

*Highway Management Training Course*  
*Neighbouring Countries Economic Development Cooperation Agency*  
*(NEDA)*

*In Cooperation with*  
*Department of Highways (DOH)*  
*The Sukosol Hotel, Bangkok, Thailand*

# **“International Road Development”**

*Dr. Siriphan JITPRASITHSIRI*  
*Director, International Highways Development Division*  
*Bureau of International Highways Cooperation*  
*Department of Highways (DOH), Thailand*  
*16 August 2016*

# **International Cooperation in Road Development**

- **International Highways  
Development  
(Hardware Infrastructure)**
- **Transport Facilitation  
(Software Infrastructure)**

# **International Highways Development**

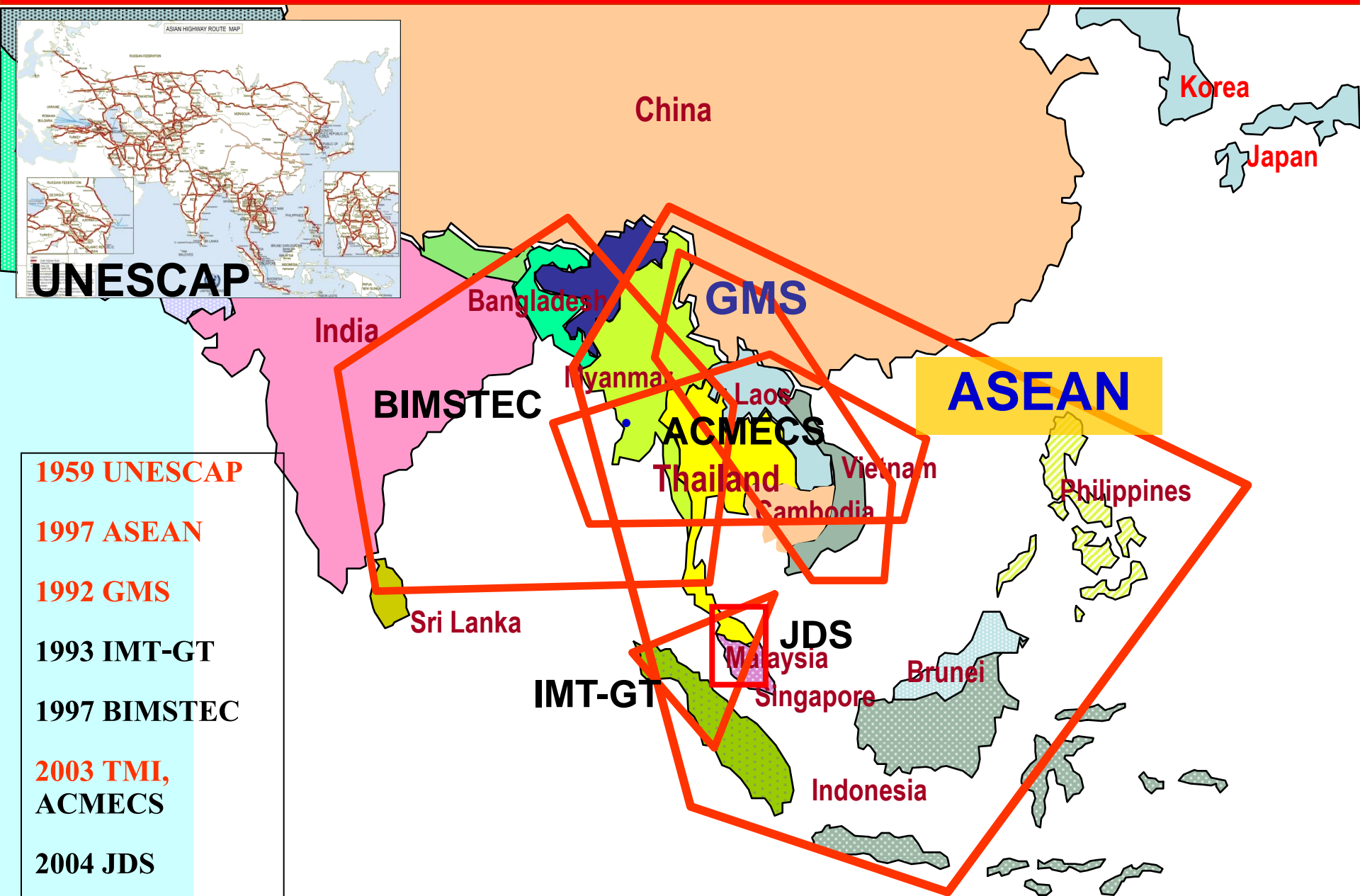
**(Hardware Infrastructure)**

# **International Highways Development**

- **Multilateral Cooperation:**
  - **Regional – Asian Highway, ASEAN Highway Development**
  - **Sub-Regional – Greater Mekong Sub-region Economic Cooperation (GMS), Thailand-Myanmar-India**
- **Bilateral Cooperation:**
  - **Thailand-Lao PDR, Thailand-Cambodia, Thailand-Myanmar, and Thailand-Malaysia**



# Regional Highways Cooperation



# Signing Ceremony of Intergovernmental Agreement on Asian Highway Network Development

in Shanghai, 26 Apr. 2004  
Entered into force: 4 Jul. 2005

Link each sub-region in ASIA (32 countries 142,076 kms.)



Legend  
 Asian Highway Route  
 Potential Asian Highway Route  
 Ferry Link  
 Capital City

The designations employed and the presentation of material on this map do not imply the expressing of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.  
 Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not been agreed upon by the parties.



UNITED NATIONS  
2003





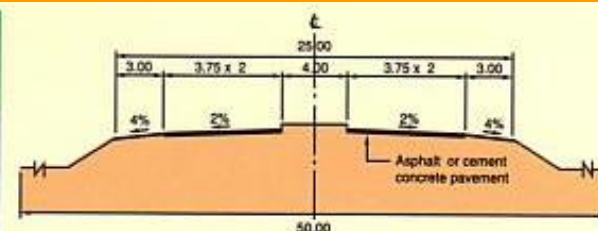
# Asian Highway Standard

Highway classification		Primary (Access controlled motorway)				Class I (4 or more lanes)			
Terrain classification		L	R	M	S	L	R	M	S
Design speed (km/h)		120	100	80	60	100	80	60	
Width (m)	Right of way	50				40			
	Lane	3.50				3.50			
	Shoulder	3.00		2.50		3.00		2.50	
	Median strip	4.00		3.00		3.00		2.50	
Min. horizontal curve (m)		520	350	210	115	350	210	115	
Pavement slope (%)		2				2			
Shoulder slope (%)		3-6				3-6			
Type of pavement		Asphalt/cement concrete				Asphalt/cement concrete			
Max. super-elevation (%)		10				10			
Max. vertical grade (%)		4	5	6	7	4	5	6	7
Structure loading (minimum)		HS20-44				HS20-44			

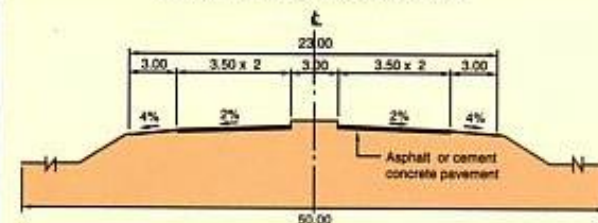
Highway classification		Class II (2 lanes)				Class III (narrow 2 lanes)			
Terrain classification		L	R	M	S	L	R	M	S
Design speed (km/h)		80	60	50	40	60	50	40	30
Width (m)	Right of way	40				30 (40)			
	Lane	3.50				3.00 (3.25)			
	Shoulder	3.00		2.00		1.5 (2.0)		1.0 (1.5)	
	Median strip	N/A				N/A			
Min. horizontal curve (m)		215	115	80	50	115	80	50	30
Pavement slope (%)		2				2-5			
Shoulder slope (%)		3-6				3-6			
Type of pavement		Asphalt/cement concrete				Double bituminous treatment			
Max. super-elevation (%)		10				10			
Max. vertical grade (%)		4	5	6	7	4	5	6	7
Structure loading (minimum)		HS20-44				HS20-44			

## Notes:

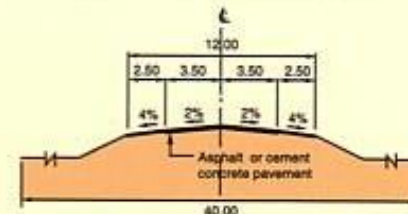
- Figures in bracket are desirable values.
- Minimum horizontal curve shall be determined in conjunction with super-elevation.
- Terrain classification L: level, R: rolling, M: mountainous, S: steep



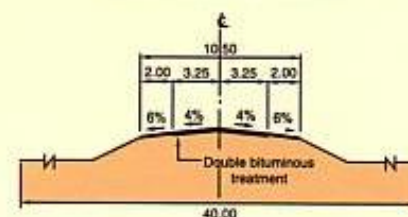
PRIMARY (4 LANE, LEVEL TERRAIN)



CLASS I (4 LANE, LEVEL TERRAIN)



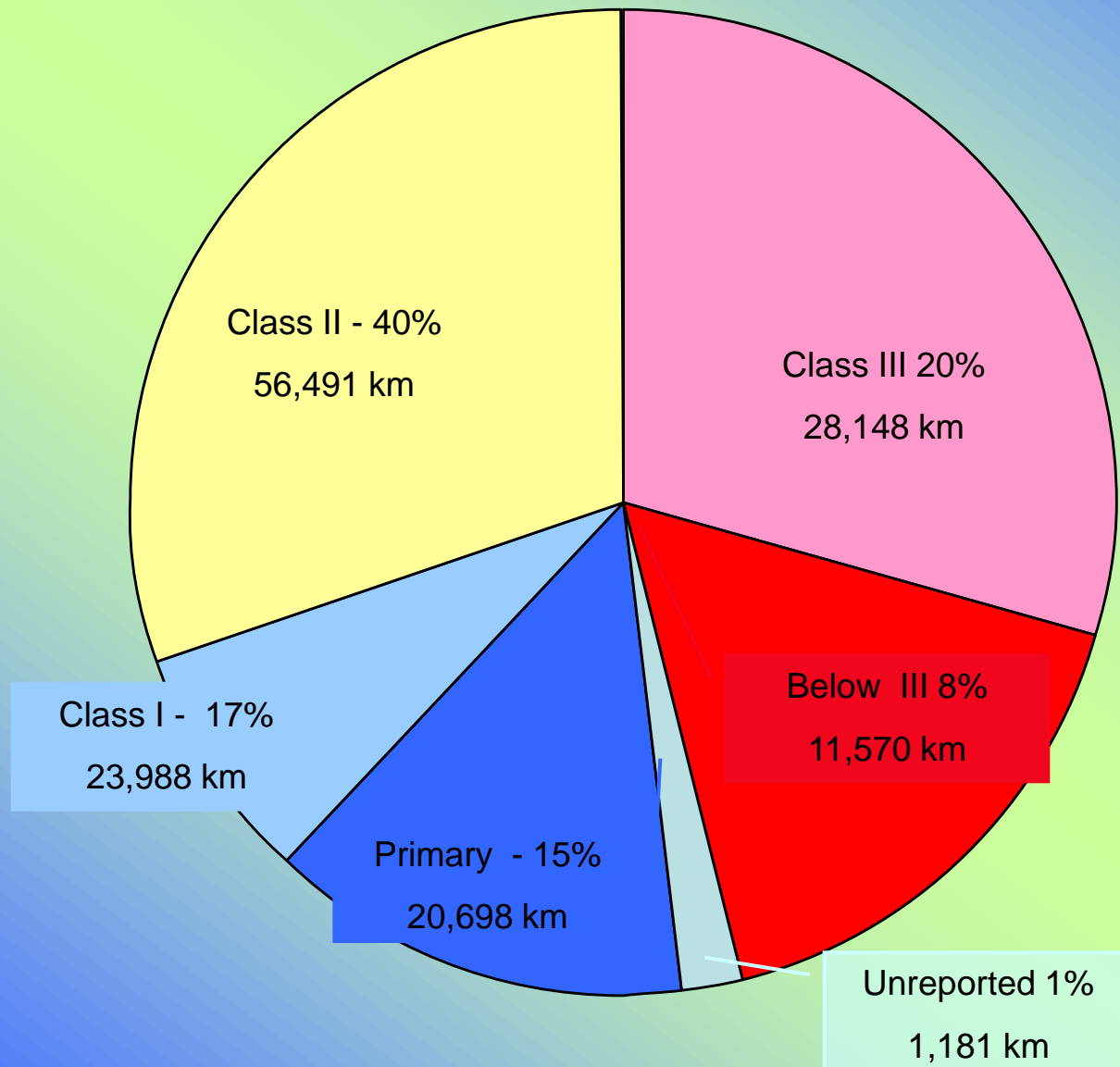
CLASS II (LEVEL TERRAIN)



CLASS III (LEVEL TERRAIN)  
(Desirable width)

## Typical Cross Sections

# *Conformity to Asian Highway Standard (2008)*



# **Intergovernmental Agreement (IGA)**

**Signed 2004, EIF 2005**

- **Obligation of Contracting Parties to promote and improve international transport through AH routes**
  - **Adopt AH network => Annex I**
  - **Conform w/ AH design standards => Annex II**
  - **Install AH Signage => Annex III**
- **Working Group on the Asian Highway**
  - **Provides forum for countries to negotiate and discuss issues related to the Asian Highway**
  - **Monitors implementation**



# **ASEAN Highway Development**

**AH routes link high potential area of 10 ASEAN countries  
(23 routes 37,000 kms.)**

# **Progress/Success of ASEAN Highway Network Development (1)**

- **Concept Paper on the ASEAN Highway Network**
  - adopted at 3<sup>rd</sup> ATM Meeting, Cebu, the Philippines, Sept. 1997
- **Ministerial Understanding on ASEAN Highway Network Development**
  - Signed at 5<sup>th</sup> ATM, Hanoi, Viet Nam, Sept. 1999
- **Route Numbering**
  - Endorsed by 15<sup>th</sup>/16<sup>th</sup> STOM, Yangon, Myanmar (May 2003, Oct 2003)
- **ASEAN-ROK Highway Project Preparation Studies** – officially completed on 26 Feb 2005



# **Progress/Success of ASEAN Highway Network Development (2)**

- **Harmonized ASEAN Route Numbering Sign**  
-- endorsed at 21<sup>st</sup> STOM, Chiang Mai, Thailand,  
18 May 2006
- **Protocol 1: Designated Transit Transport Routes  
and Facilities** --Endorsed by 12<sup>th</sup> ATM, Bangkok,  
Thailand, 8 Feb. 07
- **Assessment of AHN, TTR and AH Database 2008**  
--adopted at 29th STOM, Brunei Darussalam,  
May 2010. →Key Inputs to ASTP/BAP 2011-2015
- **Stock-Taking of AHN Inventory Data (updated  
every 5 yrs.)** –agreed at 12<sup>th</sup> AHSWG, May 2013  
→ Key Inputs to KL ATSP 2016-2025



