



Transport Infrastructure Development in Myanmar



Presented by

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Ministry of Consturction

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Overview of Myanmar



Population

- 52.45 M (2015~16) projected

Area

- 676578 km²
 - 936 km (East – West)
 - 2051 km (North – South)

Road Length

- 140910 km (Mar 2015)

Number of registered vehicles

- 6126289 (Dec 2016)

Neighboring Countries

- Bangladesh, India, China, Lao, Thailand

GDP

- 72780464.5 Million Kyats (March 2016)

GDP Growth

- 7.3% (March 2016)

Per Capita GDP

- 6.4% (March 2016)

CITY PROFILE

YANGON



Area	~	600 sq-km
Population	~	7.0 million (2010)
Growth Rate	-	1.69 % (2010)

MANDALAY



Area	~	120 sq-km
Population	~	1.0 million (2010)

NAY PYI TAW



Area	~	7,057 sq-km
Population	~	1 million

Cities & Towns (Population more than 100,000) - **56** no.



Transport Administration

Ministry of Transport and Communication
Aviation and Maritime transport, Rail
Transport, Land Transport

Ministry of Construction
Construction and maintenance of national roads and bridges;
Rural Road (New set up)

Urban Transport

Naypyitaw Development Committee

Yangon City Development Committee

Mandalay City Development Committee

The Ministry of Border Affairs
for construction and maintenance of
roads and bridges in border areas



Government Policy

Set up Priority Policy

- Develop Transport Infrastructure and Electrical Power





Ministry of Construction

UNION MINISTER
Deputy Minister
PERMANENT SECRETARY

DIRECTOR GENERALS for

Department
of
Building

Department
of
Highways

Department
of Bridge

Urban and
Housing
Development

Department of
Rural Road
Development

MOC Vision

- To meet the international standard of Highway
- To develop the highway linked with international connectivity

MOC Engineering will have technology to meet international standard

Myanmar's Road Performance

Motor Vehicles/1000 peoples	79
Road(km)/100,000 people	308
Road Density (km, km ²)	23
Road (km)/1000 vehicles	34
Pave Road(%)	20%
Pave Road (km)/100,000 peoples	67
Pave Road (km)/100km ²	5
Pave Road(km)/1000 vehicles	7.4

(Sources from ADB)



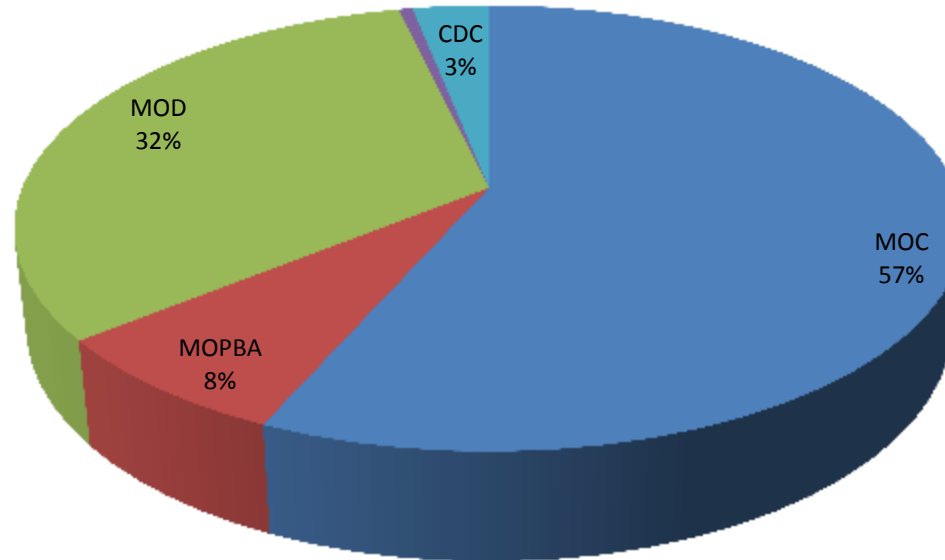
Road Network

Total Road Length in Myanmar (as March 2015) [in km]

No	Organization	Concrete Length	Bitumen	Metal	Gravel	Earth	Mule	Total
1	Ministry of Construction							
	Highways	784.43	13980.43	1501.68	2146.4	1934.28	-	20347.28
	Others	432.70	9008.76	2812.05	2817.48	4895.39	259.70	20226.08
		1217.13	22989.25	4313.73	4963.88	6829.67	259.70	40573.36
2	Ministry of Progress of Border Areas	-	893.36	5782.30	-	8167.12	-	14842.78
3	Ministry of Construction (DRRD)	705.68	3025.89	11806.63	-	50062.91	-	65601.11
4	Ministry of Defense	393.47	703.97	1340.95	170.59	8722.31	-	11330.29
5	Ministry of Electricity & Energy	92.34	88.50	542.13	97.97	303.15	-	1124.10
	City Development Committees							
6	Yangon	1916.27	1440.52	-	-	1121.48	-	4478.27
7	Mandalay	39.14	753.67	121.74	-	237.4	-	1151.95
8	Naypyitaw	770.83	204.93	98.41	556.69	176.47	-	1807.33
	Grand Total	5134.86	30100.10	24005.89	5789.13	75620.51	259.7	140910.19



Total Road Length in Myanmar (as March 2015) [in km]



MOC = Ministry of Construction

MOD = Ministry of Defense

MOPBA = Ministry of Progress of Border Areas

CDC = City Development Committees
(YCDC, MCDC, NCDC)

