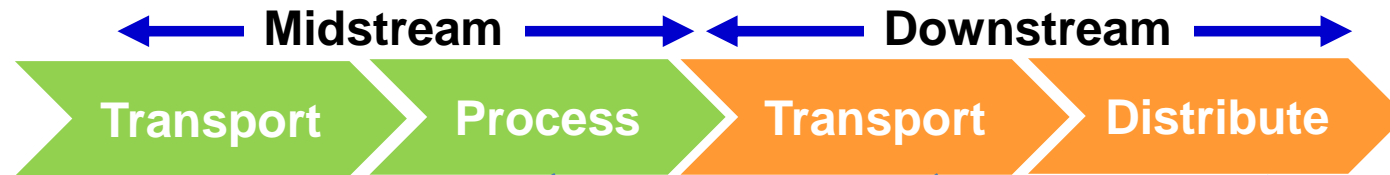
Hydrocarbon Prospectivity:

- 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



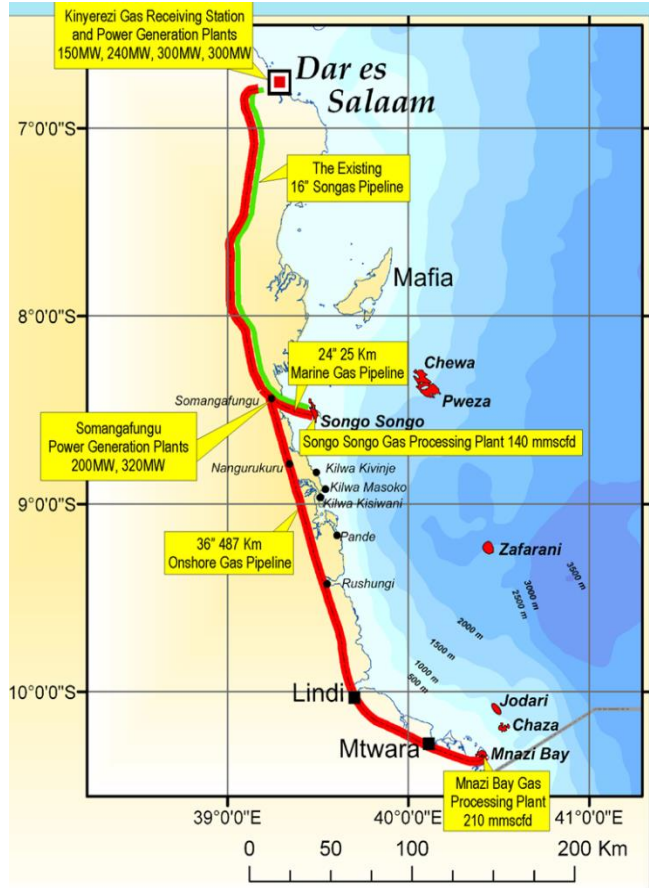
SS-Dar – 232km – 105mmscfd
MB – 27km – 70mmscfd
NNGI – 551km – 784 mmscfd

Dar – 65km network
Coast – 5km
Mtwara – 3km

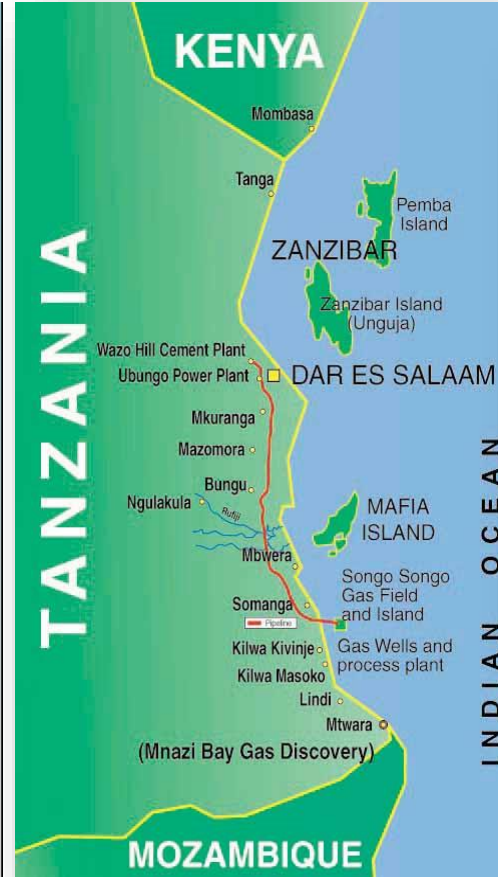
SS 110mmscfd
MB 10mmscfd
Madimba 210mmscfd
SS 140mmscfd
TOTAL = 470 mmscfd



