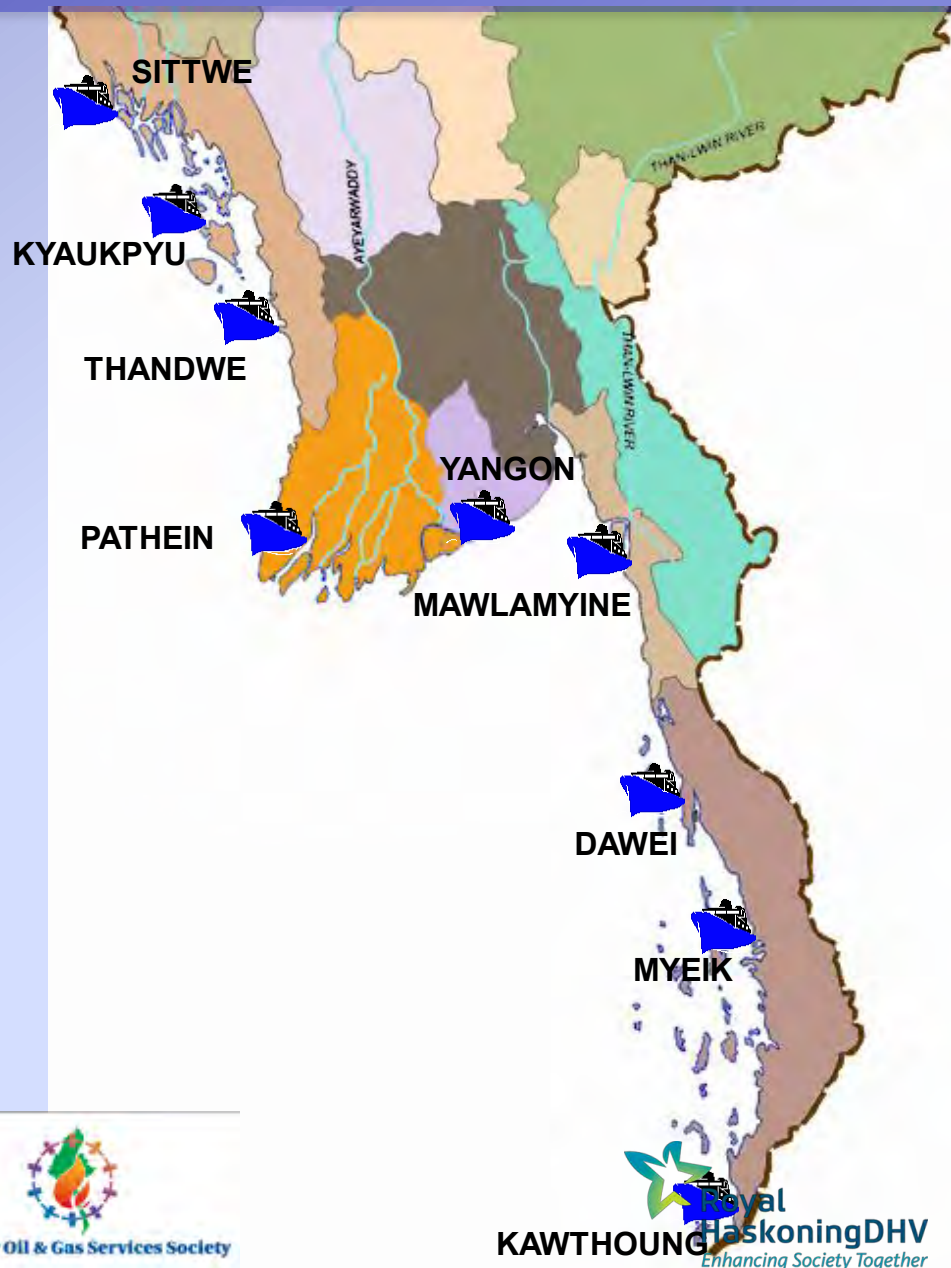


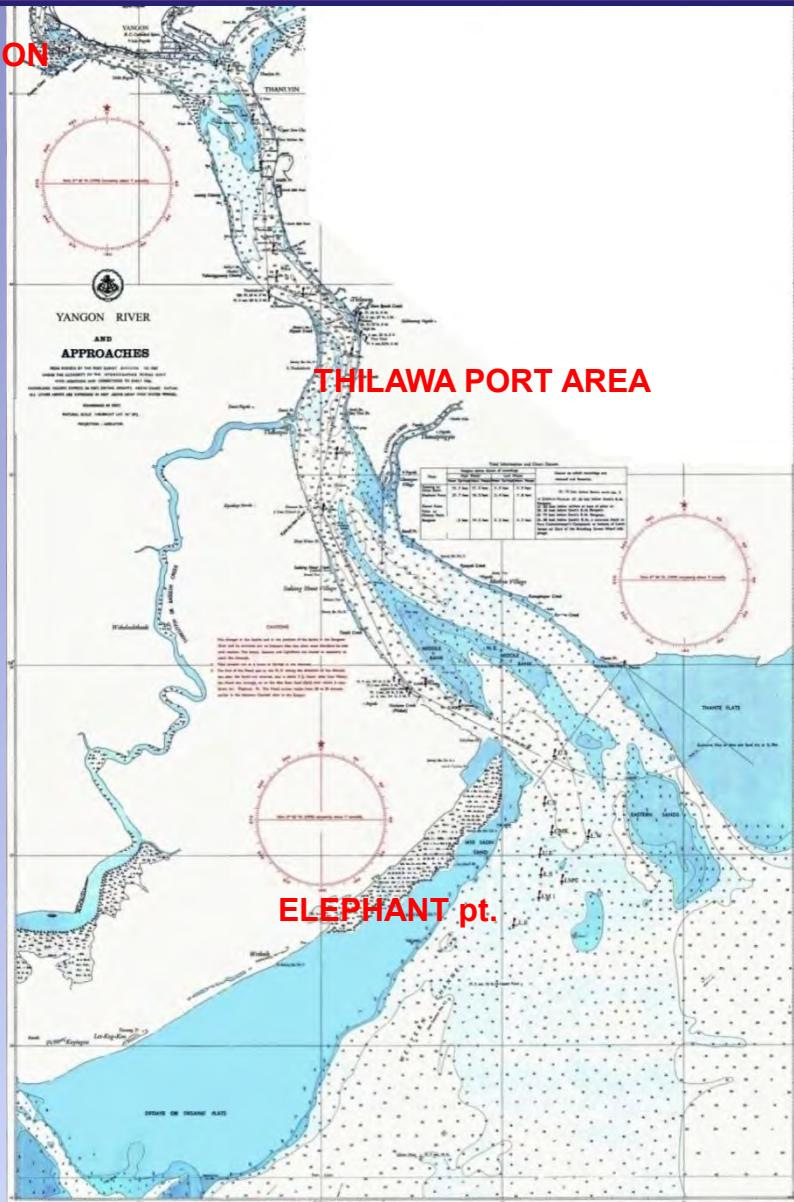
Myanmar Ports

Port	Region/State
Yangon	Yangon
Sittwe Kyaukpyu Thandwe	Rakhine
Pathein	Ayeyarwady
Mawlamyine	Mon
Dawei Myeik Kawthoung	Tanintharyi



