



**Twentieth Meeting of the Greater Mekong Subregion  
Subregional Transport Forum  
Nanning, People's Republic of China  
29–30 June 2016**

**SUMMARY OF PROCEEDINGS**

**Introduction**

1. The Twentieth Meeting of the Subregional Transport Forum (STF-20) was held in Nanning, Guangxi Zhuang Autonomous Region, People's Republic of China (PRC) on 29–30 June 2016. The Meeting was jointly organized by the Ministry of Transport (MOT) of PRC and the Asian Development Bank (ADB). The objectives of the Meeting were to: (i) consider the implications on the transport sector of the review of the configuration of the Greater Mekong Subregion (GMS) economic corridors and their proposed expansion and realignments; (ii) review progress in implementing high priority transport projects in the GMS Regional Investment Framework Implementation Plan (RIF-IP); (iii) take stock of the existing practices on axle load control in the region, with a view to come up with proposals on improving their effectiveness; (iv) review progress and plans in the GMS railway sector, including updates and next steps for the Greater Mekong Railway Association (GMRA); and (v) discuss other topics relevant to the transport sector. (The Meeting Program and Agenda is attached as **Appendix 1**).

2. The Meeting participants included delegations from the Kingdom of Cambodia, PRC, the Lao People's Democratic Republic (Lao PDR), the Union of the Republic of Myanmar, the Kingdom of Thailand, the Socialist Republic of Viet Nam, and ADB. Representatives from four development partners, the Agence Française de Développement (AFD), the Neighboring Countries Economic Development Cooperation Agency (NEDA) of Thailand, the Japan International Cooperation Agency, and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) also attended the Meeting. (The list of participants is attached as **Appendix 2**).

3. The Meeting was chaired by Mr. Ren Weimin, Director-General, Department of International Cooperation, Ministry of Transport, PRC and co-chaired by Mr. Hideaki Iwasaki, Director, Transport and Communications Division, Southeast Asia Department, ADB. His Excellency, Mr. Dai Dongchang, Vice Minister, Ministry of Transport, PRC gave the Opening and Welcome Remarks.

**I. Opening Session**

4. H.E. Dai Dongchang, in his opening remarks, highlighted three points. First, he noted the special significance of STF for transport cooperation in the GMS. It has been functioning as the key platform and working mechanism for promoting transport development and cooperation in the GMS, developing strategies for transport sector development, identifying essential infrastructure projects, and coordinating project implementation. The STF's work has helped achieve enhanced transport connectivity, intensified transport safety and efficiency, and improved capacities of the transport professionals.

5. Second, he emphasized China's commitments to improving the connectivity of the Subregion. PRC's achievements in the transport sector under the 12th Five-Year Plan period involve a total investment of CNY 12.5 trillion in fixed transport assets, including development of an integrated network of highways; railway lines reaching a total of 120,000 kilometers (km), of which 42,000 km are express railways, and 19,000 km are high-speed railways; open-to-traffic highways reaching 4.57 million km, including 120,000 km of expressways and 3.97 million km of rural roads. PRC has also endeavored to contribute to the common development of her neighbors and partners, and for this reason has put forward the Belt and Road Initiative, a development strategy and framework that focuses on connectivity and cooperation, and aims at the development of all relevant countries, including the close neighbors in the GMS. Relatedly, PRC initiated the Lancang-Mekong Cooperation (LMC) Mechanism among the six countries in the subregion.

6. The 1st LMC Leaders' Meeting held in Sanya, PRC, in March 2016 agreed on a comprehensive plan to deepen cooperation and build an integrated connectivity network covering railways, highways, waterways, ports, and aviation to enhance the connectivity among the six countries. Premier Li Keqiang also announced at the meeting that China would provide CNY 10 billion (\$1.54 billion) in preferential loans and a credit line of \$10 billion to support infrastructure and production capacity projects in cooperation with the LMC countries. It is PRC's hope that both the Belt and Road Initiative and the LMC Mechanism can work together with GMS Program to bring greater benefits and welfares to the subregion. Lastly, he put forward some proposals for the future work of STF, among which are closer collaboration between the GMS STF with the Belt and Road Initiative and the LMC, full support for the formulation of a new GMS Transport Sector Strategy (TSS) to guide the sub-regional development and cooperation in a systematic and integrated way and focusing on both infrastructure construction and multi-modal transport development. (The opening speech is in **Appendix 3.**)

7. Mr. Hideaki Iwasaki, Co-Chair, in his opening statement, noted that the transport sector will continue to have a crucial role in the development of the GMS economic corridors, which are the main means for realizing the GMS vision of an integrated and prosperous subregion. GMS transport cooperation has achieved much in the last two decades in building the vital links through which flow trade, investment, tourism and other important forms of economic exchange. For the medium term, a roadmap for further developing the GMS transport network, has been formulated, as embodied in the transport pipeline of the Regional Investment Framework Implementation Plan, or RIF-IP. The STF-20 meeting will look at the progress in implementing this pipeline as well as have a chance to do a midterm review of the RIF-IP and try to assess the real prospects of the projects and to streamline the pipeline.

8. The meeting will also look at the results of a review of the GMS economic corridors to consider ways of making them more relevant and enhancing their potentials in the face of a rapidly changing regional and global context. The meeting will, likewise, review the work and plans of the GMRA, the body that serves as the venue for coordinating the GMS countries' plans in the development of this strategic area of multimodal transport. Moreover, although GMS transport sector development has been guided well by the Transport Sector Strategy (TSS 2006–2015), the last decade also saw many circumstantial changes that significantly influence the way transport plays its role in the region's economic development.

9. The next TSS, the initial concept for the preparation of which will be presented to the meeting, must therefore be responsive to current and future needs in the region. Moreover, as

the GMS transport network expands, the next challenge will be to ensure that the expanded network will last long to benefit current and future generations. Hence, there is a crucial role for sound road asset management, and effective axle load control to prevent overloading will be a key to ensure lasting value and utility of road assets. STF-20 will also devote substantial time to this important issue, and hopefully gain some useful lessons from the experience of some GMS member countries. Lastly, it must be recognized that in order to succeed in all the efforts, the support of development partners would be crucial. (The opening statement is in **Appendix 4.**)

## **II. Session 1. Countries' Presentations on the Implementation Progress of Transport Projects under the RIF-IP**

10. Mr. Cuong Minh Nguyen of the GMS Secretariat at ADB presented an introductory briefing on the process of the preparation of the Third Progress Report. He said that the preparation of the this report has an added significance, since at the GMS Senior Officials Meeting held on 28 April 2016, the GMS Secretariat was directed to undertake a quick Midterm Review (MTR) on the RIF-IP. Therefore, aside from just giving the usual updates on the status of the projects in the RIF-IP, the countries will have to make an assessment of the projects and determine which ones have not moved and show no promise of advancing in the medium term, and therefore could be proposed for deletion from the RIF-IP (but still retained in the RIF long list). At the same time, other projects with greater priority and potential in the RIF long list, or from outside the RIF – can then be proposed for addition to a new, rolled over RIF-IP. In this regard, he reminded the meeting of the criteria for including a project in the RIF-IP, as follows:

- (i) subregional development benefits and impact;
- (ii) economic (financial) viability;
- (iii) implementation time frame (likely to commence by Dec 2018; financial closure within 5 years);
- (iv) availability of financing;
- (v) status of preparation;
- (vi) national priority; and
- (vii) other criteria as may be agreed upon by sector working groups, task forces and forums

11. He then presented a proposed timetable for the MTR process, leading to the presentation of the final overall Third progress Report *cum* MTR of the RIF-IP to the 21st GMS Ministerial Conference on 31 November–1 December 2016. He further noted that the countries' sector focals, including the transport sector focals, still have to submit to the GMS Secretariat, through their respective GMS National Coordinators, their final progress reports as of end-June 2016 (using the prescribed format) *cum* their MTR proposed additions, deletions, and modifications, **on or before 25 July 2016**. (Copy of his presentation is in **Appendix 5.**)

12. The GMS delegations presented their respective countries' status reports on their transport projects in the RIF-IP. The reports may be summarized as follows:

### **Cambodia:**

- Cambodia's transport projects under the RIF-IP are generally on track;
- Construction of the railway bridge at the Poipet–Aranyaprathet border with Thailand was already completed in August 2015 with assistance from Thailand;
- F/S for the Phnom Penh–Sihanoukville highway project has been completed and the study results is currently being analyzed by Ministry of Economy and Finance; implementation is expected by the end of 2016;

- The scope of CAM-TRA-02 (GMS: Deepening Connectivity of Southern Economic Corridor Project) has been changed and now consists of 2 road improvements projects covering around 415 km, renamed “Road Network Improvement Project”, expected to commence in 2017;
- The link road between National Road (NR) 5 and NR 6 near Kampong Tralach north of Phnom Penh has shown no progress and its implementation has been re-set from 2017 to 2019; and
- Financing for the Sihanoukville Port access road (9.5km) is still being sought.

#### **People’s Republic of China:**

- Implementation of China’s transport projects under the RIF-IP are on track;
- Construction of 3 projects (Yunnan Pu’er Regional Integrated Road Network Development Project, Dali–Ruili Railway, and Yuxi–Mohan Railway) are ongoing; and
- Preliminary work of the project on Further Maintenance and Improvement of the Upper Mekong Navigation Channel has started, with the field work to be carried out soon.

#### **Lao PDR:**

- A number of Lao PDR’s projects under the RIF-IP have made satisfactory progress;
- The four road projects are broadly on track, one of which has already commenced (Hongsa [Xayaboury]–Chomphet [Luang Prabang] Rehabilitation) and the rest are at various advanced stages of preparation;
- One bridge construction project was completed (Luang Namtha–Xiengkong–Lao–Myanmar Friendship Bridge: NR 17) and another is under a loan request process from Thailand;
- Out of five border crossing projects, one is progressing toward its completion, while the rest are seeking financing;
- The implementation of one river port project is expected to commence in early 2017, while another port upgrading project is under a pre-FS process; and
- The only railway project (Vientiane–Boten Railway Project) is at a late stage of concession agreement review before the beginning of construction.

#### **Myanmar:**

- Myanmar’s transport projects under the RIF-IP are generally on track;
- The Lao Myanmar Friendship Bridge over the Mekong River at Xiengkong–Kyainglap was completed and inaugurated in May 2015;
- Construction of Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements (with assistance from Thailand) is ongoing and completion is expected by end of 2017;
- Construction of the East-West Economic Corridor Eindu to Kawkaeik Road Improvement Project (with assistance from ADB) will commence in September 2016; and
- The project on Improvement of six Inland Ports along the Ayeyarwaddy and Chindwin Rivers is at the project study/preparation stage.

#### **Thailand:**

- Thailand’s transport projects under the RIF-IP are generally on track;

- Five of the six road projects are already under construction/partially completed, while one (Bang Yai–Kanchanaburi Intercity Motorway Project) has been approved by the Cabinet;
- The detailed design for the Mekong Bridge at Bungkan–Paksan (with LAO) has been completed and the Lao Government is considering seeking financing for the Lao part from NEDA;
- The engineering design and economic and financial study for the Laem Chabang Port Development Project, Phase 3 has been completed, but assessments of other aspects (e.g., environmental, health) still in process; and
- The Single Rail Transfer Operator Development Project for Laem Chabang Port has been approved by the Cabinet and implementation will commence in 2018.

**Viet Nam:**

- The two expressway projects are on track: Ben Luc–Long Thanh expressway (stage 2) – FS completed, and 8 of the 11 contract packages have been implemented and the remaining 3 under procurement; Ha Noi–Lang Son Expressway – FS for completion in 2nd quarter of 2016;
- The Second GMS Northern Transport Network Improvement (Luang Prabang–Thanh Hoa) Project is ongoing, with some components substantially completed;
- Implementation of the Second GMS Southern Coastal Corridor is expected to commence in 2018; and
- Project concept of the National Highway 14D Improvement Project is under preparation, PPTA is expected to commence in early 2017.

13. The GMS delegations' respective country presentations are in **Appendices 6-A to 6-F**.

**Proposed Changes under the Midterm Review:**

14. The delegations from Lao PDR, Myanmar, Thailand, and Viet Nam proposed no deletions, modifications, or additions to their RIF-IP pipelines for the transport sector.

15. The delegation from PRC proposed that the TA project on the Promotion and Application of the Northeast Asia Logistics Information Service Network (NEAL–NET) be deleted from the RIF-IP since this is already being undertaken under the ASEAN-China framework; deletion will avoid duplication.

16. Cambodia proposed three projects for addition to the RIF-IP, as follows:

- (i) Railway Access to the New Phnom Penh Port (53km) – this project is expected to have the following benefits:
  - connecting two international ports;
  - enhancing multimodal transport;
  - reducing road accidents and traffic congestion; and
  - cost and time reduction through containers' mass transit mode.

It was noted that the *study* for this project was included in the RIF. Cambodia is now proposing that the project *construction* itself be included as an investment project in the RIF-IP and therefore, also in the RIF. The estimated cost of the project is \$200 million, and financing is being sought from multilateral/bilateral development partners and/or private sector investors. [Co-Chair suggested that if this project is being proposed for partial ADB financing, it should be raised in the

country assistance programming exercise that is undertaken between ADB and the government of Cambodia.]

- (ii) Southern Siem Reap bypass road (193.7 km) – this project is expected to have the following benefits
  - reduce road accidents and traffic congestion in Siem Reap City; and
  - smooth traffic movement on the Southern Economic Corridor (SEC).

It was noted that there is a need to construct a new road that will bypass Siem Reap in order to avoid the congested roads in the city as one moves along the SEC toward the border with Viet Nam. The road will also avoid the protected area around Angkor Wat. The project cost is estimated at \$200 million.

- (iii) Construction of Bus/Truck Driving Test Center – The reasons given for this project were:
  - lack of facilities and equipment for bus/truck drivers' testing;
  - lack of professional heavy vehicles' drivers, especially for cross border vehicle; and
  - reduce road accidents.

This was proposed as a technical assistance (TA). However, it was noted that since the estimated project cost of \$10 million is relatively large and since it involves procurement of equipment and/or construction of facilities, it may be more appropriate to classify it as an investment project. The Co-Chair further observed that the project addresses a definite and recognized need in the region, and a regional TA involving all countries can be developed by ADB with the same objective. The specific project for Cambodia, however, may consist of a combination of a TA and an investment project, with the latter involving the actual setting up of a proposed center.

17. Co-Chair requested the countries to provide any further comments that they may have, particularly on the proposed additions, deletions and modifications, on or before 25 July 2016. They can send the comments to the GMS Secretariat at ADB and the latter will take these into consideration when preparing the consolidated Third Progress Report *cum* MTR of the RIF-IP, which will then be one of the deliverables to the 21st GMS Ministerial Conference in November 2016. Mr. Cuong reminded the delegations that they still have to submit through their respective National Coordinators their formal (using the required format) and final Third Progress Report *cum* MTR of the RIF-IP (together with other sectors' reports) by 25 July 2016.