# ASEAN Highway Network Project

3<sup>rd</sup> ATM in 1997 agreed to set up the ASEAN Highway Expert Group

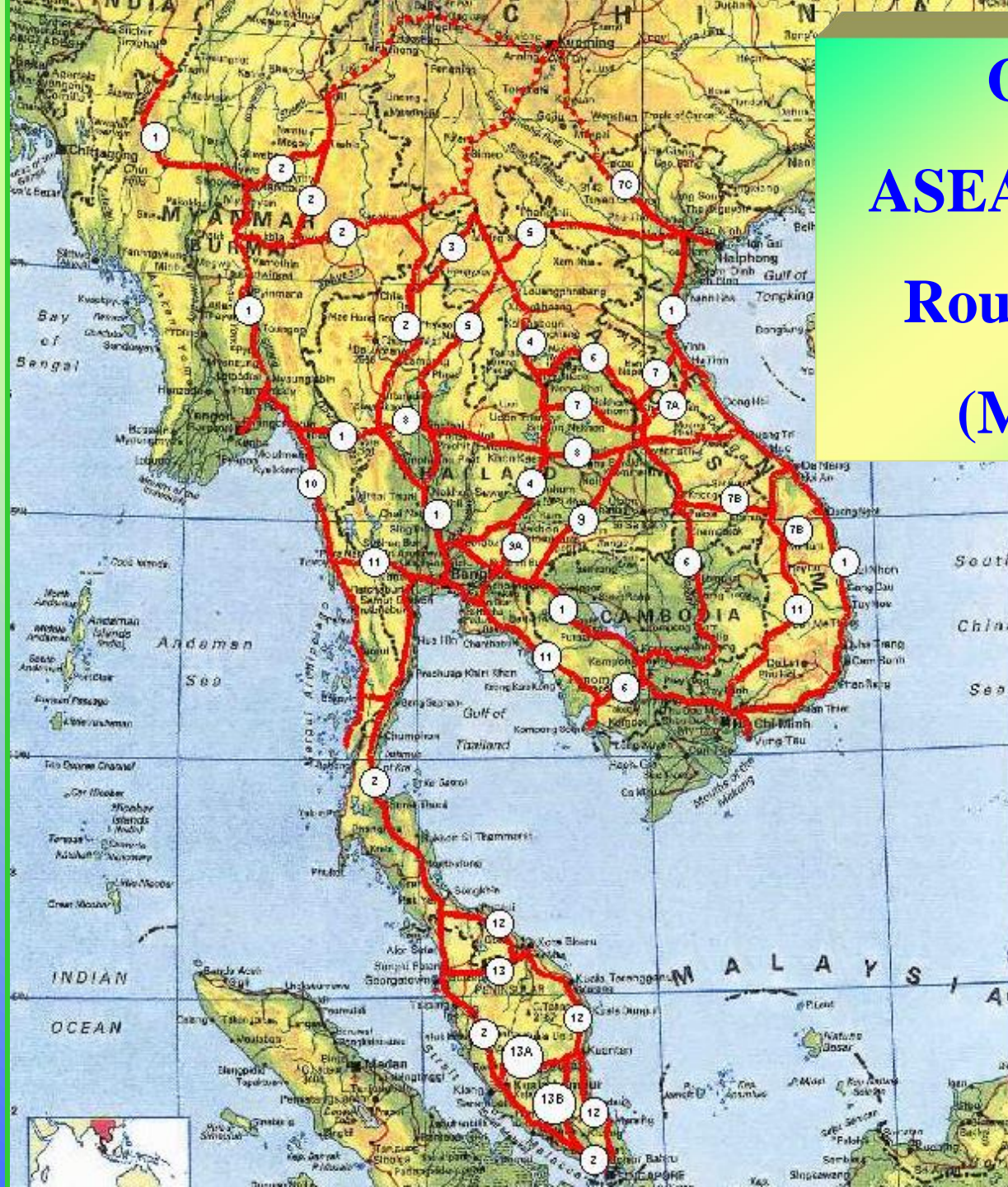
## Objectives

1. **Develop the strategic ASEAN Highways Network**
2. **Formulate harmonized ASEAN Highway Design Standard including road signages, and route numbering system**
3. **Identify primary highways or trunk lines for inter-state transport and transit transport**
4. **Develop the ASEAN Highway Development Plan, consisting of priority highways projects of common interest**

# Sources of ASEAN Highways Network Formulation

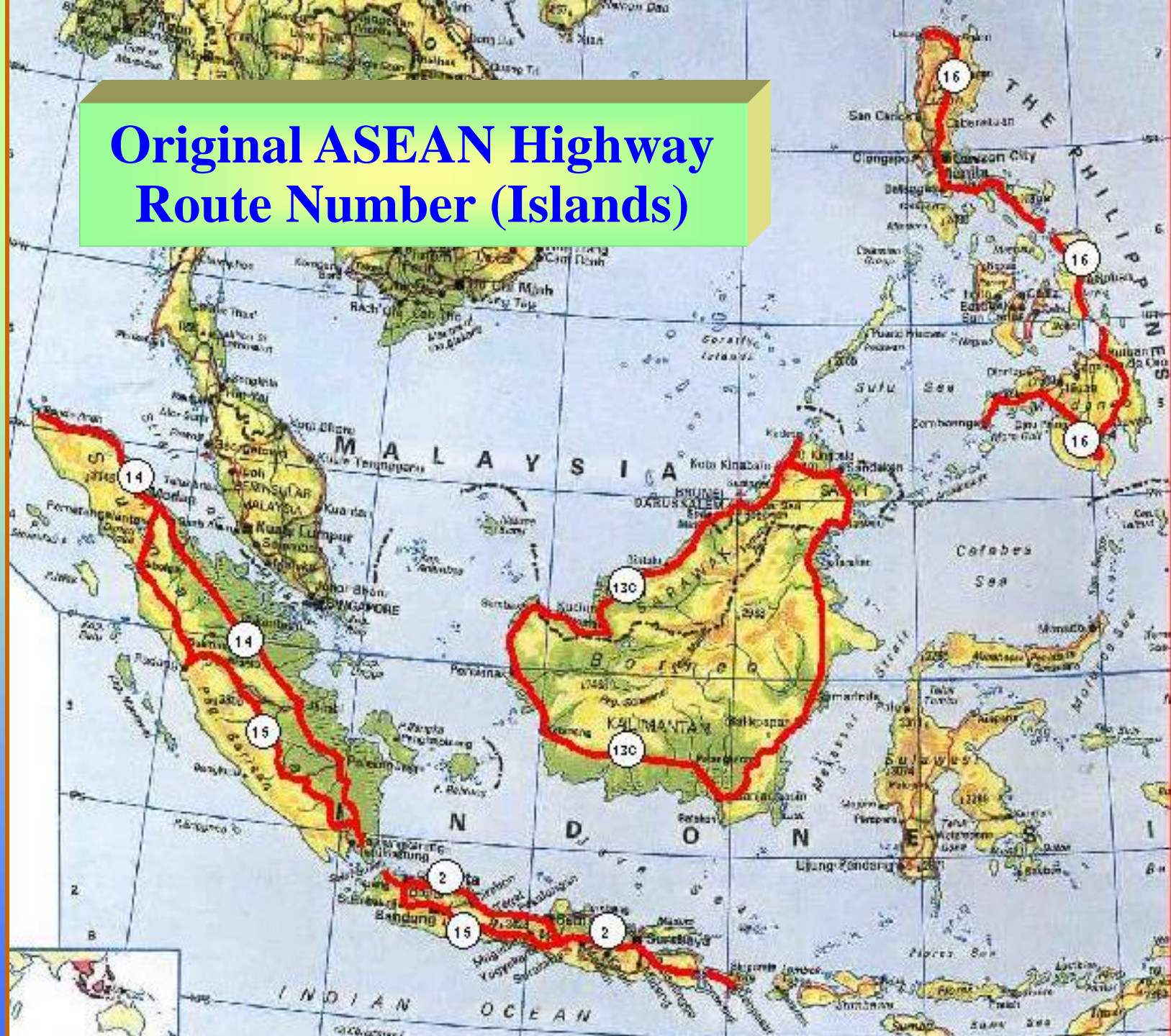
- **Asian Highway (ESCAP)**
- **GMS**
- **Bilateral Agreements**
- **New Initiatives**

**Original  
ASEAN Highway  
Route Number  
(Mainland)**





# Original ASEAN Highway Route Number (Islands)



# **ASEAN/Asian HIGHWAY STANDARD**

<b>Classification</b>	<b>Description</b>	<b>Pavement Type</b>
<b>Primary</b>	<b>Access controlled motorway</b>	<b>Asphalt or cement concrete</b>
<b>Class I</b>	<b>4 or more lanes highway</b>	<b>Asphalt or cement concrete</b>
<b>Class II</b>	<b>2 lanes</b>	<b>Asphalt or cement concrete</b>
<b>Class III</b>	<b>2 lanes (narrow)</b>	<b>Double bituminous treatment</b>

# **Ministerial Understanding on the Development of the ASEAN Highways Network Project** (Signed at Hanoi, Sept. 1999)

## **Adopted**

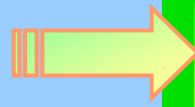
- ASEAN Highways Network
- ASEAN Highway Design Standard
- Development Strategy

<u>Phase</u>	<u>Year</u>	<u>Technical Target</u>
Stage 1	2000	Completed network and ASEAN routes
Stage 2	2004	<ul style="list-style-type: none"><li>- Road Sign installed</li><li>- All ASEAN routes → at least Class III</li><li>- Missing link → construction</li><li>- Operational designated cross border point</li></ul>
Stage 3	2020	<ul style="list-style-type: none"><li>- ASEAN routes be Class I/Primary</li><li>Class II for non-arterial routes</li></ul>



# Restructuring of ASEAN Activities

ASEAN Highway Expert  
Group  
(4 Meetings: 1998-1999)



ASEAN Highways Sub-Working Group  
(11 Meetings: 1999-2007)



Chairman : Thailand

Sub - Working Group : Under Land Transport  
Working Group

Priority 1 :

LT 1 : Implementation of the *Ministerial Understanding* on  
the Development of the ASEAN Highways Network Project

LT 2 : Conduct *Feasibility Studies/Analysis* and/or *Detailed  
Engineering Studies* of priority project under the ASEAN Highways  
Network Project

# Route Numbering



# Revised Route Numbering System

**1 or 2 digit → ESCAP Routes**

**3 digit → Non - ESCAP Routes**

## Mainland

- **110 → West Zone**
- **120 → Middle Zone**
- **130 → Eastern Zone**
- **140 → Southern Zone**

## Islands

- **150 → Islands Zone**



# Final ASEAN Highway Route Numbers

(Endorsed by 15th/16th  
STOM, Yangon)  
(May 03, Oct 03)





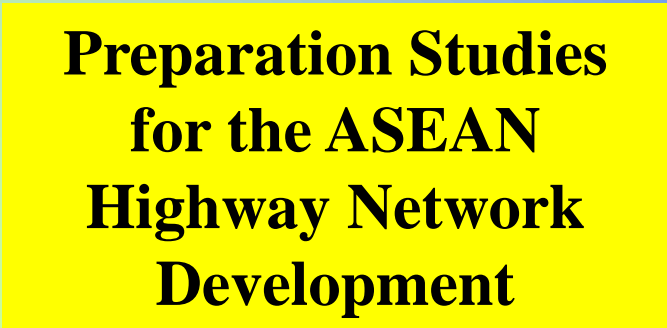
**Final ASEAN Highway Route  
Numbers**  
(Endorsed by 15th/16th STOM,  
Yangon)  
(May 03, Oct 03)








# ASEAN-ROK Highway Project Preparation Studies

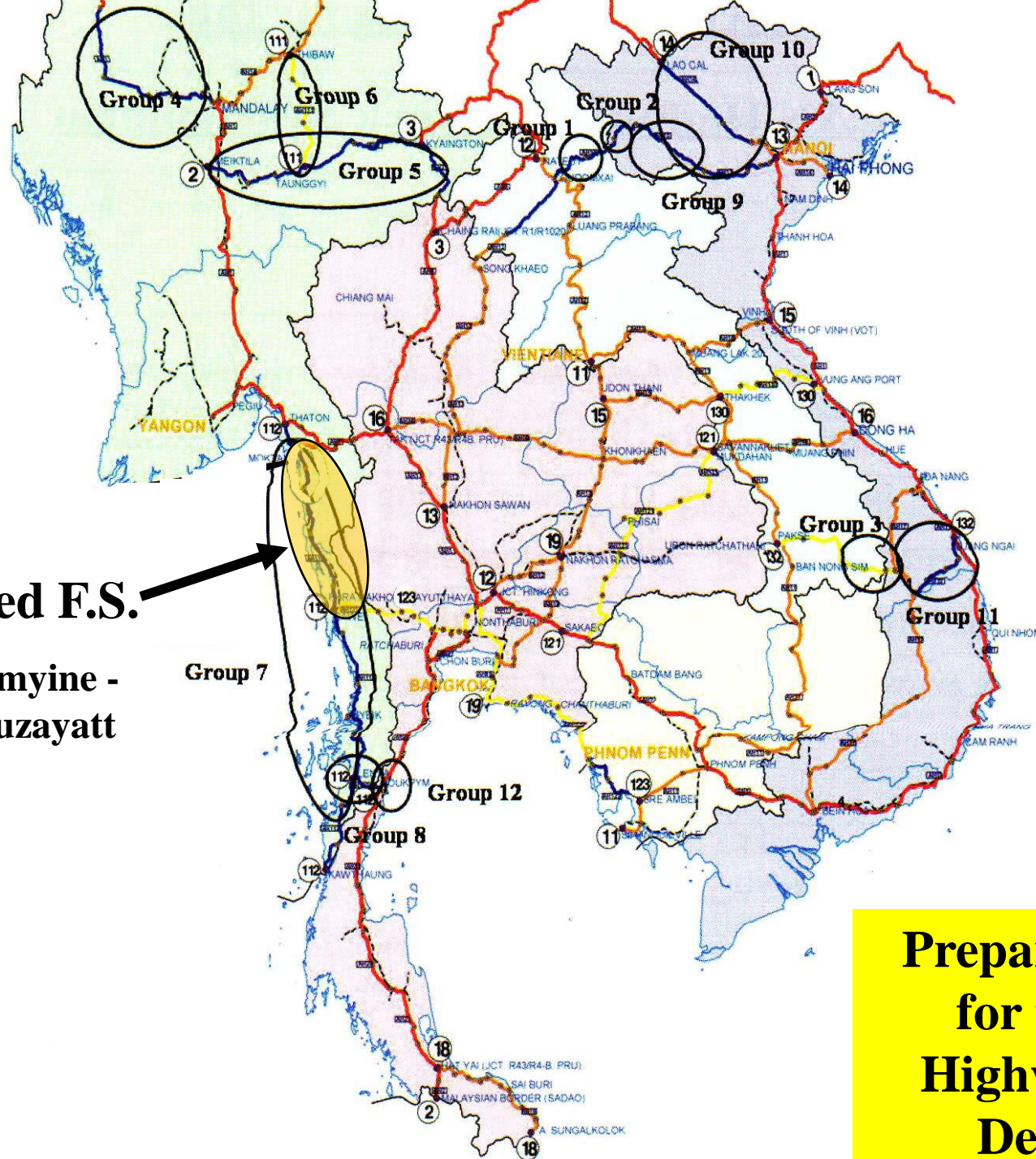
Officially completed on 26 Feb 2005

1. Feasibility Study on Mawlamyine-Thanbyuzayat Road Project (Myanmar): Volume I – Executive Summary; Volume II – Main Report (including CD-ROM with the Report in PDF format); Volume III – Technical Report; and Volume IV – Drawings
2. ASEAN Highway Fact Book
3. Technical Manual for Highway Feasibility Studies
4. Project Completion Report
5. ASEAN Highway Road Inventory
6. ASEAN Highway Map





