



# Ministry of Transport

## Infrastructure Development Projects

3-6-2015

Nay Pyi Taw

# CONTENTS

- **Introduction**
- **Air Transport Sector**
- **Maritime Transport Sector**
- **Meteorological & Hydrological Sector**
- **National Transport Master Plan**
- **Conclusion**

# Transportation Administration

## Ministry of Transport

Air and Maritime transport

## Ministry of Rail Transportation

Land and Rail transport

## Ministry of Construction

Construction and maintenance of national roads and bridges

## Urban Transport

Naypyitaw Development Committee

Yangon City Development Committee

Mandalay City Development Committee

## Ministry of Border Affairs

Construction and maintenance of roads and bridges in border areas

## Ministry of Livestock, Fisheries and Rural Development

Construction and maintenance of roads and bridges in rural areas

# ORGANIZATION CHART FOR MINISTRY OF TRANSPORT



# Air Transport Sector

—

—

# Airports in Myanmar

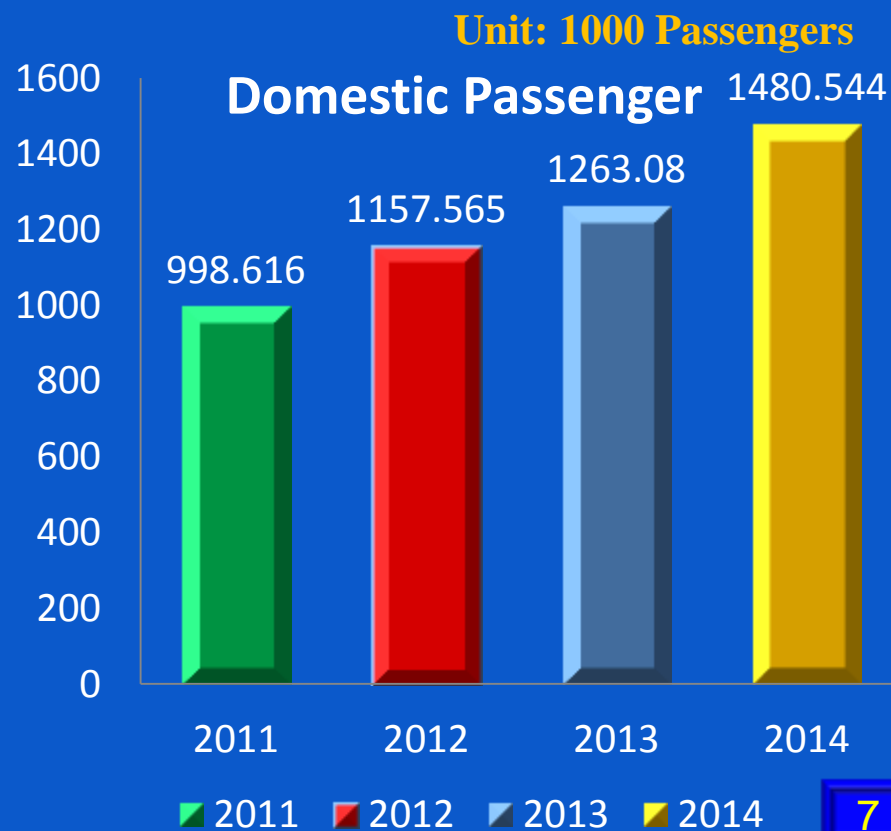
International Airports ( 3 )		
Yangon	Mandalay	Naypyitaw
Domestic Airports (30)		
Putao	Heho	Dawei
Myitkyina	Nyaung U	Myeik
Bamaw	Lashio	Kawthaung
Kalay	Magway	Boke Pyin
Khamti	Pakhokku	Mawlamyaing
Hommalin	Kyauk Tu	Pha-an
Loikaw	Ann	Anisakan
Monywa	Sittwe	Coco island
Kyaing Tong	Thandwe	
Tachileik	Kyauk Phyu	
Monghsat	Pathein	
Other Airports ( 36 )		