### **III. Review of the Configuration of GMS Economic Corridors**

18. Dr. Filologo Pante, Jr., ADB consultant for the study, gave a presentation on the Review of the Configuration of GMS Economic Corridors. This study-review was mandated by the GMS Economic Corridors Forum (ECF). Among the major considerations for the review were: (i) developments following opening up of Myanmar should be taken into account; (ii) corridors to include and link all GMS capitals and major economic centers; (iii) corridors are to be connected to major maritime gateways and industrial hubs; and (iv) major trade flows are reflected in the alignment of the economic corridors.

19. The extensions/realignments proposed by the study aimed to address the following identified gaps: (i) limited coverage in Myanmar and Lao PDR; (ii) Yangon, Nay Pyi Taw, and

Vientiane are not included in any economic corridor; (iii) Yangon port not linked to any economic corridor; and (iv) Principal cross border trade routes not reflected in the existing economic corridors (i.e., PRC–Myanmar, Myanmar–Thailand, PRC–Lao PDR–Thailand). He then presented a proposed new economic corridors map showing the proposed extensions/realignments, and cited the need for complementary measures such as renaming the economic corridor routes and adopting a classification system to guide investment prioritization.

20. He further made the following additional recommendations: (i) preparing a GMS Multimodal Transport Strategy, (ii) adopting network approach, (iii) maximizing benefits from economic corridor development (e.g., accelerating Cross-Border Transport Agreement (CBTA) implementation, developing feeder roads and national networks linked to economic corridors, and (iv) intensifying programs to expand employment along and around economic corridors. (Copy of his presentation, including the new map, is in **Appendix 7**.)

### **Discussion:**

21. The country delegations gave the following comments:

- **Cambodia** expressed support for the ideas presented in the review. Cambodia is included only in the SEC, which maintains the same configuration in the new map and this is enough for the country. The Southern Coastal Corridor (SCC), which is part of the SEC, should not be considered less important than the other corridors.
- **PRC** agreed in principle with the recommendations of the review. They expressed hope that further analysis would be taken to identify priority infrastructure projects along the corridors, and that the proposed new TSS could further elaborate on required actions. They also agreed with the recommendation that eventually the economic corridors should evolve into a single “network”, which can be used for connecting to any point in the subregion, and emphasized the importance of renaming the network and its components for clear referencing.
- **Lao PDR** also expressed support for the review and its recommendations. They noted, for instance, the importance for Lao PDR of the proposed extensions/realignments in the development of corridor towns, enhancing connectivity with Thailand and other neighbors, and linking to Vung Anh port in Viet Nam, which is important for Lao PDR.
- **Myanmar** expressed support for the expansion of the North-South Economic Corridor (NSEC) and East-West Economic Corridor (EWEC) into the country, which is a priority for their new government.
- **Thailand** expressed that they had no objections to the proposed extensions/realignments, which have undergone consultations with their relevant authorities. However, they pointed out that the existing GMS corridors are the ones officially indicated in the GMS CBTA and its Annexes and Protocols, which have been fully ratified last year. They raised the issue of how the proposed changes in routes and names could affect the CBTA and its Annexes/Protocols, which might then need to be changed and ratified again.
- **Viet Nam** also expressed support for the review and its recommendations, but said they would need more time to obtain internal endorsement of the proposed changes. (They also raised other issues, e.g., that ADB should continue to

support railway development in the same way that it supported roads development [in the context of support for the GMRA], proposal for ADB to review the CBTA and possibly supplement it.)

22. Further points and clarifications were made, as follows:

- In response to Cambodia's comment regarding SCC, Dr. Pante noted that the subcorridor is being given the same importance as other components of the SEC and is in fact receiving assistance from various development partners.
- On the matter of renaming the corridors, Dr. Pante explained that the proposal is to use the nodal points along the routes for clarity, accompanied by an acronym. For example, the Western Subcorridor of NSEC would be renamed: "Kunming–Chiang Rai–Bangkok via Lao PDR or Myanmar Corridor: NSEC1", the Central Subcorridor of SEC would be renamed "Dawei–Bangkok–Phnom Penh–HCMC–Vung Tau Corridor: SEC1", and similarly for the other corridor routes.
- Mr. Cuong made the clarification that the nine corridors referred to in the Transport Sector Strategy are transport corridors, which should be distinguished from the three priority economic corridors.
- In response to a question by Myanmar, Dr. Pante stated that Mawlamyine will still be part of the expanded EWEC.
- With regard to the CBTA, the meeting was informed that the Joint Committee of the CBTA and National Transport Facilitation Committees will meet in Thailand in July to take up possible amendments to the CBTA, but these will not be in the context of the review of the configuration of economic corridors. The Co-Chair informed the forum that his division in ADB will now be involved in the CBTA. He further noted that in addressing the issue of the impact of the proposed changes in the configuration of the corridors on the CBTA, a practical approach must be taken.

23. The Chair made the observation that although the study and its recommendations are well received by the STF, it may be asked whether the STF, which is composed of transport officials, is the correct venue for presenting proposed changes in the *economic* corridors. Likewise, it may be asked whether it would be more appropriate to first review and propose changes in the *transport* corridors and, from there, undertake a re-prioritization to identify the new economic corridors' configuration. A clearer distinction must be made between transport corridors and economic corridors. The Co-Chair agreed that in presenting the study results and recommendations to the ECF or the GMS Ministerial Conference, a clear distinction between transport and economic corridors must be provided and the implications with regard to the CBTA should be taken into account.

#### **IV. Planned Preparation of a New GMS Transport Sector Strategy**

24. The Co-Chair, Mr. Iwasaki, ADB, made a presentation on the initial plans to prepare a new GMS TSS, which will be the successor of the TSS (2006–2015) whose term ended last year. A new strategy is required to meet new needs and give broad directions for overall transport development in the medium-to-long term, in the face of significant changes in the region, such as the opening of Myanmar, the advent of the ASEAN Economic Community and other emerging Regional Cooperation and Integration initiatives, and so on. The New TSS will provide the strategic directions, basic principles, and broad priorities to guide GMS transport development and cooperation in the next 5–10 years, instead of a pipeline of specific projects,

which after is already addressed by the RIF. Some of the basic elements that are envisioned to be embodied in the new TSS are: multimodalism, climate change mitigation/adaptation, sound transport asset management and cost recovery principle, complementary logistics development, smoother cross-border transport flow, and involvement of the private sector. (The presentation on the initial concept on the preparation of the new TSS is in **Appendix 8.**)

#### **Discussion:**

25. The country delegations expressed strong support for the preparation of a new TSS, and in addition gave the following comments:

- **Cambodia:** Apart from multimodalism, the new TSS can also look at urban transport development, particularly urban public transport, in view of the increasing congestion and demand for transport in the subregion's growing urban centers.
- **PRC** raised the following points and suggestions:
  - The new TSS should be developed on the basis of a review of the previous TSS.
  - It should focus on both the infrastructure construction and the multi-modal transport development. A lot has been done in transport infrastructure, but further efforts must be directed at addressing, for instance, remaining missing links in corridors and developing feeder roads.
  - The new TSS should focus other important aspects, such as:
    - the roles of transport sector in promoting urbanization and global competitiveness,
    - improving the capacity of some key segments of the transport corridors,
    - good transport asset maintenance,
    - transport safety,
    - human resources development for the transport sector.

26. Mr. Iwasaki thanked the countries for their support and comments and assured that these further aspects suggested by the countries to be covered by the new TSS, which are very important, will be taken into consideration in the preparation of draft TSS. He reiterated that the new TSS will not be an investment or operational plan, since this is already provided by the RIF and RIF-IP. It will instead be a higher and broader level of policy and/or strategy. The promotion of socio-economic development and overall competitiveness of the subregion is the overarching objective of the new TSS.

#### **V. Review of Progress and Plans in the GMS Railway Sector**

27. Mr. Ouk Sota, Deputy Director, Railway Department, Ministry of Public Works and Transport, Cambodia, presented the objectives and activities of, and the challenges facing, the GMRA. He first presented some basic data on the railway sector in the GMS as well as the benefits that an inter-connected railway system would bring. He then gave background information on the establishment of the GMRA. He also presented the GMRA organizational structure, including its three Working Groups (i.e., Network Connectivity; Network Integration and Interoperability; and Partnerships and Operations), and the accomplishments of the groups so far. He then presented the challenges that the GMRA is facing, among which are: (i) securing funding to build the missing links; (ii) continued development the institutions and mechanisms

for the operation of the a regional railway network; and (iii) the development of a of a cross border rail transport agreement. He noted, however, that perhaps the biggest challenge now facing the GMRA is how to survive financially, in view of the fact that GMRA members will now be responsible for funding GMRA's operations, and it has not yet been resolved how this self-funding can be implemented in a practical manner. (The GMRA presentation is in **Appendix 9.**)

#### **Discussion:**

28. PRC said their main takeaway from the meetings of the four GMRA working group meetings that they attended was that the Association was facing great difficulties in terms of finding financing for the missing link construction projects as well as for their operational phase. If the countries are not confident that they will find resources to finance these, they feel there is no incentive to contribute to funding the GMRA by way of paying membership fees. It was also noted that railway projects have low returns, and as such it may be asked if it will be possible for them to be financed under the RIF-IP, and if so how long they will have to wait to obtain financing.

29. Co-Chair further noted that the investment recovery period for railway projects is usually much longer than for other transport projects and therefore perhaps the selection criteria for railway projects should be different. Also, usually the unprofitable segments of railway lines have to be subsidized by the profitable ones. He also clarified that a project's inclusion in the RIF-IP does not necessarily mean that financing will be readily available; rather, it only means that development partners/potential financiers will see that it is a priority project and may consider it for financing. He also noted that rail missing links have differing readiness for implementation; the ones with higher readiness can perhaps be presented to STF for possible inclusion in the RIF-IP. He noted that there are already some rail missing link projects currently included in the RIF-IP. He added that in many other parts of the world, railways are losing out to motorized transport. Unless the network effect of railways is capitalized, railways will find it difficult to compete with other transport modes.

30. Mr. Sota informed the forum that at the GMRA Board meeting in Bangkok, the main issue discussed was how to finance GMRA operations going forward, and the matter of rail missing links was only a secondary issue. Co-Chair clarified that ADB will be willing to provide support in technical matters but with regard to funding for operations, it would like to adhere to the MOU provision emphasizing member countries' ownership of the Association and commitment to finance its operations after the initial two years.

31. The Chair remarked that it was clear that the GMRA is encountering difficulties regarding sustaining its operation and it needs the support from the countries, ADB, and other development partners. He expressed the hope that a solution can be found that would be acceptable to all concerned parties.

#### **VI. Stock-taking of Practices on Axle Load Control in the Region and Proposed improvements**

32. Mr. Shihiru Date, Senior Transport Specialist, Transport and Communications Division, Southeast Asia Department, ADB, introduced the session by recalling that at STF-19, it was agreed that ADB would initiate a study on stocktaking on axle load control in GMS countries. He presented the timetable for the preparation of this study, which aims to make an analysis, assessment, and recommendations based on the stocktaking. The sharing of experience in this area by the presenters in this session can also serve as inputs to this study. He then proceeded

to present a successful case of axle load control in Southeast Asia, namely, the axle load control system in Singapore. (His presentation is in **Appendix 10**.)

33. PRC made a presentation on the Management of Highway Axle Load in China. The presentation first showed the current situation of highway development in the PRC; then explained the technical standards of highway load that applied in the PRC, which involve advanced calculation modes and scientific and reasonable limits; and finally discussed the system of management of highway traffic load, which involves multiple agencies that work together and utilizes legal, administrative, economic and technological means. (The PRC presentation on axle load management is in **Appendix 11**.)

34. Thailand made a presentation on their axle load control system. The presentation included the technical standards applied on allowable loads per axle of trucks, the functions of the Office of Traffic Weight Control of the Department of Highways, the procedures employed in controlling/preventing overloading on highways including the use of weigh stations, and the enforcement law on overloading including the penalties imposed on violators. (The Thailand presentation on axle load control is in **Appendix 12**.)

35. Mr. Kondo Tatsuhito of the Japan International Cooperation Agency (JICA) presented the current situation and countermeasures about overloading problems that occurred in their technical cooperation programs of road maintenance in Lao PDR and Cambodia. (The JICA presentation is in **Appendix 13**.)

#### **Discussion:**

36. With regard to penalties on violations, the forum made a query as to whom the penalties are imposed on. In Singapore, these are imposed on the driver if he is also the operator and on both the driver and the operator if these are separate entities. In PRC, this would depend on the nature of the contract between the driver and the operator/carrier. In Thailand, penalties are imposed on the operator.

37. Another question by the forum on how corruption and governance issues are addressed, most countries said they employ technology such as CCTV cameras and control room monitors for surveillance, etc. They also employ check-and-balance, such as in PRC's involvement of multiple agencies in highway load control procedures.

38. With regard to providing appropriate incentives to enforcers, GMS countries have varying practices. In most countries, enforcers work in shifts so as not to be overburdened, and most of them are civil servants. In PRC, the salaries are standardized based on actual work environment. In some countries, certain portion of the penalties/fees collected is paid to the enforcer-staff (e.g. 60% in Thailand, 40% in Cambodia and Viet Nam).

39. With regard to the special case of Lao PDR, which often serves only as a transit route for other countries' trucks, it was noted that there is a need to upgrade axle load standards in order to have better road maintenance. ADB is providing assistance to Lao PDR for this purpose.

40. With regard to the responsibility of the load source (e.g., quarries) in determining if trucks are overloaded, PRC noted that that some sources have in-house weighing stations and some do not. However, as soon as the trucks enter the road and if they are found to be overloaded, both the trucks/operators and the load source will be fined.

41. The Co-Chair informed that ADB will prepare the Terms of Reference for the technical assistance that will study and prepare general recommendations on axle load control, and that the countries' inputs in terms of data and other information will be solicited. He noted, however, that there is no single solution that fits all cases in this region.

## **VII. Statements from Development Partners**

42. Mr. Stephane Carcas of Agence Française de Développement (AFD) stated (in addition to the AFD general background material he provided, which is in **Appendix 14**) that AFD is involved in such initiatives as reducing carbon footprint in cities as well as urban transport. In the GMS, it is involved in such projects as developing the rail link between Lao PDR and Thailand and urban transport development in Yangon. He expressed hope that urban transport will also be integrated in the next GMS TSS. He said AFD is ready to consider providing assistance to railway projects both for freight and passengers, green ports, river transport, and urban transport.

43. Mr. Takaaki Kawano of JICA made a presentation on their support for Quality Infrastructure. He noted that Asia needs a huge amount of infrastructure development to continue to be a growth center. He cited an ADB study that estimated that about \$8.2 trillion is needed for infrastructure development in Asia from 2010 to 2020. As part of its Partnership for Quality Infrastructure, which aims to bridge the infrastructure gap in Asia which has become a bottleneck in economic growth, the Japanese Government, in collaboration with ADB, will provide approximately \$110 billion for "quality infrastructure investment" in Asia over the next five years. He presented some examples of JICA-supported transport projects in the Asian region. (The JICA presentation is in **Appendix 15**.)