Yangon Port & River Estuary

YANGON



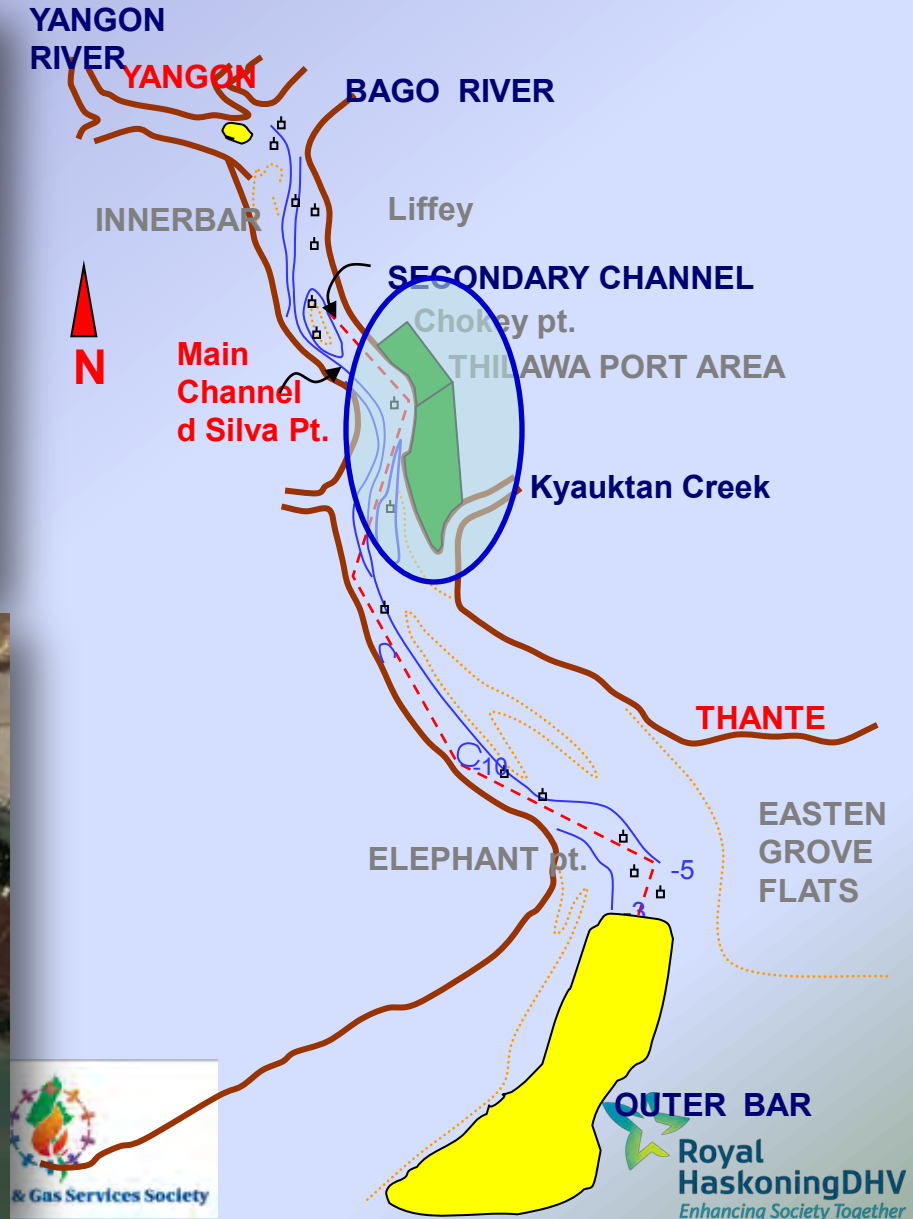
River port and Premier port of Myanmar

- Yangon Port to Thilawa Port - 16 Km
- Yangon Port to Elephant Point- 32 Km
- Elephant Point to Pilot Station- 32 Km
- All vessels calling to the Yangon Port, pilotage is compulsory if they are over 200 GRT.
- Tidal Range (The average tidal range) about 19.3 feet (5.85 m) at spring tide about 8.4 feet (2.55 m) at neap tide
- Current Velocity - 4 to 6 knots
- Wave
 - do not hinder marine operations
 - seldom rough with less than (2m) wave-height.

Location of Terminals and ICD at Yangon Inner Harbour



International Wharves at Thilawa



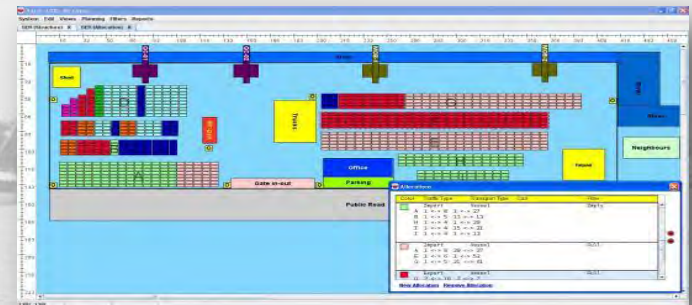
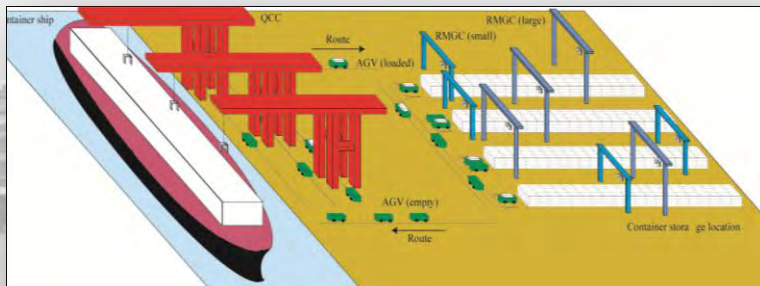
International Wharves