Transmission Infrastructure



NNGI PIPELINE



SONGAS PIPELINE

MTWARA ENERGY 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



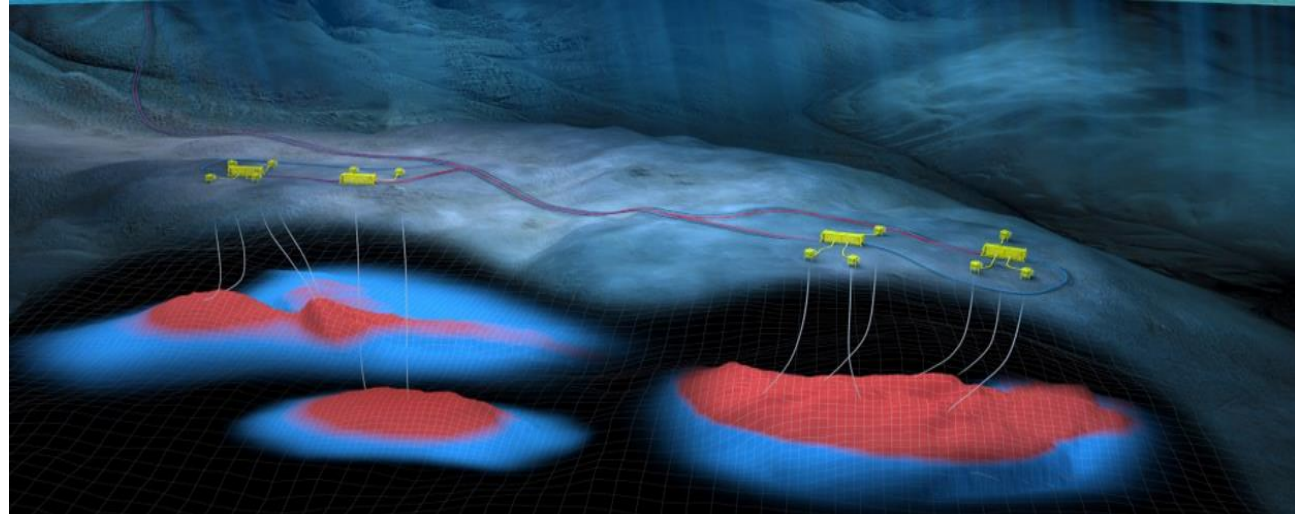