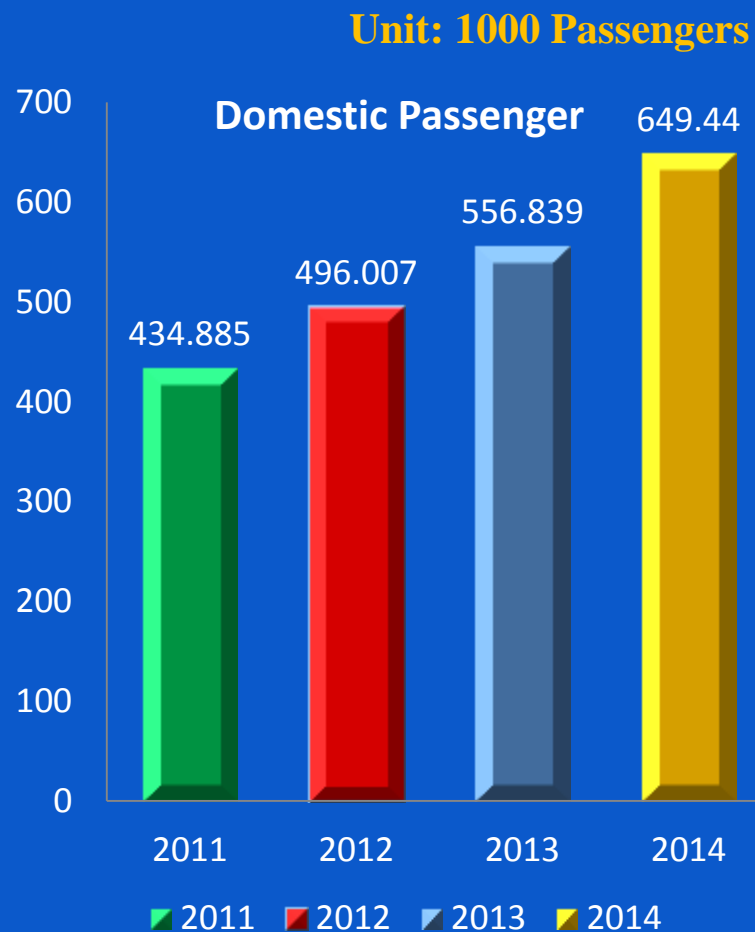
- Department of Civil Aviation announced invitations to international bids for three major airports (Yangon, Mandalay, Hanthawaddy) in 2012 to upgrade and establish the new airports by using private investment based on PPP scheme.

# Yangon International Airport

Unit: 1000 Passengers



# Mandalay International Airport





# Yangon International Airport Development Project



**Scope:** Upgrade terminal to cater 6 million pax., annually;  
Expend apron;  
Equip with air side and land side facilities.

**Investment:** USD 199.5 million

**Steps taken so far:** A 30 year concession agreement between DCA & Yangon

Aerodrome Co., Ltd/PAS consortium, successful tenderer, was signed on 6 Jan 2015.  
*(Development + Management + Operation)*

**Next step:** All assets will be handed over by 6 Jul 2015.

**Development project:** Should be completed by the end of 2015.

# Development Project at Mandalay International Airport

**Scope:** Upgrade the airport to be an aviation & logistic hub in the region.

**Investment:** **USD 13.5 million**

**Steps taken so far:**

A **30 year concession agreement**

between DCA & MC-JALUX Airport Services/Mitsubishi-Jaulx-SPA consortium, successful tenderer, was signed on **16 Nov 2014**. (*Development + Management + Operation*)