International wharves

- Yangon Port - 18 wharves
 - Thilawa Port - 6 wharves
- Total - 24 wharves**



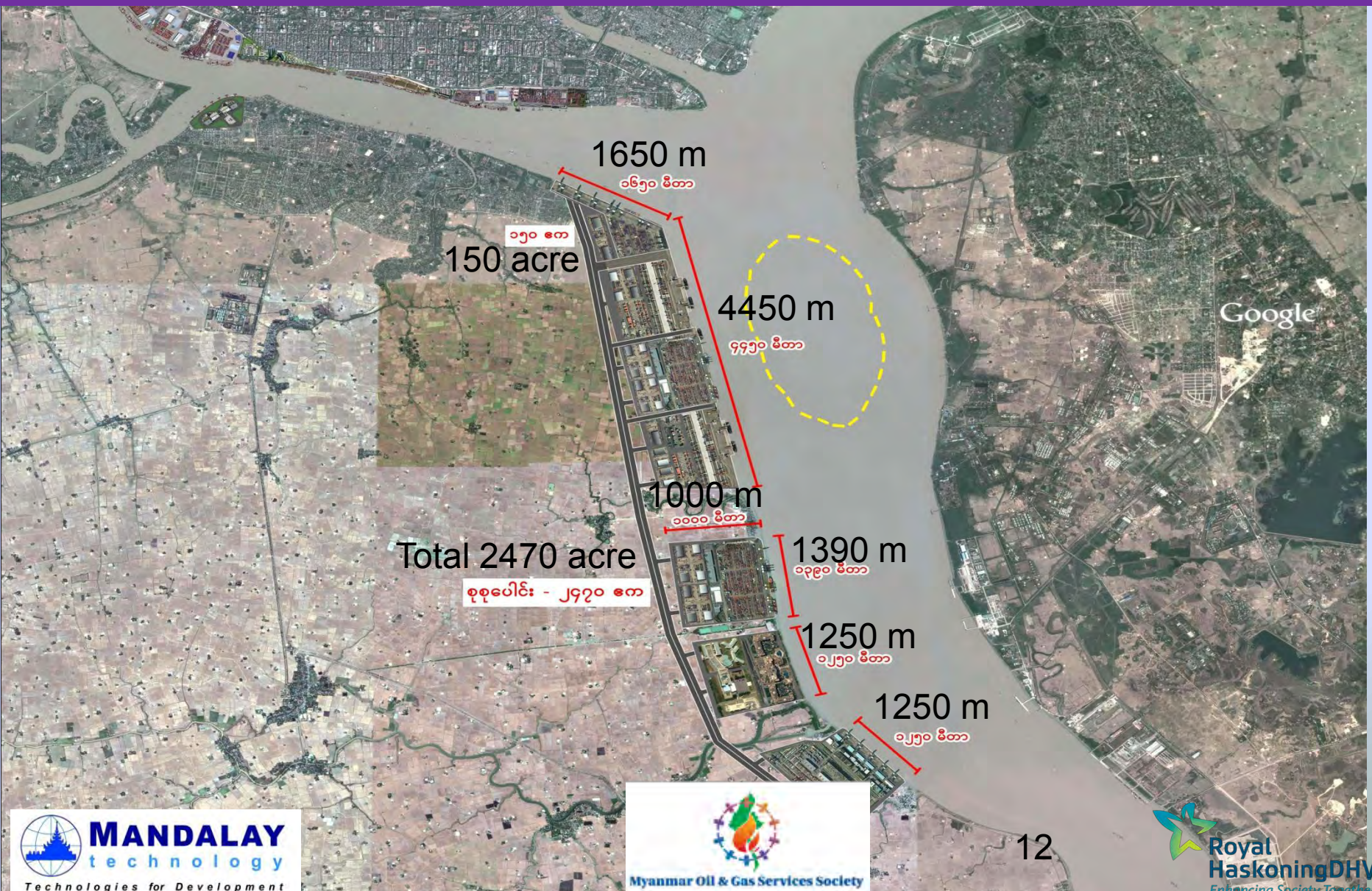
Future Port Development Plan



Future Port Development at Yangon Inner Harbour Area



Conceptual Plan for Yangon Port at Dala and King Bank Foreshore Area



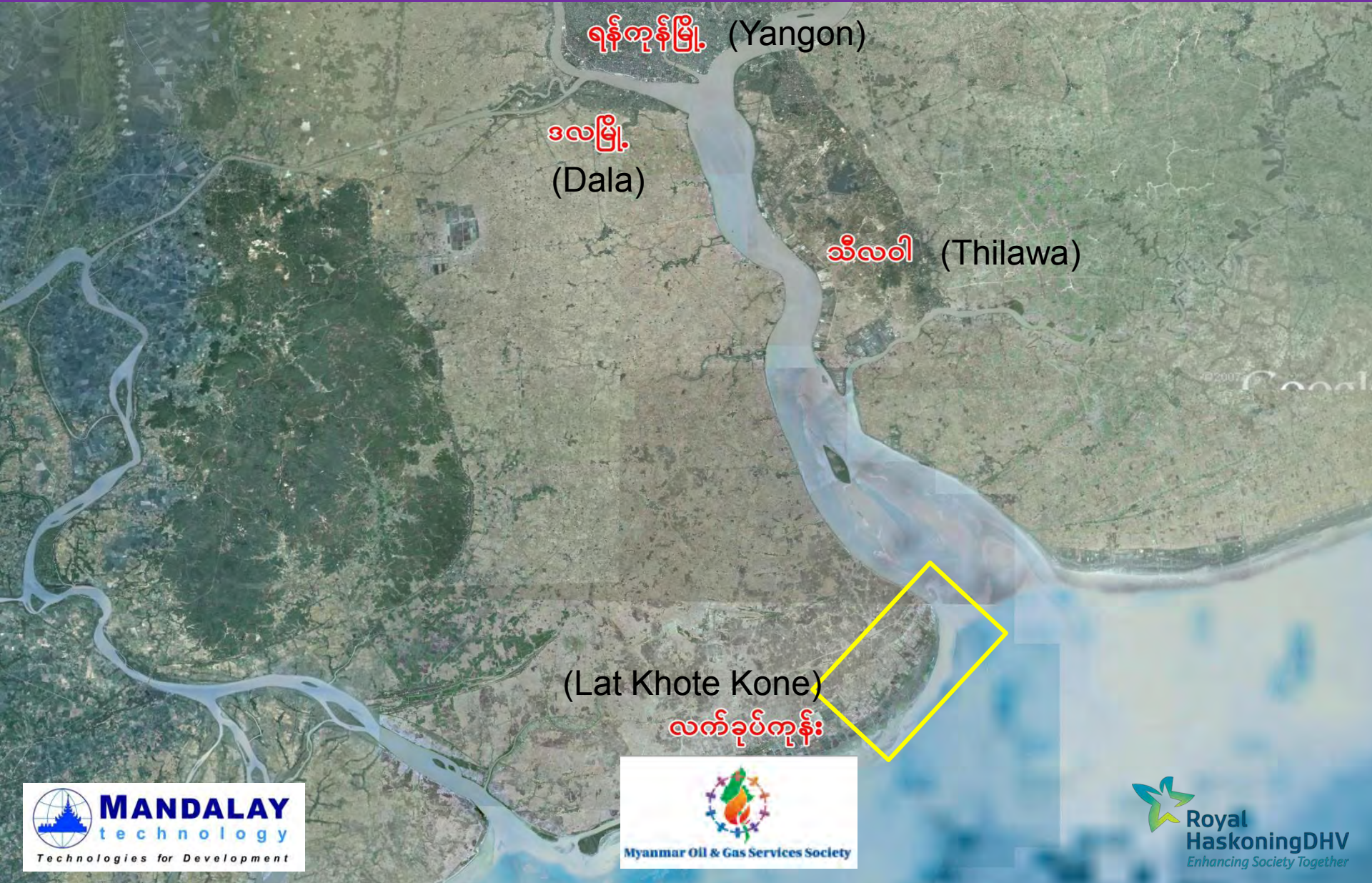


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Conceptual Plan for Yangon Port at Elephant Point Foreshore Area



ရန်ကင်းမြို့ (Yangon)

ဒလမြို့ (Dala)

ဆီလဝါ (Thilawa)

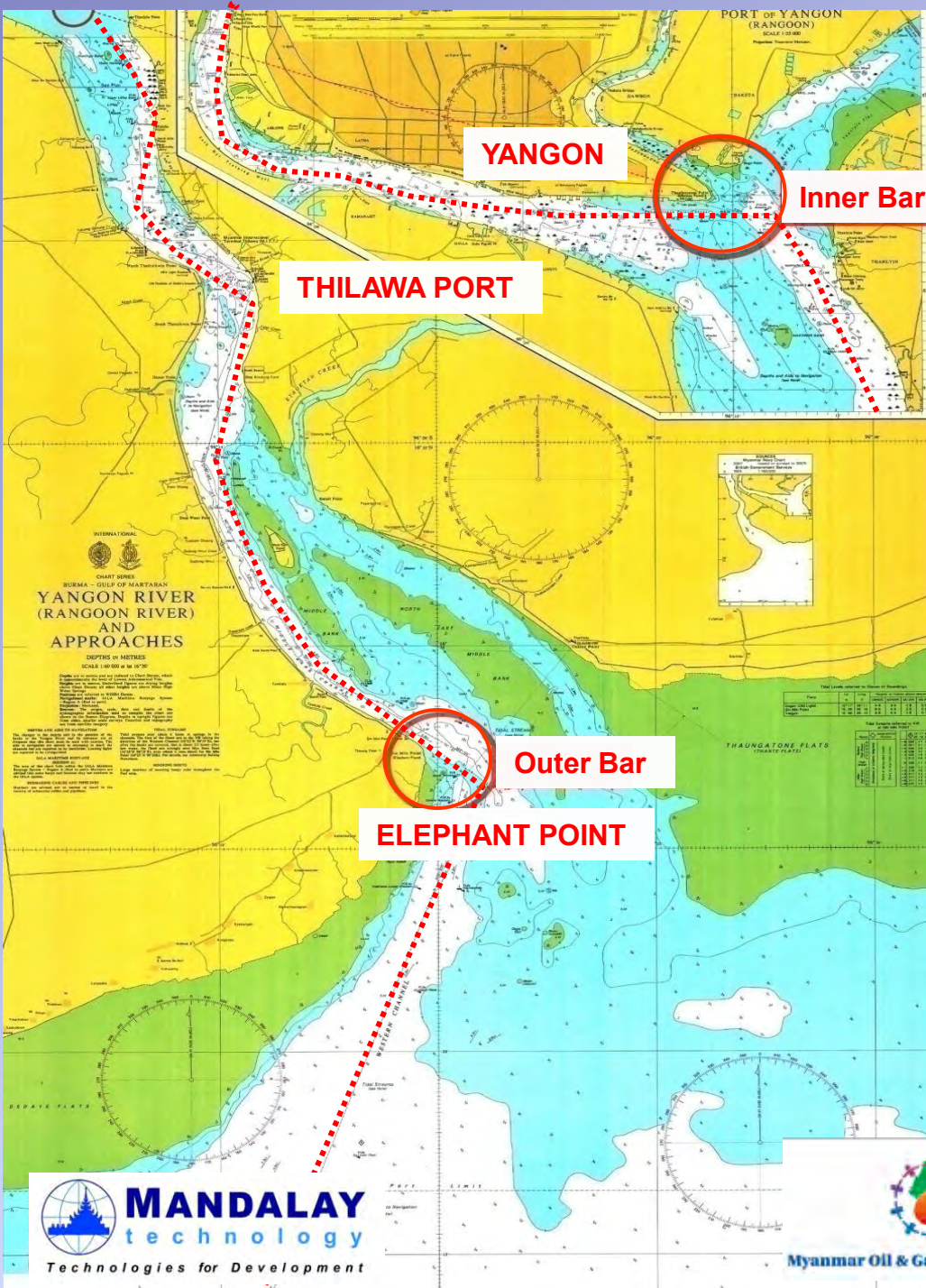
(Lat Khot Kone)

လက်ခုပ်တူန်း

Conceptual Plan for Yangon Port at Elephant Point Foreshore Area



Yangon River Access Channel



Two constraint areas (shallow water area)

- Inner Bar and
- Outer Bar

Restricting of the size and draft of vessel

Available water depth at Inner Bar near Monkey Point below chart datum is about 4.5m and at Outer Bar near Elephant Point is only about 5m.