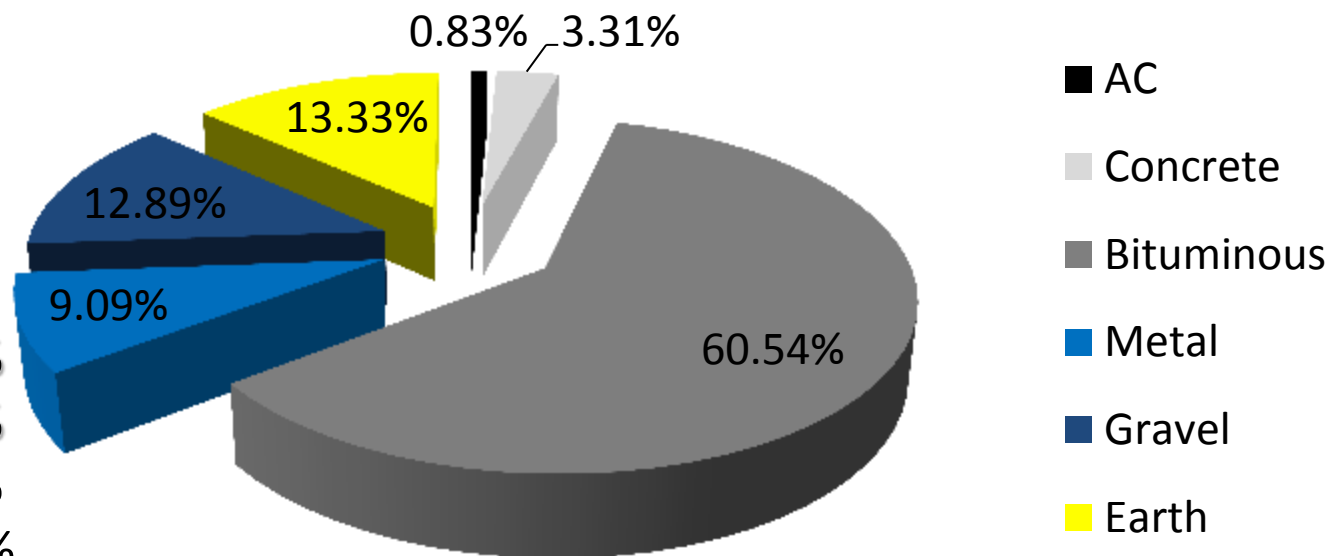


Road Data in States and Regions under MoC (as of March 2016)

Unit (Kilometer)

No	Region/ State	AC	Concrete	Bitumen			Metal	Gravel	Earth	Total
				Up to 12'	Up to 22'	Over 24'				
	Grand Total	343.595	1362.512	14014.269	7428.531	3473.065	3741.421	5304.500	5486.255	41154.147

Types of Road under MoC



2013 - Paved Ratio : 47.8 %

2014 - Paved Ratio : 53.2 %

2015 - Paved Ratio : 60.0 %

2016 – Paved Ratio 64.28%

Here Paved refers only to AC, Concrete and Bituminous only



*International
Connectivity*



Asian Highways in Myanmar

- AH1 1,650km
(Myawadi-Yangon-Mandalay-Tamu)
- AH2 807km
(Tachilek-Meiktila-Tamu)
- AH3 93km
(Mongla-Kyaing Tong)
- AH14 453km
(Muse-Mandalay)
- Total 3,003km


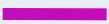


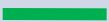
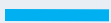



**Asian Highway Route Map
in Myanmar**

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.



ASEAN Highways in Myanmar

S.N	Route names	Length (Km)	Directly Connect to
1	AH 1 	1650	India , Thailand
2	AH 2 	807	Lao
3	AH 3 	93	China
4	AH 14 	453	China, Lao
5	AH 111 	239	AH-2 to AH -14, China, Lao
6	AH 112 	1145	Thailand
7	AH 123 	141	Thailand
	Total	4513	





GMS East West Economic Corridor



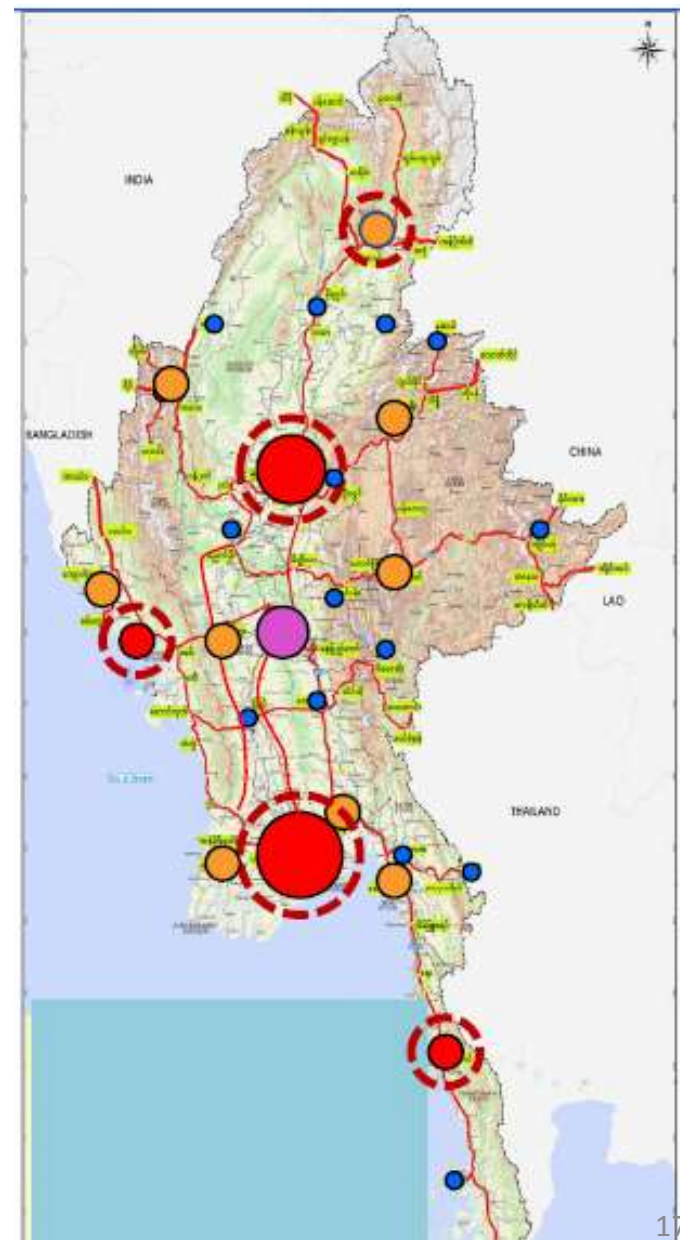


GMS Northern Economic Corridor





- Capital City
(Administrative, Transport & Logistic Hub)
- National Economic Growth Center
(SEZ, Port, Int'l Airport, Trading, Financial)
- Secondary Regional Growth Center
(Administrative, Transport & Logistic Hub)
- Other Growth Center
(Town with more than 50,000 inhabitants)





Road Network

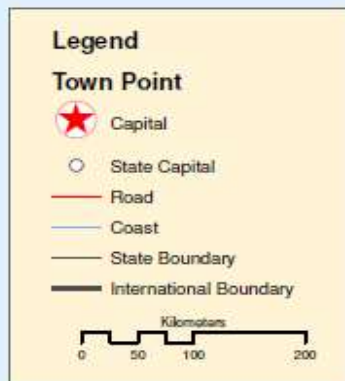
Seaports in Myanmar

- Sittwe (Deep Seaport, 20,000dwt)
- Kyaukphyu (Deep Seaport, 300,000dwt)
- Patheingyi
- Yangon
- Thilawa
- Mawlamyine
- Dawei (Deep Seaport, 50,000 dwt)