44. Dr. Chuwit Mitrchob of the NEDA of Thailand presented an overview of NEDA's assistance activities, which include trade and investment facilitation, industrial and agricultural cooperation, transportation linkages development; service and tourism sector promotion; human resource development; and urban development. He further presented the ongoing NEDA-assisted transport projects in GMS Cambodia–Lao PDR–Myanmar–Viet Nam countries. (The NEDA presentation is in **Appendix 16**.)

45. Mr. Edouard Chong of the UNESCAP made a presentation focusing on the activities of UNESCAP's Transport Division. This include the challenges being faced in the GMS by the development of the Trans-Asian Railway and the Asian Highway. He also presented an outline of various frameworks and models currently being developed toward the facilitation of road transport and railway transport in the region. (The UNESCAP presentation is in **Appendix 17**.)

## **VIII. Other Matters**

46. In line with the tradition of rotating the venue of the STF among the GMS members according to the alphabetical order of country names, Lao PDR confirmed that they will be pleased to host the Twenty-first Meeting of the GMS Subregional Transport Forum (STF-21) in 2017 in Luang Prabang, Lao PDR.

## **IX. Wrap up and Closing**

47. As requested by the Chair, the Co-Chair wrapped up the Forum with the following summary points:

- The meeting was able to review the countries' Third Progress Report on the their transport sector projects in the GMS RIF-IP, as well as their proposed projects for deletion and addition based on a midterm review of the pipeline. The proposed deletions and additions were discussed bilaterally with the proponent country (basically only Cambodia had such proposals). Countries were reminded that they still have to submit to the GMS Secretariat, through their respective GMS National Coordinators, their final RIF-IP progress reports as of end-June 2016 (using the prescribed format) *cum* their MTR proposed additions, deletions, and modifications, **on or before 25 July 2016**. Countries were also requested to provide their comments on the projects for addition presented by Cambodia on or before said date.
- The review of the configuration of GMS economic corridors and its recommendations were well-received by the countries. The need for close coordination between the STF involving transport corridors and the ECF involving economic corridors was emphasized during the meeting, including clarity in the distinction between transport and economic corridors. The STF also suggested that the implications of the proposed changes in the configuration of economic corridors with regard to the CBTA should be taken into account.
- The countries expressed general support for the proposed preparation of a new GMS TSS and provided very useful suggestions to expand the thematic content of the strategy.
- The meeting also recognized the challenges and difficulties faced by the GMRA. The Secretariat took note of comments regarding these and will try to work on acceptable approaches to address these challenges by the next GMRA general meeting.
- The meeting further had useful discussions on axle load control, including the various technologies and institutional arrangements to address this important issue in the region. While it is important to address the enforcement issues, the forum noted that there is no perfect or single solution, but rather a combination of various solutions may be more likely to succeed. ADB will initiate a knowledge product, through a stocktaking exercise, that hopefully will help address the countries' axle load control issues.
- The informative presentations given by the development partners were also highly appreciated.

48. Noting that the meeting had been very productive and expressing confidence that the STF will continue to serve as an important vehicle in promoting transport development and cooperation in the GMS, the Chair thanked the participants for their active participation and their contributions to the meeting's success. He then formally closed the meeting.

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# Twentieth Meeting of the GMS Subregional Transport Forum (STF-20)

Nanning, Guangxi, People's Republic of China  
29–30 June 2016

## PROGRAM AND AGENDA

*Meeting Theme:*

### ***Expanding and Reinforcing the GMS Transport Corridors***

**Objectives:**

1. To consider the implications on the transport sector of the review of the configuration of the GMS economic corridors and their proposed expansion and realignments;
2. To review progress in implementing high priority transport projects in the GMS Regional Investment Framework Implementation Plan (RIF-IP);
3. To take stock of the existing practices on axle load control in the region, with a view to come up with proposals on improving their effectiveness;
4. To review progress and plans in the GMS railway sector, including updates and next steps for the Greater Mekong Railway Association (GMRA); and
5. To discuss other topics relevant to the transport sector.

**First Day:** 29 June 2016 (Wednesday)

**0830–0900**

**Registration**

**0900–0930**

**Opening Session**

Welcome Remarks

**H.E. Dai Dongchang**  
Vice Minister  
Ministry of Transport  
People's Republic of China

Opening Remarks

**Chair, Mr. Ren Weimin**  
Director General  
Department of International Cooperation  
Ministry of Transport, People's Republic of China

**Co-Chair, Hideaki Iwasaki**  
Director, Transport and Communications Division,  
Southeast Asia Department  
Asian Development Bank (ADB)

0930–0940	<b>Group Photo Session</b>
0940–1000	<b>Coffee/tea Break</b>
1000–1200	<p><b>Session 1. Countries’ Presentations on the Implementation Progress of Transport Projects under the RIF-IP</b></p> <p><i>[Countries will present a cumulative progress report on their respective transport projects in the RIF-IP anticipating developments as of the end of the first semester of 2016 (i.e., Third Progress Report), and in addition, provide a Midterm Review (MTR) of the RIF-IP transport projects pipeline. They may also include important recent policy and other developments in their respective transport sectors. Each country will be given 20 minutes for its presentation, including around 5 minutes for discussion.]</i></p> <p>Presenter: Cuong Minh Nguyen, ADB – Introductory Briefing on the MTR and Third Progress Report on the RIF-IP</p> <p>Presentors: Representatives from all countries</p>
1200–1330	<b>Lunch</b>
1330–1500	<p><b>Session 2. Review of the Configuration of GMS Economic Corridors</b></p> <p><i>[The Forum will discuss the results of the study on the review of the present configuration of GMS economic corridors and their possible extension and realignment. It will consider for endorsement proposed changes, extensions, and realignments of existing economic corridors as well as the creation of new ones. The outcomes of the Forum’s discussions on this topic will be presented at the Eighth GMS Economic Corridors Forum (ECF-8) scheduled in August 2016, and subsequently at the 21st GM Ministerial Conference tentatively scheduled in November 2016.]</i></p> <p>Presentors: Filologo Pante, Jr., ADB Consultant for the Review of GMS Economic Corridors Cuong Minh Nguyen, Principal Regional Cooperation Specialist, ADB</p> <p>Open Discussion</p>
1500–1515	<b>Coffee/tea break</b>
1515- 1530	<p><b>Session 3. Planned Preparation of a New GMS Transport Sector Strategy</b></p> <p><i>[The Forum will be briefed on initial plans to prepare a follow-on GMS Transport Sector Strategy (TSS), which will be the successor of the TSS (2006–2015) whose term ended last year.]</i></p>

	<p>Presenter: Hideaki Iwasaki, Co-Chair and Director, Transport and Communications Division, SERD, ADB</p>
1530–1700	<p><b>Session 4. Review of Progress and Plans in the GMS Railway Sector</b></p> <p><i>[The Forum will be briefed on key developments in the GMS railway sector, including progress on and plans for important railway projects in some GMS countries, the features of an ADB technical assistance on the identification and development of key railway links in the subregion, and updates on and next steps for the GMRA.]</i></p> <p>Presenter: Mr. Ouk Sota, Deputy Director, Railway Department, MPWT, Cambodia</p>
1700–1715	<b>Wrap Up of First Day Sessions</b>
1900–2100	<b>Dinner</b> <i>(to be hosted by PRC)</i>
<b><u>Second Day:</u></b>	<b>30 June 2016 (Thursday)</b>
0830–1020	<p><b>Session 5. Stock-taking of Practices on Axle Load Control in the Region and Proposed improvements</b></p> <p><i>[This topic is an offshoot of the discussions in STF-19 on road asset management, and will provide inputs to an ADB stock-taking study on axle load control practices in the region.]</i></p> <p>Short introduction of the study and its objectives by Shihiru Date, Senior Transport Specialist, ADB, followed by countries' presentations.</p> <ul style="list-style-type: none"> <li>• Presentation from the People's Republic of China</li> <li>• Presentation from Thailand</li> <li>• Presentation from the Japan International Cooperation Agency</li> </ul> <p>Open Discussion</p>
1020–1100	<p><b>Session 6: Statements/Updates from Development Partners</b> <i>(Moderated by Co-Chairs)</i></p> <ul style="list-style-type: none"> <li>• Agence Française de Développement</li> <li>• Japan International Cooperation Agency</li> <li>• Neighbouring Countries Economic Development Cooperation Agency</li> <li>• United Nations Economic and Social Commission for Asia and the Pacific</li> </ul>

1100–1130	<b>Session 7. Other Matters</b> , including the venue of STF-21 (as traditionally confirmed by the next STF host, Lao PDR)
1130–1200	<b>Wrap Up of the Meeting and Concluding Remarks</b>  Closing by Chair and Co-Chair
1200–1230	<b>Break</b> [Note: This is to allow participants to attend to personal needs/ arrangements, e.g., packing their luggage for flights later in the day, things to bring for the field visit.]
1230–1330	<b>Lunch</b>
1330	<b>Field Visit: Dongxing Border Crossing Point between Guangxi, China and Mong Cai, Viet Nam</b>

**20th Meeting of the GMS Subregional Transport Forum (STF-20)**  
Nanning, People's Republic of China  
29-30 June 2016

**LIST OF PARTICIPANTS**

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# **Keynote Speech at the Opening Session of STF-20**

**Dai Dongchang**

**Vice Minister of Transport, China**

09:05-09:20, 29 June, 2016

Marriott Hotel, Nanning, China

Distinguished Delegates,

Dear Colleagues,

Ladies and Gentlemen,

Good morning!

It is a great pleasure for me to attend the 20th Meeting of the GMS Subregional Transport Forum (STF). First of all, on behalf of the Ministry of Transport of China, I would like to extend the warmest welcome to all of you and express sincere gratitude to ADB for convening this meeting and rendering consistent support to the development of GMS transport sector .

Taking the opportunity, I would like to highlight the following points relating to the transport development in the Sub-region:

**Firstly, the special significance of STF to the transport cooperation of the Sub-region and the GMS Economic Cooperation Programme.**

STF, since its inception about 20 years ago, has long been functioning as the key platform and working mechanism for promoting transport development and cooperation in the GMS. With STF, the transport authorities of the six countries have developed consecutive development strategies for the transport sector, identified essential infrastructure projects to be included in the Regional Investment Framework and coordinated their implementation. By developing a multimodal transport infrastructure network and conducting various technical assistance projects in the past two decades, we have witnessed enormous achievements in enhanced transport connectivity, intensified transport safety and efficiency, and improved capacities of the transport professionals. I would like to say that, thanks to STF, the transport sector has become an example of win-win cooperation in the GMS Economic Cooperation Programme.

**Secondly, China's commitments to improving the connectivity of the Subregion.**

The past five years witnessed China's achievements in the 12th Five-Year Plan period for socio-economic development. In the transport sector in particular, a total investment of 12.5 trillion yuan was made in fixed transport assets; an integrated network of highways has taken shape; the accumulated length of railway in operation has reached 120,000 kilometers, of which 42,000 kilometers are express railways, and 19,000

kilometers are high-speed railways; the total length of open-to-traffic highways has reached 4.57 million kilometers, including 120,000-kilometer expressways and 3.97-million-kilometer rural roads.

While concentrating on domestic socio-economic development, China has never neglected to make contribution to the common development of her neighbors and partners. That is the prime reason for China to put forward the Belt and Road Initiative, a development strategy and framework that focuses on connectivity and cooperation, and aims at realizing the common development of all the relevant countries and enhancing traditional friendly relations between China and the countries along the routes, including the close neighbors in the GMS Sub-region.

Recognizing the special importance of the development of the Sub-region, and with a view to making more contribution to the sub-regional cooperation, China initiated the Lancang-Mekong Cooperation Mechanism among the 6 Sub-region countries. Taking full advantage of our geographic proximity, traditional friendship and complementary economies, the 1<sup>st</sup> Lancang-Mekong Cooperation Leaders' Meeting held in Sanya, China, March this year, agreed on a sweeping plan to deepen cooperation and build an integrated connectivity network covering railways, highways, waterways, ports and aviation to enhance the inter-connectivity among the 6 countries. Chinese premier Li Keqiang also announced at the meeting that China promised 10 billion Yuan (\$1.54 billion) in preferential loans and a credit line of \$10 billion to

support infrastructure and production capacity projects in cooperation with the Lancang-Mekong countries.

Clearly, the Lancang-Mekong community is becoming a new economic center of gravity in the region. It is our sincere hope that both the Belt and Road Initiative and the Lancang-Mekong Cooperation Mechanism, could work together with GMS Economic Cooperation Programme to bring about more benefits and welfares to the regions sitting along the Lancang-Mekong River.

**Thirdly, proposals to the future work of STF.**

Today, we are gathering here to explore the sub-regional cooperation in the transport sector. We are very glad to see that the agenda items of this meeting well showcase the key issues of present and future cooperation in the transport sector of the Sub-region, including improvement of connectivity by implementing infrastructure projects, extension of GMS Economic Corridors and Transport Corridors, development of a new GMS Transport Sector Strategy, enhancement of transport safety as well as the management and maintenance of infrastructure assets in the Sub-region.

Bearing in mind the challenges and opportunities we face in the coming days and years, China would like to call on further cooperation among GMS countries in the transport sector, and closer collaboration of STF with the Belt and Road Initiative and the Lancang-Mekong Cooperation Mechanism, so as to pool all the possible means and resources together to

maximize the benefits and welfare we could gain from the concerted efforts.

In addition to the mechanism, China is also in full support of the formulation of a new GMS Transport Sector Strategy, because it is China's own experience that a good master-plan is the key to successful development in all sectors. Following the previous GMS Transport Sector Strategy that has been testified to be well-targeted and forward-looking, a new transport strategy will guide the sub-regional development and cooperation in a more systematic and integrated way. However, based on the fact that there are still serious bottlenecks and constraints in transport infrastructure capacities in the Sub-region, the new strategy should focus on both the infrastructure construction and the multi-modal transport development. Furthermore, we also suggest that some elements should be highlighted and elaborated in the new strategy, such as the roles of transport sector in promoting urbanization and global competitiveness of the Sub-region, infrastructure construction and maintenance, transport safety and sustainable development, and human resources development.

Last but not least, we hope that ADB, as the coordinator and think-tank of the GMS Economic Cooperation Programme, will enhance its attention to the work and meetings of STF, so as to honor the efforts and achievements of all STF participants in the GMS countries.

Ladies and Gentlemen,

Transport is a fundamental and trailblazing sector in the GMS Economic Cooperation Programme. Looking into the great potential of the GMS Sub-region, China is ready to work together with all the other GMS countries and ADB to push forward inter-connectivity and the sustainable development of the transport sector in the Sub-region.

Finally, I wish this Meeting a great success and all of you happy mood, successful work and good health during your stay in China.

Thank you all.