Improvement of Yangon River Access Channel and Its Associated Port Facilities

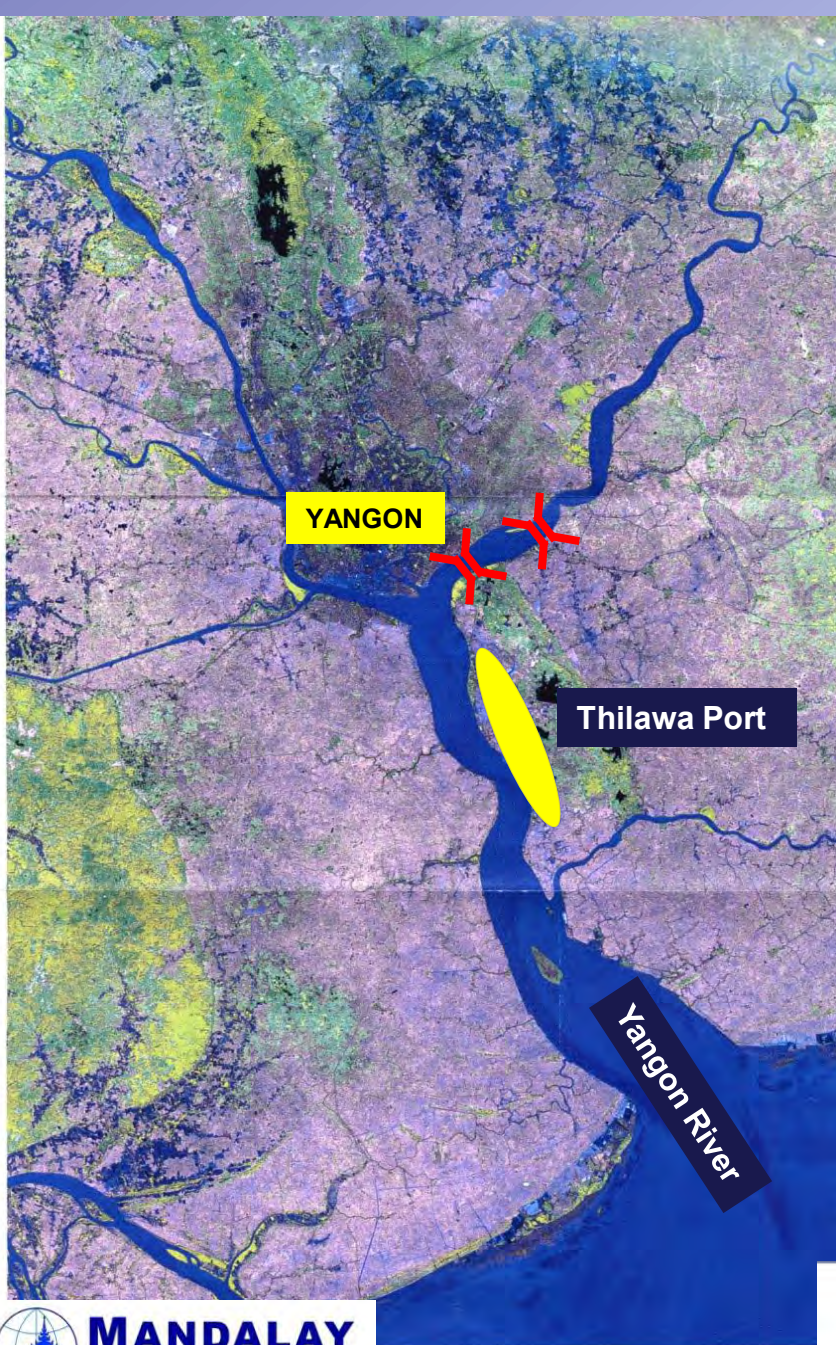
- All vessels generally sailing on flood tides and crossing to both Inner Bar and Outer Bar at near high tide. Waiting flood tide means delay time.
- Daily maintenance dredging at Inner bar and reallocation of navigation buoys at Outer bar.
- Yangon Port can be accessible to vessel of 167m LOA, 9m draft, 15,000 DWT and vessel of 200m LOA, 9m draft, 20,000 DWT at Thilawa Port.