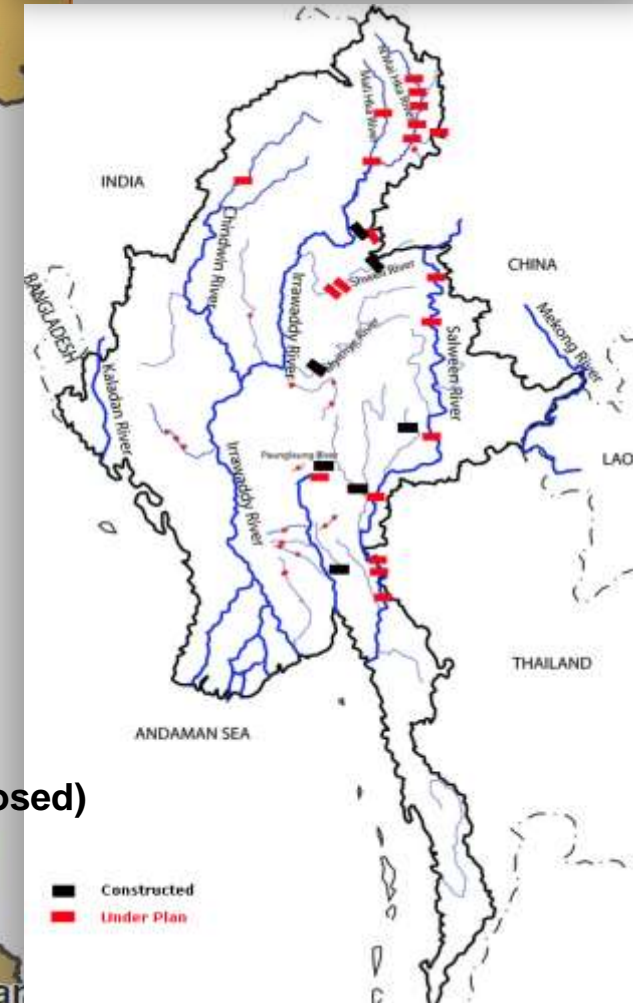
Kyaukphyu
Deep seaport
(proposed)

Ngayokekaung
Deep seaport
(Proposed)

Dawei Deep Seaport(Proposed)



Major Rivers in Myanmar



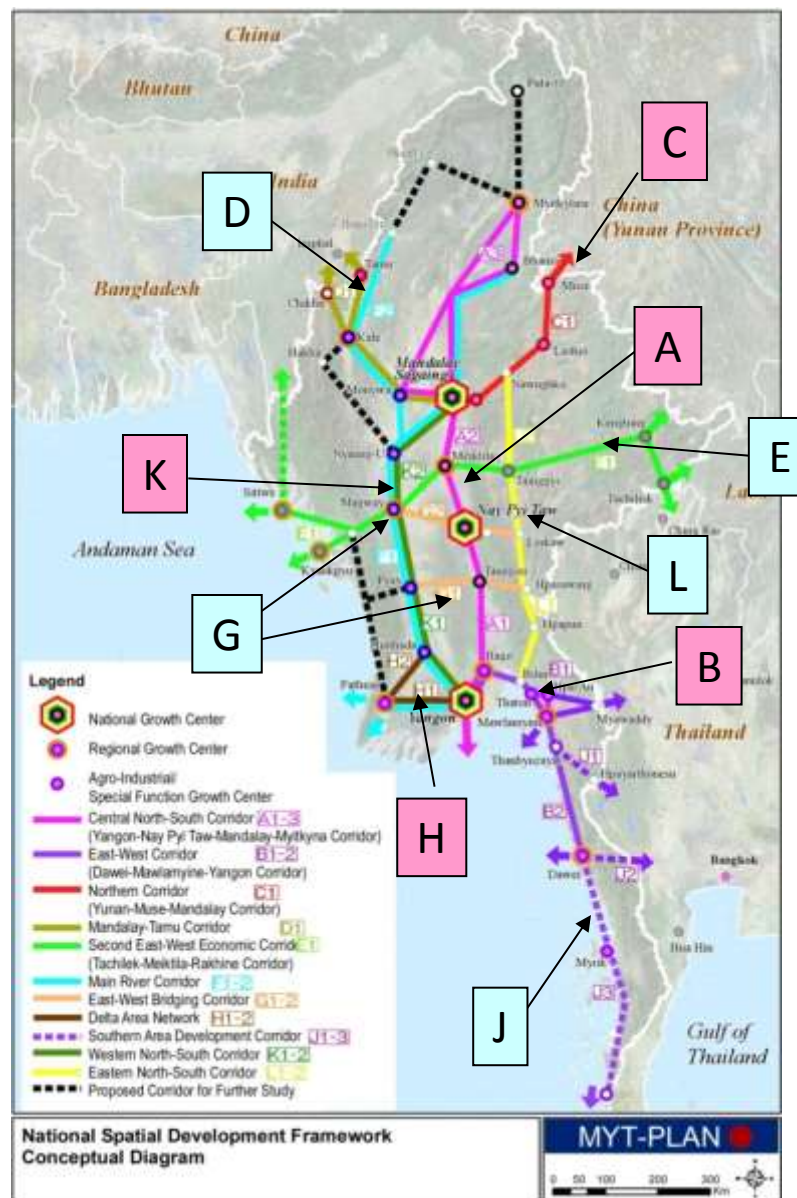


10 Major Corridors

- 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





Arterial Road Network Development

Current



Center to Center
Connection

Multimodal Transport
Connectivity

International Linkage

Hierarchical Road
Network Development

Topographical
Consideration

Road Class	Length
Expressway	9,470km
Main Arterial	13,224km
Sub Arterial	11,684km
Total	34,378km