Capital - Capital	
Capital - Seaport	
Seaport - Major city	
Seaport - Seaport	
Major city - Major city	
Country's Back Bone Arterial	
Linkage to China	



**Detailed F.S.**

**Mawlamyine -  
Thanbuzayatt**

**Preparation Studies  
for the ASEAN  
Highway Network  
Development**

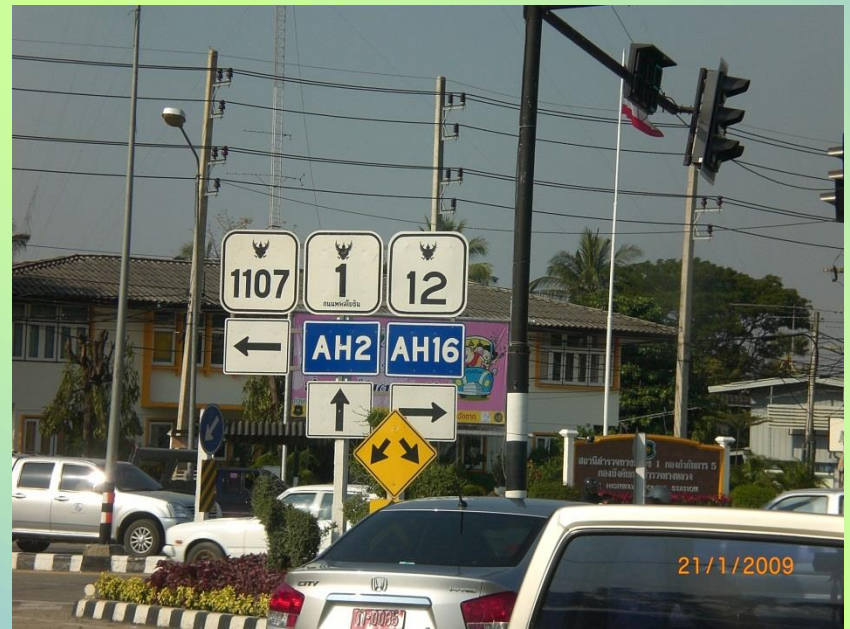


# Road Signage Harmonization in ASEAN

21<sup>st</sup> STOM on 18 May 2006 in Chiang Mai endorsed  
harmonized ASEAN Route Numbering Sign  
Implementation

- **Rectangular-shaped signs**
- **Green or blue background**
- **White inscription (AH + Digits)**
- **1<sup>st</sup> Phase for installation, focusing on  
“Designated Transit Transport Route”  
under Protocol 1.**

# AH Numbering Sign in Thailand (completed)





# **Designated Transit Transport Routes: TTR**

# **Protocol 1**

## **(Designation of Transit Transport Route and Facilities)**

- **Adopt initial package of Designated Transit Transport Routes**
- **Agree to Harmonized ASEAN Road Transit Transport**
  - **Unhindered access**
  - **Provide vehicle rest areas**
  - **Adequate parking space at frontiers posts**

### **Current Status**

- **Signed Protocol 1 at 12<sup>th</sup> ATM Meeting in Bangkok (8 Feb 2007)**



# ASEAN Designated Transit Transport Route (TTR) -Mainland-



- Designated Transit Transport Route
- Non-Designated Transit Transport Route



**ASEAN Designated  
Transit Transport  
Route (TTR)**

**-Island-**

## ASEAN TTR (annexed to Protocol 1)

<b>Brunei Darussalam</b>	<b>168</b>	<b>Kms.</b>
<b>Cambodia</b>	<b>1,338</b>	<b>Kms.</b>
<b>Indonesia</b>	<b>4,143</b>	<b>Kms.</b>
<b>Lao PDR</b>	<b>2,170</b>	<b>Kms.</b>
<b>Malaysia *</b>	<b>2,242</b>	<b>Kms.</b>
<b>Myanmar</b>	<b>3,018</b>	<b>Kms.</b>
<b>Philippines</b>	<b>3,073</b>	<b>Kms.</b>
<b>Singapore</b>	<b>to be submitted</b>	
<b>Thailand</b>	<b>4,114</b>	<b>Kms.</b>
<b>Viet Nam</b>	<b>577</b>	<b>Kms.</b>



# ASEAN Highway Network

The map illustrates the ASEAN Highway Network, a system of roads connecting major cities and regions across Southeast Asia. The network is highlighted in red, showing a dense web of connections between countries including Myanmar, Laos, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Brunei Darussalam, Indonesia, and the Philippines. Key cities marked include Yangon, Bangkok, Hanoi, Manila, Jakarta, and Singapore. The map also shows the surrounding seas: Andaman Sea, South China Sea, Java Sea, and Indian Ocean. A legend at the bottom left indicates that the red lines represent the ASEAN Highway.

SYMBOL :

— ASEAN Highway

# ASEAN Transit Transport Routes

This map illustrates the designated transit transport routes across the ASEAN region, including Myanmar, Laos, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Brunei Darussalam, Indonesia, and the Philippines. The routes are marked with red lines and circles, connecting major cities and ports. Key locations include Tannu, Mandalay, Thibaw, Mue, Meiktila, Loilem, Payagyi, Yangon, Nakhon Sawan, Bangkok, Mergut, Kawthong, Hat Yai, Kota Bharu, Kuala Lumpur, Medan, Padang, Palembang, Bakahuni, Jakarta, Cikampek, Sukarta, Surabaya, Denpasar, Bandung, Kuching, Sarawak, Pontianak, Banjarmasin, Kalimantan, Bandar Seri Begawan, Brunei Darussalam, Manila, Laoag, Matnog, Sinsigao City, Zamboanga, and Mindanao. The map also shows the South China Sea, Andaman Sea, Indian Ocean, Java Sea, and Celebers Sea. A legend indicates that the red lines represent designated transit transport routes.

SYMBOL :

— Designated Transit Transport Route

8 Feb. 07

— Designated Transit Transport Route

# **ASEAN Highway Infrastructure Development Plan**

- **AH Route Inventory Database (5-yr Update)**
- **Development Plan in each member countries**

## **Three Sets of the Priority Projects**

- 1. Capital Linkage**
- 2. Completed Network**  
**with minimum standard**
- 3. Upgraded Efficiency of the Network**



# AHN Corridor Improvement: Benefit to ASEAN Transport & Trade

## Master Plan on ASEAN Connectivity: MPAC

### BAP or ASEAN Strategic Transport Plan 2011-2015

#### Land Transport

AHN: Complete Missing Links

- Road Upgrading to Class I
- Connect Highway to Gateway
- Road Safety Strategy Plan
- TTR
- ITS
- Environmental friendly transport

#### SKRL

- Missing link and Spurline
  1. Aranyaprathet – Klonglak
  2. Three Pagodas Pass – Namtok
- Track Rehabilitation

#### Air Transport

- Open Sky Policy
- Free Trade Transport Policy

#### Maritime Transport

Inland Waterway (IWT System)

- Development Study
- Implementation

#### Coastal Port

- Acceptable Performance
- Electronic Transmission
- Eco-port (Energy efficient)

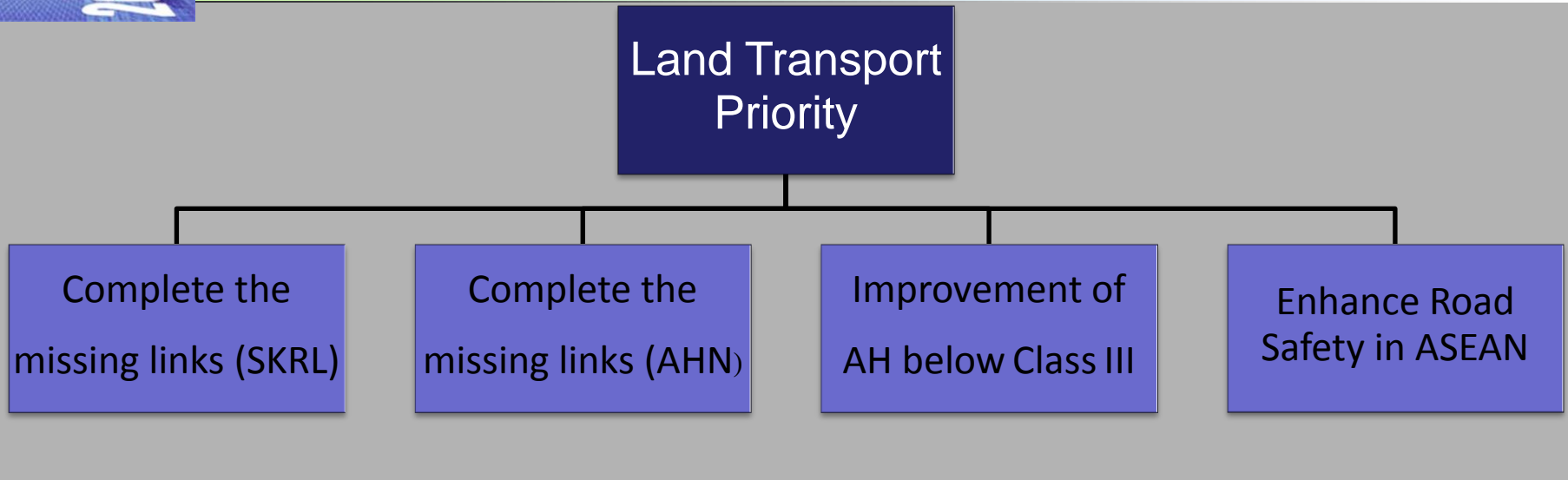
#### Transport Facilitation

- AFAFGIT Protocol 1 – 9
- Monitor implementation
  1. AFAFGIT
  2. AFAFIST
  3. AFAMT
- Existing bilateral & multilateral

**KL ATSP 2016-2025 + Sustainable Transport**



# AEC Framework on Land Transport



## ASEAN Framework Agreement on Transport Facilitation

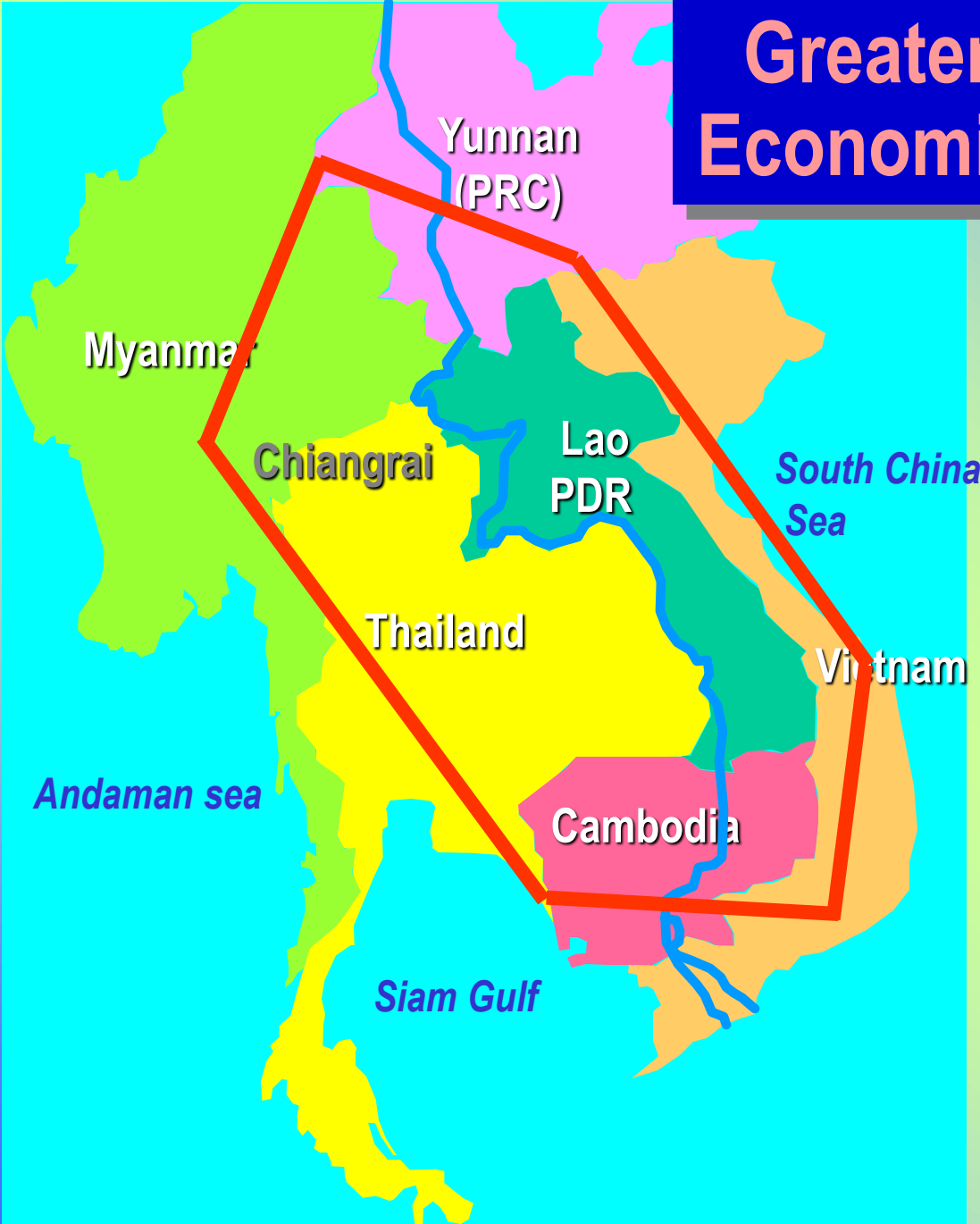
1. ASEAN Framework Agreement on Facilitation of Goods in Transit (AFAFGIT)
2. ASEAN Framework Agreement on Facilitation of Inter-State Transport (AFAFIST)
3. ASEAN Framework Agreement on Multimodal Transport (AFAMT)
4. ASEAN Framework Agreement on Facilitation of Cross Border Transport of Passengers by Road Vehicles (ASEAN CBTP)