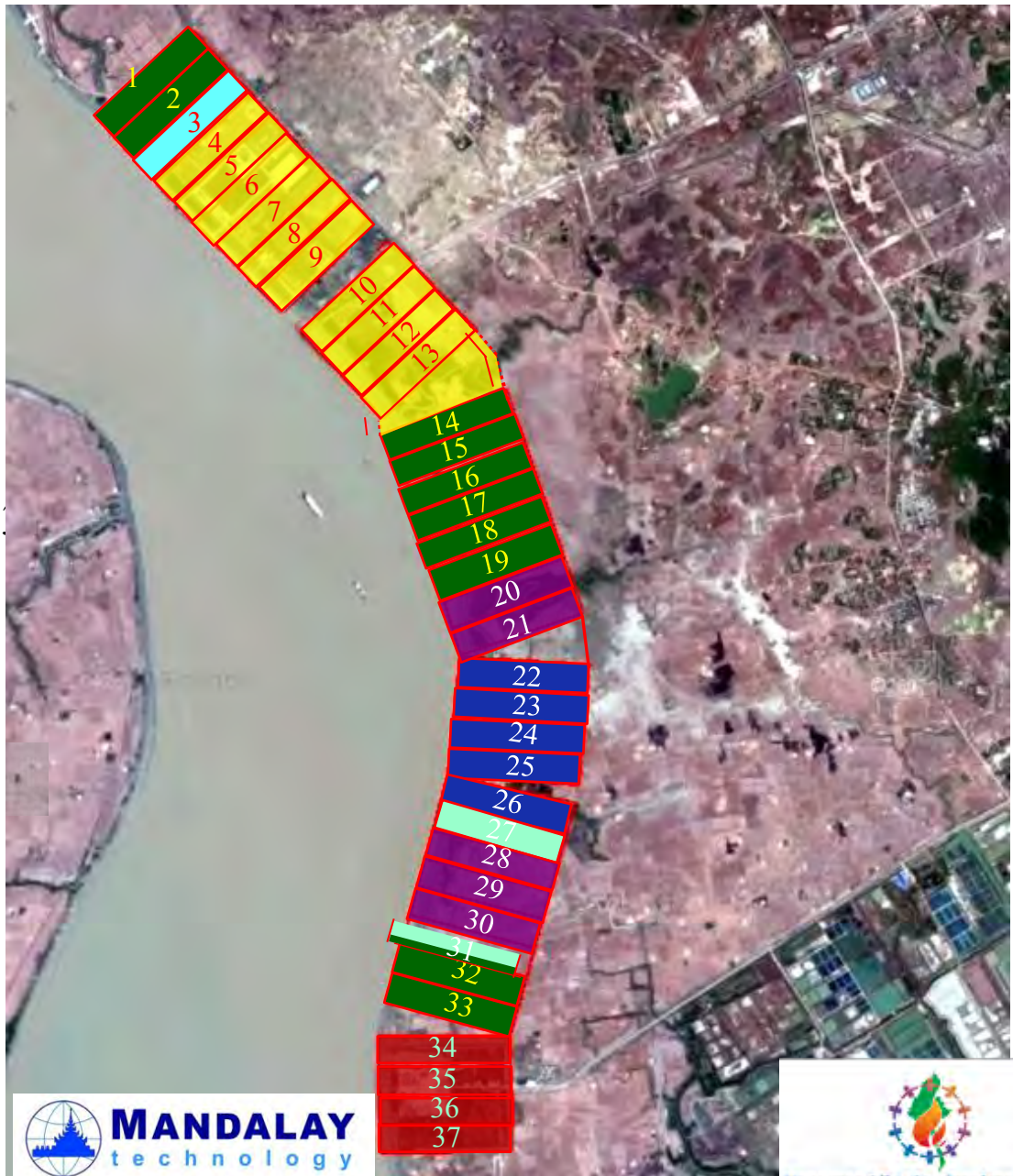
Port Expansion at Thilawa Area










Thilawa Port

- Thilawa area located 16 km downstream of Yangon Port

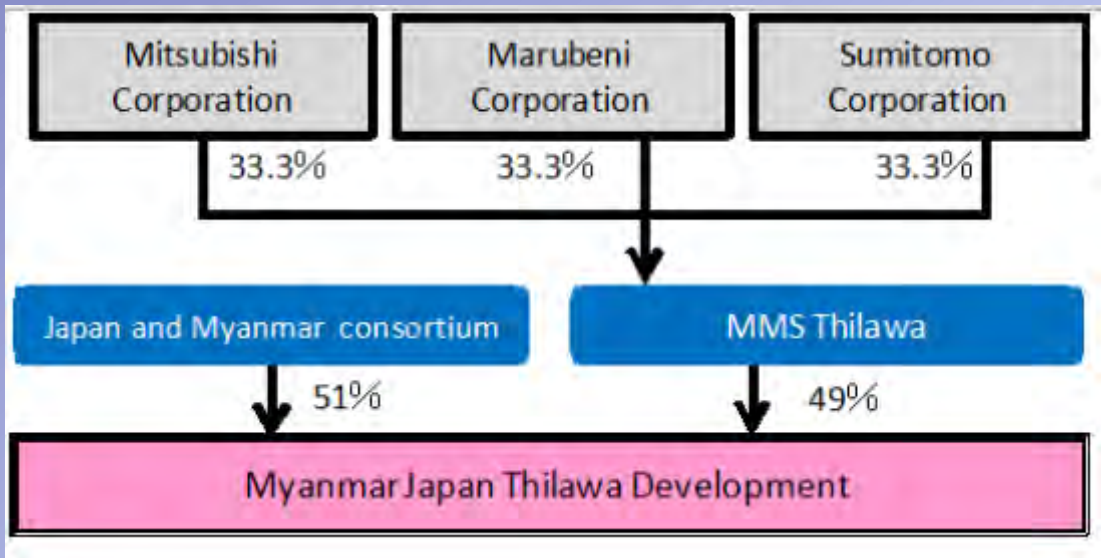




- 37 plots
- Each plot: 15 hectares (acres) (200m x 750m)

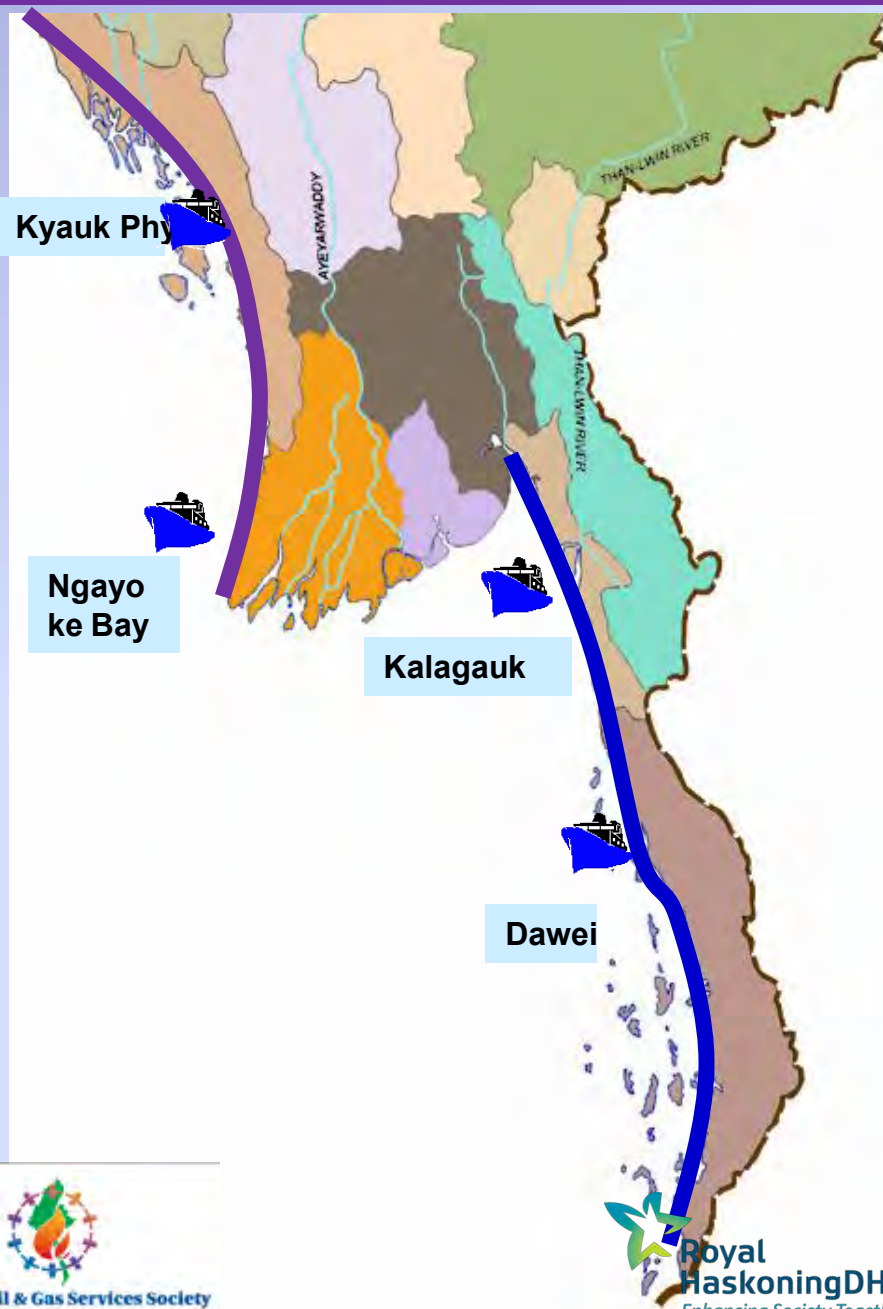
	Container / G.C Terminal	10 Plots
	Fuel Oil Terminal	10 ¹ / ₃ Plots
	Bitumen Terminal	1 Plot
	Grain / G.C Terminal	5 Plots
	Ship Breaking Yard	4 Plots
	MPA/ JICA ODA	5 Plots
	Reserved	1 ² / ₃ Plots

Total 37 Plots

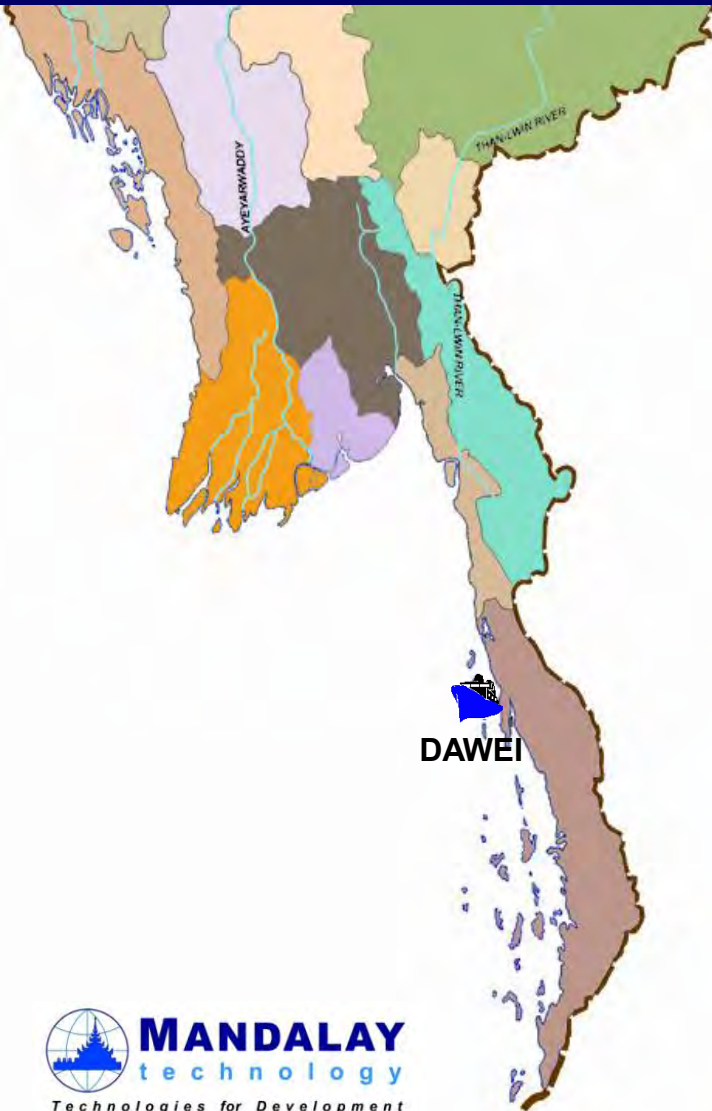


DEEP SEA PORT PROJECTS IN MYANMAR

- Dawei SEZ together with Deep Sea Port in the South
- Kyaukpyu Deep Sea Port at Rakhine State in the West
- Kalagauk Deep Sea Port, between Mawlamyine and Ye Region at in the South Coast.
- Westport Deep Sea Port at Ngayoke Bay, Ayeyarwaddy Region



Development of Dawei Deep Sea Port



Dawei Deep Sea Port Project

Location

Lies at Nabule Area, north-west of Dawei Town.