**Next step:** All assets will be handed over by **1 Apr 2015**.

**Projected cargo handling capacity:**

**Phase 1 - 4,000 tons.**

**Phase 2 - 8,000 tons.**

**Phase 3 - 12,000 tons.**



# New Project-Hanthawaddy International Airport

**Scope:** Build a new international airport that will be the major gateway to Myanmar.

**Investment:** **USD 1.4 billion estimated.**

**Steps taken so far:** Yongnam-CAI-JGC consortium has been selected, as successful tenderer, on **10 Oct 2014.**

**Next steps:** A **concession agreement** is being finalized.  
ODA should be acquired.

**Projected handling capacity:** **12 million annual pax.**

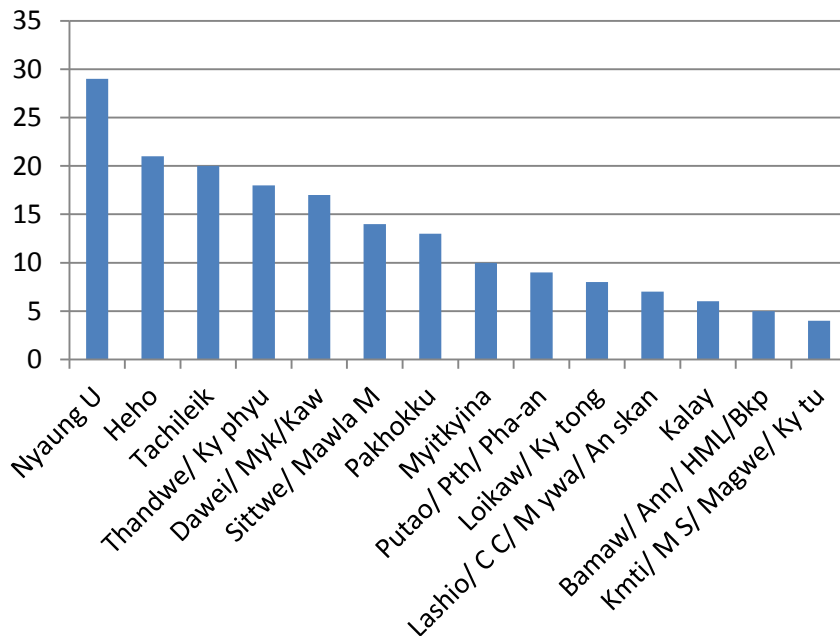


# Plan for Private Sector Participation in the Domestic Airports

## Request for Registration of Interest (ROI)

- ✓ Invitation ROI for 30 Domestic Airports ( from 1 to 31 January 2014)
- ✓ Received 46 Firms
- ✓ Tender will be carried out phase by phase

## Registered Firms in terms of Airport



■ No. of Registered Firms



# Maritime Transport Sector

# International Wharves

## International wharves

Yangon Port - 23 wharves

Thilawa Port - 9 wharves

**Total - 32 wharves**

**Inland Container Depot- 3 ICD**

## Ownership Ratio (Quay length)



■ Private (80 %) ■ Public (20 %)



# General Cargo Throughput in Yangon Port

(M . T in Thousand)

No	Year	Import	Export	Total
1	2004-2005	5,208	4,773	9,981
2	2005-2006	5,514	4,725	10,239
3	2006-2007	5,623	5,332	10,955
4	2007-2008	6,240	5,619	11,859
5	2008-2009	6,150	6,166	12,316
6	2009-2010	9,492	6,655	16,147
7	2010-2011	12,307	6,131	18,438
8	2011-2012	14,461	7,261	21,722
9	2012-2013	17,540	6,628	24,168
10	2013-2014	16,967	7,266	24,233
11	2014-2015	18,464	6,395	24,859

# Container Handling in Yangon Port

(M . T in Thousand)

No	Year	Import(TEU)	Export (TEU)	Total (TEU)	Total Tonnage
1	2004-2005	78.223	77.361	155.584	2,664.521
2	2005-2006	86.130	85.775	171.905	2606.160
3	2006-2007	99.942	97.337	197.279	3148.045
4	2007-2008	115.267	111.236	226.503	3462.489
5	2008-2009	133.712	130.294	264.006	3937.131
6	2009-2010	152.077	151.333	303.410	4372.025
7	2010-2011	175.315	171.327	346.642	4571.902
8	2011-2012	207.540	200.503	408.043	5594.589
9	2012-2013	238.837	239.126	477.963	6189.673
10	2013-2014	310.822	306.347	617.169	7636.202
11	2014-2015	369.625	367.811	737.436	9078.747



# Number of Vessels Calling to Yangon Port

No	Year	MPA	MIT	AWP	MIP	MIP	MOGE	MPE	HOB	HPT	LPM	AIP	Total
1	2004-2005	378	119	162	27	64	96	210	31	-	-		1087
2	2005-2006	366	113	192	25	98	96	173	39	-	-		1102
3	2006-2007	369	127	233	29	91	84	168	52	-	-		1153
4	2007-2008	441	163	267	29	68	124	173	28	-	-		1293
5	2008-2009	406	172	324	32	84	120	150	1	-	-		1289
6	2009-2010	654	214	380	43	93	108	106	-	-	-		1598
7	2010-2011	656	267	373	48	139	73	88	31	-	100		1775
8	2011-2012	639	245	354	38	137	74	112	89	11	137		1836
	2012-												