# Greater Mekong Subregion Economic Cooperation (GMS)

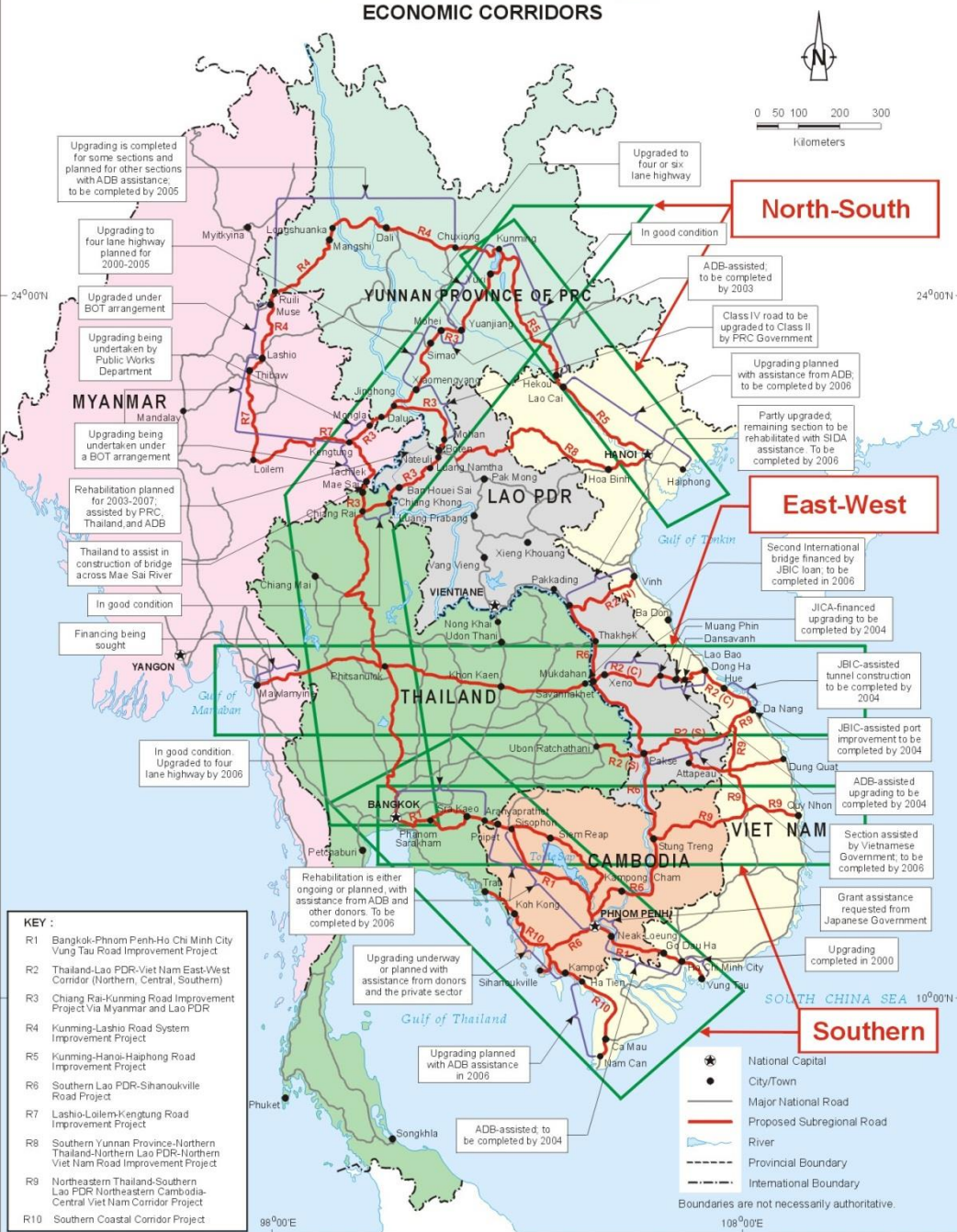
Goal: To promote socio-econ. development by strengthening economic linkages

## 9 Sectors:

1. **Transport**
2. **Energy**
3. **Agriculture**
4. **Environment**
5. **HRD**
6. **Urban Development**
7. **Tourism**
8. **Transport & Trade Facilitation**
9. **ICT**



## GREATER MEKONG SUBREGION ECONOMIC CORRIDORS



### North-South

**R3: Chiang Rai - Kunming Road Improvement via Myanmar and Lao PDR**

**R5: Kunming - Hanoi Road Improvement Project**

### East-West

**R2: Myanmar - Thailand - Lao PDR - Viet Nam (East - West Corridor) Project**

### Southern

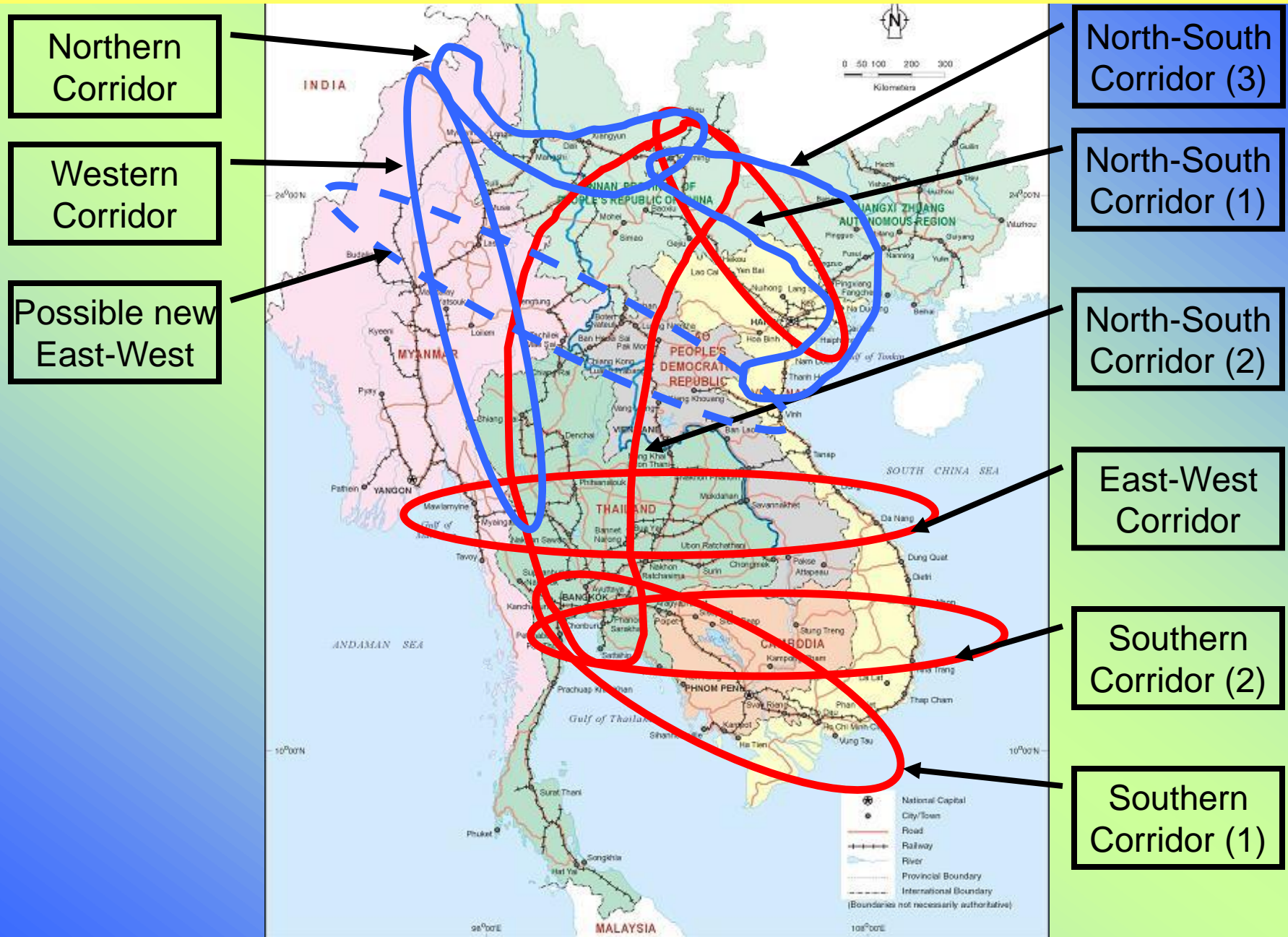
**R1: Bangkok - Phnom Penh - Ho Chi Minh City - Vung Tau Road Improvement Project**

**R9: Northeastern Thailand - Southern Lao PDR - Northeastern Cambodia - Central Viet Nam Corridor Road Improvement Project**

**R10: Southern Coastal Corridor Project**



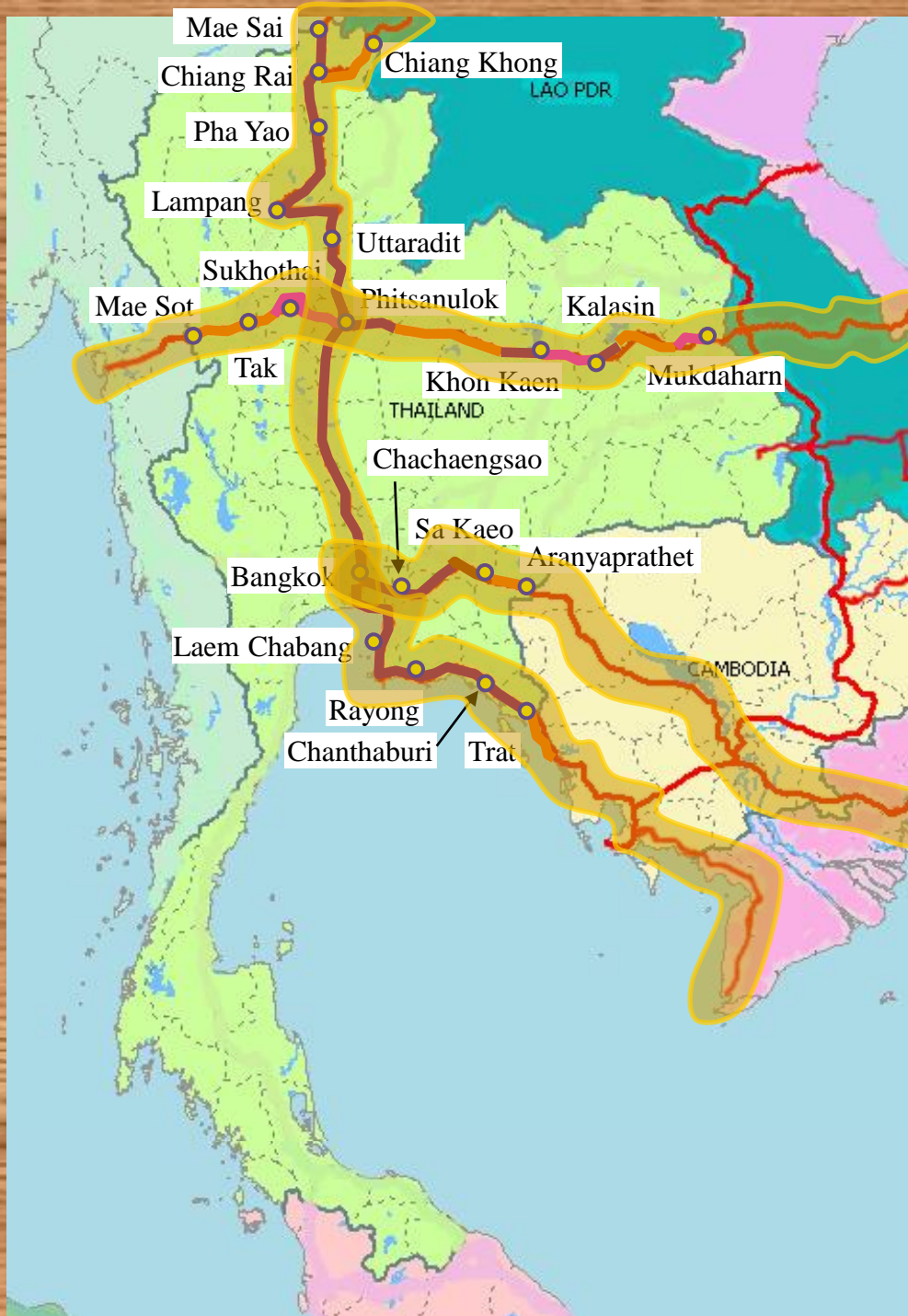
# GMS Transport Sector Strategy





**Future GMS  
Corridors:  
from  
Transport  
Corridors  
To  
Economic  
Corridors**





# GMS Corridors cross border Thailand

**North-South (1,200 km)**

**R3: Chiang Rai - Kunming  
Road Improvement via  
Myanmar and Lao PDR**

**East-West (1,600 km)**

**R2: Myanmar - Thailand - Lao  
PDR - Viet Nam (East - West  
Corridor) Project**

**Southern (1,000 km)**

**R1: Bangkok - Phnom Penh -  
Ho Chi Minh City - Vung Tau  
Road Improvement Project**

**R10: Southern Coastal  
Corridor Project (950 km)**



# Southern Economic Corridor

R1 : Bangkok - Phnom Penh - Ho Chi Min City - Vung Tau

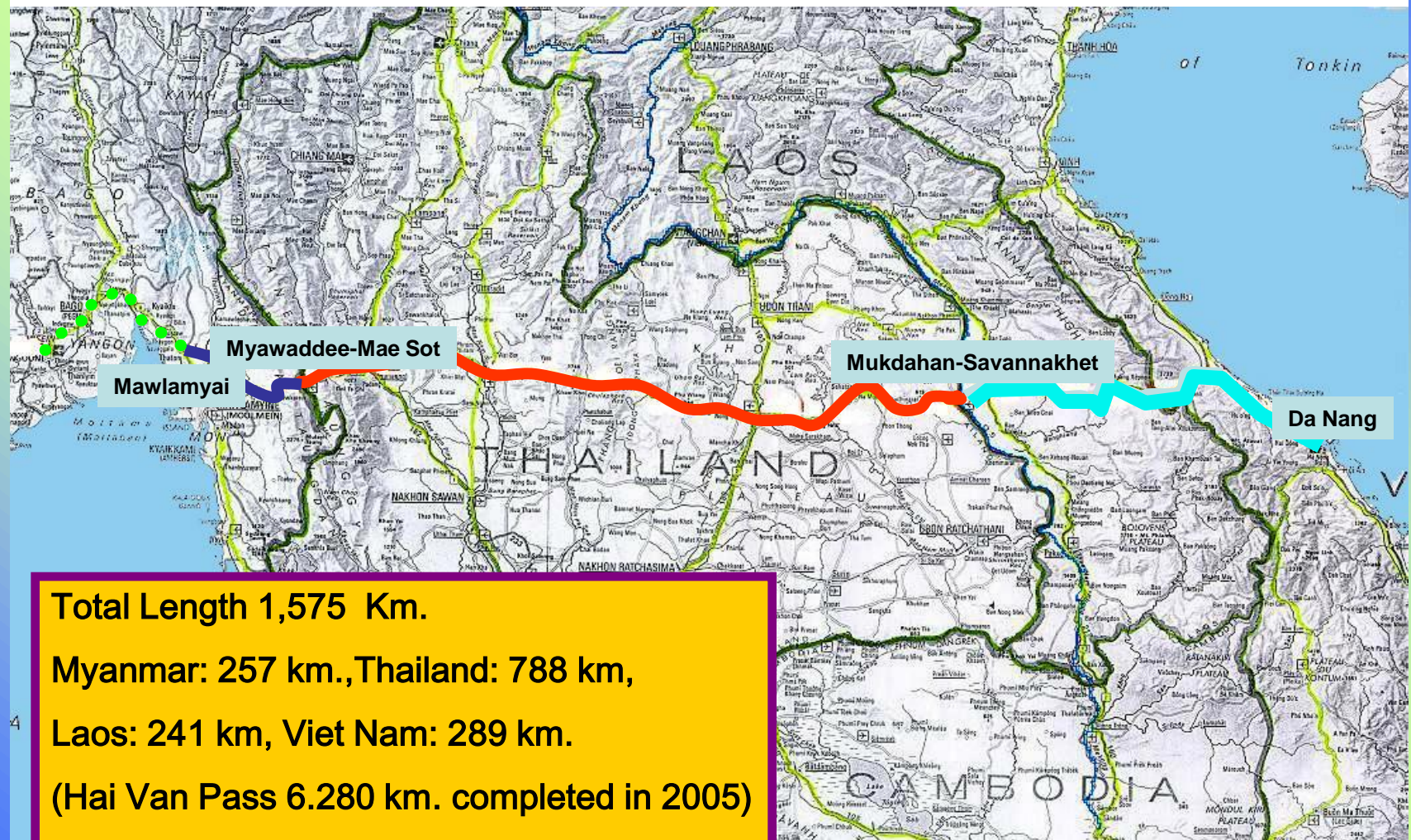


Total Length 1,025 Km.