Geographical Position

13 48'.5 N, 98 04' E

Approach channel

LAD 15 m, Tide Range 5m

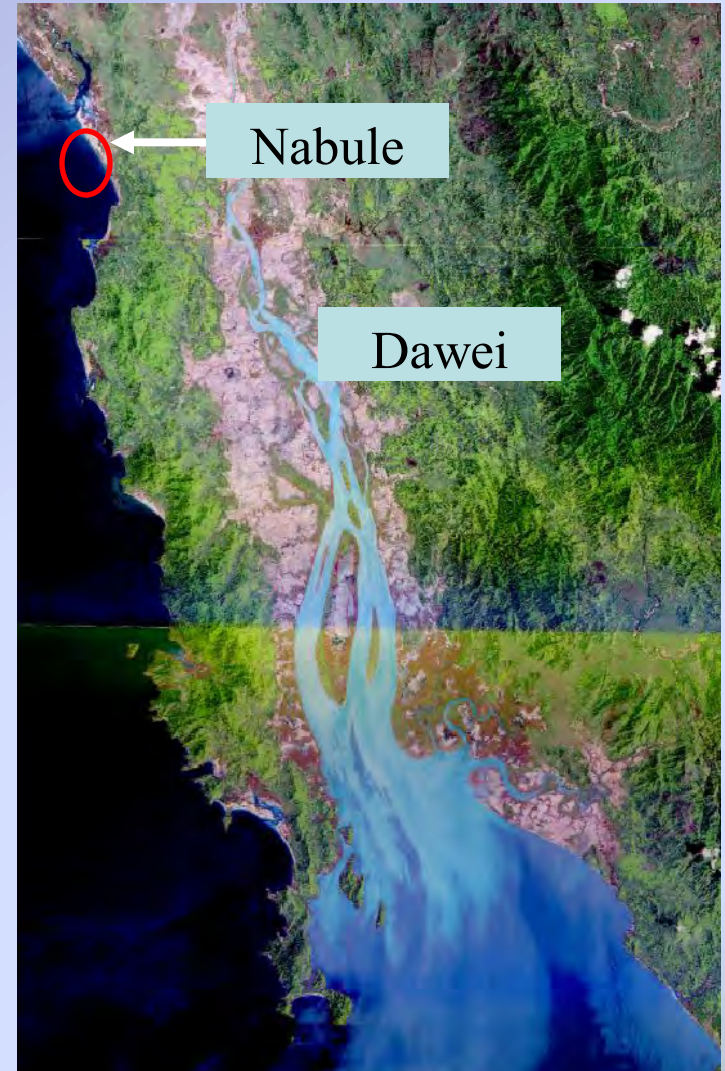
Harbour Area

LAD 15 m

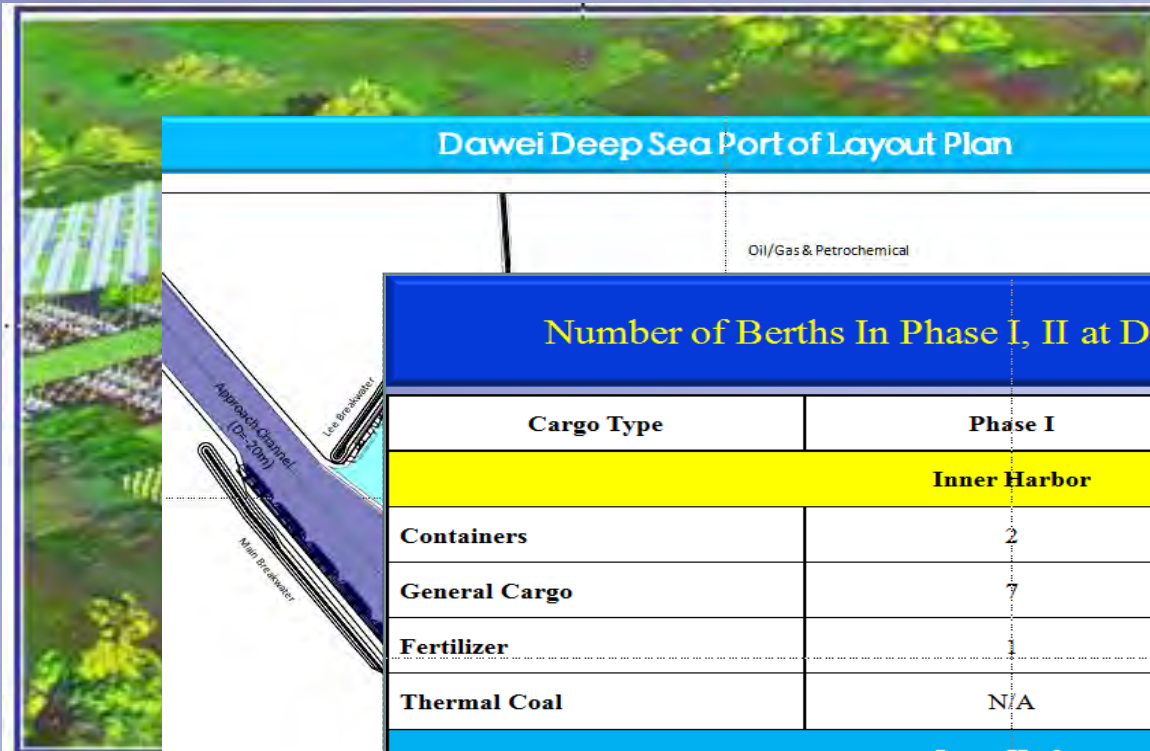
Sea Room 3.2 Km

Prosperity

- Dawei Area as a hub connecting to GMS, South and South East Asia countries.
- Industry, Tourism, Fisheries, Mining and Energy



Dawei Deep Sea Port Project



Dawei Deep Sea Port of Layout Plan

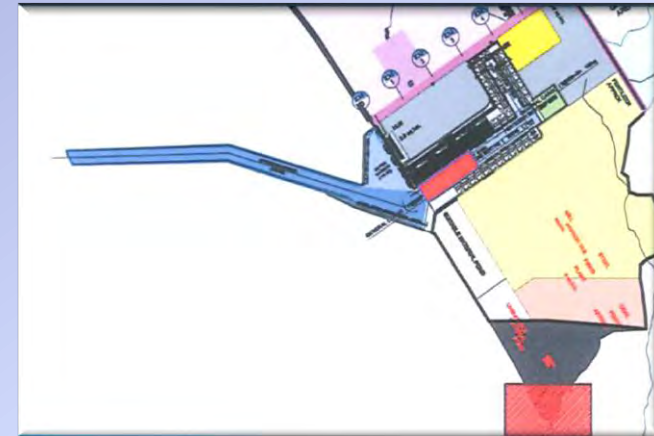
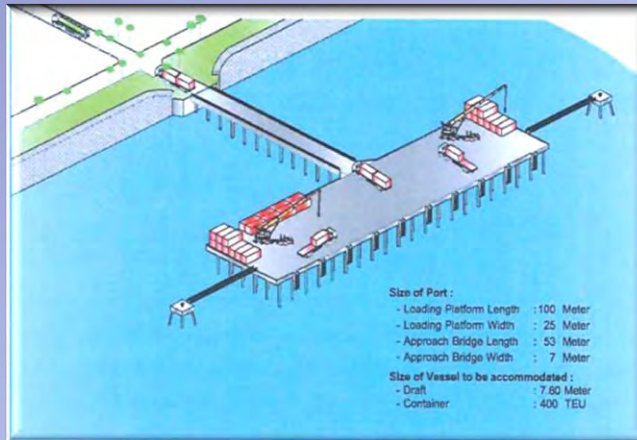
Oil/Gas & Petrochemical

Number of Berths In Phase I, II at Dawei Deep Sea Port

Cargo Type	Phase I	Phase II
Inner Harbor		
Containers	2	8
General Cargo	7	28
Fertilizer	1	1
Thermal Coal	N/A	2
Outer Harbor		
Steel Mill Dry Bulk	2	5
Liquid Bulk	5	8
LNG	2	2
TOTAL	19	54