# Future Port Development at Yangon Inner Harbour Area



# New Inland Ports Projects

## Ayeyarwaddy River

- Sinkham Port
- Mandalay Port
- Pokokku Port
- Magway Port

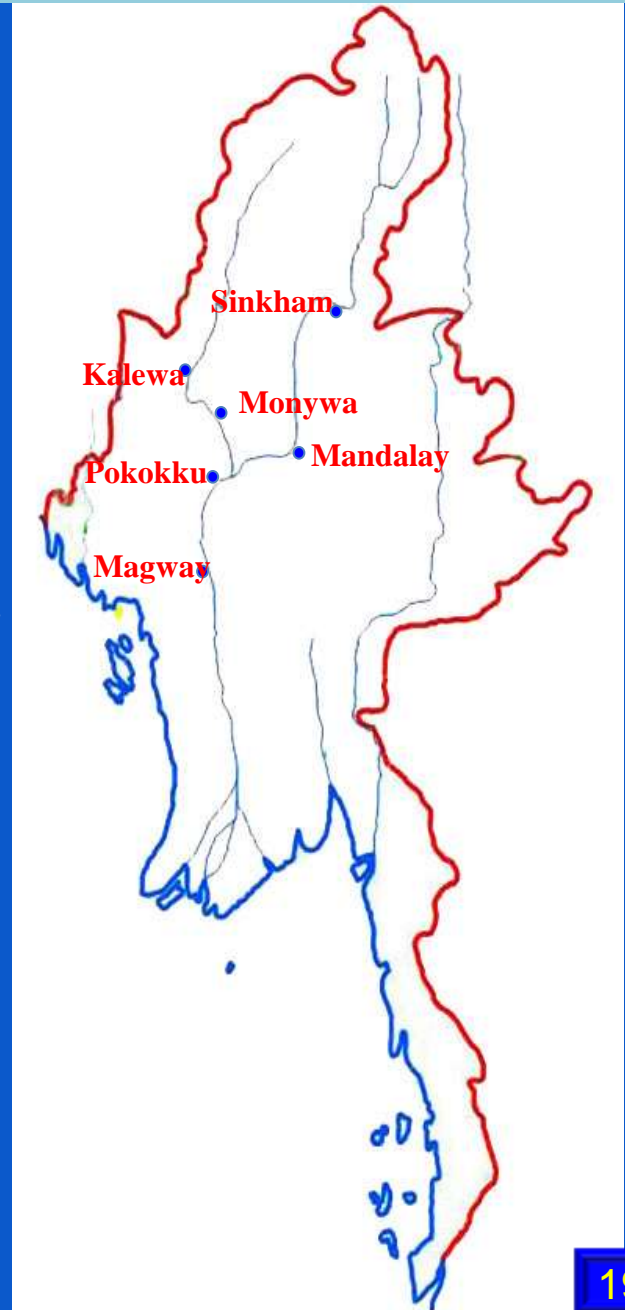
## Chindwin river

- Monywa Port
- Kalewa Port

### ➤ Benefits -Facilitation and efficient transportation

- Developing new inland ports
- Developing SEZ and industrial zones
- Getting more revenue
- Creating employment opportunities
- Developing foreign investment

### ➤ Costs -US\$ 60 millions.



# Ayeyarwaddy Integrated River Basin Management Project

- ❖ Funded by the World Bank Group ( 100 million US\$, Loan)
- ❖ Implementing Agency is DWIR, MOT.
- ❖ Project design includes three investment components-
  - ❑ Water Resources Institutions, Information and Capacity Building
  - ❑ Hydromet Observation and Information Systems Modernization
  - ❑ Ayeyarwaddy river Navigation Enhancements
- ❖ Master plan for Ayeyarwady River Channel Improvement and Investment plan for the river basin will explore.
- ❖ Projects explored by the Investment plan for river basin are exceeded the opportunity with PPP.

# Challenges in IWT



Old vessels - low speed



Old dockyard & facilities



Shallow depth of navigable waterways



Insufficient navigational marks on ashore & afloat



High cost of fuel

- ▶ New and modern high speed passenger vessels and container vessels to be procured
- ▶ Insufficient budget to invest, Looking for financial assistance.