- Thailand = 292 Km.
- Cambodia = 573 Km.
- Viet Nam = 160 Km.

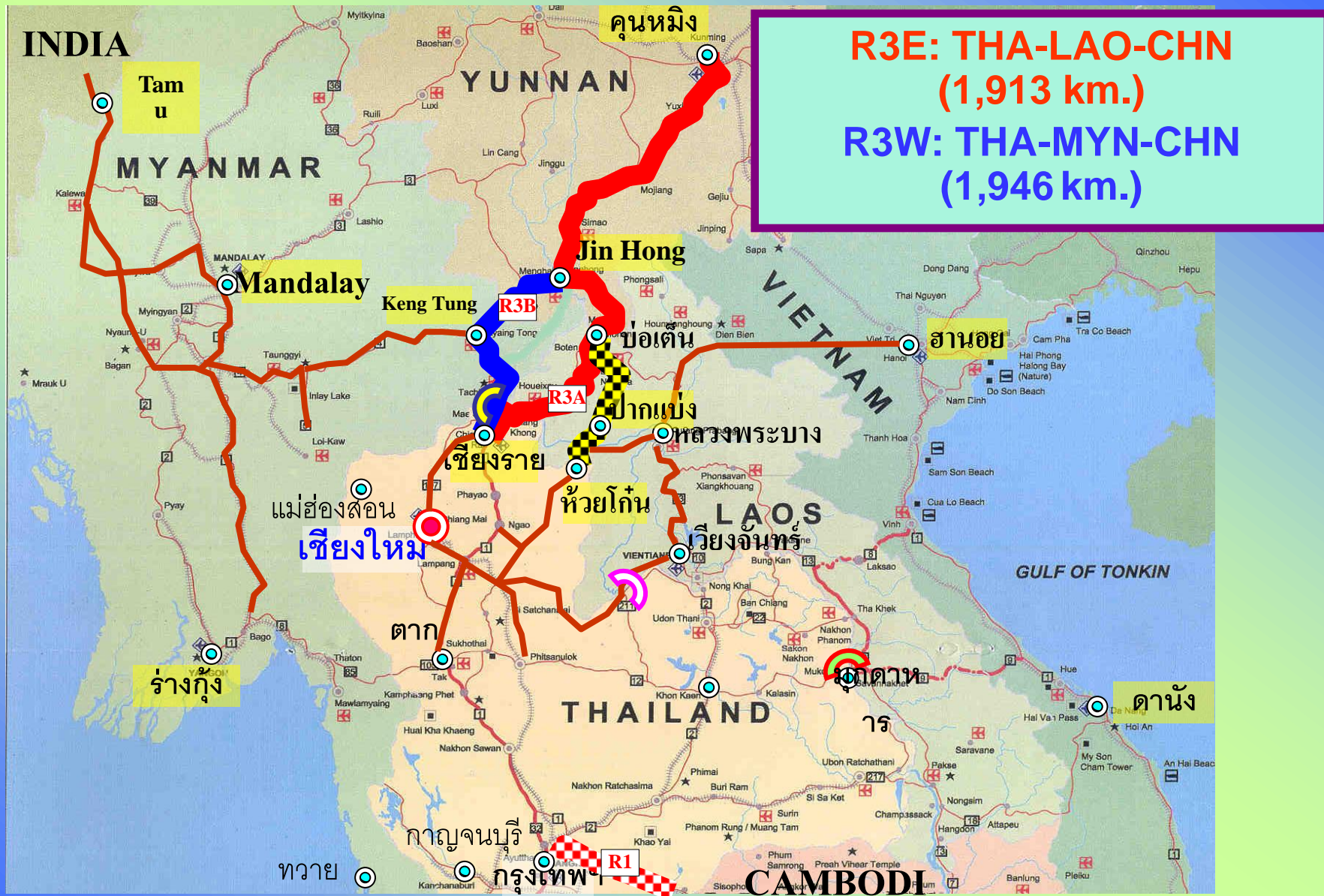


# R2: Myanmar–Thailand–Laos–Viet Nam (EWECE)





## R3: Chiang Rai (BKK) – คุณหมิง

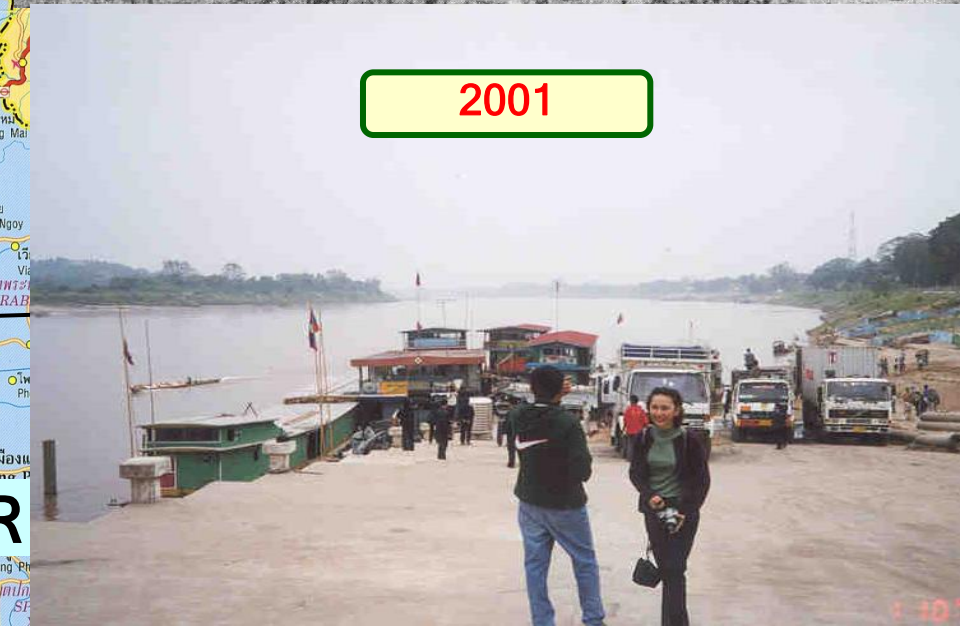




# R3: North-South Economic Corridor



1996



2001



# R10 :Southern Coastal Economic Corridor (SCEC)





CHINA

THAILAND - LAO PDR (14)

THAILAND-CAMBODIA (6)

# Road & Bridge Connectivity (38 Projects)



1. R3E road in Lao PDR
2. Friendship bridge 4
3. Houaykhon - Pakbang road
4. Luang Prabang road
5. Phudu - Paklai road
6. Paklai-Namsang-Tadtong rd.
7. Bridge Huang river
8. Friendship bridge1
9. Friendship bridge 5
10. Road 3 - Wern tai port
11. Friendship bridge 3
12. Friendship bridge 2
13. B.Huak - Chiang Hon + M.Khop - Kontuen
- 14.Hong Sa - LuangPrabang Rd

15. Road 67 Sec1
16. Road 67 Sec2
17. Road 48 - 4 bridges
18. Road 48
19. Nong lan Bridge
20. Road 5 - Stung Bot road

## THAILAND-MALAYSIA (7)

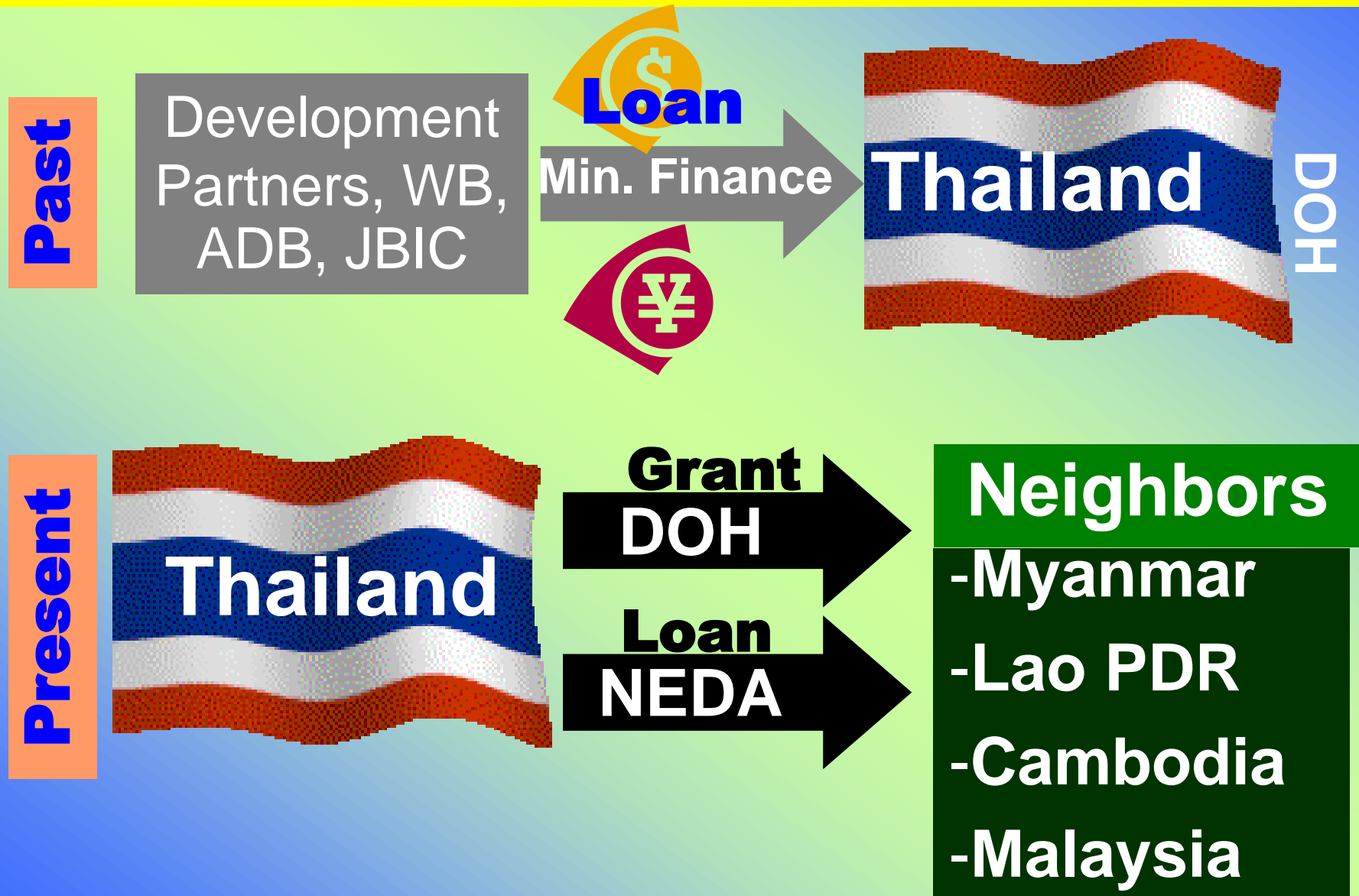
21. Tak bai Bridge
22. Su ngai go lok Bridge 2
23. Buketa Bridge
24. Natawi - Ban prakob road
25. Motorway Hatyai - Sadao
26. Satun - Wang Prachan road
27. Satun - Perlis Projects

## THAILAND - MYANMAR (11)

28. Bangyai - Kanchanaburi
29. Kanchanaburi-Pu Namron
30. Pu Namron - Dawei
31. Payathonzu-Thanbyuzayat
32. Friendship Bridge 1
33. Friendship Bridge 2
34. Myawaddy - DawnaRange
35. Myawaddy - Kawkareik road
36. Mae sai Bridge 2
37. Kawkareik-Mawlamyine-Thaton
- 38.Kawkareik-Endu