Proposal



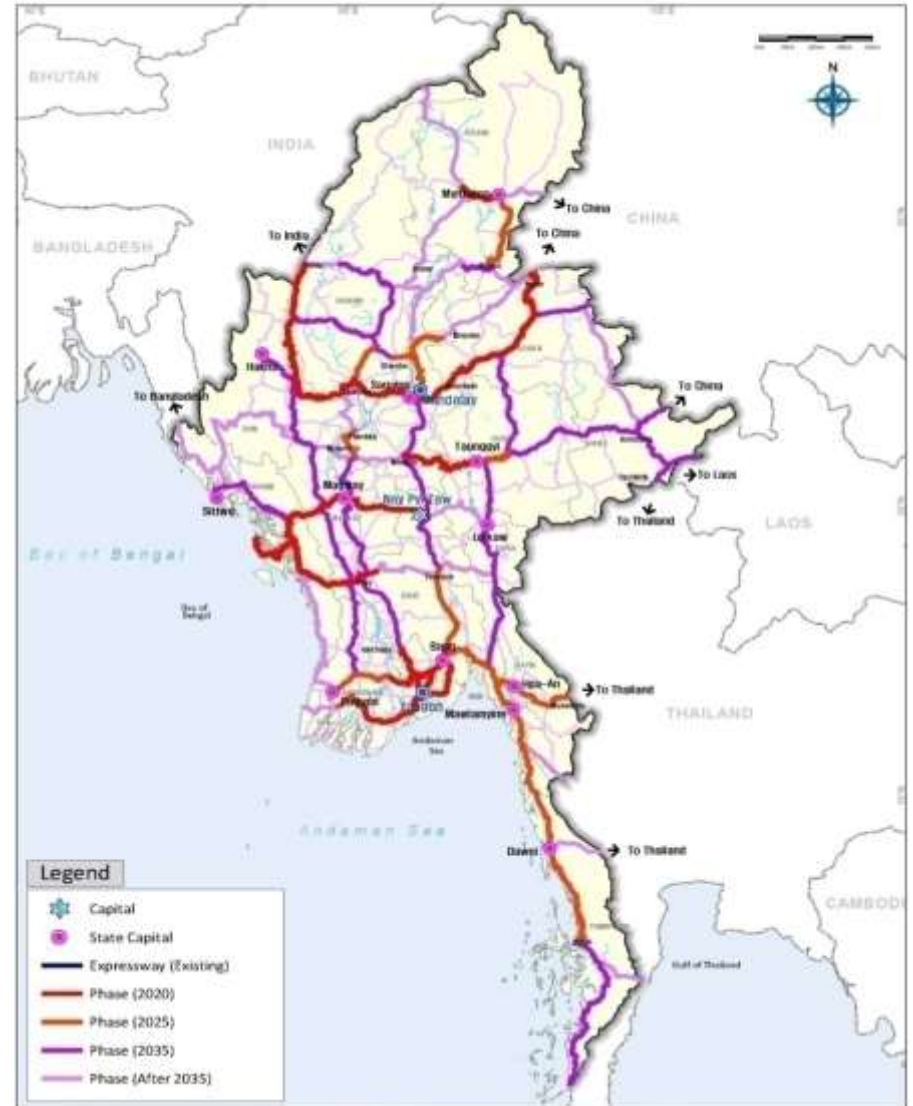


Phased Development

Expressway



Arterial Road





Road Infrastructure Project Financing Strategy

- **Government Budget**
- **International Loan/Grant**
- **PPP Scheme (Public Private Partnership)**
- **PFI Scheme (Private Finance Initiative)**
- **BOT Scheme**
- **FDI (Foreign Direct Investment)**
- **Road User Tax (Still preparing)**

Build – Operate – Transfer (BOT) Scheme



Private Sector Participation in Road

Build – Operate – Transfer (BOT)

Partnering Bodies - Ministry of Construction and Local Private Companies Established in 1996

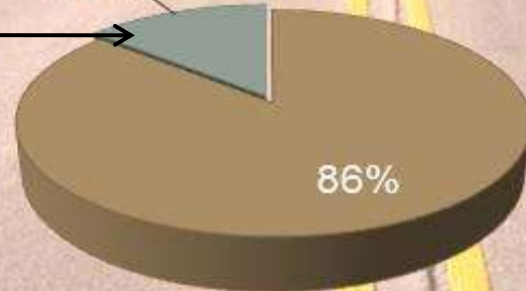
First BOT Road - Mandalay-Lashio-Muse-Nankham Road (480.2 km)

Number of local companies - 26 companies

Number of roads - 64 roads

Total length of BOT roads - 5324.41 km

14% BOT Road



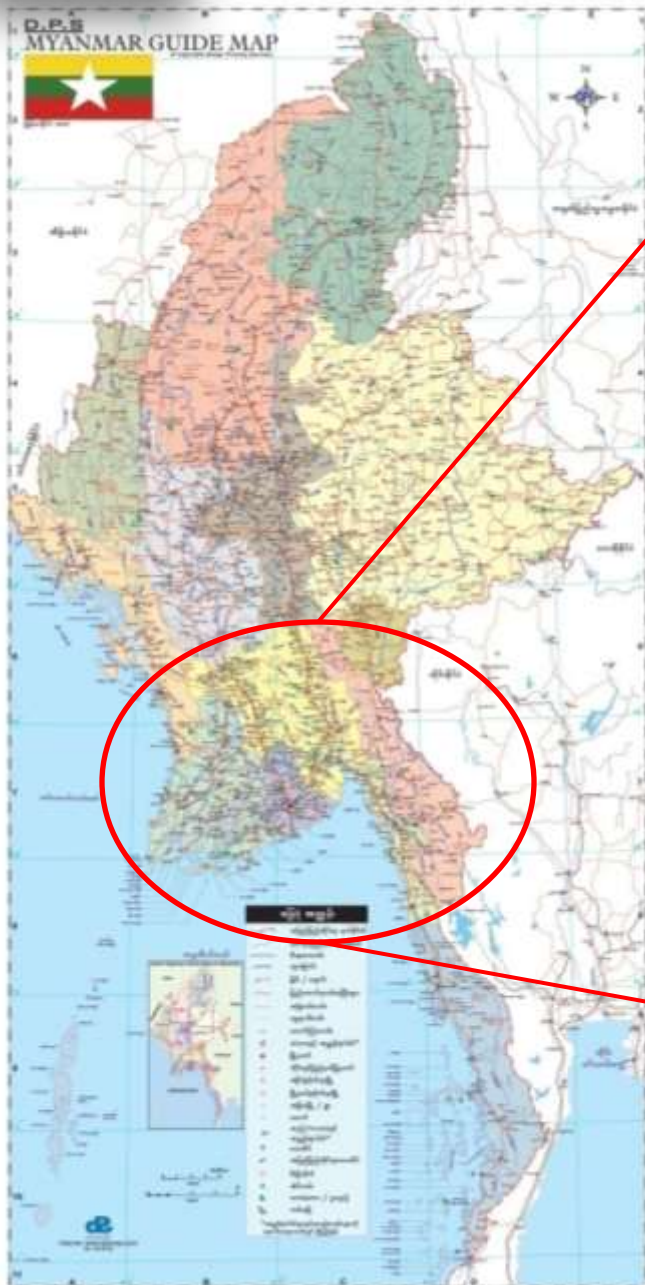
Roads managed by MoC (exclude BOT)

Future Road and Bridge Project



Project Funded by ADB

Project	Road length(km)	Esitmated Cost (Million)
Yangon-Pathein Highway	180 km	155.5 Million US \$
Bago-Thankyin (Thilawa) Highway	99 km	101.1 Million US \$
Yangon-Mandalay Expressway	64 km	105.9 Million US \$
New Bago-Kyitehto Highway Preparation	New Alignment	



Yangon-Mandalay
Expressway (64 km)