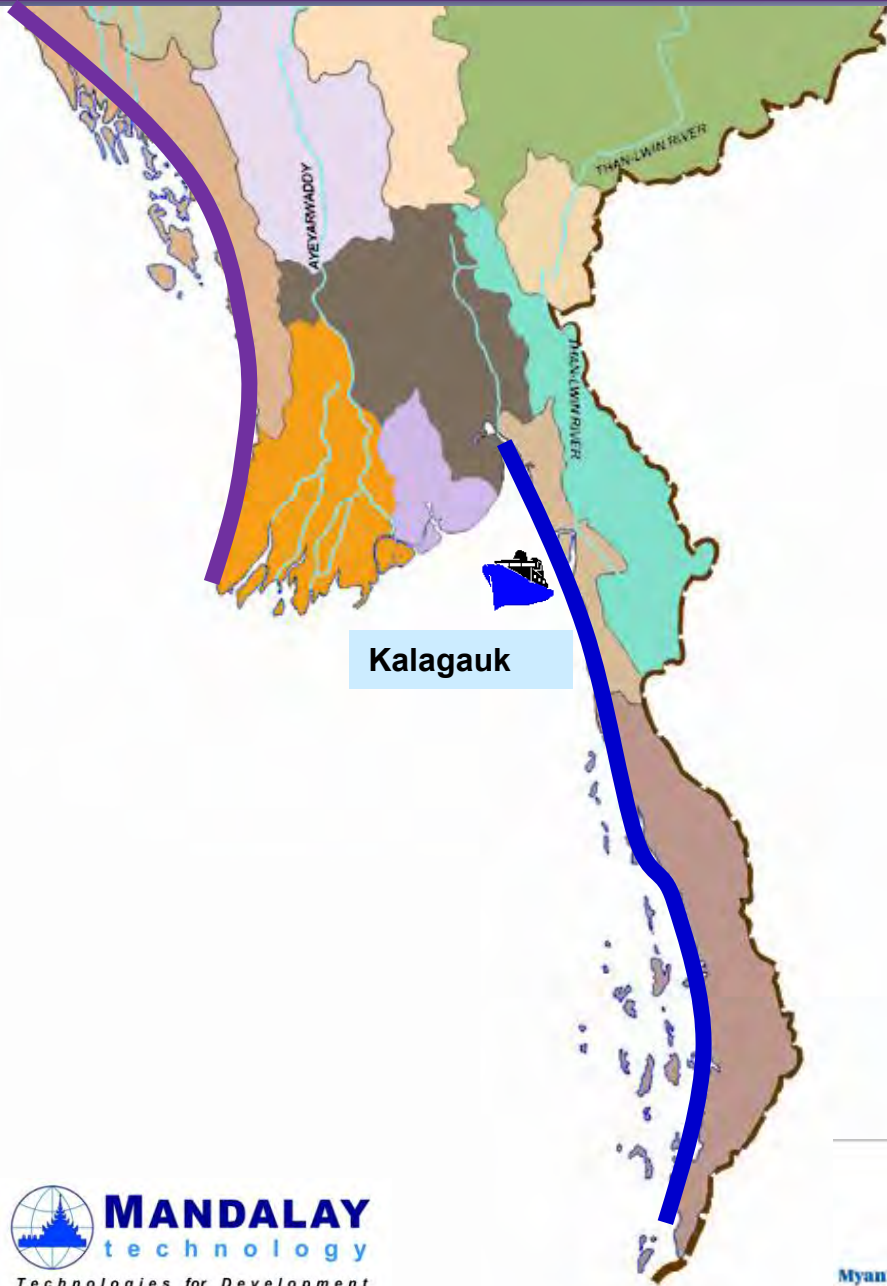
Dawei Deep Sea Port Project

Construction of Small Port



- ✓ 94 % of the Construction of Project Supply Jetty COMPLETE.
- ✓ Main jetty (100 m x 25 m) ; the approach jetty (53 mx7m)
- ✓ Accommodative: Container 400 TEU and water Depth (Apron) 8 m.
- ✓ MPA and ITD Co., Ltd will sign Sectorial Agreement to implement Deep Sea Port in Dawei SEZ.