# Sources of Fund for International Road Development



# International Cooperation Road Project ( Lao PDR)

## DOH Projects (8)

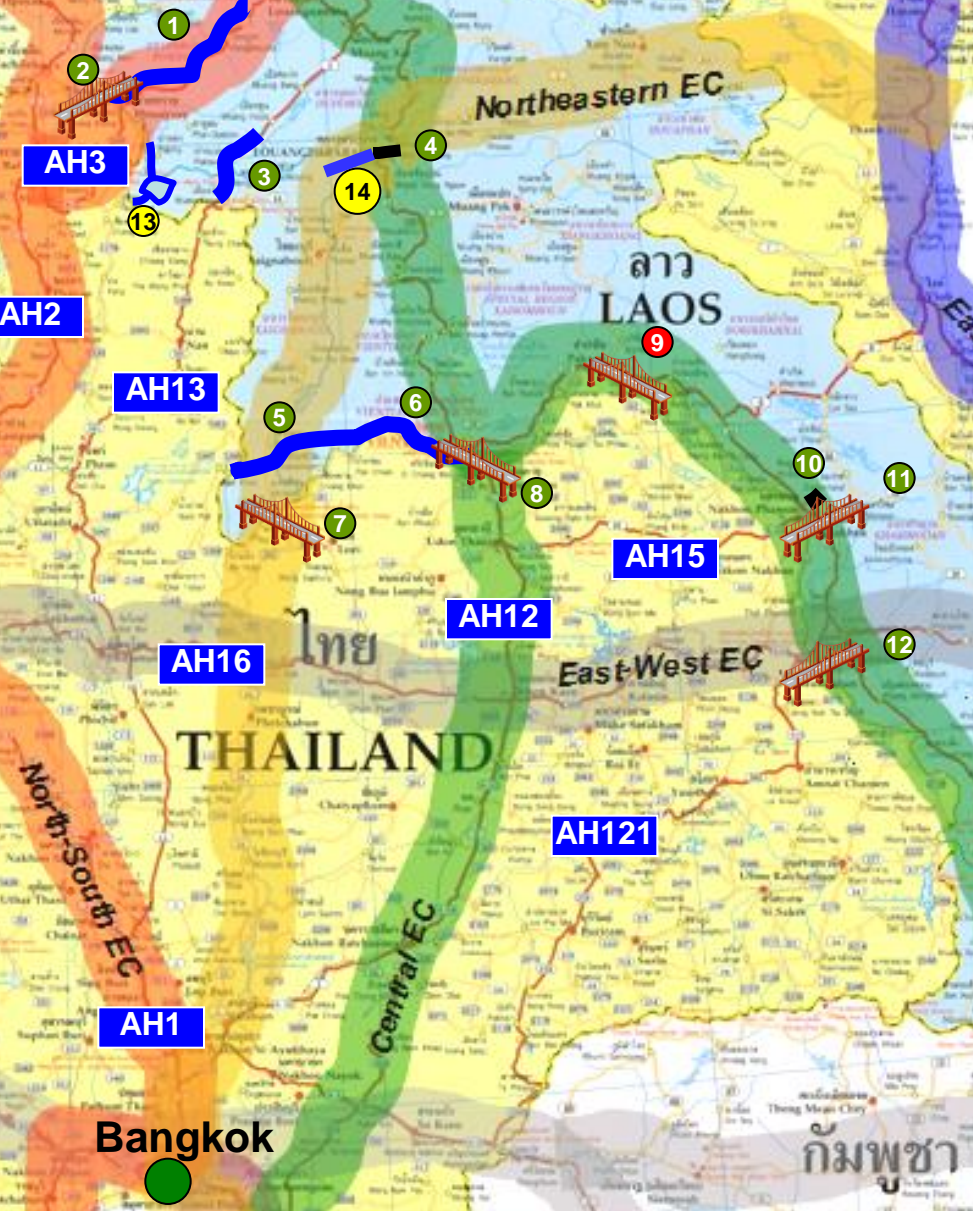
- 2 Friendship bridge 4 (Chiang khong-Houayxay)
- 4 Luang Prabang road
- 7 Bridge across Huang river
- 8 Friendship bridge 1 (Nongkhai-Thanalang)
- 9 Friendship Bridge 5 (Bungkan-Paksan)
- 10 Wern tai port – road No.13 road
- 11 Friendship bridge 3 (NakonPanom-Kammoun)
- 12 Friendship bridge 2 (Mukdahan-Savannakhet)

**Approx. Grant Aid 3,400 M.THB**

## NEDA Projects (6)

- 1 R3E road construction
- 3 Huaykhon – Pakbang road
- 5 Phudu – Paklai road
- 6 Pak Lai – Namsang – Tadtong road no.11
- 13 B.Huak-Chiang Hon+M.Khop-Kontuen 107 km. 1,390 MB.
- 14 Hong Sa-Luang Prabang 114 km., 1,977 MB.

**Approx. Soft Loan 6,125 M.THB**



DOH Project  
 NEDA Project

Completed  
 On-going  
 Planning

# International Cooperation Road Project (Cambodia)

## DOH Projects (3)

- 1 Road 67: Choam Sa-ngam – Anlong Veng
- 3 4-bridges on road 48
- 5 Aranyaprathet new road link

*Approx. Grant Aid 600 M.THB*

## NEDA Projects (3)

- 2 Road 67: Anlong Veng - Siemreap
- 4 Road 48: Koh Kong – Sre Ambel
- 6 Road 5 – Stungbot

*Approx. Soft Loan 3,095 M.THB*





# International Cooperation Road Project (Malaysia)

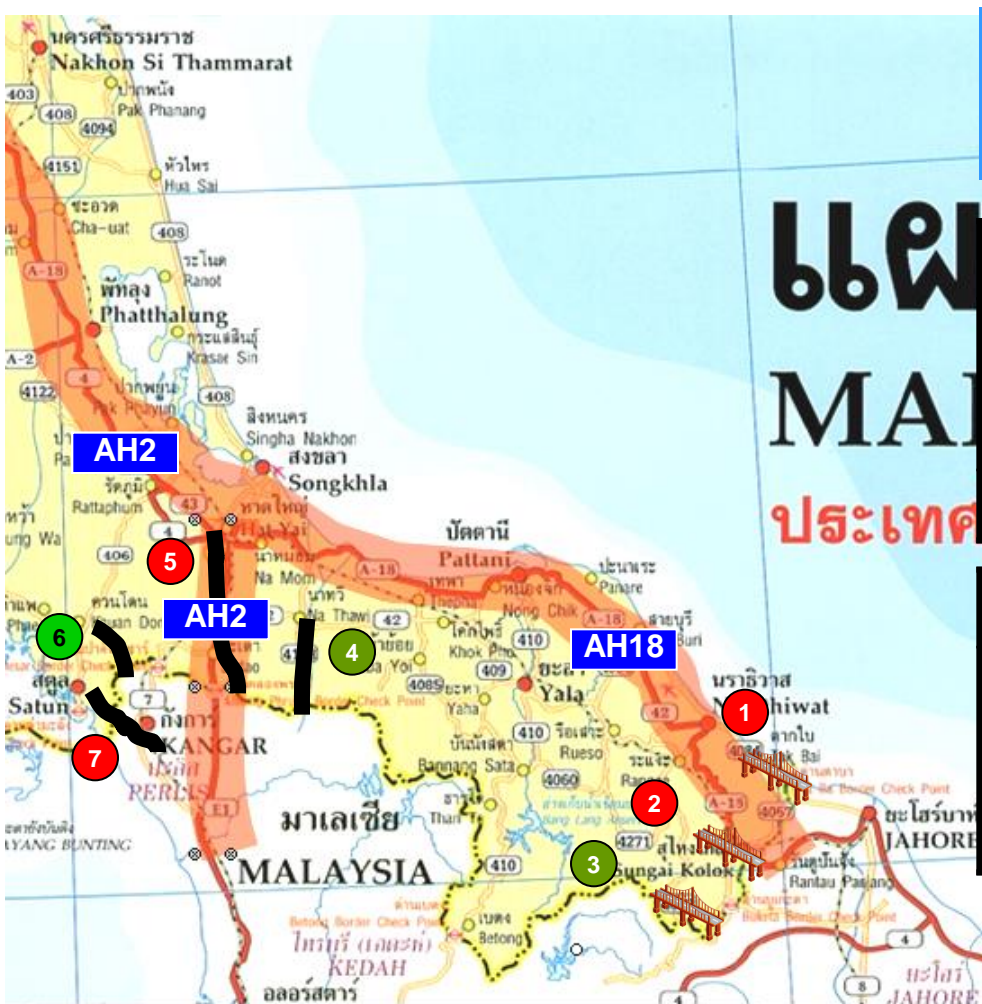
## DOH Projects (7)

- 3 Buketa bridge
- 4 Road 4133: Natawi – Ban Prakob
- 6 Road 4184: Satun – Wang Prachan

*Approx. Budget 1,296 M.THB*

## Future Projects

- 1 Takbai bridge
- 2 Sungai Go-lok bridge
- 5 Hatyai – Sadao motorway
- 7 Satun – Perlis road



DOH Project

Completed  
On-going  
Planning

# International Cooperation Road Project (Myanmar)

## DOH Projects (8)

- 1 Motorway Bangyai – Kanchanaburi 97km. 55,620 mb.
- 2 Motorway Kanchanaburi- Pu Namron (DD)
- 5 Friendship bridge 1
- 6 Friendship bridge 2
- 7 Myawaddy – Dawna range road
- 8 Myawaddy – Kawkareik road
11. Mae Sai bridge 2

*Approx. Budget (Grant Aid) 58,620 (2,542) M THB*

## NEDA Projects

- 4 Payathonzu – Thanbyuzayat 103 km. (FS)

## Other Projects (by ITD)

- 3 Motorway Pu Namron – Dawei

## Future Projects

- 9 Kawkareik-Mawlamyine-Thaton 155km. (ADB, AIF)
10. Kawkareik – Eindu road 70 km. (ADB)



# **Some Highlighted Projects**



# Friendship Bridge II (Mukdahan-Savannakhet) on EWECC



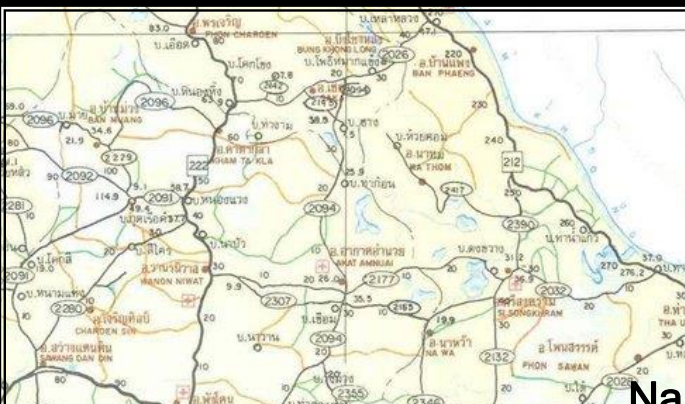
- 6.1 km; 4753.7 mY
- FS by ADB
- Loan from JBIC (THA&LAO)
- Open 20 Dec 06
- Use 9 Jan 07
- Thai CCA completed in Sept.2010



Grand Opening Ceremony of the Mekong Friendship Bridge II  
on 20 December 2006



# Mekong Friendship Bridge III (Nakorn Phanom-Kammoun)



Nakorn  
Phanom

East-West Corridor

Mukdaharn

สะพานมุกดาหาร

Thailand

LaoPDR

Bridge+approach length  
1.423 kms  
Construction cost 1,761.5  
million baht

- Thailand's grant for FS, DD, and Construction
- Ground breaking ceremony on 6 March 2008
- Contracts 26 May 2009 - 11 November 2011, 900 days

Status

-Completed

-Open: 11/11/11



# Mekong Friendship Bridge III (Nakorn Phnom-Kammoun)



# R3E Road Construction

## Thailand - Lao PDR - China

### Project details

- 2-lane road construction,
- 228 km. in Lao PDR
- Completed Dec. 2007
- Soft loan from Thailand, China and ADB, 1/3 of construction cost for each party
- Officially open 31 March 2008 at GMS summit in Lao PDR





# R3E in Lao PDR (1996-2008)



1996



2008



2008







Mohan - Jinghong

R3E in CHINA (2008)

Jinghong - Kunming





# Friendship Bridge IV (Chiang Khong–Huayxay)



Past: Using barge for crossing



MOU signing ceremony  
21 June 2007 in the Philippines



Technical meeting (Thailand Lao China ADB)  
(27 June 2005)



# Friendship Bridge IV (Chiang Khong–Huayxay)



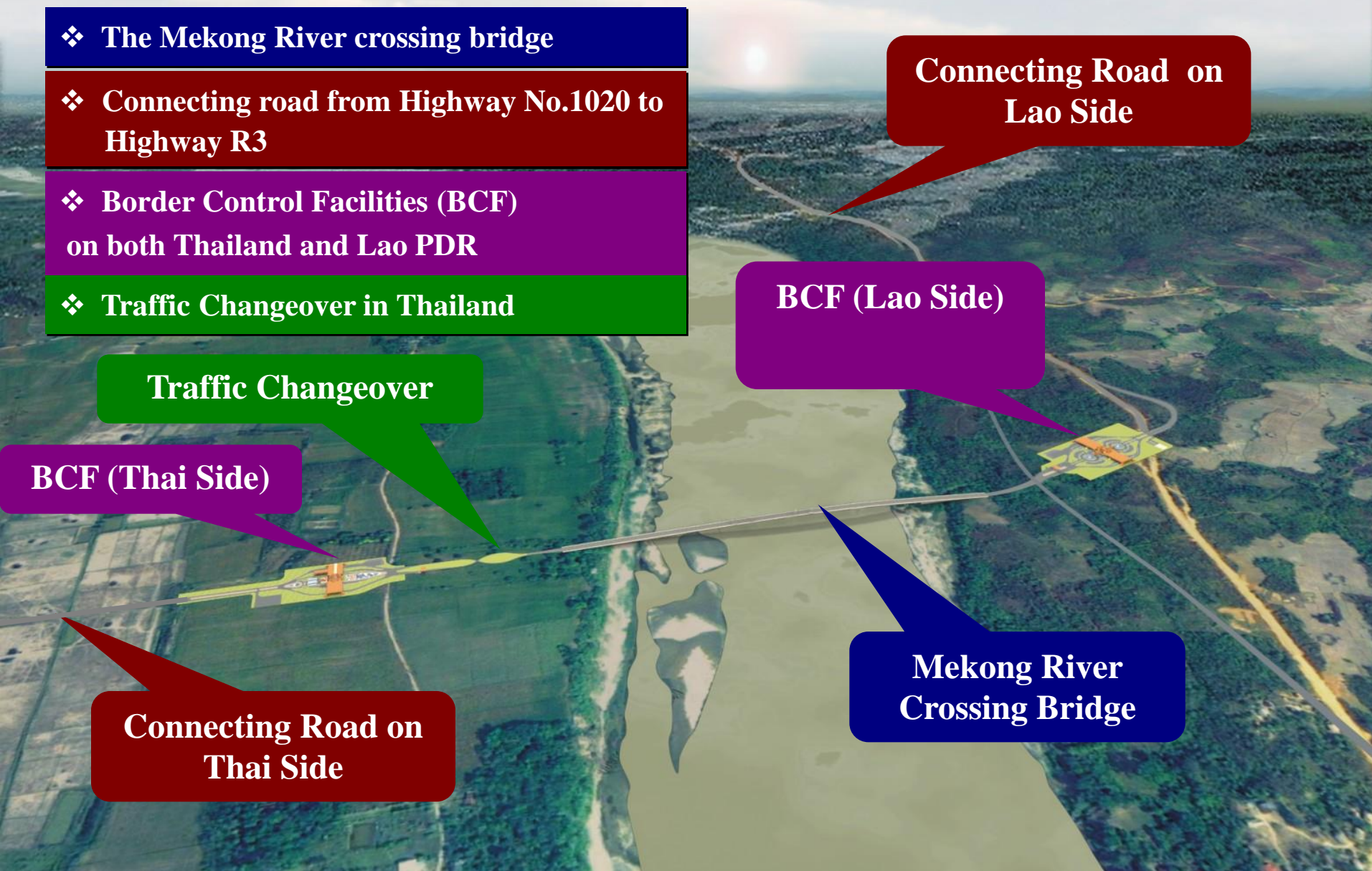
- 2003 GMS MM in China : Thailand requested China to share construction cost
- 2004 GMS Transport Forum in Cambodia: Thailand requested again
- 2005 ADB conducted study
- 2006 China and Thailand agreed to share construction cost 50:50
- 2007-2009 China Thailand Lao PDR and ADB set up Steering committee for Detailed Design w/ Thai Grant
- 2010 Procurement and construction
- 2013 Construction completed
- Opening 11/12/13