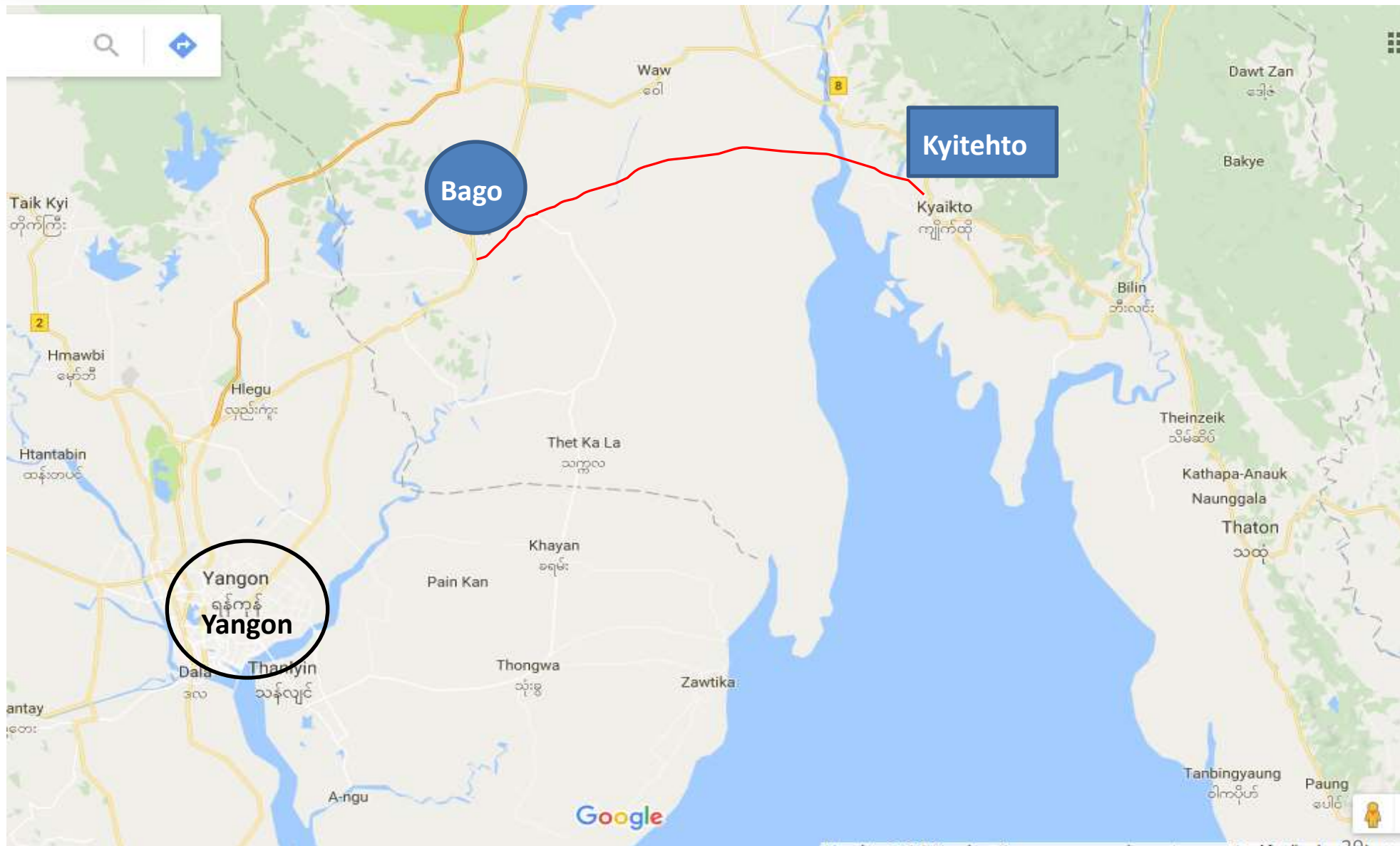


Yangon –Patheingyi Highway
(180 km)

Bago-Thanyin(Thilawa)
Highway (99 Km)



New Bago-Kytehto (New alignment)





Hanthawati Airport - Yangon (Thilawa SEZ) alignment road



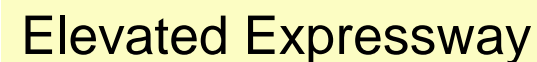
Total Length = 69.5 km

Intersection : JCT 3ea, IC 4ea

New construction : 4-6 lanes (Yangon City Section, Bago City Section)

Cost: 346.3 Million USD

(Cost source: MP for Arterial Road Network Development in Myanmar, KOICA, 2015.8)



1. Wartayar- Htan Ta Bin Bridge
2. Yangon-Thanyin no-4 Bridge
3. Yangon-Dala Bridge
4. Kyimyindaing Bridge
5. Under ground Tunnel across Yangon River



Future Bridge Projects

Chindwin Bridge
(Htamanti-Pinma)

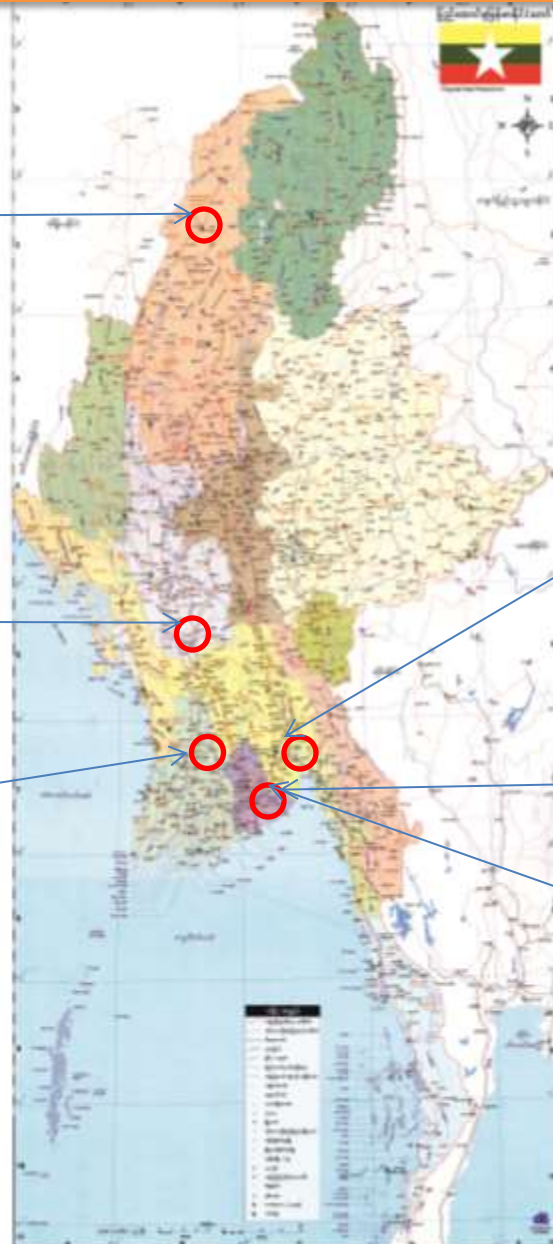
Ayarwaddy Bridge
(Hinthada-Tharawal)