**Greater Mekong Subregion  
Twentieth Meeting of the Subregional Transport Forum (STF-20)  
Nanning, People's Republic of China  
29-30 June 2016**

**Opening Statement**

**By**

**Mr. Hideaki Iwasaki**

**Director, Transport and Communications Division  
Southeast Asia Department  
Asian Development Bank**

His Excellency, Dai Dongchang, Vice Minister, Ministry of Transport of China, Excellencies, Distinguished Guests, Ladies and Gentlemen:

I am very pleased to co-chair this 20<sup>th</sup> Meeting of the GMS Subregional Transport Forum. I would like to thank the People's Republic of China for graciously hosting this important event. I wish to thank in particular His Excellency Vice Minister Dai Dongchang of the Ministry of Transport for being generous with his time and sharing with us his views on GMS transport development and cooperation. Our special thanks also go to Mr. Ren Weimin, Director General of MOT's Department of International Cooperation for chairing our meeting, and to other officials and staff of the Ministry of Transport and Guangxi Autonomous Region for their support and cooperation in organizing this meeting.

STF-20 has the theme "*Expanding and Reinforcing the GMS Transport Corridors*". The transport sector will continue to have a crucial role in the development of the GMS economic corridors, which are the main means for realizing the GMS vision of an integrated and prosperous subregion. Transport provides the vital links that serve as the arteries, through which the lifeblood of the regional economy – trade, investment, tourism and other vital flows pass and reach the inner recesses, as well as outer ends of the GMS and beyond.

We have achieved much in the last two decades in building these links. For the medium term, we have put together a roadmap for further developing the GMS transport network, as embodied in the transport pipeline of the Regional Investment Framework Implementation Plan, or RIF-IP. In our meeting today, we will have the opportunity to see the progress in implementing this pipeline. In addition, we are initiating a midterm review of the RIF-IP and try to assess the real prospects of the projects, and streamline the pipeline and possibly give a chance to other projects that have moved up in priority to be included. Our review of the transport component of the RIF-IP will feed into the review of the overall GMS Regional Investment Framework.

Relatedly, we will discuss in our meeting today the results of a review of the GMS economic corridors to consider ways of making them more relevant and enhancing their potentials in a rapidly changing regional and global context. The GMS is at the heart of the most dynamic region in the world. There have been significant changes in the patterns and configurations of trade and other economic activity in the GMS and neighboring subregions. At the same time, there have emerged many regional cooperation and integration initiatives which the GMS must relate to in a synergistic way. All these changes dictate that we must also work on reconfiguring the physical channels of economic activity, namely the transport links that connect the GMS both within and with its neighboring subregions.

Transport links are not limited to roads. We are all aware of the strategic role of multimodal transport, particularly of rail, in the overall system. The renewed interest in railways springs from the acutely recognized need today for a cleaner transport mode as well as for greater efficiency, particularly in freight transport, which is so critical to the increasing trade in the region. We have made some headway in coordinating efforts in the development of rail transport through the establishment of the Greater Mekong Railway Association. We will be briefed in today's meeting on the progress of the GMRA's work and on further efforts going forward.

GMS transport sector development has been guided by the Transport Sector Strategy, or TSS, for the period 2006-2015, which focused on the development of corridors and transport links. At STF18 in Ho Chi Minh City, we initiated the process of reviewing the existing TSS. The initial review rated that the TSS was successful in its central goal to complete the GMS transport network, but not so successful in opening transport services market or encouraging multi-modalism. The last decade also saw many circumstantial changes that significantly influence the way transport plays its role in the region's economic development. The next TSS, if there is to be one, must reflect the review outcomes and the changed circumstances, and be responsive to current and future needs in the region. The initial concept of the new GMS TSS will be presented this afternoon for your discussion.

As we expand the GMS transport network, which currently consists mainly of roads, the next challenge will be to ensure that the expanded network will last long to benefit current and future generations. Road assets, which are meant to be used intensively as they help spur economic activity, are subject to significant deterioration over time. Hence, there is a crucial role for sound road asset management, and effective axle load control to prevent overloading will be a key to ensure lasting value and utility of road assets. In our meeting tomorrow, we will devote substantial time to this important issue. Some of the delegates will share with us their experience in this area, from which we can hopefully pick up useful lessons that we can use in formulating our own axle load control policies and mechanisms.

Of course, last but not the least, we must recognize that in order to succeed in all our efforts, we need the support of our development partners. In our meeting, some of you will kindly share with us your experience and views in important aspects of transport cooperation and development in the region.

Excellencies, Distinguished Guests, Ladies and Gentlemen:

We clearly have our plate full with challenging issues and topics in today's and tomorrow's meeting. I am quite confident that we will achieve all the objectives we have set for ourselves in this important meeting.

I look forward to your active participation and to a very fruitful STF-20. Thank you.

# **SESSION 1- INTRODUCTORY BRIEFING ON THE MIDTERM REVIEW CUM THIRD PROGRESS REPORT ON THE RIF-IP**

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Subregional Transport Forum- 20  
29-30 June 2016

# **RIF-IP Midterm Review cum Third Progress Report: Background**

- **At GMS SOM on 28 April 2016, the GMS Secretariat was directed to undertake a quick Midterm Review along with the preparation of the Third Progress Report.**
- **Now in the process of preparing the RIF-IP Third Progress Report covering the period up to 30 June 2016.**

# **RIF-IP MTR cum Third Progress Report: Objectives**

- **MTR is to refresh the RIF-IP and review its relevance with emerging needs and developments of the GMS countries;**
- **Identify non-performing projects in the RIF-IP and consider taking out of RIF-IP but retain in the RIF pool; and**
- **Consider adding projects to RIF-IP (from RIF) or any new projects outside RIF but deemed priority.**
- **MTR will result to a new RIF-IP that rolls on to cover the expanded period 2014-2022.**
- **The MTR will also feed into the review of the RIF itself and of the overall GMS Strategic Framework, which will be initiated at the 21<sup>st</sup> GMS Ministerial Conference in November 2016**

# RIF-IP MTR cum Third Progress Report: Process and Timeline

Month	Day	Activities/Milestones
MAY	16-20	<b>ADB GMS Secretariat initiates report preparation by advising ADB sector divisions and GMS countries</b> (thru GMS National Coordinators)
JUNE	1-30	<p><b>ADB sector divisions interact with country sector focal points to prepare and submit status of each project in a standard form through working group/forum/task force meetings or other forms of communications:</b></p> <ul style="list-style-type: none"> <li>• 27-28 Jun: 20th Meeting of the Regional Power Trade Coordination Committee (RPTCC-20)</li> <li>• 29-30 Jun: 20<sup>th</sup> GMS Subregional Transport Forum (STF-20)</li> </ul>
<b>JULY</b>	1-15	<p><b>ADB sector divisions interact with country sector focal points to prepare and submit status of each project in a standard form through working group/forum/task force meetings or other forms of communications:</b></p> <ul style="list-style-type: none"> <li>• 6-8 Jul: 37<sup>th</sup> Meeting of Tourism Working Group (TWG-36)</li> <li>• 26-27Jul: 22<sup>nd</sup> Annual Meeting of the GMS Working Group on Environment (WGE-22)</li> <li>• 28-29Jul: 13<sup>th</sup> Annual Meeting of the GMS Working Group on Agriculture (WGA-13)</li> </ul> <p><b>NOTE: For sector working groups which do not have scheduled meetings in June or July, ADB sector focals are requested to get inputs from country sector focals by email.</b></p>
	18-22	<b>ADB sector focals compile completed and agreed sector review reports</b>
	25-29	<b>ADB sector focals submit sector review reports to ADB GMS Secretariat for collation</b>

# RIF-IP MTR cum Third Progress Report: Process and Timeline

Month	Day	Activities/Milestones
<b>AUGUST</b>	1-12	ADB GMS Secretariat assembles reports for each country and sector into a consolidated Report
	15-19	ADB GMS Secretariat refines and internally reviews the draft consolidated Report
	22	ADB GMS Secretariat sends the draft Report to GMS countries for review/validation
	31	<b>GMS countries submit confirmation and/or comments on the draft Report</b>
SEPTEMBER	1-9	Finalization of the draft Report by the GMS Secretariat to incorporate countries comments and suggestions, if any
	12-30	Type setting for printing/publication of the document
OCTOBER	1-21	Printing/production of document as a deliverable for 21 <sup>st</sup> GMS Ministerial Conference
	24	Uploading of the electronic copy in GMS website as a meeting document
<b>NOVEMBER</b>	30	<b>Presentation of the RIF-IP Midterm Review Report at 21<sup>st</sup> GMS Ministerial</b>
<b>DECEMBER</b>	1	<b>Conference for notation</b>

# Preparing the RIF Implementation Plan and M&E System

## Criteria for prioritizing projects:

1. **Subregional development benefits and impact**
2. **Economic (financial) viability**
3. **Implementation time frame (likely to commence by Dec 2018; financial closure within 5 years)**
4. **Availability of financing**
5. **Status of preparation**
6. **National priority**
7. **Other criteria as may be agreed upon by sector working groups, task forces and forums**

## Application of 1-3 rating scale across all criteria:

- 3 = fully satisfies criterion; 2 = partially satisfies criterion**
- 1 = does not satisfy criterion**

## RIF-IP – Future Changes

- Where changes are required will be done through the mechanisms of sector working groups or forums.
  - **Deletion of a project:** the project will be retained in the country/sector report. Narrative field as proposed for deletion
  - **Modification of a project:** this will be reflected in the Narrative field in of the country/sector report
  - **Addition of a project:** If a project is from the RIF, it will only be reported to Ministers for reference. If a project is new (not from the RIF), it will be submitted for endorsement by Ministers, and added to the RIF, and then RIF IP.
- Where the project involves more than one country, all affected countries will be consulted and their views reflected in the Status Report

# **GMS Regional Investment Framework Implementation Plan 2014-2018**

Midterm Review & Third Progress Report – Tourism

GMS Tourism Working Group

July 2016



# RIF-IP Midterm Review

- Review and update progress implementing the RIF-IP
- Systematically manage any proposed changes in the RIF-IP
- ADB's GMS Secretariat reports status to the GMS 2016 Ministerial Conference



# GMS Regional Investment Framework Implementation Plan 2014–2018 Progress Report and Midterm Review

## ENERGY SECTOR

Jyotsana Varma, ADB

20<sup>th</sup> Meeting of the Greater Mekong Subregion  
Regional Power Trade Coordination Committee (RPTCC-20)  
27 – 28 June 2016, Phu Quoc, Viet Nam

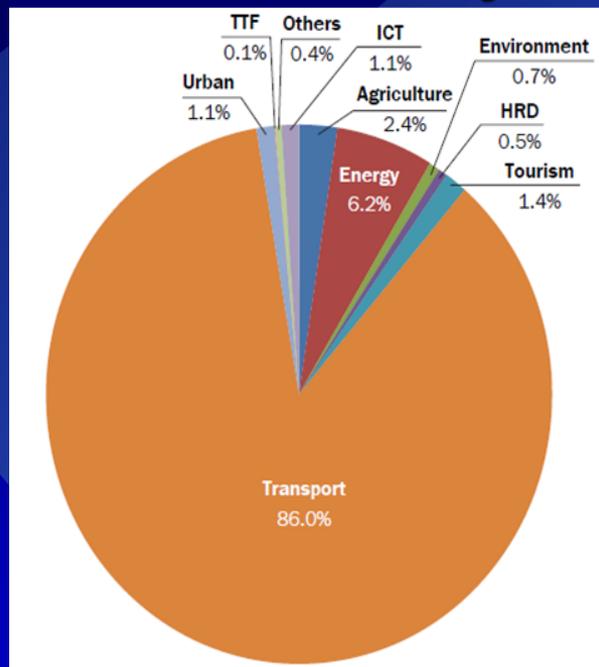


# Regional Investment Framework (RIF) 2013-2022: *The Long List*

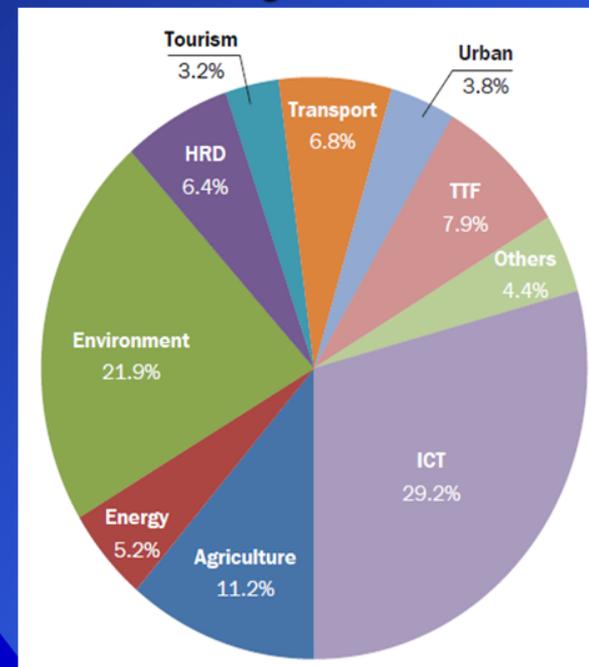


The RIF includes more than 200 projects across 10 sectors with a total investment cost of \$ 50 billion.

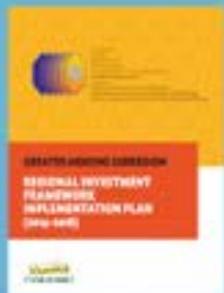
## RIF Investment Projects



## RIF TA Projects

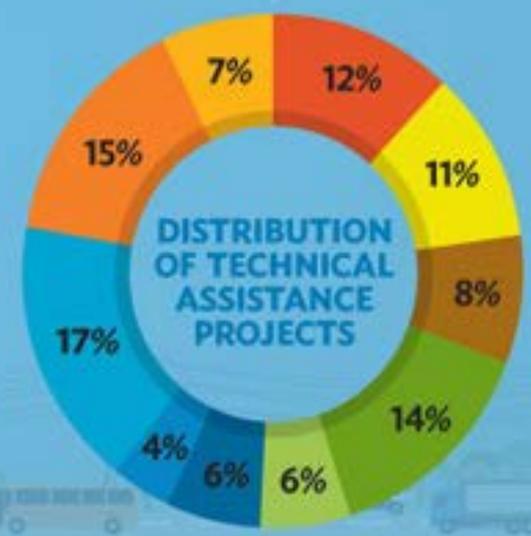
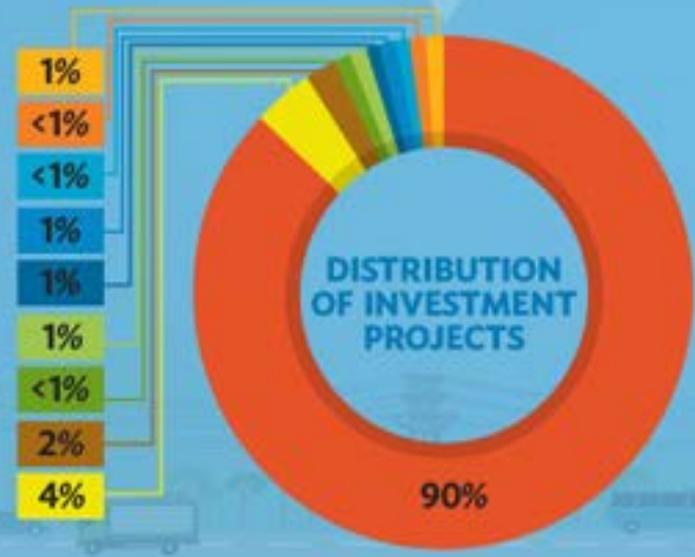


# Regional Investment Framework Implementation Plan (RIF-IP) 2014-2018: The Shortlist



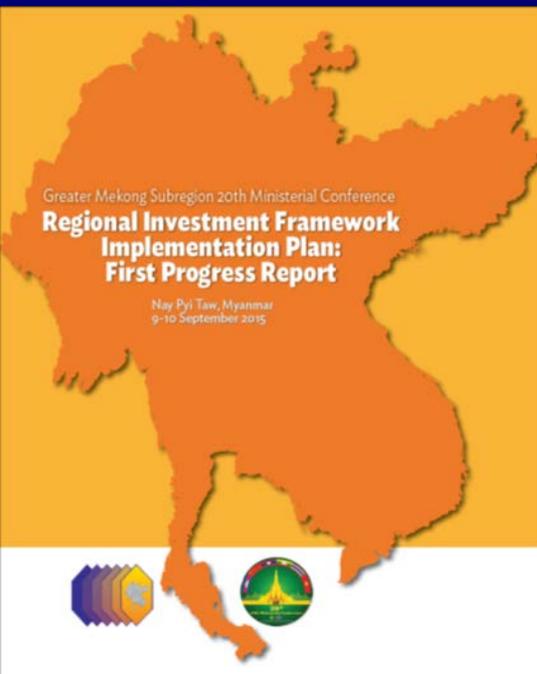
The Implementation Plan puts the vision of the Strategic Framework into action, identifying 93 projects in priority areas, valued at \$30.4 billion, for full implementation by 2018.