# Enhance Border Connectivity: Roads, Bridges, BCF

## MAIN COMPONENTS OF DESIGN WORK (Chiang Khong – Huayxay Bridge)

- ❖ The Mekong River crossing bridge
- ❖ Connecting road from Highway No.1020 to Highway R3
- ❖ Border Control Facilities (BCF) on both Thailand and Lao PDR
- ❖ Traffic Changeover in Thailand

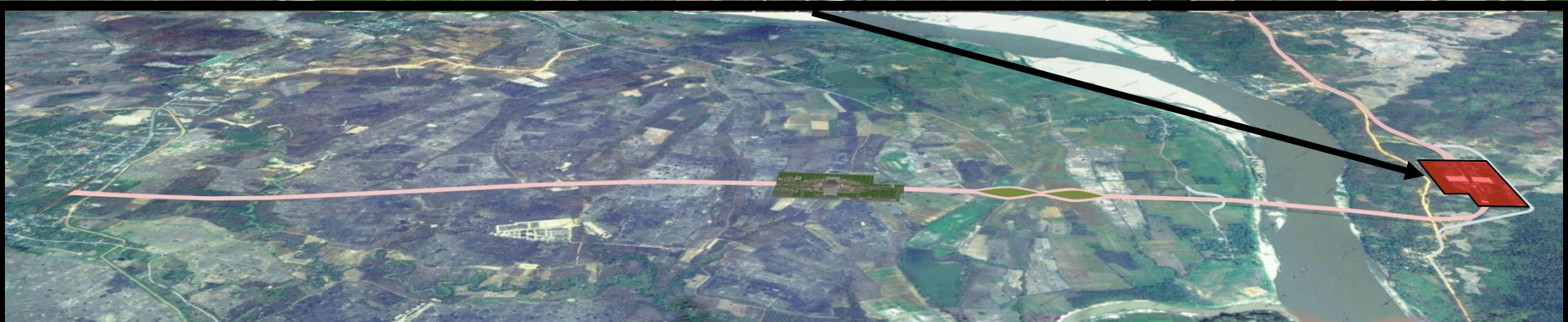






***Thai BCF***





***Lao PDR BCF***



INDIA

CHINA

MOREH (INDIA) /  
TAMU (MYANMAR)



# Thailand - Myanmar - India

## Transport Linkages

### Ministerial Meeting

23 December 2003

New Delhi





# Thailand - Myanmar - India

## Road Linkage Corridor

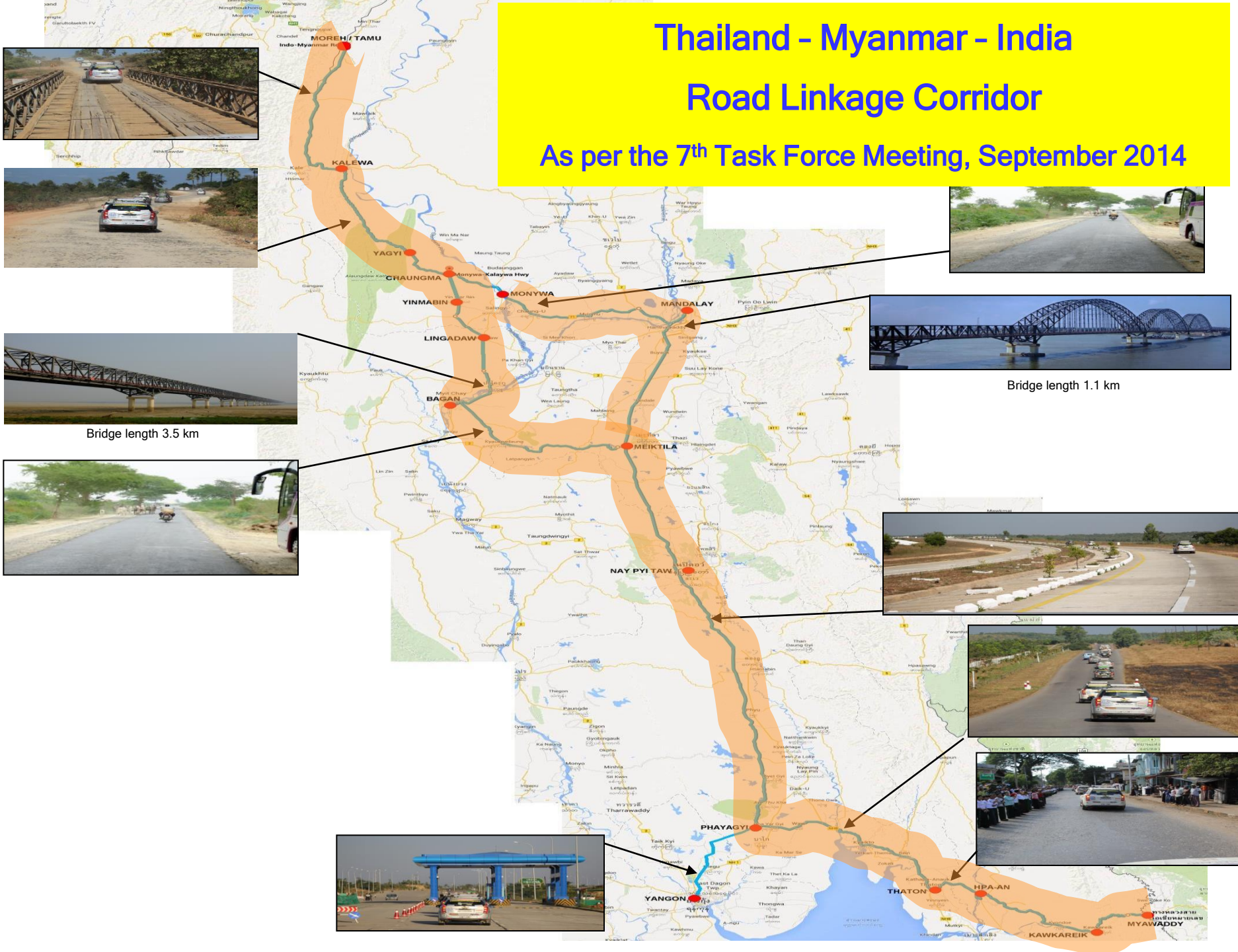
As per the 7<sup>th</sup> Task Force Meeting, September 2014



Bridge length 3.5 km



Bridge length 1.1 km

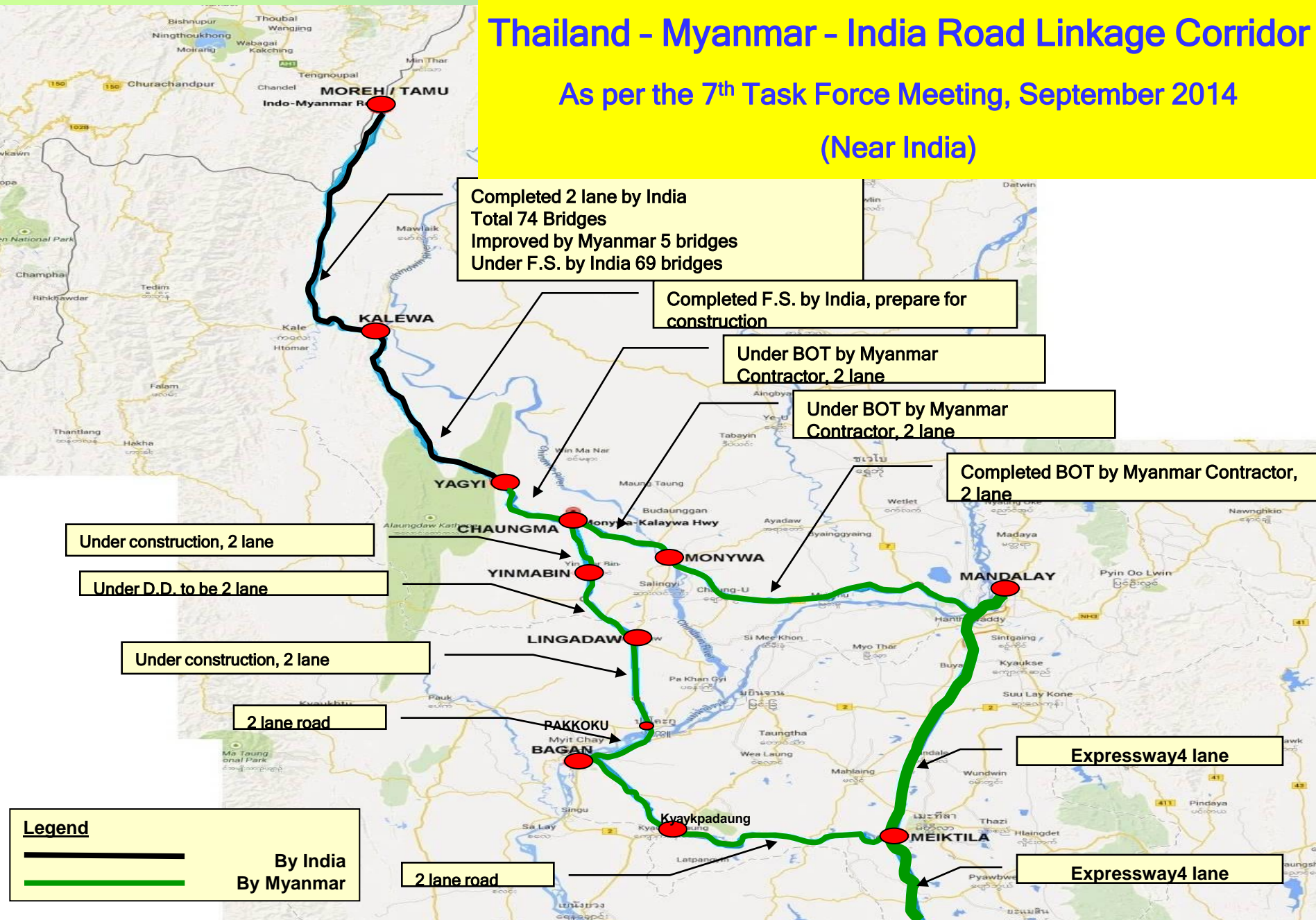




# Thailand - Myanmar - India Road Linkage Corridor

As per the 7<sup>th</sup> Task Force Meeting, September 2014

(Near India)



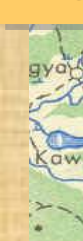






**Mae Sot/Myawaddy -Thingannyinaung (Dawna Range) 17.35 km.**

**Thai Grant 118.72 MB.  
Completed in June 2006**



**Thingannyinaung – Kawkareik 28 km.**

- D/D completed in October 2008
- Thai Grant 1,166 MB [package for repair the 1<sup>st</sup> Bridge and 18-km section (completed in May 2014), and build 28-km section (completed in Aug. 2015)]



# Thailand-Myanmar Corridor:

## Road Projects to support Dawei Port Development

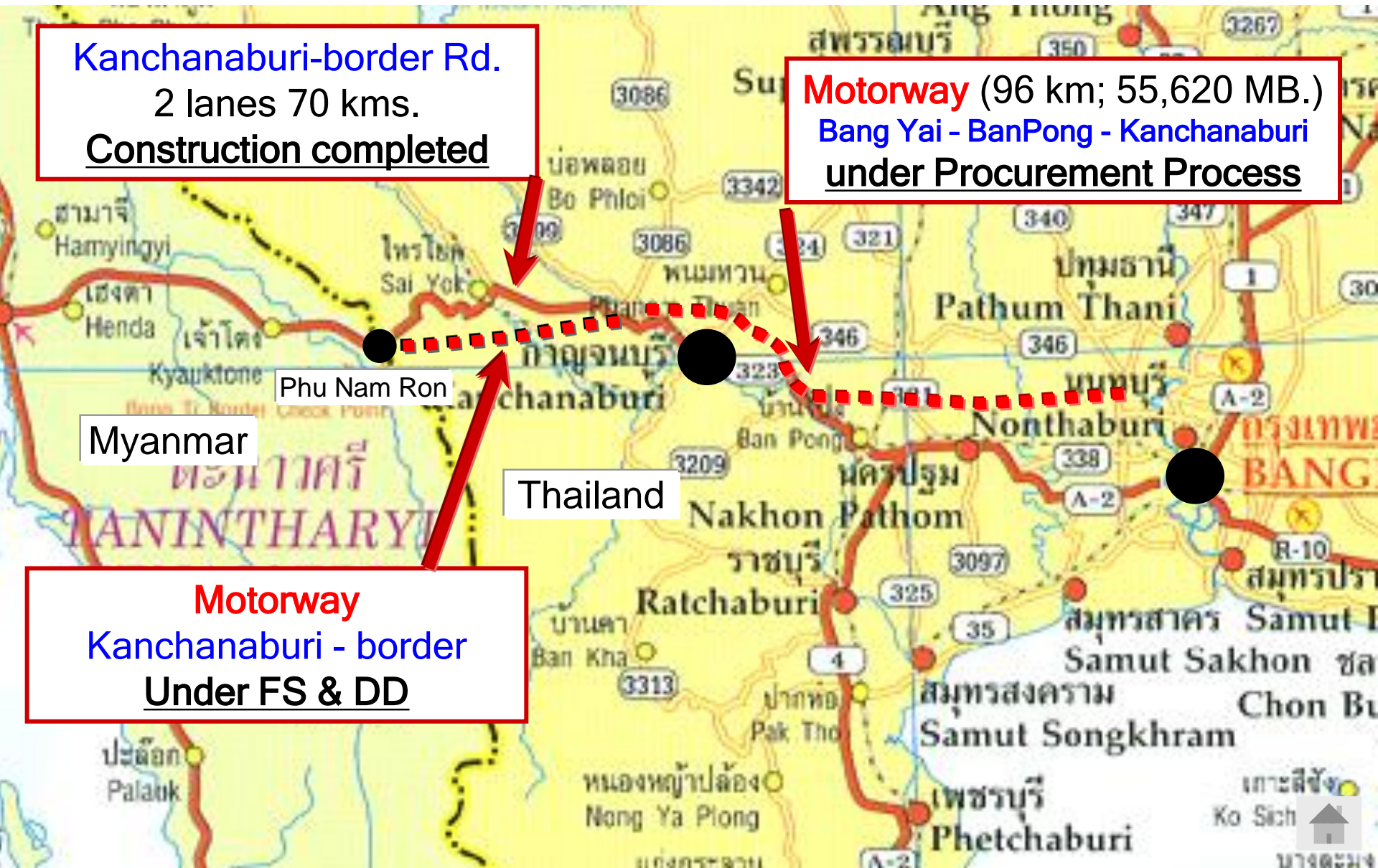
Kanchanaburi-border Rd.  
2 lanes 70 kms.  
Construction completed