Ayarwaddy Bridge
(Thayet-Aunglan)

Sittaung Bridge
(Kyaikto)

Wartayar(Yangon)
Bridge

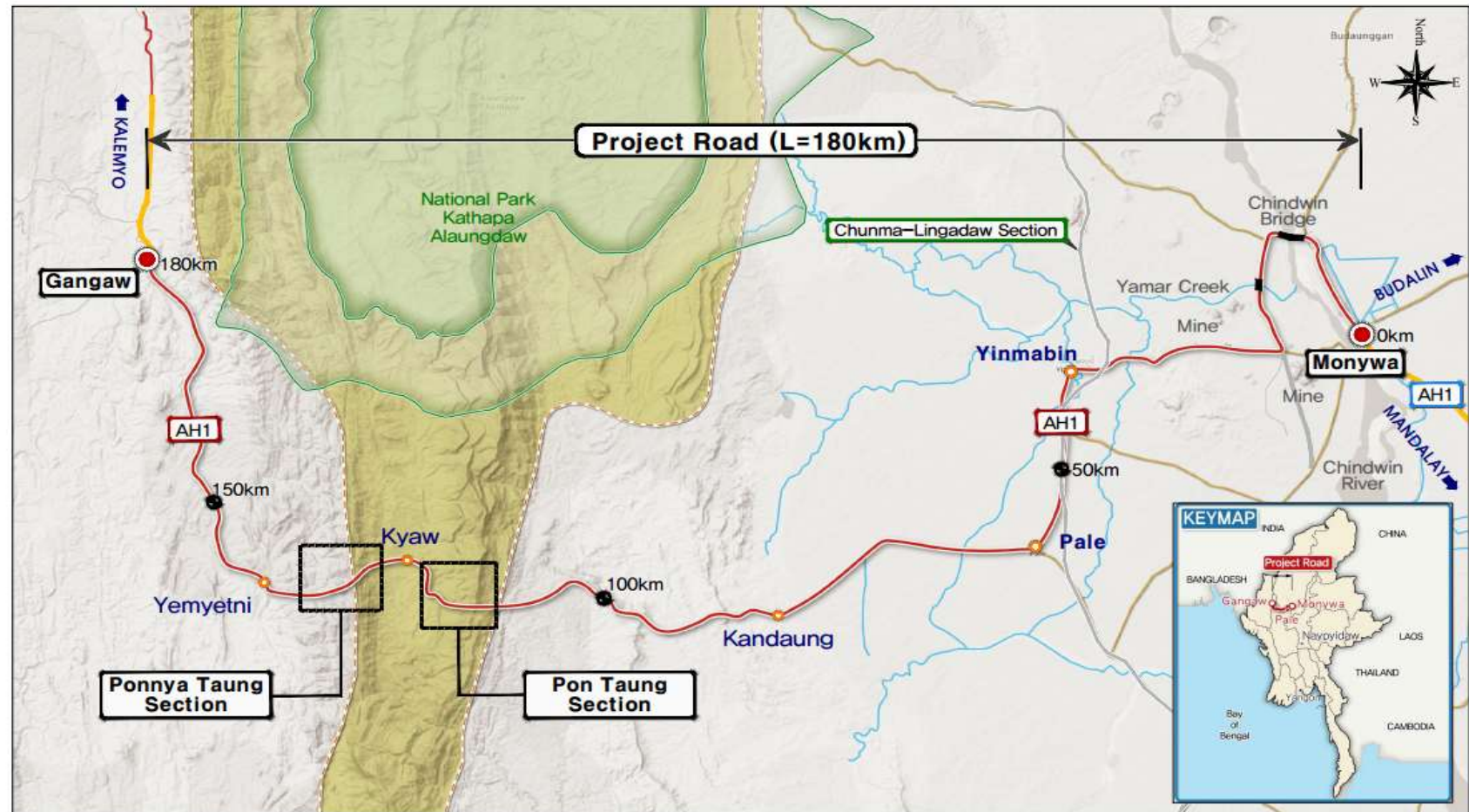
Bago(Yangon)
Bridge No-4





Pontaung –Ponnya Tunnel projects

LOCATION MAP

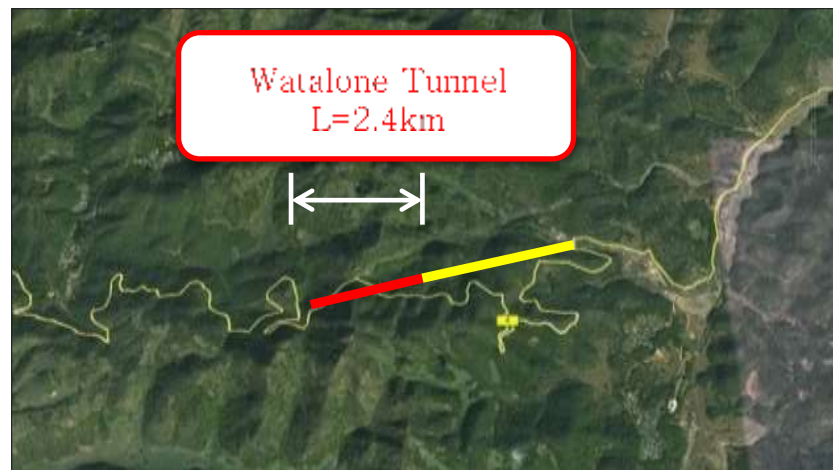
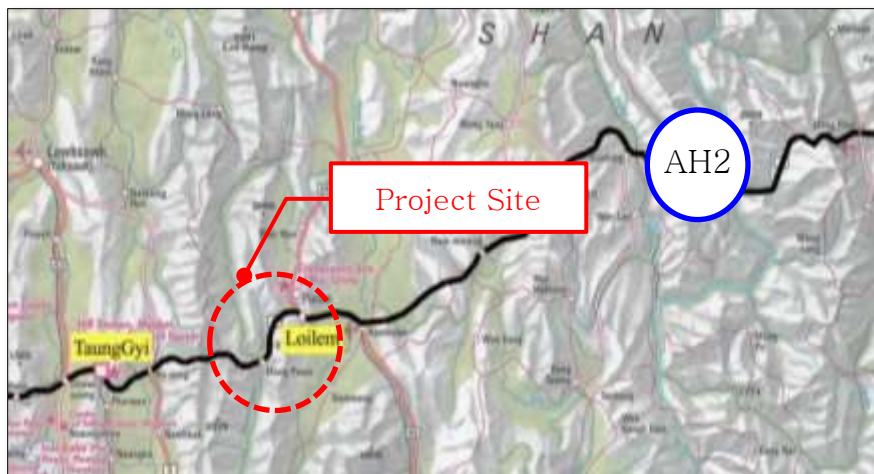




Watalone Tunnel in Shan State (Bi – Directional Tunnel)

Project Purpose

- A Feasibility study for tunnel construction of poor route road section located in mountains among comprehensive transportation environment Improvement plan which orders from Ministry of Construction(MOC).