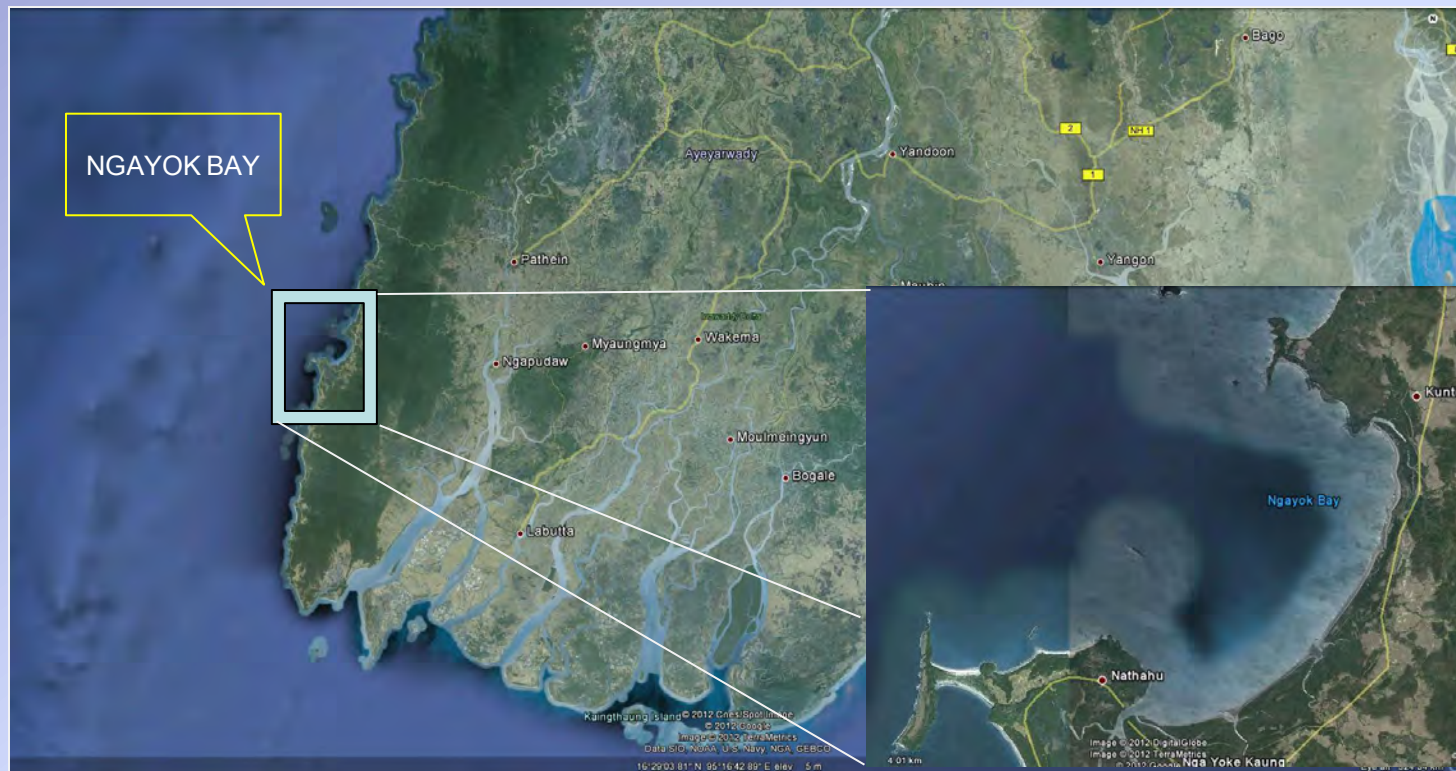
Kalagauk Deep Sea Port



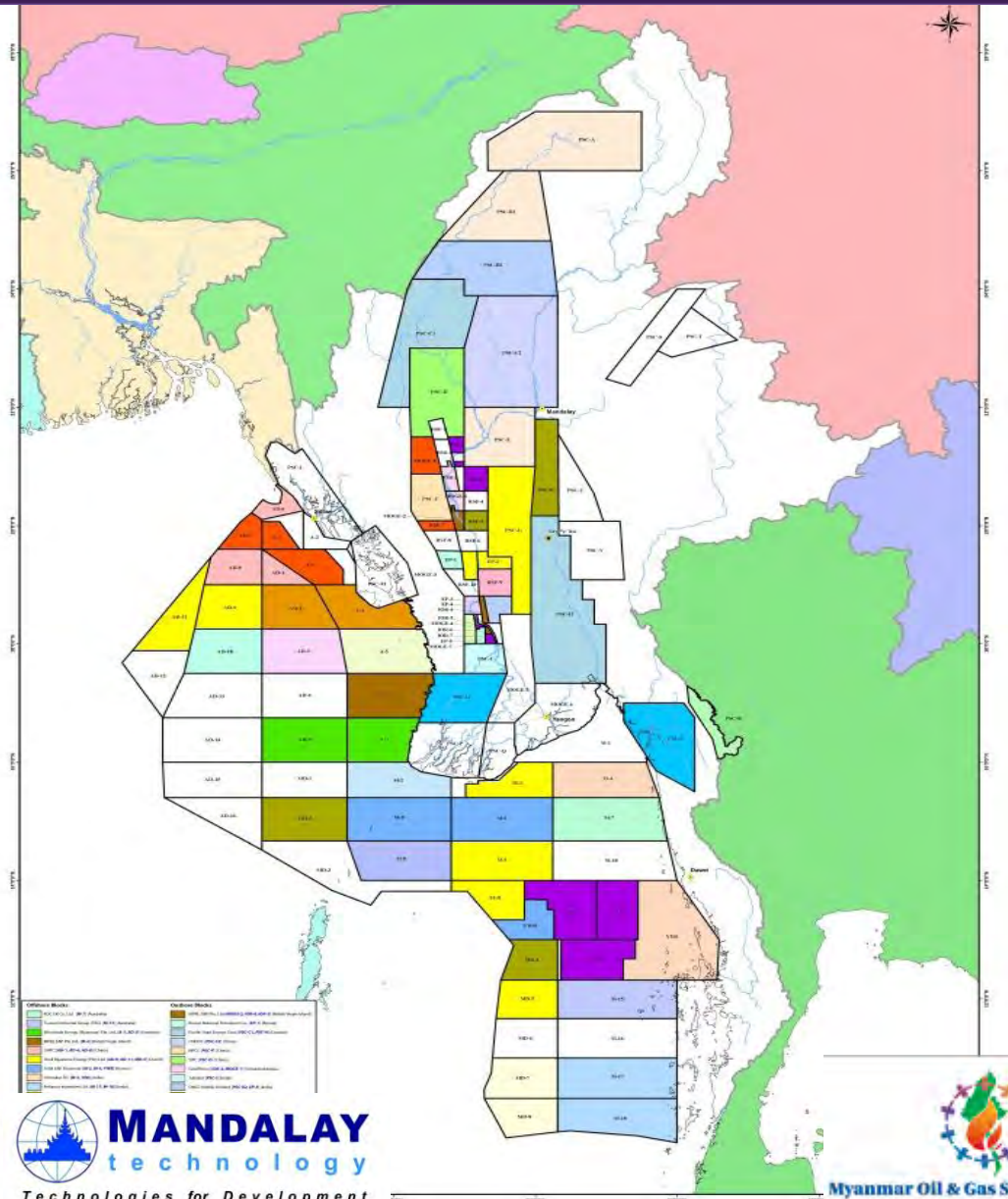
- MoU Signed for FS to develop deep sea port and related infrastructure at Kalagauk Area, between the MPA and the Emerald Grand Hotel. Co.,Ltd in August, 2013.
- Geo-strategic location being connected with East-West Economic Corridor within GMS and ASEAN region and North-South Economic Corridor China and ASEAN.

Westport Deep Sea Port

- MoU Signed for a Feasibility Study and Preparation of Master Plan to develop deep sea port and related infrastructure at **Ngayok Bay Area**, between the MPA and the **Super Axis Development Co., Ltd** in August, 2013.



Oil & Gas Block Map and Offshore Supply Base in Myanmar



Currently, 3 Offshore Supply Bases (OSB) in Myanmar:

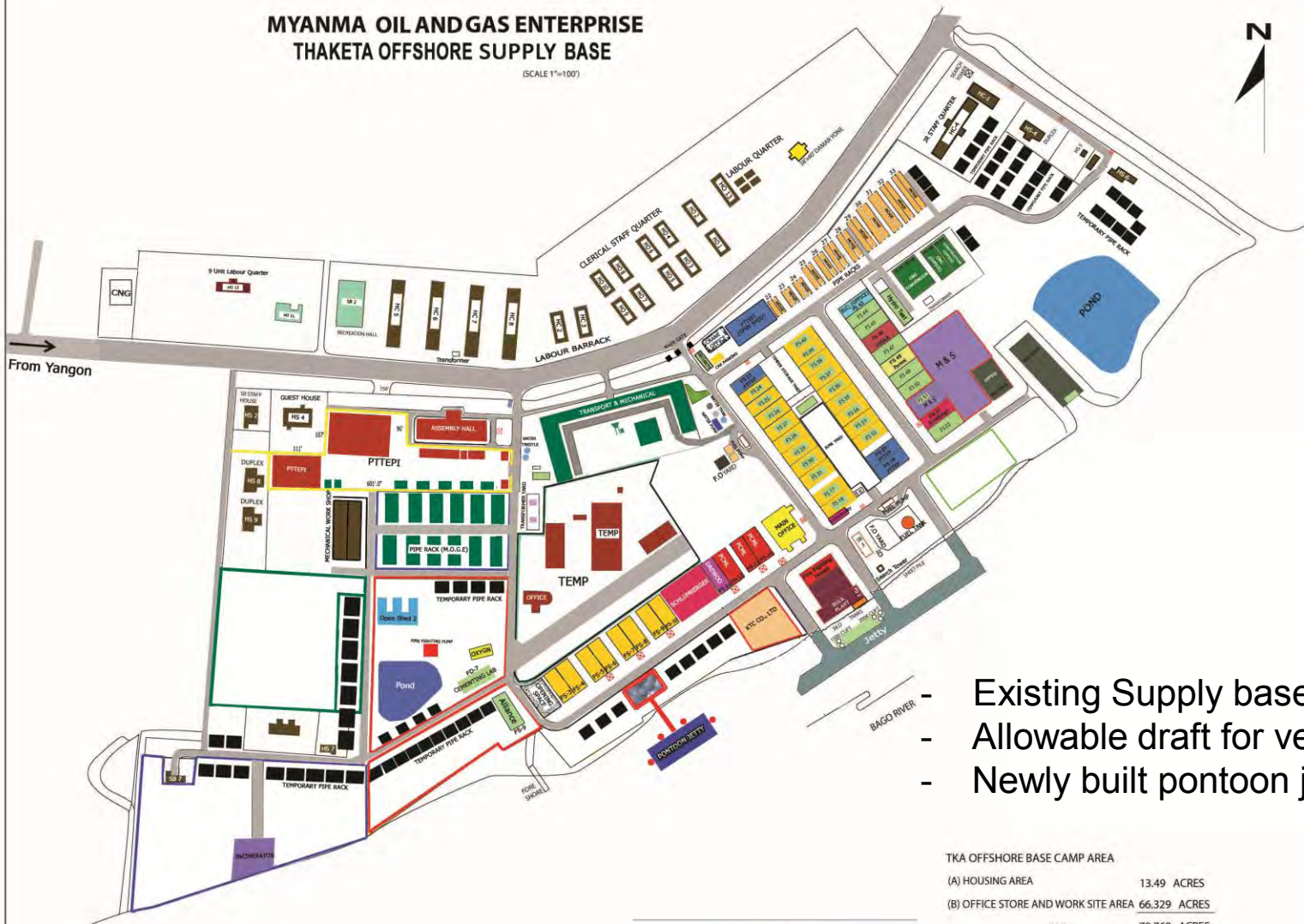
- Tharkayta OSB in Yangon
- Kanbauk OSB in Dawei
- Kyauk Phyu OSB

**NEW OSB(s)
Needed!**

Offshore Supply Base in Yangon

MYANMA OIL AND GAS ENTERPRISE THAKETA OFFSHORE SUPPLY BASE

(SCALE 1"=100')



- Existing Supply base Near Yangon
- Allowable draft for vessel 5m
- Newly built pontoon jetty

TKA OFFSHORE BASE CAMP AREA

(A) HOUSING AREA	13.49 ACRES
(B) OFFICE STORE AND WORK SITE AREA	66.329 ACRES
TOTAL	78.768 ACRES

Investment Opportunities

- Public Investment
- 100% Investment under Build, Operate and Transfer basic by Foreign and/or Local Investors.
- Joint-Venture between MPA and Foreign and/or local Investors.
- Grant aids or soft loan financed by international financial institute.

Conclusion

- For Myanmar offshore and onshore oil and gas industry, a remaining question is about the ports for servicing the industry.
- The country's existing ports are too small and shallow for most modern needs.
- The deep sea port development projects together with the special economic zones (SEZ) developments in Dawei, Kyauk Phyu, West Coast, and Maw La Myaing / Kalagauk are taking time.
- **INVESTORS for Supply Base are NEEDED URGENTLY!**
- **Myanmar Government's approval for those Supply Base Development Proposals are Strongly Encouraged!**

Thank You.

Zaw Naing

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