- Transport
- Energy
- Agriculture
- Environment
- Human Resource Development
- Urban Development
- Tourism
- Information and Communications Technology
- Transport and Trade Facilitation
- Other Multisector/ Cross-border Economic Zones



# First Progress Report Summary

## Investment Projects by Sector



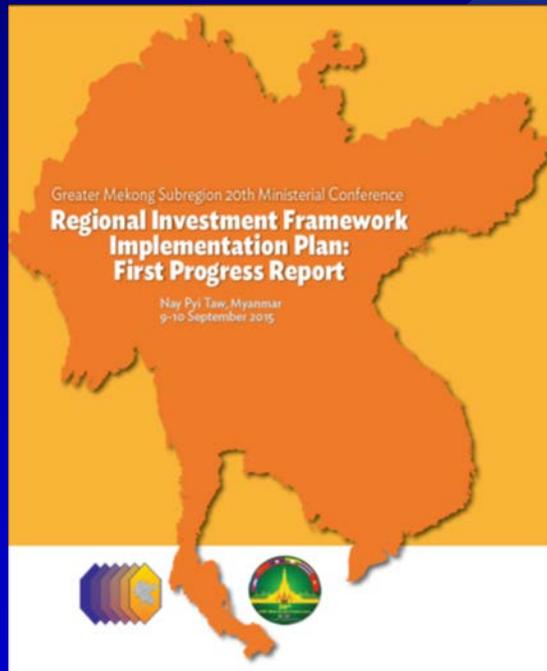
Sector	Number of projects				
	In RIF-IP	Dropped	FS Commenced	Financing available <sup>(1)</sup>	Implementation commenced
Transport	42	1	28	20	8
Energy	4	2	2	2	0
Agriculture	2	0	1	1	0
Environment	2	0	1	1	1
Human Resource Development	2	0	0	0	0
Urban Development	2	0	2	2	0
Tourism	3	0	1	1	1
Transport and Trade Facilitation	1	0	0	1	0
Information and Communication Technology	1	1	0	0	0
Other/Cross Border Economic Zones	2	0	0	0	0
<b>Total</b>	<b>61</b>	<b>4</b>	<b>35</b>	<b>28</b>	<b>10</b>

Note (1): Financing either approved or included for future financing in a country program or equivalent.



# First Progress Report Summary

## Technical Assistance Projects by Sector



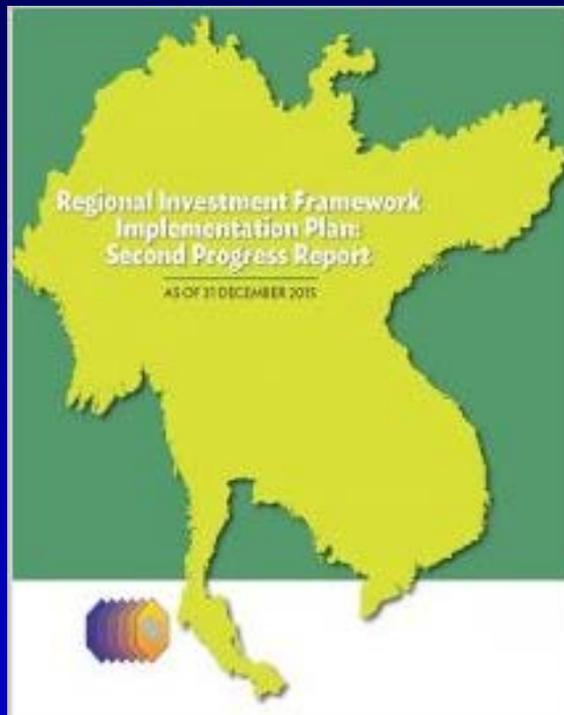
Sector	Number of Projects			
	In RIF-IP	Dropped	Financing available <sup>(1)</sup>	Implementation commenced
Transport	10	0	3	1
Energy	4	1	2	1
Agriculture	2	0	2	0
Environment	2	0	1	1
Human Resource Development	2	0	1	1
Urban Development	2	0	2	2
Tourism	3	0	2	1
Transport and Trade Facilitation	4	1	2	2
Information and Communication Technology	1	0	0	0
Other/Cross Border Economic Zones	2	0	1	0
<b>Total</b>	<b>32</b>	<b>2</b>	<b>16</b>	<b>9</b>

Note (1): Financing either approved or included for future financing in a country program or equivalent.



# Second Progress Report Summary

## Investment Projects by Sector



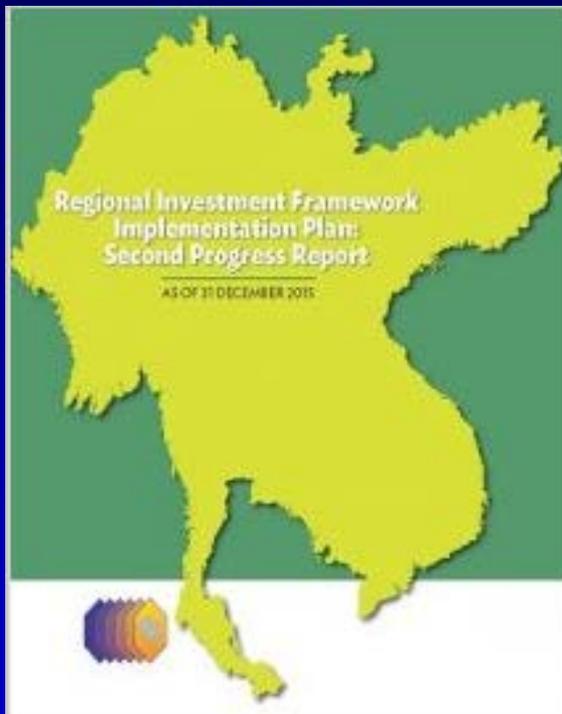
Sector	In RIF-IP	Dropped	FS Commenced	Financing available (1)	Implementation commenced
Transport	42	1	33	25	16
Energy	4	2	2	2	2
Agriculture	2	0	1	1	1
Environment	2	0	1	1	1
HRD	2	0	1	1	0
Urban Development	2	0	2	2	1
Tourism	3	0	1	2	1
TTF	1	0	0	1	0
ICT	1	0	0	0	0
Other/ BEZs	2	0	0	1	0
<b>Total</b>	<b>61</b>	<b>3</b>	<b>41</b>	<b>36</b>	<b>22</b>

Note (1): Financing either approved or included for future financing in a country program or equivalent.



# Second Progress Report Summary

## Technical Assistance Projects by Sector



Sector	In RIF-IP	Dropped	Added	Financing available (1)	Implementation commenced
Transport	10	0		6	3
Energy	4	1		2	1
Agriculture	2	0	2	2	1
Environment	2	0		1	1
HRD*	2	0		1	1
Urban Development	2	0	2	4	2
Tourism	3	1		3	2
TTF*	4	1		3	2
ICT*	1	0		0	0
Other/ BEZs*	2	0		1	0
<b>Total</b>	<b>32</b>	<b>3</b>	<b>4</b>	<b>23</b>	<b>13</b>

HRD: Human Resource Development. TTF: Transport and Trade Facilitation. ICT: Information and Communication Technology. BEZ: Border Economic Zone

Note (1): Financing either approved or included for future financing in a country program or equivalent



# Mid-term Review (MTR) of the RIF-IP

- Refresh the RIF-IP and review its relevance with emerging needs and developments of the GMS countries;
- Identify non-performing projects in the RIF-IP and consider taking out of RIF-IP and retain in the RIF pool; and
- Consider adding projects to RIF-IP (from RIF) or any new projects outside RIF.



**GMS Regional Investment Framework  
Implementation Plan 2014–2018  
Progress Report and Midterm Review**

**Transport Sector  
CAMBODIA**

Reported at the 20<sup>th</sup> Meeting of the  
GMS Subregional Transport Forum (STF-20)  
29–30 June 2016, Nanning, People's Republic of China  
By Kong Sophal



# Contents

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1. Priority Projects for Cambodia in RIF-IP,
2. Progress Report of Investment Projects,
3. Midterm Review: Projects Proposed for Deletion and for Addition



# 1.

## Priority Projects for Cambodia in Transport and Trade Facilitation

**GREATER MEKONG SUBREGION**

**REGIONAL INVESTMENT  
FRAMEWORK  
IMPLEMENTATION PLAN  
(2014-2018)**



# Transport Priority Projects (as listed in the RIF-IP 2014-2018)

Name of Project		Country Coverage	Cost Estimate (US\$ million)
<b>Investment Projects</b>		<b>Source: RIF-IP Page 7</b>	
<b>Cambodia</b>			
1	Sihanoukville Port Access Road Improvements	Cambodia	40.0
2	GMS: Deepening Connectivity of Southern Economic Corridor Project	Cambodia	120.0
3	Phnom Penh–Sihanoukville Highway Corridor Improvements	Cambodia	1,000.0
4	Link Road between NR5 and NR6 near Kampong Tralach North of Phnom Penh	Cambodia	65.0
5	Construction of Poipet (CAM)–Klong Loeuk (THA) Railway Bridge	Cambodia and Thailand	0.5

TA Projects		<b>Source: RIF-IP Page 8</b>	
1	PPTA for National Highway 14D Improvement Project	Viet Nam	1.0
2	Second GMS Northern Transport Network Improvement: Luang Prabang (LAO)–Thanh Hoa (VIE)	Lao PDR and Viet Nam	0.4
3	Proposed Hoa Lac–Hoa Binh City Expressway PPP Project Feasibility Study	Viet Nam	1.0
4	Feasibility Study for the Rail Link Between Laem Chabang Port and Dawei Deep Sea Port Project	Myanmar and Thailand	3.0
5	Building Institutional Capacity of the Greater Mekong Railway Association	All GMS countries	0.2
6	GMS Road Corridors Maintenance	All GMS countries	1.2
7	Strategic Study on the Development and Management of the GMS Motorway Network System	All GMS countries	TBD
8	Knowledge Transfer between Thailand and GMS Member Countries on Highway and Bridge Standards and Specifications, including Transport Facilitation Facilities	All GMS countries	0.4
9	Promotion and Application of the Northeast Asia Logistics Information Service Network (NEAL-NET) in the GMS	TBD	TBD
10	Study on Dry Port Development Plan along International Railway Lines Connecting Thailand with Cambodia, Lao PDR, and Myanmar	Thailand with Cambodia, Lao PDR, and Myanmar	TBD



# Transport and Trade Facilitation Priority Projects

Source: RIF-IP Page 15

Name of Project		Country Coverage	Cost Estimate (US\$ million)
<b>Investment Project</b>			
1	Modernization of Sanitary and Phytosanitary Agencies for Trade Facilitation Project	Cambodia, Lao PDR	31.5
<b>TA Project</b>			
1	Trade Facilitation through Partnership with the Private Sector	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	1.5
2	<b>Support for Implementing the Action Plan on Transport and Trade Facilitation in the GMS (Subprojects 2 and 3)</b>	All GMS countries	4.1
3	Modernization of SPS Agencies for Trade Facilitation Project	Cambodia, Lao PDR, Myanmar	1.5
4	<b>Strengthening Bilateral Cross-Border Trade Agreements and Coordination Mechanisms</b>	All GMS countries	2.0



# 2.

## Progress Report of Investment Projects



# CAM-TRA-01: Sihanoukville Port Access Road Improvements

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will improve the final 9.5 km of NR4 leading to Sihanoukville Port. It may be included in the Sihanoukville Port Special Economic Zone Project, to be financed by Japan.	Road	40.0  ??? (15.0)	Project was dropped by Jica. <b>PAS is still looking for fund from other DPs.</b>

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
N/A	N/A	N/A	N/A	N/A	

## Narrative: (hypothetical only)

The Project has been canceled by JICA due to the scope of the project for "The Construction of Multi-Purpose Terminal of Sihanoukville Port" which did not cover the road construction.

However, PAS still considers it is very important and is seeking fund from other DPs.



# CAM-TRA-02 (Original): GMS: Deepening Connectivity of Southern Economic Corridor Project

Description	Subsector	Cost estimate (\$ Million)	Justification/ Additional Information
The project planned to upgrade an existing 75km long connecting road between Battambang and Siem Reap and improve the cross-border facility with Thailand at Pailin to the standard of the GMS CBTA.	Road	200.0	The Project has been postponed due to the environmental sensitivity surrounding Tonle Sap Great Lake.