Housing Project

National Spatial Development Framework Plan



- **Yangon and Mandalay Centers Development Concept**
- **Concentrated Decentralization and Regional Balanced Development Strategy**

National Growth Center

- **Yangon, Mandalay and Special Economic Zone (SEZs)** (Thilawa, Dawei, Kyawkpheyyu, Ngayoke Kaung)

Regional Growth Center

- **Capital and Major 7 Cities of States and Regions** (Sittwe, Patheingyi, Bago, Mawlamyine, Dawei, Monywa, Myittha)

Special Function Growth Center

- **Border Trading and SME** (Thai-Myawaddy, Tachilake, China- Muse, India-Tamu, Bangladesh – Maungdaw)
- **Tourism and Services Based Zone** (Bagan, Inlay, Coastal area)
- **Resource Based Industrial Zone** (water, mineral, agriculture, ..)

Main Corridor, Emerging Corridor, Major Communication Axis



REGIONAL CITIES - URBAN DEVELOPMENT PLAN

Vision (2040)

Livable, Green, Resilient, Connectivity, Efficient Cities



Mandalay
National
Economic Hub

Mawlamyine
Asian Gateway
City

Patheingyi
Delta Region
Development Hub

Cooperation with MOC & JICA



Railway and Transport Project



Yangon-Mandalay Railway Project

- ❖ **Project Cost** **US \$ 2584.270 Million**
 - **Japan ODA Loan** **2115.318 Million US \$**
 - **Myanmar Gov** **468.952 Million US \$**
- ❖ **Project Period** **2017-2023 (7 years)**
- ❖ **Implementation Procedure**
 - **Phase I Yangon-Taungoo (267 Km)**
 - **Phase II Taungoo-Mandalay (353 Km)**

Project Outcome

- Increase 60 km/h to 100 km/h
- To reduce travelling time





Yangon Circular Railway Project

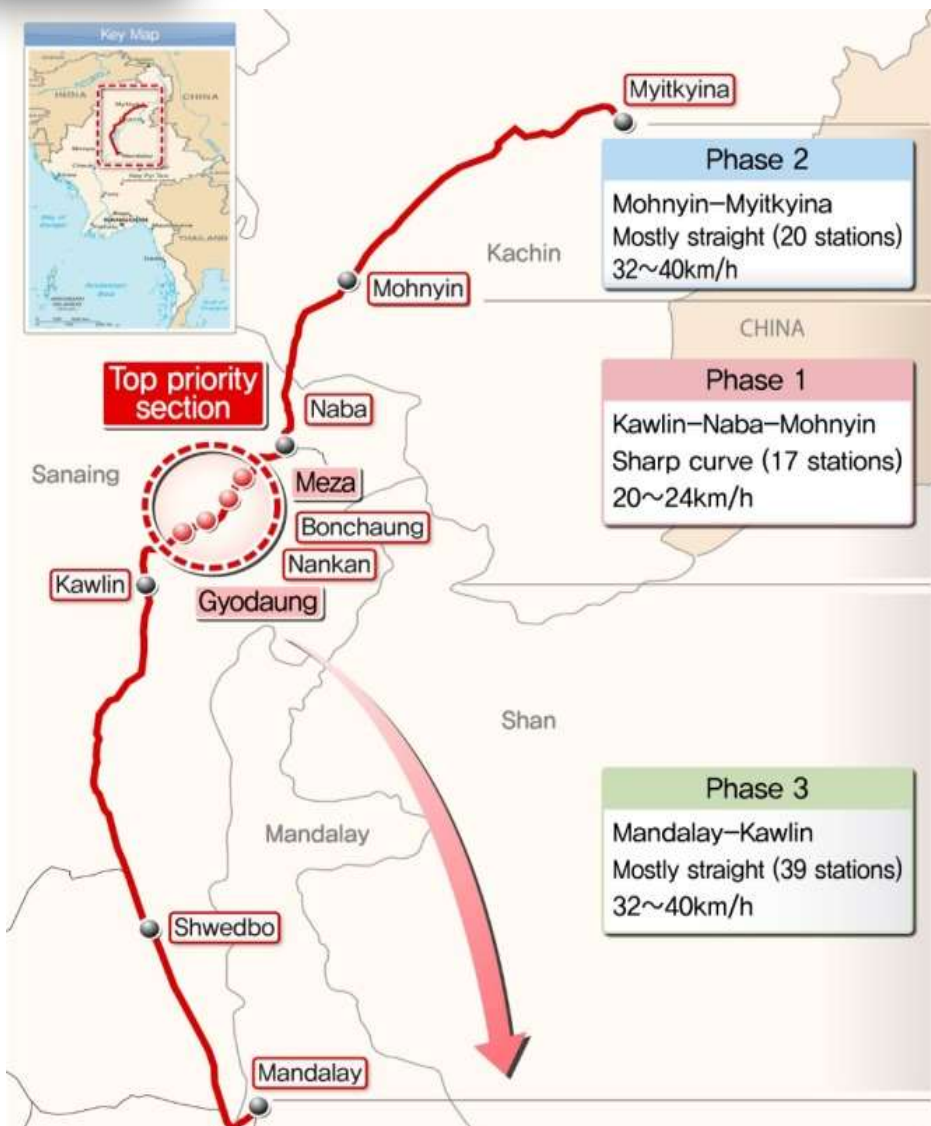
Project Cost

- Japan ODA Loan 207 Million US \$
- Myanmar Gov 54.514 Billion Kyat
- ❖ **Project Period 2017-2020 (4 years)**
- ❖ **Project Objective**
 - Upgrade Colour light signal, automatic block signalling system
 - Upgrade Automatic Gate Barrier System in level crossing

Project Outcome

- Increase 25km/h to 60 km/h
- To reduce travelling time





**Gyodaung-Meza
section**

- ❖ **Project Length** **34.9 Km**
- ❖ **Project Cost**
 - **EDCF Loan** **100 Million US \$**
 - **Myanmar Gov** **23.702 Billion Kyat**
- ❖ **Project Period** **2017-20219(3 years)**
- ❖ **Project Outcome**
 - Increase 16 km/h to 45 km/h
 - To reduce travelling time