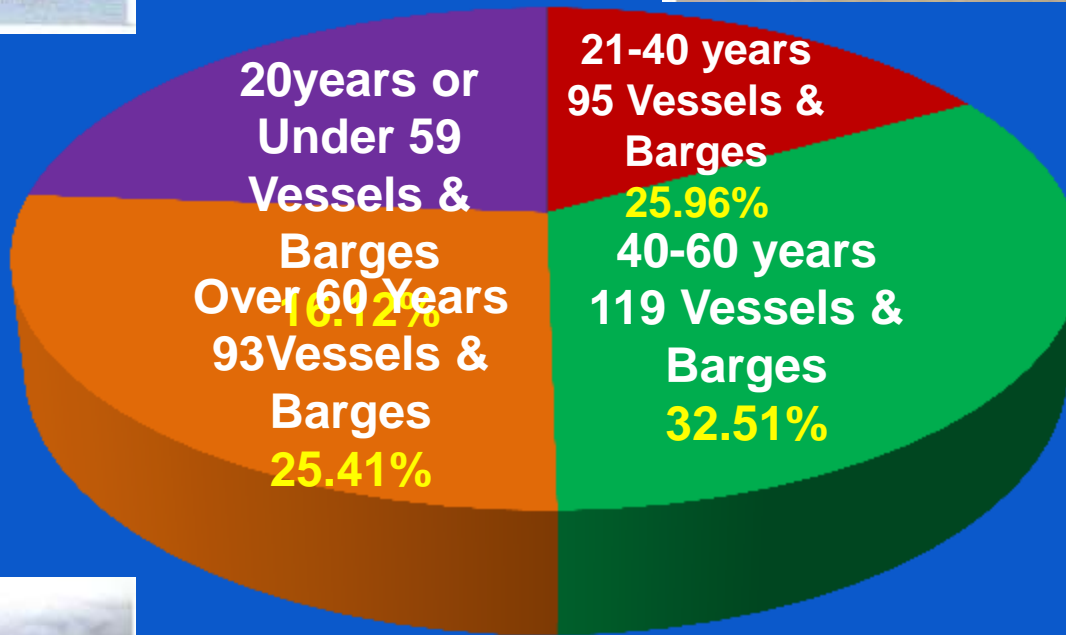
# Challenges in IWT



- Barge (Built in 1957)



- Ferry Built in 1955. Provided by Japan.



Ages of Vessels



- Pusher Tug (Built in 1956) constructed in England



- Ferry (Built in 1945). This ship will be replaced in Nov:2014 by Japanese Grand Aid)