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
N/A	N/A	N/A	N/A	N/A	

## Narrative:

Redefine a new project, which includes 1.) Provincial Roads Improvement Project II (PRIP II) and the Second Road Asset Management Project (2<sup>nd</sup> RAMP). The newly proposed name of CAM-TRA-02 might be changed to **“Road Network Improvement Project”** with the total length of 415km roads and the estimate cost is about 1605.0\$Mill,



# CAM-TRA-02 (New): Road Network Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Rehabilitation of aprox. 130km of roads, which are mostly of multimodal transport character and regional integration connecting Cambodia with VN/Thai. (see the map in next slide)	Road	-	Provincial Road Improvement Project II (PRIP II).
Rehabilitate and maintain about 285km of NRs using performance base contract, which are the high priority and flood-prone roads connecting Cambodia with VN/Thai.	Road	-	2 <sup>nd</sup> RAMP
<b>Combination of these 2 components: Road Network Improvement Project</b>	<b>Road</b>	<b>160.0</b>	

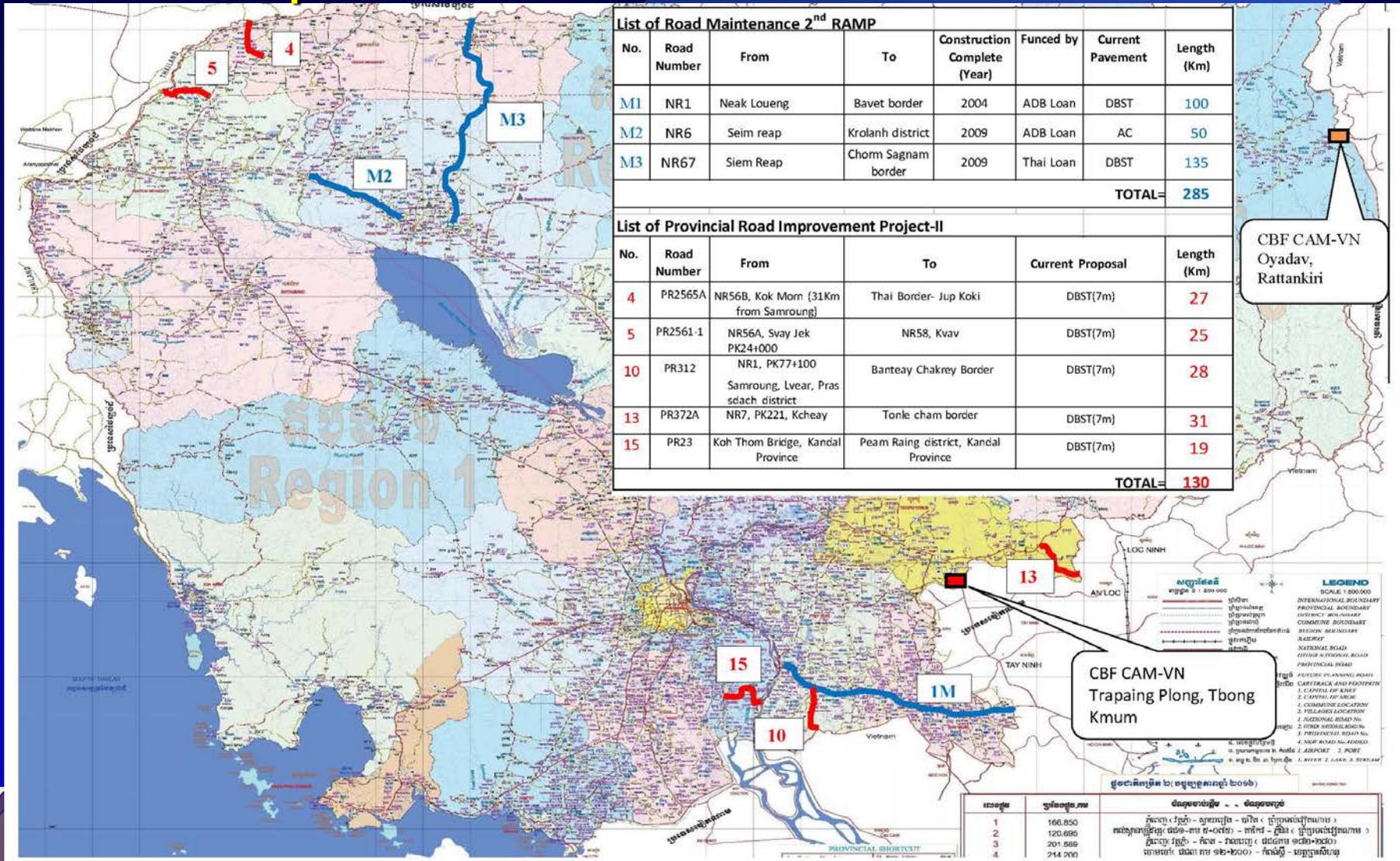
Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
June 2016	October /2016	May 2016	2017	2017	Will be financed by ADB

## Narrative:

Since the objectives of those two projects are similar, it is agreed to merge PRIP-II with 2<sup>nd</sup> RAMP. The combined project was renamed to “**Road Network Improvement Project**”

# CAM-TRA-02 (New): Road Network Improvement Project (Cont.)

## Location Map



**List of Road Maintenance 2<sup>nd</sup> RAMP**

No.	Road Number	From	To	Construction Complete (Year)	Funded by	Current Pavement	Length (Km)
M1	NR1	Neak Loueng	Bavet border	2004	ADB Loan	DBST	100
M2	NR6	Seim reap	Krolanh district	2009	ADB Loan	AC	50
M3	NR67	Siem Reap	Chom Sagnam border	2009	Thai Loan	DBST	135
<b>TOTAL=</b>							<b>285</b>

**List of Provincial Road Improvement Project-II**

No.	Road Number	From	To	Current Proposal	Length (Km)
4	PR2565A	NR56B, Kok Morn (31Km from Samroung)	Thai Border- Jup Koki	DBST(7m)	27
5	PR2561-1	NR56A, Svay Jek PK24+000	NR58, Kvav	DBST(7m)	25
10	PR312	NR1, PK77+100 Samroung, Lvear, Pras sacch district	Banteay Chakrey Border	DBST(7m)	28
13	PR372A	NR7, PK221, Kcheay	Tonle cham border	DBST(7m)	31
15	PR23	Koh Thom Bridge, Kandal Province	Peam Raing district, Kandal Province	DBST(7m)	19
<b>TOTAL=</b>					<b>130</b>

លេខ	ប្រវែង (គីឡូម៉ែត្រ)	ប្រមូលថវិកា (លាន ដុល្លារ អាមេរិក)
1	166.850	
2	120.895	
3	201.689	
4	214.200	

# CAM-TRA-03: Phnom Penh – Sihanoukville Highway Corridor Improvements

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The proposed 191 km expressway project is being considered for a build-operate-transfer (BOT) model with a 50-year concession period. The expressway will provide a high-capacity road link between Phnom Penh and the port city of Sihanoukville and the Greater Mekong Subregion Southern Coastal Corridor.	Road	1,600.0	A feasibility study had been undertaken by CRBC (China).

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
Aug. 2014	Jun. 2015	BOT	End of 2016	End of 2016	(Chinese investor)

## Narrative:

Feasibility study has been taken by a Chinese company: China Road and Bridge Co., Ltd (CRBC).

A legal basis for a project of this nature is being developed.

**MEF is hiring an independent consultant to analyze the result of the study as well as the draft agreement prior to making decision.**





# CAM-TRA-04: Link road between NR 5 and NR 6 near Kampong Tralach north of Phnom Penh

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The proposed new 21km road including 1km bridge across Tunle Sap lake will shorten the distance between NR5 & NR6 from 64km to 22km. This road will facilitate the traffic movement between the major highways on the northern side of Phnom Penh and also reduce traffic congestion within Phnom Penh City.	Road	60.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
None	None	2019	2019	2019	No progress

## Narrative:

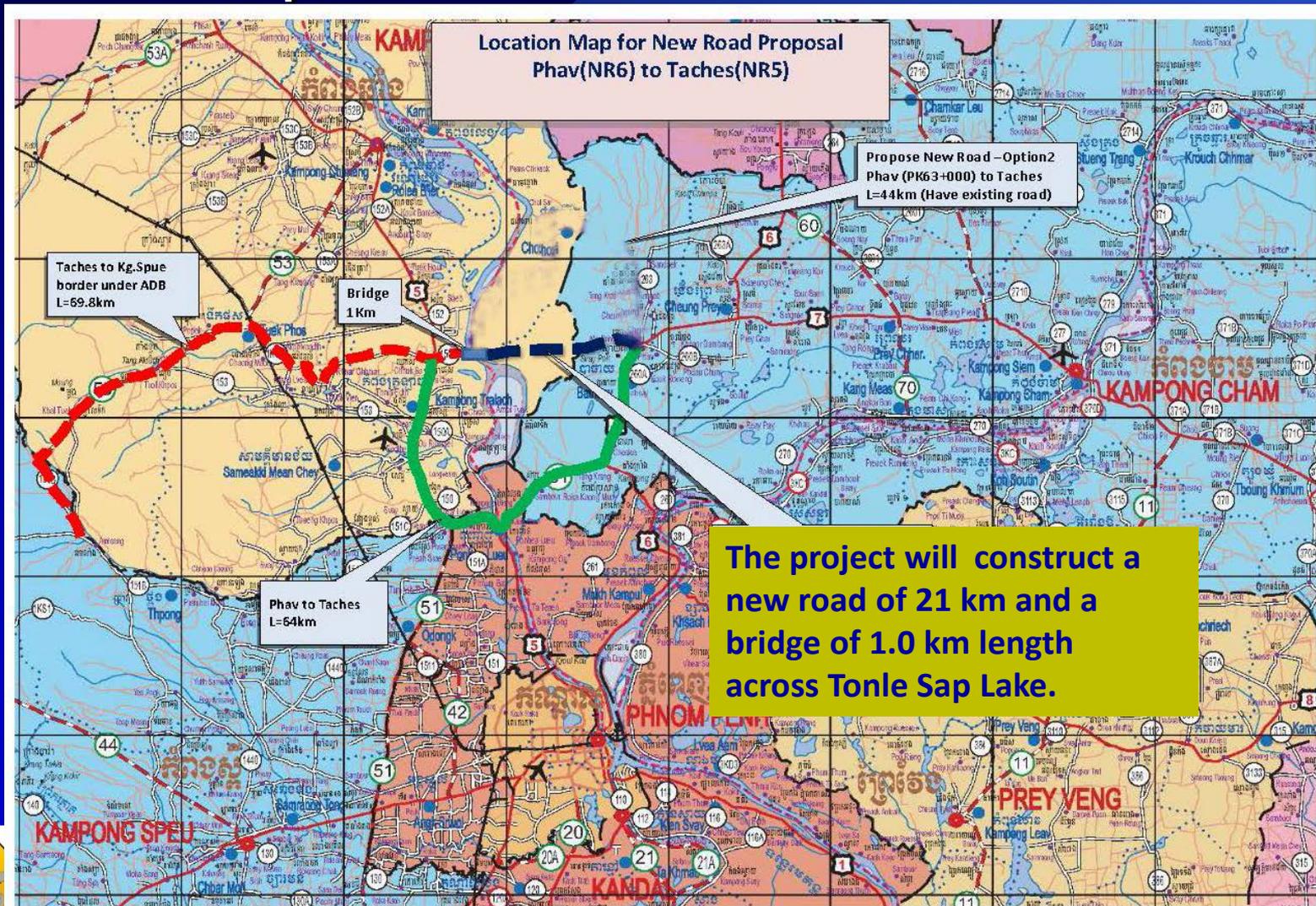
No progress.

MPWT will begin to work on this Project next year (2017) and hope to start implementation by 2019.



# CAM-TRA-04: Link road between NR 5 and NR 6 near Kampong Tralach north of Phnom Penh (Cont.)

## Location Map



The project will construct a new road of 21 km and a bridge of 1.0 km length across Tonle Sap Lake.

# CAM-TRA-05: Construction of Poipet (CAM) – Klong Loeuk (THA) Railway Bridge

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The proposed bridge to be financed by Thailand will replace an existing unserviceable railway bridge at Poipet - Aranyaprathet border crossing between Cambodia and Thailand, This will link the completed Serey Saoporn-Poipet Railway part of Cambodia Railway's northern line.	Rail	0.5	Financed by Thailand

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
2014	2014	2014	Feb. 2015	Aug. 2015	Completed

## Narrative:

The construction of the bridge was completed in August 2015. Cambodian Railway Department is renovating the 6.5km missing link at Poipet by Government fund, which expected to be completed by August 2016, then Serey Saoporn-Poipet will be connected.



# CAM-TRA-05: Construction of Poipet (CAM) – Klong Loeuk (THA) Railway Bridge (Cont.)



Existing bridge



New bridge



# Other large scale Projects in Southern Economic Corridor's Development (beside RIF-IP)



# Construction of 6.5km missing railway link from Poipet to Serey Sopron connecting with Thai Railway



Will be completed by August 2016

The Railway Department using Government's Budget is also reconstructing the section from Serey Saopron to Phnom Penh, which is expected to complete by the end of 2016. Then the entire Northern line of 386km will be serviceable.



# Improvement of National Road No. 5 (Japan Yen Loan)

## SCOPE OF WORKS:

- Widening to 4 lanes
- Construction of 4 bypasses

The Project divided into 3 sections:

### A. North Section:

Length: 84.74km (51.48+9.34+23.92)

2 bypasses: Serey Sophorn: 9.34km and  
Battambang: 23.92km

Construction will start in November 2016

### B. South Section:

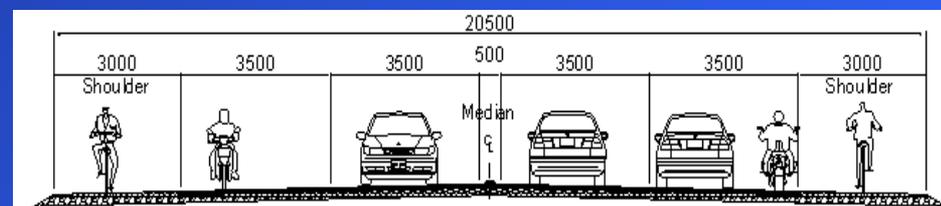
Length: 135.40km

2 bypasses: Kg. Chhnang and Oudong  
Construction will start in November 2017

### C. Middle Section:

Length: C1: 112.60km + C2: 35.70km  
Request proposal for Consultant Selection.

The entire project is planned to complete by 2020.



# National Road No.1 Phnom Penh-Neak Loeung

(Japan Grant Aid)

RN1 is a part of GMS's Southern Economic Corridor connecting Phnom Penh to Bangkok and Ho Chi Minh City.