Yangon-Pyay Railway Project

- ❖ **Project Length** **250 Km**
- ❖ **Project Cost**
 - **ADB Loan** **60 Million US \$**
- ❖ **Project Period** **2017-2021(4 years)**
- ❖ **Project Outcome**
 - Increase up to 60 km/h
 - To reduce travelling time





Inland Port Project

Ayeyarwady River

- ✚ Sinkhan
- ✚ Pakokku
- ✚ Mandalay
- ✚ Magway

● Objective

- FS (Mandalay) from JICA
- JICA Grant USD \$ (38) Million for IEE

Chindwin River

- ✚ Monywa
- ✚ Kalewa

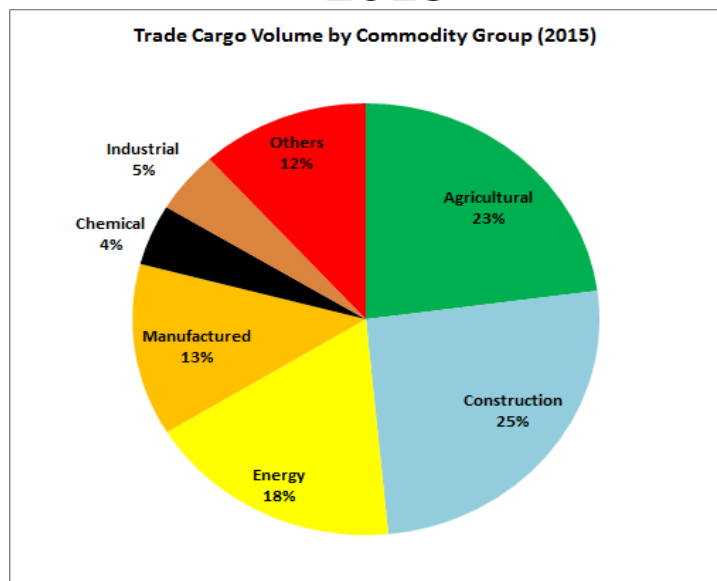




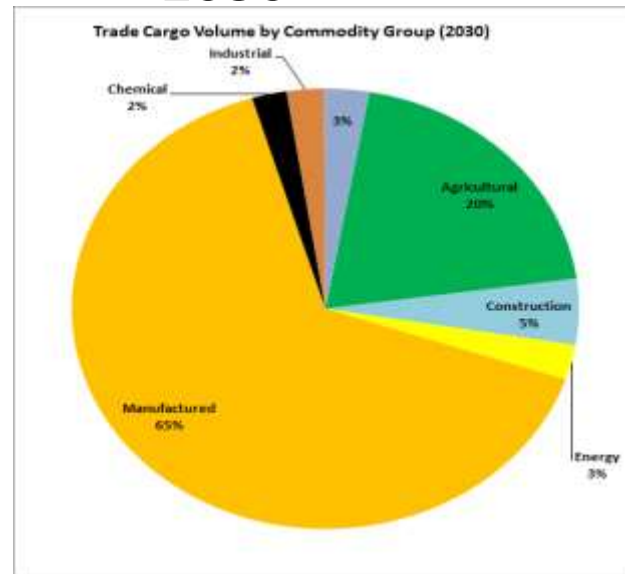
Future Trade Cargo Volume

- Current and Future Trade Cargo Volume

2015



2030



(Unit: '000 tons/year)

In 2015, (36) Million of Cargo Volume and (1) Million Container

In 2030, Myanmar expect Cargo Voulume (173) Million and (7.4) Million Container

Consumption	2015	2030
Agricultural	8,200	34,800
Construction	9,200	8,400
Energy	6,400	4,400
Manufactured	4,600	113,000
Chemical	1,600	3,800
Industrial	1,700	4,100
Others	4,200	5,000
Total Volume	35,900	173,500

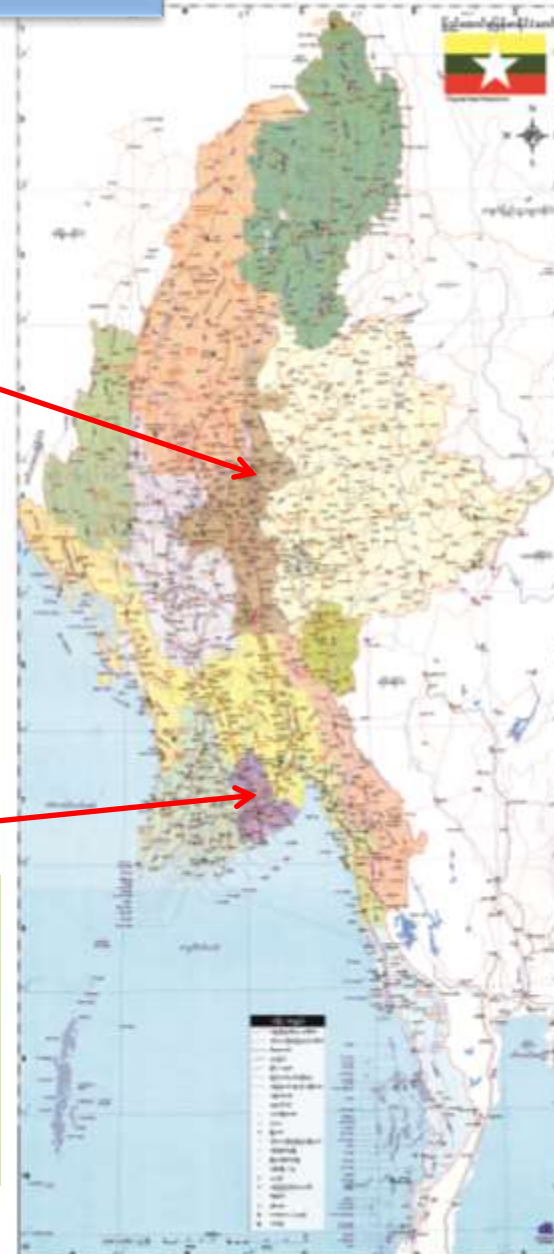


Dry Port

Mandalay,(Myitnge)

Yangon(Yortarkyi)

**During the Dry Port construction,
we will prepare to convey the cargo by
container train**





Conclusion

- ❑ Myanmar is presently in a transition towards a modern development nation, and it is the most appropriate time to adopt a people-centered development which keeps the people at the center of economic and political reforms.
- ❑ Myanmar need more transport infrastructure to develop the nationwide. So Myanmar invites the investment for infrasturcture development.

Welcome to
Myanmar

Thank You
for your Attention