**Motorway** (96 km; 55,620 MB.)  
Bang Yai - BanPong - Kanchanaburi  
under Procurement Process

Myanmar

Thailand

**Motorway**  
Kanchanaburi - border  
Under FS & DD



*Transport Facilitation*

*(Software Infrastructure)*



# GREATER MEKONG SUBREGION CROSS BORDER TRANSPORT AGREEMENT (GMS CBTA)

## Software Infrastructure (Simplify Rules and Regulations for Transport Facilitation)

- 17 annexes and 3 protocols
- All signed and ratified

ANNEX	1	Carriage of Dangerous Goods
ANNEX	2	Registration of Vehicles in International Traffic
ANNEX	3	Carriage of Perishable Goods
ANNEX	4	Facilitation of Frontier-Crossing Formalities
ANNEX	5	Cross-Border Movement of People
ANNEX	6	Transit and Inland Clearance Customs Regime
ANNEX	7	Road Traffic Regulation and Signage
ANNEX	8	Temporary Importation of Motor Vehicles
ANNEX	9	Criteria for Licensing of Transport Operators for Cross-Border Transport Operations
ANNEX	10	Conditions of Transport
ANNEX	11	Road and Bridge Design and Construction Standards & Specifications
ANNEX	12	Border Crossing and Transit Facilities and Services
ANNEX	13a	Multimodal Carrier Liability Regime
ANNEX	13b	Criteria for Licensing of Multimodal Transport Operators for Cross-Border Transport Operations
ANNEX	14	Container Customs Regime
ANNEX	15	Commodity Classifications Systems
ANNEX	16	Criteria for Driving Licenses
PROTOCOL	1	Design of Corridors, Routes and Points of Entry & Exit (Border Crossings)
PROTOCOL	2	Charges Concerning Transit Traffic
PROTOCOL	3	Frequency and Capacity of Services and Issuance of Quotas and Permits

# GMS Cross Border Transport Agreement

## Protocol 1 : Designation of Corridors, Routes, and Points of Entry and Exit Border Crossings

### 1. North - South corridor (R3)

Route: Kunming - simao - Mohan/Boten - Luang Namtha - Houayxay/Chiang khong - Chiang Rai - Tak - Bangkok

Route: Chiang tung - Thakilek/Mae sai - Chiang Rai - Tak - Bangkok

### 2. East - West corridor (R2)

Route: Mawalamyine - Myawaddy/Mae sot - Phitsanulok - Khon Kaen - Kanlasin - Mukdahan/Sawannakhet - Dan sawan/Lao Bao - Dong Ha - Hue - Danang

### 3. Southern corridor (R1, R10)

Route R1: Bangkok - Kabinburi - Sakaew - Aranyaprathet/Poi pet (or Bangkok - Laem Chabang - Sakaew - Aranyaprathet/Poi pet - Sisophon - PhnomPenh - Bovet/Mocbai - Hochiminh - Wang tao

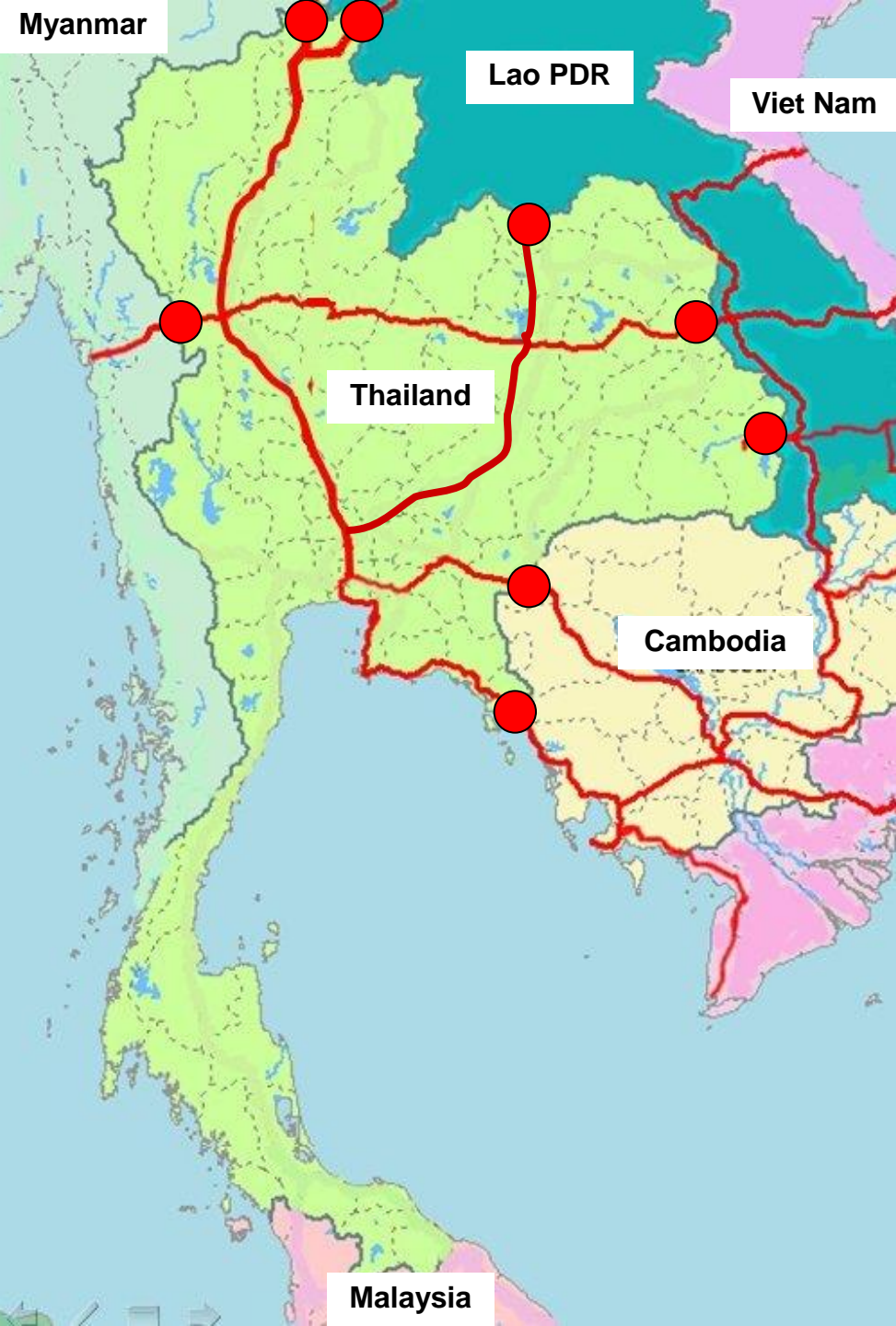
Route R10: Bangkok - Trat - Hat lek/Chamyam - Koh kong - Sre Ampel - kampot - Lok/Hatien - Kamao - Namkan

### 4. Others corridors

Route: Boten - Natoey - Udomchai - Luang Prabang - Viantaine - Thanalang/Nongkai - UdornThaini - Khon Kaen - Bangkok

Route: Jampasak - Wang tao/Chong mek - Ubon Ratchathani





# Designation of Corridors, Routes, and Points of Entry and Exit Border Crossings

## (GMS)

### 4 - Thailand - Lao PDR border crossing

- Chiang Khong/Houayxay
- Nongkai/Thanalang
- Mukdahan/Savannakhet
- Chong Mek/Wang Tao

### 2 - Thailand - Cambodia border crossing

- Aranyaprathet/Poi Pet
- Hat Lek/Chamyam

### 2 - Thailand - Myanmar border crossing

- Mae Sot/Myawaddy
- Mae Sai/Thakilek

### Procedure at border crossing

- Single window inspection (SWI)
- Single Stop Inspection (SSI)

### Concerned Authorities at border crossing

- Customs (C)
- Immigration (I)
- Quarantines (Q)

**International Road Development:**

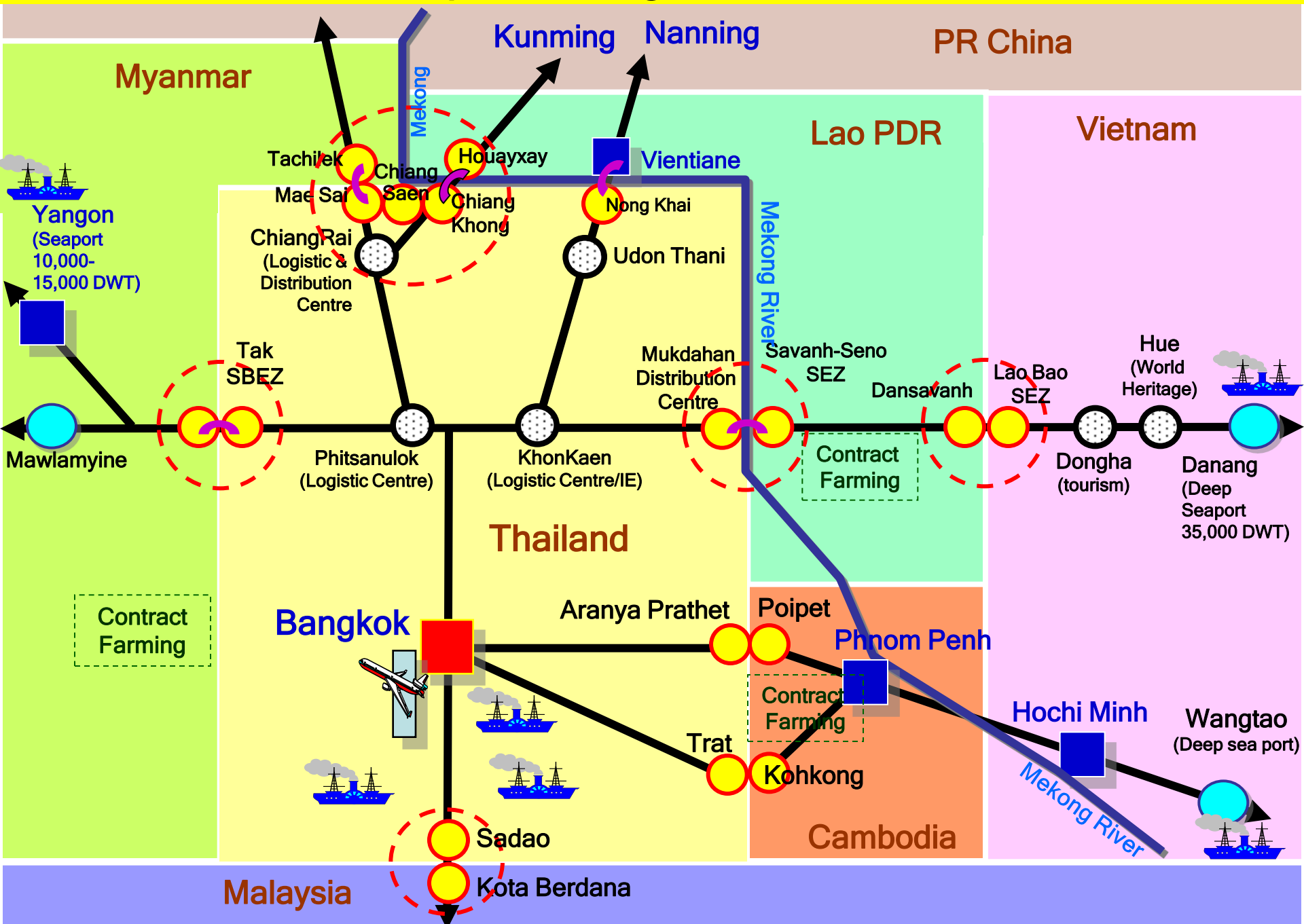
**Transport Corridors –**

**Logistics-- into**

**Economic Corridor**



# Multimodal Transport → Logistics → Economic Corridor



# **International Road Development:**

**-Encourage Regional Cooperation—**

**Integrated Corridor Linkages, eg, TMI, GMI, ASEAN, etc..**

**-Enhance Connectivity.....**





## Better Standard of Roads, Bridges & BCF







**Procedure at Border Crossing**  
**-Single Window Inspection (SWI)**  
**-Single Stop Inspection (SSI): CCA**

**Effective Cross Border Management and Facilitation**





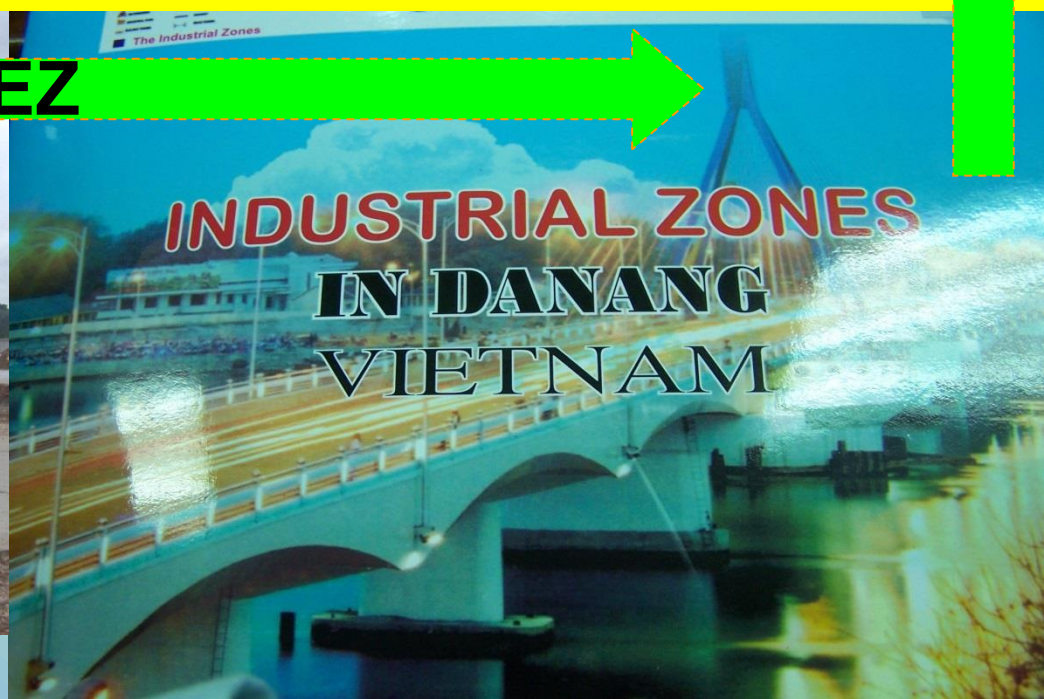


**Support Multimodal Transport, Trade, Logistics, and Induce Economic Growth**

**SEZ**



Koh Kong Industrial Estate  
(Cambodia)



**Thank you  
for  
your attention**