## Stage 1:

Construction of 2 bridges at St. 42 and st.47, Completed in 2006

## Stage 2:

Construction of Road, one Bridge and Culverts between st. 13+100 and st. 56 (Neak Loeung), completed Feb. 2009

## Stage 3:

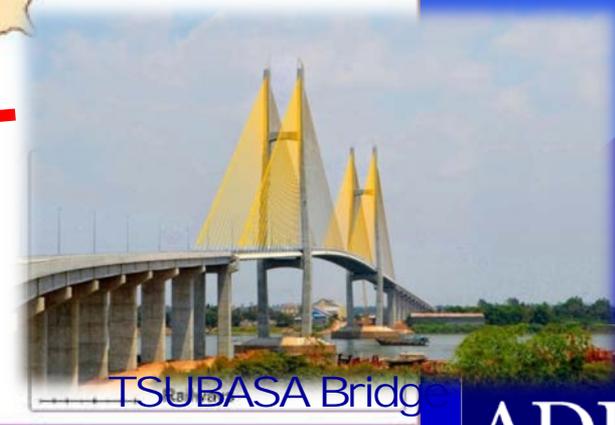
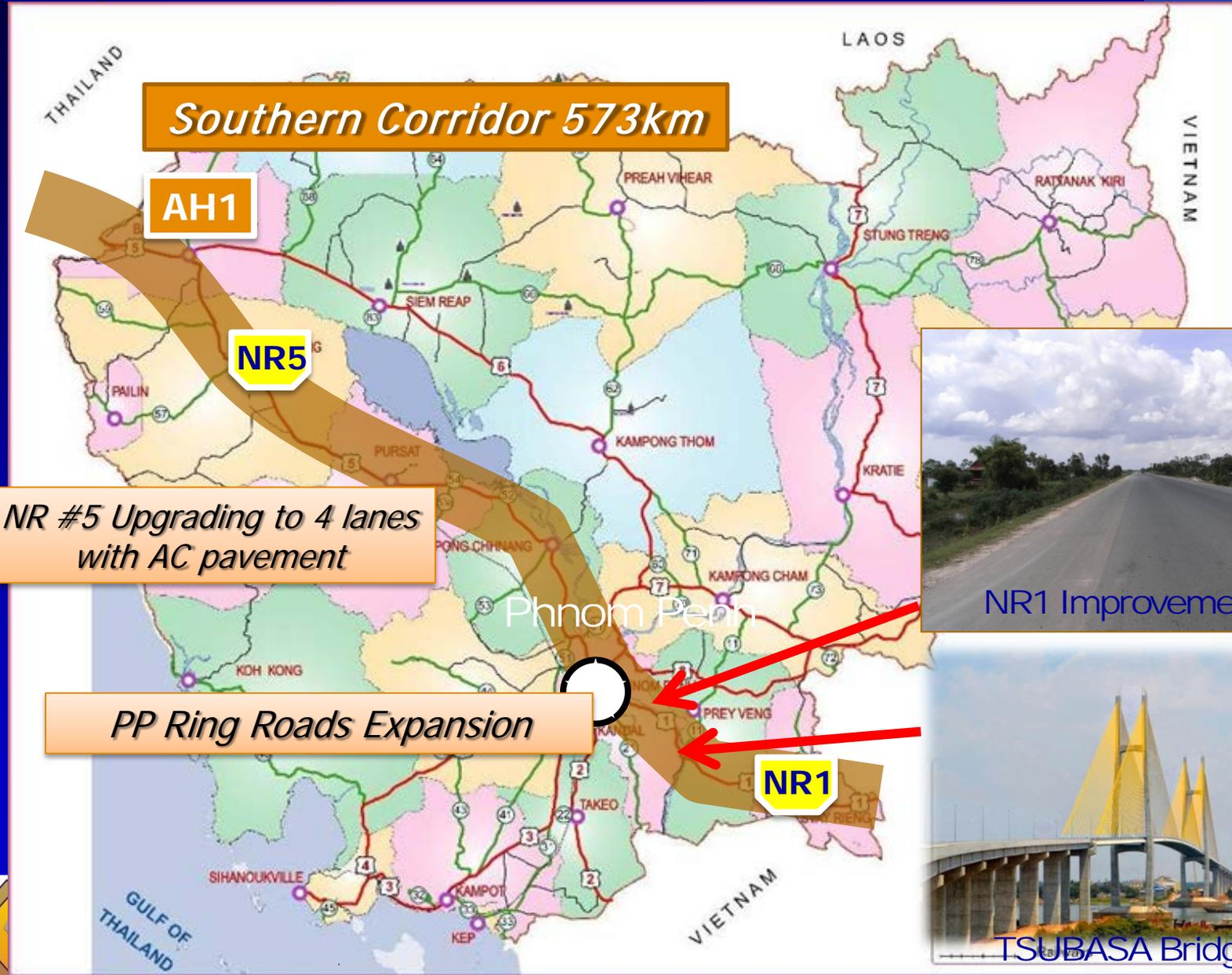
Construction of Road between st. 4+000 and st. 13+100, completed March 2011

## Stage 4:

Construction of Road between st. 0+000 (Eastern side of Monivong bridge) and st.4+000  
On Going, planned to complete in March 2017

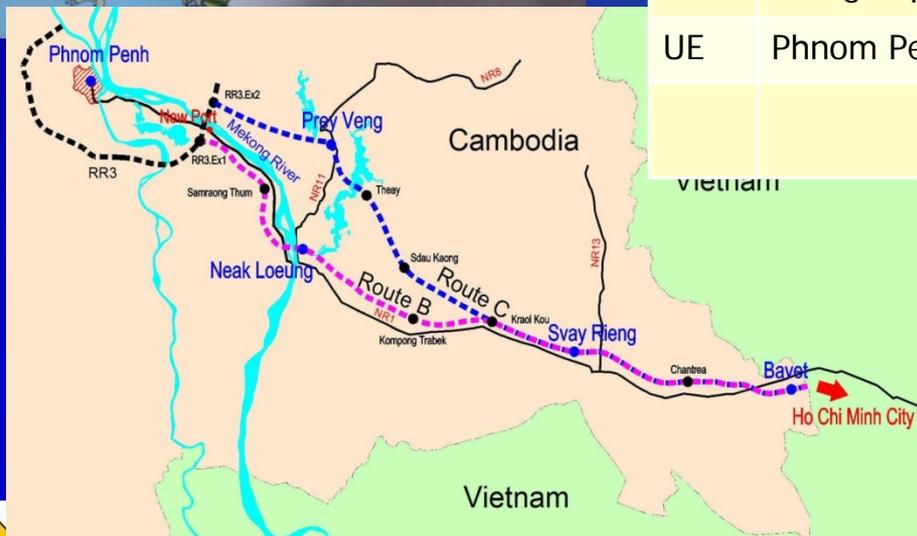
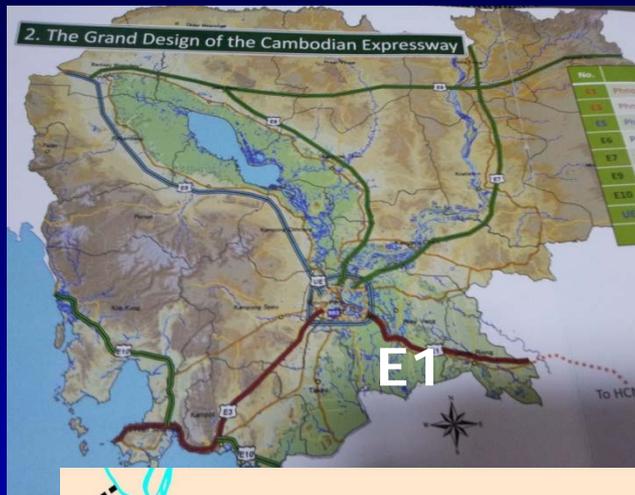


# Projects' Map



# The Study on Phnom Penh - Bavet Expressway

E1: Under Preparatory Study  
by JICA since March 2015



No.	Route	Length	Operation
E1	Phnom Penh – Bavet	135 km	2020
E3	Phnom Penh – Sihanoukville	210 km	2020
E5	Phnom Penh – Poipet	355 km	2025
E6	Phnom Penh – Sri Sophon	400 km	2030
E7	Phnom Penh – Laos Border	355 km	2030
E9	Siem Reap – Vietnam Border	390 km	2030
E10	Krong Kep – Koh Kong	220 km	2030
UE	Phnom Penh Ring Road	155 km	2025
		<b>2,200 km</b>	

Preliminary Schedule of Expressway development  
Source: Jica Preliminary Data collection survey, September 2013

# Technical Assistance Projects

Cambodia has no TA projects to monitor under the RIF-IP.

**WHY?**



# Overall Assessment of Progress of Transport Projects Implementation Under The RIF-IP

- Cambodia's transport projects under the RIF-IP are generally on track.
- Construction of a Railway Bridge at CAM-Thai border was already completed in August 2015 with assistance from Thailand.
- F/S for Phnom Penh-Sihanouville project has been completed and financing is currently being analyzed by MEF; implementation is expected by the end of 2016
- Scope of CAM-TRA-02 has been changed, the implementation of the newly proposed project will commence in 2017.
- The Link Road between NR5&6 (CAM-TRA-04) is a bit delay, it's expected to commence in 2019.
- Only Sihanoukville Port access Road (9.5km) that we cannot find financial support so far.



# 3.

## Midterm Review:

Projects Proposed for Deletion and for Addition



## Projects Proposed for Deletion

**NONE**



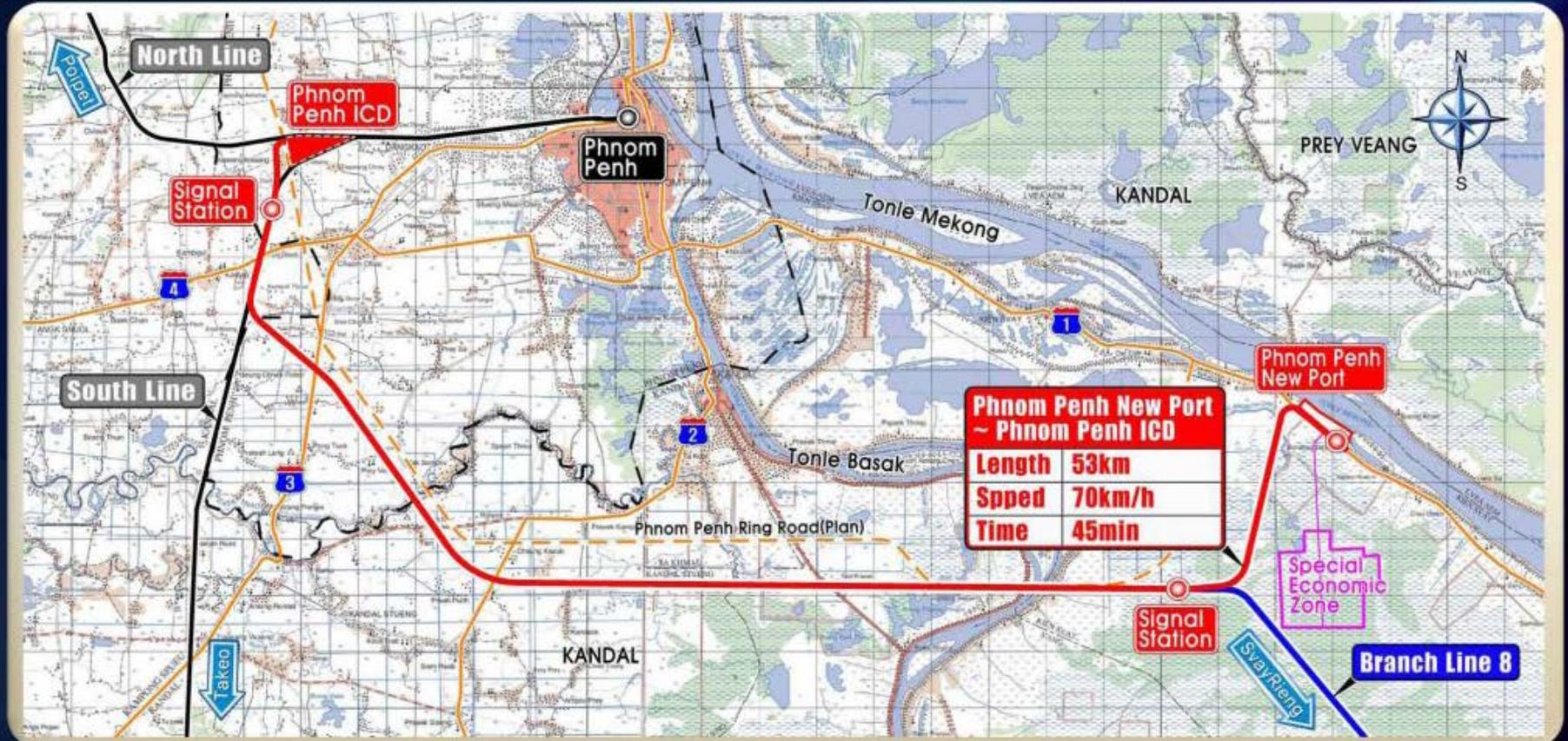
# Projects Proposed for Addition (Infrastructure)

Project Name	Reasons for Proposing Inclusion	Source: RIF / Others	Countries Involved
<b>CAM-TRA-06: Railway access to the New Phnom Penh Port (53km)</b>	<ul style="list-style-type: none"> <li>- Connecting two International Ports</li> <li>- Enhancing multimodal transport</li> <li>- Reducing road accident &amp; traffic congestion</li> <li>- Cost and time reduction through containers' mass transit mode</li> </ul>	<b>ADB/China (200Mill USD)</b>	<b>Cambodia</b>
<b>CAM-TRA-07: Southern Siem Reap bypass road (193.7km)</b>	<ul style="list-style-type: none"> <li>- Reducing road accident &amp; traffic congestion in Siem Reap City</li> <li>- Smooth traffic movement on the Southern Economic Corridor.</li> </ul>	<b>(200Mill USD)</b>	<b>Cambodia (CLVT)</b>



# Location Map of Proposed CAM-TRA-06

- New Route of 52km, branched from signal station which is planned at the South Line, would be connected to new port



# Location Map of Proposed CAM-TRA-07



## Projects Proposed for Addition (TA)

Project Name	Reasons for Proposing Inclusion	Source: RIF / Others	Countries Involved
CAM-TRA-08: Construction of Bus/Truck Driving Test Centre.	<ul style="list-style-type: none"> <li>- Lack of facilities and equipment for Bus/Truck drivers' testing,</li> <li>- Lack of professional heavy vehicles' drivers, especially for cross border vehicle,</li> <li>- Reduce road accident.</li> </ul>	ADB/China, (10Mill USD)	Cambodia,