SERENA HOTELS

KENYA • TANZANIA • ZANZIBAR • UGANDA • MOZAMBIQUE • RWANDA



Tanzania LNG Project

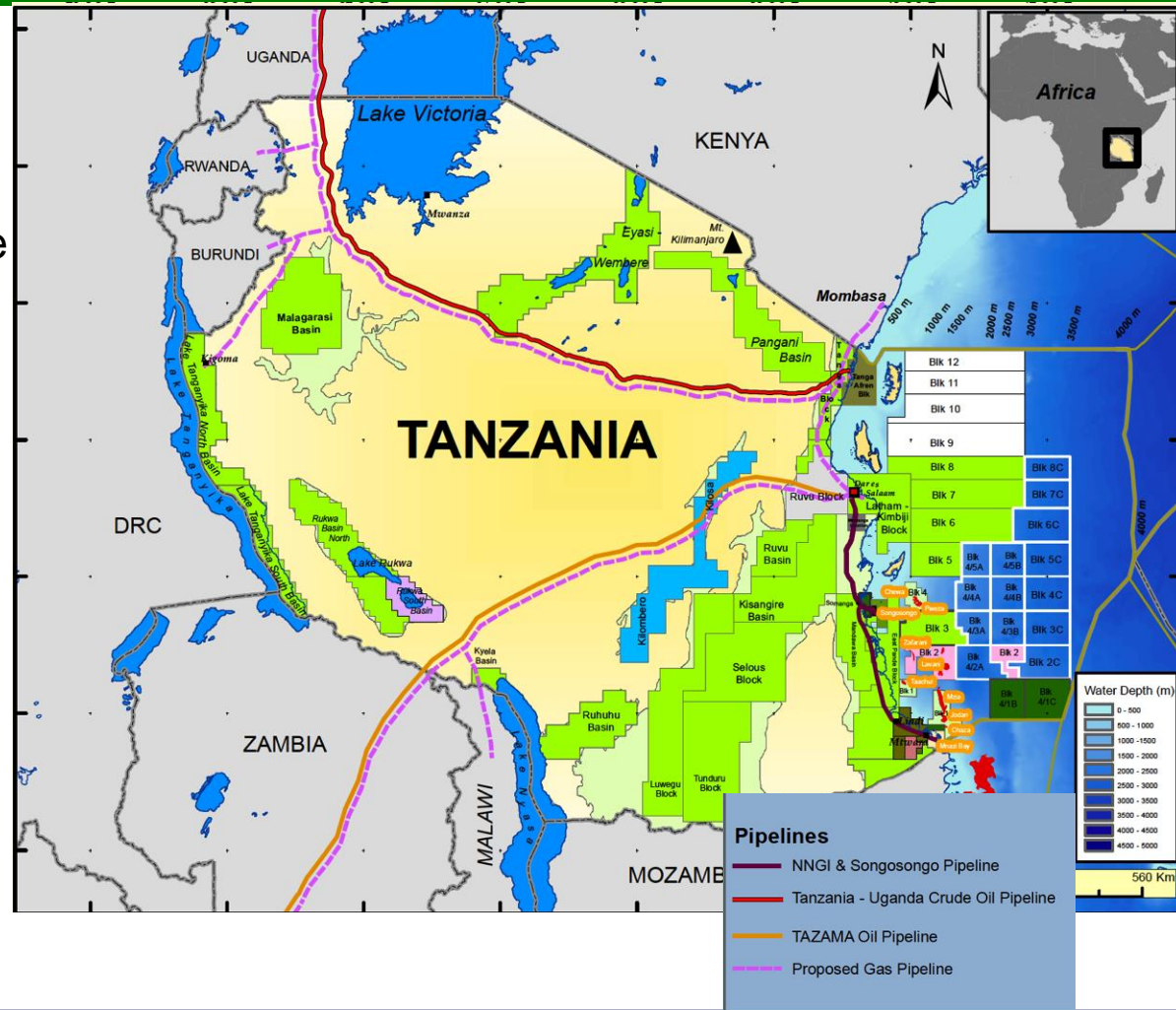
Four mega projects to be delivered in parallel