# Meteorological and Hydrological Sector

\_\_\_\_\_

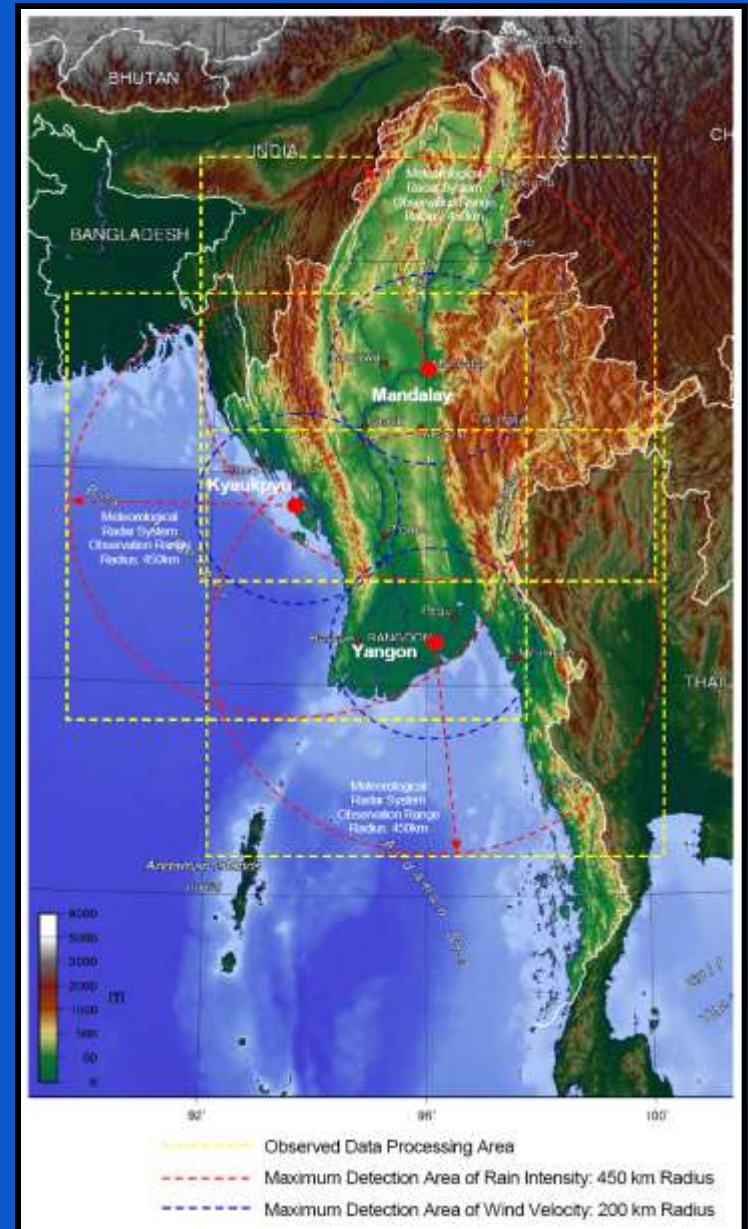
\_\_\_\_\_

# Ongoing Activities for Risk Mitigation



**(3) Radars  
are started to install and operate In  
Myanmar with Japan's Grant Aid  
Program.**

- Map of Radar Monitoring (3) stations





# Ongoing Activities for Risk Mitigation

## Map of (AWOS) Network (30)stations

*Installation of (30) Automatic Weather Observation System (AWOS) is ongoing for severe weather warning generation in timely manner.*



# Development of Meteorological Infrastructure

## Meteorology Process

### Observation & Detection

- Total 124 observatories
- Focus on Surface observation
- 1 upper air station

- Increase number of observatory
- Increase AWOS system
- Increase upper-air observatory
- Increase Radar System

### Communication & Collection

- Manned operation
- Only Telephone, SSB(AM)

- Install data network (Internet, Dedicated line, etc)

### Analysis & Forecast

- Based on MTSAT information
- Use SATAID software
- NWP products

- Calibration of weather information by multi-sourced observation as surface, upper-air, satellite, etc.
- Enhance the NWP products

### Dissemination & Broadcasting

- Local FM Radio station
- Televisions, Newspapers, etc.

- Mobile phone for early warning
- Siren system for evacuation

## Current Status

## Future

## Requirements

- Financial and Technical Assistance for the implementation of projects

# Development of Hydrological Infrastructure

## Hydrology Process

### Observation & Detection

- Total 39 observatories
- No real-time flood monitoring

- Increase number of observatory
- Install telemetry and CCTV for real time flood monitoring

### Transmission & Collection

- Manned operation
- Only Telephone, SSB(AM)

- Install data network (Internet, Dedicated line, etc)

### Analysis & Forecast

- Based on Empirical model
- Use IFAS software

- Calibration of flood information by multi-sourced observation as telemetry, radar, satellite, etc.
- Install the advanced Flood Forecasting Software

### Dissemination & Broadcasting

- Local FM Radio station
- Televisions, Newspapers, etc.

- Mobile phone for early warning
- Siren system for evacuation

## Requirements

- Financial and Technical Assistance for the implementation of projects

# Formulation of Master Plan with the assistance of JICA



- ❖ The processes for the formulation of Master Plan started in December, 2012.



- ❖ The necessary cooperations and coordinations for the Master Plan are being conducted by MOT.



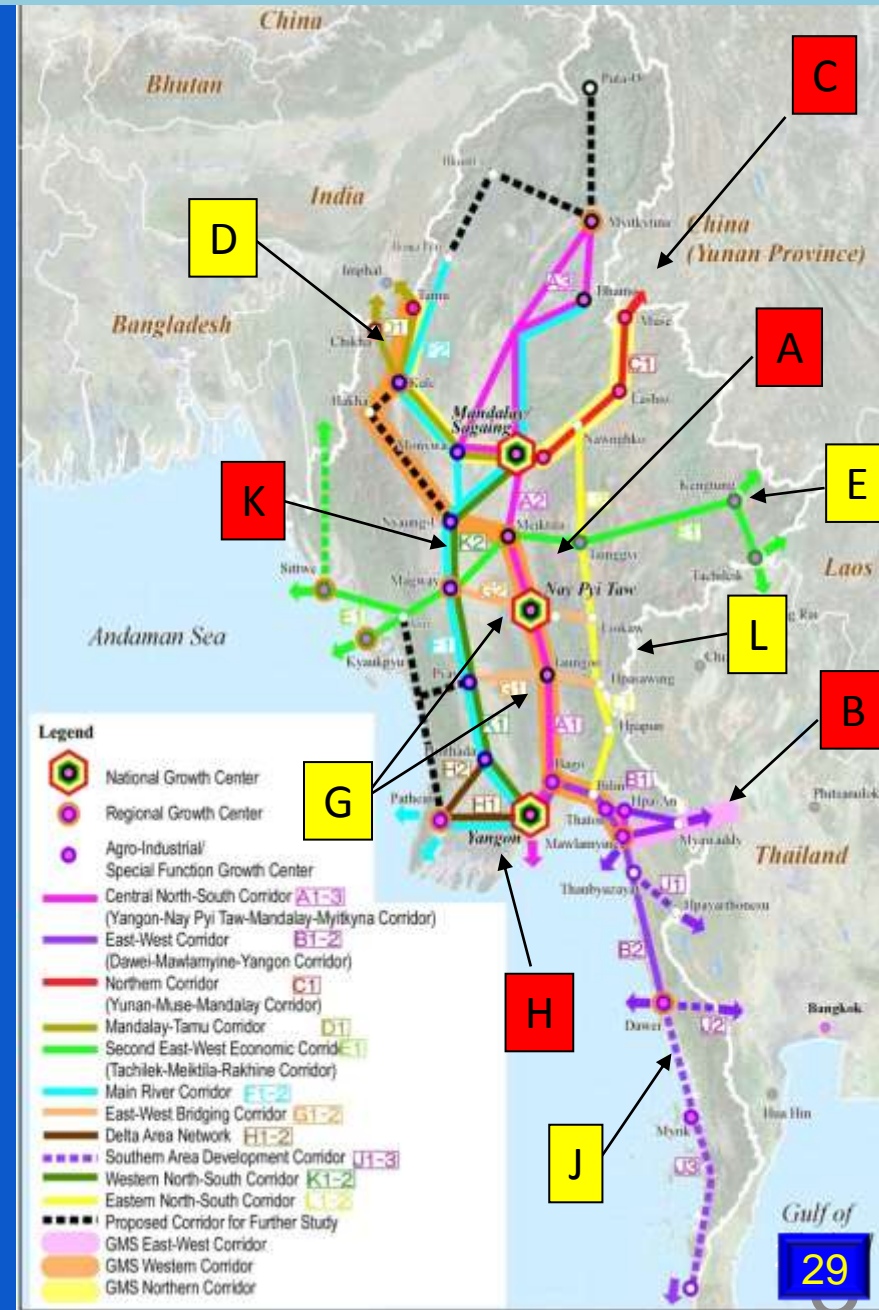
- ❖ Now, actions are being taken to get the approval.



# Corridor-based Development Approach

## 10 Major Corridors

- A** Central North-South Corridor
- B** East - West Corridor
- C** Northern Corridor
- D Mandalay - Tamu Corridor
- E Second East - West Corridor
- G East - West Bridging Corridor
- H** Delta Area Network
- J Southern Area Development Corridor
- K** Western North-South Corridor
- L Eastern North - South Corridor
- Priority corridors for urgent investment**



# Proposed Projects

● Road Sector	( 48 Projects)
● Rail Sector	( 14 Projects)
● Maritime Sector	( 15 Projects)
● Inland Water Transport Sector	( 33 Projects)
● Air Sector	( 32 Projects)
	<hr/>
<b>Total</b>	<b>(142 Projects)</b>

# Conclusion

- Due to Political and Economic Reform, passenger traffic and freight volume increased rapidly, thus, Transport Infrastructures will be needed to develop to meet ever increasing traffic demand.
- Financing is a key constraint for the development and it still needs to seek the possible ways to overcome.
- Currently, Priority Projects / Required Infrastructures will be developed with -
  - ❖ Private (Local and Foreign) Investment,
  - ❖ Loans and Grants of Friendship Countries/ International Financial Institution,
  - ❖ State Budget.

**Thank You**

Thank You