Project Status:
HGA Negotiations

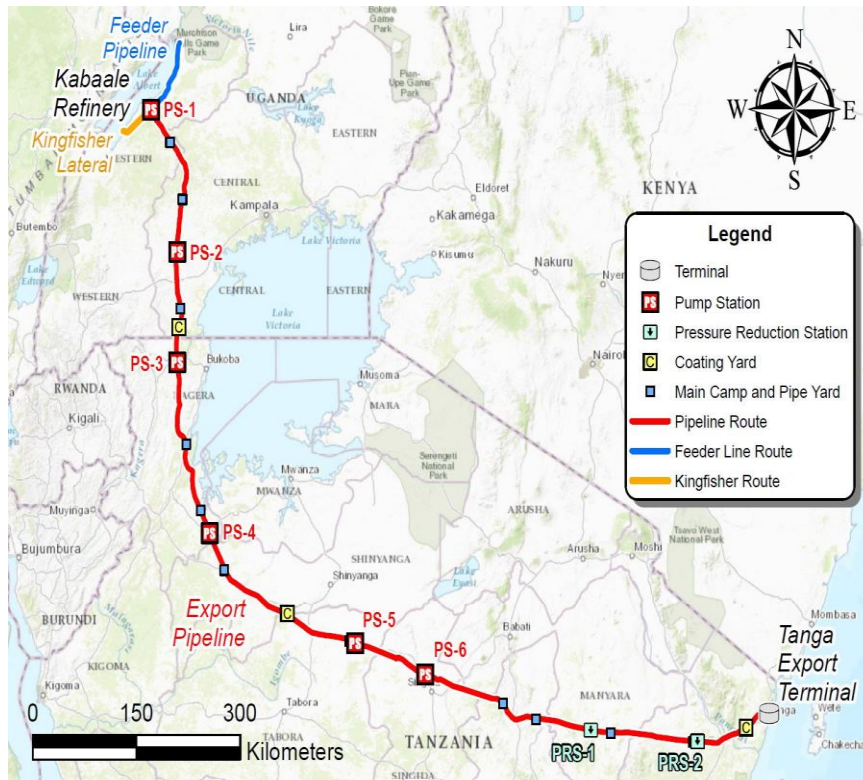
Cross-Border Projects

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



EACOP

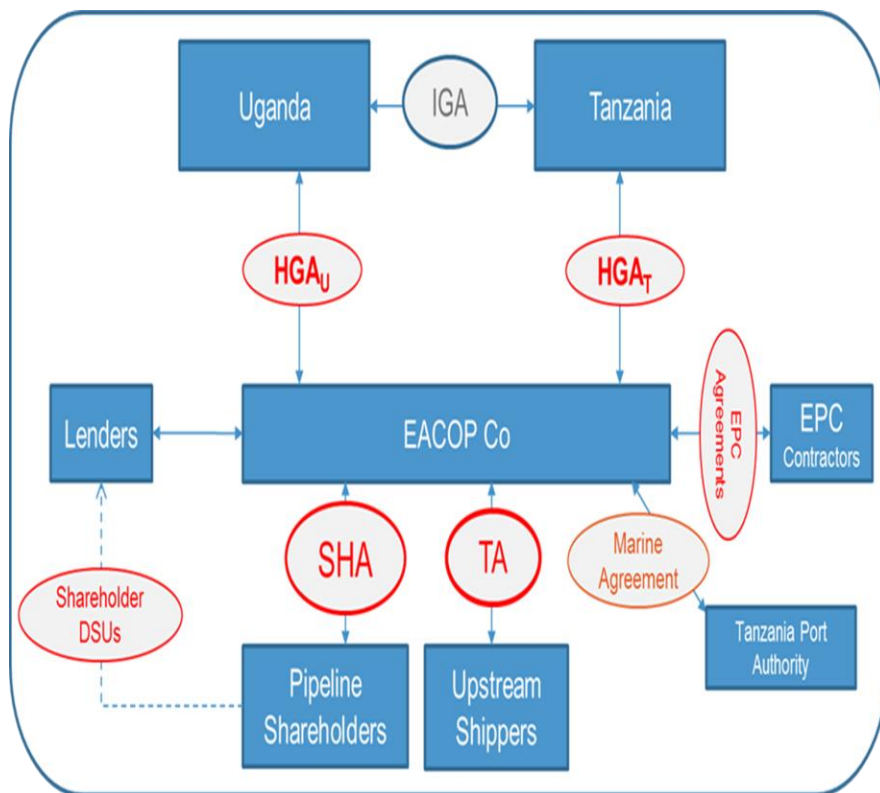
- East African Crude Oil Pipeline (EACOP)



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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