# Thank You



# **GMS Regional Investment Framework Implementation Plan 2014–2018 Progress Report**

## **Transport Sector <China>**

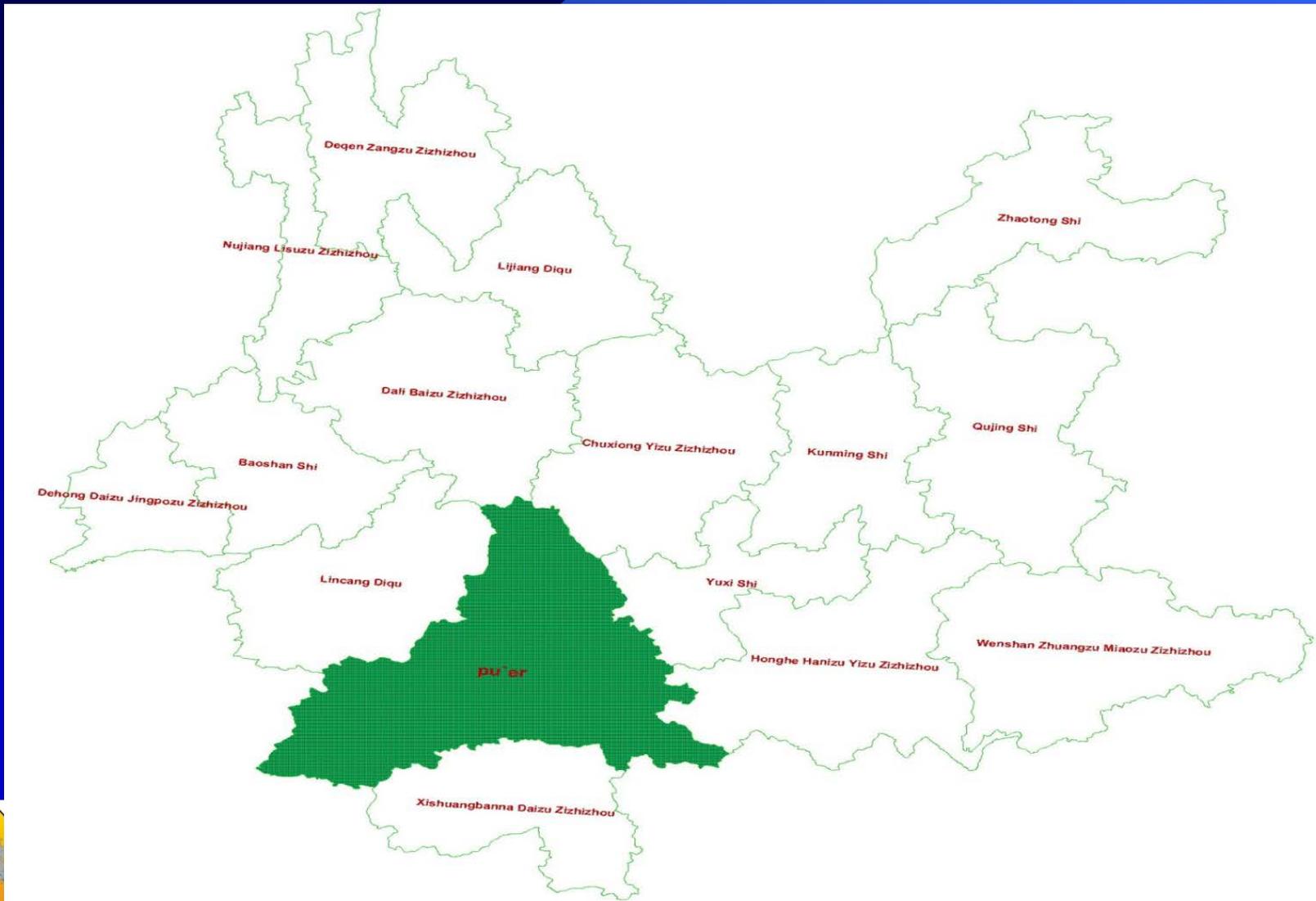
Reported at the 20<sup>th</sup> Meeting of the  
GMS Subregional Transport Forum (STF-20)  
29–30 June 2016, Nanning, People's Republic of China



# Investment Projects



# PRC-TRA-01: Yunnan Pu'er Regional Integrated Road Network Development Project



# PRC-TRA-01: Yunnan Pu'er Regional Integrated Road Network Development Project

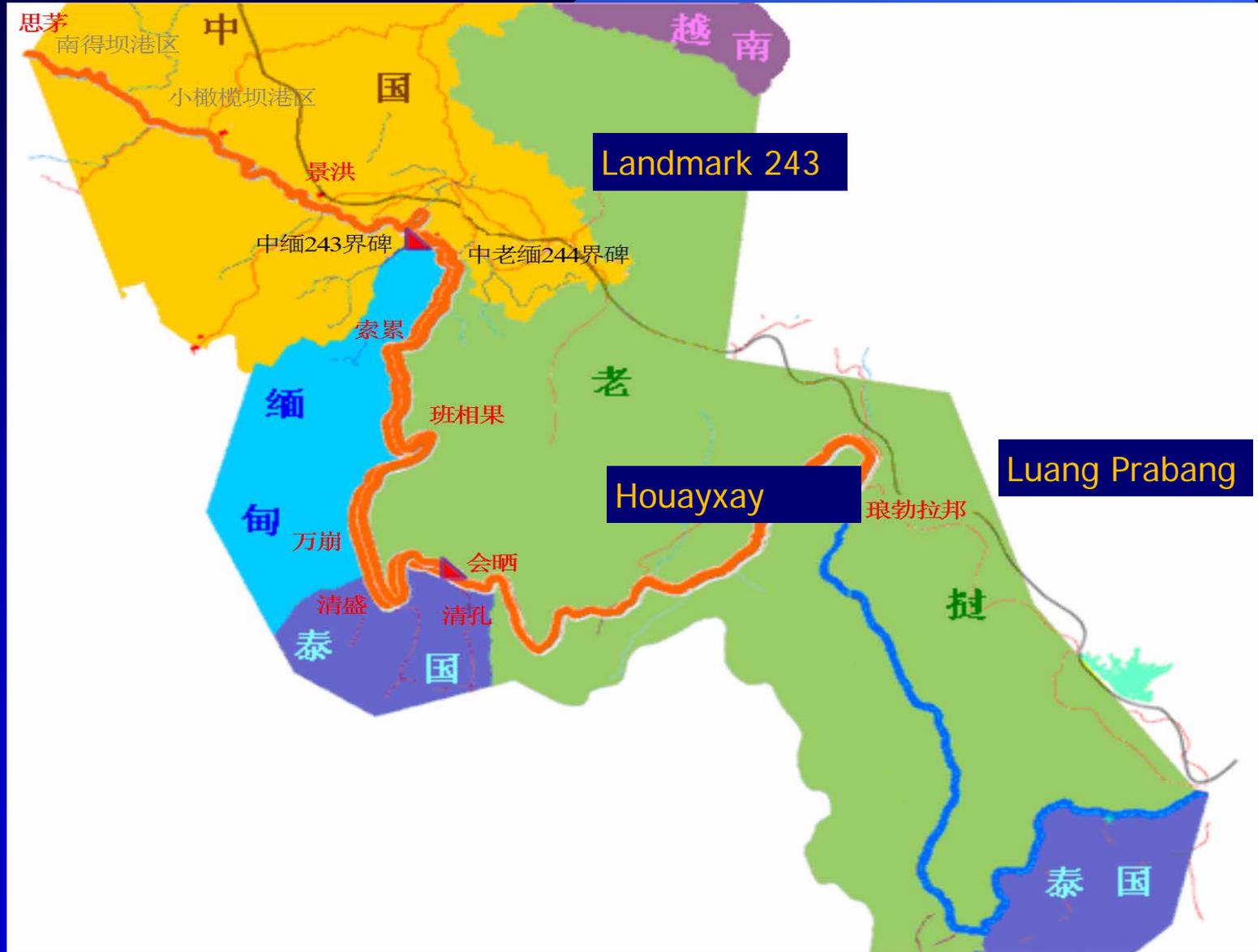
Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project includes: (i) Pu'er City rural road construction (upgrading 600 km of rural earthen roads to Class IV highways);(ii) rehabilitation of the Ning'er-Jiangcheng-Longfu road (upgrading 228 km of road to Class III highway); and (iii) Construction of the Menglian-Meng'a road (45km of Class I and II highway).	Road	540.0	The project will contribute to inclusive growth and regional integration by connecting isolated rural communities and border areas to the regional road network and by providing infrastructure to support trade and regional cooperation among the PRC, Lao PDR, Myanmar and Vietnam.

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
	Jun. 2014	Financing Agreement with ADB on Jun. 25, 2015	NDRC, China	Partially commenced	

## Narrative:

- (i) Pu'er City rural road construction: 1<sup>st</sup> procurement plan approved by ADB; public bidding to be commenced in 3<sup>rd</sup> quarter of 2016; road safety appraisal submitted to ADB for approval.
- (ii) Ning'er-Jiangcheng-Longfu road: resettlement plan approved by ADB in Oct. 2015; bidding documents approved by ADB in Nov. 2015; bid evaluation report approved by ADB in Feb. 2016.
- (iii) Menglian-Meng'a road: resettlement plan approved by ADB in Oct. 2015; bidding documents approved by ADB in Sep. 2015; 2 roadbed bid evaluation reports approved by ADB in Dec. 2015; Withdrawal PCSS allocated in May 2016; land acquisition, and construction work started.

# PRC-TRA-02: Further Maintenance and Improvement of the Upper Mekong Navigation Channel



# PRC-TRA-02: Further Maintenance and Improvement of the Upper Mekong Navigation Channel

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Scope of Phase I Projects: the 631 kilometers river section between China-Myanmar Boundary Marker 243 and Luang Prabang of Laos. The projects include: 146 rapids and shoals will be improved and maintained, 1199 aids to navigation will be installed, 5 ports will be constructed, and 3 channel maintenance and emergency response bases will be built in the above mentioned 5 ports, and 4 emergency response & rescue ships of 15-meter length will be built. Training of crew and shore personnel will be carried out for safe operation of vessel and port. Ship reporting and monitoring system will be set up.	Inland Waterway	359.4	The project will ensure the navigational safety of the Upper Mekong River, thus promoting navigation cooperation on the Rover and realizing win-win and benefits between and among CLMT

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
		14.7 million provided by China for preliminary work	The JCCCN	Preliminary work commenced	The rest of fund to be secured and ADB is requested to provide financial support

## Narrative:

- 1) The Joint Working Group (JWG) on Preliminary Work established among China, Laos, Myanmar and Thailand
- 2) 1<sup>st</sup> JWG Meeting convened in Sep. 2015, and work contents and schedule agreed
- 3) Public bidding process completed in early 2016
- 4) 2<sup>nd</sup> JWG Meeting and Kick-off Meeting convened in April, 2016
- 5) The Implementation Plan approved by China, Laos, and Myanmar
- 6) Preliminary work related to China, Laos and Myanmar to be started in 2<sup>nd</sup> half of 2016

# Projects Location: RAIL

## YUNNAN PROVINCE IN THE PEOPLE'S REPUBLIC OF CHINA



**1. Dali-Ruili  
Railway**

Northern  
Corridor

**2. Yuxi-Mohan  
Railway**

- Provincial Capital
  - City/Town
  - National Road
  - Provincial Road
  - River
  - - - Provincial Boundary
  - - - International Boundary
- Boundaries are not necessarily authoritative.

This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.



# PRC-TRA-03: Dali-Ruili Railway

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This railway project is 330 km from Dali to Ruili via Baoshan. The line will be Class I, electrified, with a maximum speed of 140 km/h for passenger trains.	Rail	4,020.0	The railway is connected with the Guangdong-Dali railway, and is an important section of the western route of the Singapore-Kunming Rail Link (SKRL). It is essential for completion of the SKRL's western route and the development of the 3 <sup>rd</sup> Euro-Asia Continental Land Bridge.

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
	Feb. 2007		NDRC, China	Jun. 2008	

## Narrative:

- 1) Financed by China.
- 2) Dali-Baoshan section: commenced in 2008 and to be completed in 2021; Baoshan-Ruili section: bidding process completed in Nov. 2015 and construction commenced in Dec. 2015.
- 3) As of May, 2016, 37.11% of the total investment finished, 41.29% of large/medium bridges completed, 32.74% of tunnel completed, most of the land acquisition work for Dali-Baoshan section completed, land acquisition for Baoshan-Ruili started.



# PRC-TRA-04: Yuxi-Mohan Railway

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The 508.53 km railway runs from Yuxi to Mohan via Xishuangbanna, linking with the Kunming-Yuxi Railway. The line will be Class I, electrified, with a maximum speed of 160 km/h for passenger trains; double track from yuxi to Xishuangbanna; Single track from Xishuangbanna to Mohan, while reserved for upgrade to double track.	Railway	8,062.5	Once it is connected with railways of other countries of the region, this route will be the most direct from the PRC to the ASEAN countries. As a section of SKRL's middle route, this line is crucial to the establishment of an ASEAN-China Free Trade Agreement (FTA), the economic development of the GMS subregion, and to the formation of a modern integrated transport network.

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
		Jointly financed by China and ADB	NDRC, China	Dec. 2015	

## Narrative:

- 1) Bidding process for the whole line commenced in Feb. 2016 and completed in April 2016.
- 2) 375 million invested in 2015
- 3) The planned investment is 1.25 billion in 2016 and as of May 2016, 66.7 million has been finished.



# Overall Assessment of Progress of Transport Projects Implementation Under The RIF-IP

- Implementation of China's transport projects under the RIF-IP are generally on track
- Construction of 3 projects (PRC-TRA-01, 03, 04) are on-going
- Preliminary work of 1 project has started, with the field work to be carried out soon.



Thank You



# **GMS Regional Investment Framework Implementation Plan 2014-2018 Progress Report and Midterm Review**

## **Transport Sector Lao PDR**

Reported at the 20th Meeting of the  
GMS Subregional Transport Forum (STF-20)  
29–30 June 2016, Nanning, People's Republic of China



# Lao PDR RIF IP (2014-2018)

## Investment Transport Projects

Types of infrastructure	Number of Projects	Total Cost estimate (\$ Million)
Roads	4	640.00
Bridges	2	140.00
Border Crossing Facilities	5	68.00
Ports	2	27.00
Rail	1	6 040.00
<b>Total</b>	<b>14</b>	<b><u>6915.00</u></b>





# LAO-TRA-01 : Vang Tao Border-Crossing Facility

Description		Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This facility is one of the most southern Lao PDR-Thailand border-crossing point at Vang Tao and Chong Mek, on NR 16. The border-crossing facility does not meet the implementation requirements of the GMS CBTA.		Border Crossing	15.00	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
N/A	N/A	1 Sep 2013	14 Dec 2013	14 Dec 2013	Geographical location causes some project delays

## Narrative:

- The construction of this government-financed project commenced on 14 Dec 2013.
- As of 30 June 2016, the project sees its progress at 75%.
- The project is expected to be completed in Ohe recent contract extension.



# LAO-TRA-02 : Upgrading NR13N and 13S (Portion through Phon Hong–Vientiane Capital–Ban Hai); ASEAN Highway AH12 & AH13

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
NR 13N connects Vientiane to the country's northern provinces, and NR13S connects Vientiane to the southern provinces. Present and projected traffic demand requires the road to be expanded to 4 lanes. The Government intends to use this project as a pilot PPP road investment in Lao PDR.	Road	320.0	

Activity/Date						Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced		
Dec 2013	Dec 2014					

## Narrative:

- FS covering the total length of 106 Km completed in Dec 2014.
- Environmental and social resettlement plan is being enhanced.
- MPWT is working hand-in-hand with WB to prepare a report with great details to the Government.



# LAO-TRA-03: Mekong Bridge at Bungkan–Paksan (with THA)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The bridge will facilitate transport of goods and passengers from northeastern Thailand through central Lao PDR and central Viet Nam via NR8.	Road & Bridge/Bor der Facilities	110.00	Based on the current ex. Rate, the project cost estimate is 110 mill USD.

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
Jan 2014	Aug 2014				

## Narrative:

- With a grant from NEDA, an FS and detailed design has been completed since Aug. 2014.
- MoF is under the process of seeking a soft loan from NEDA to finance the construction cost of 36 mill USD, which is under Lao PDR's responsibility.



# LAO-TRA-04: Thanaleng Border–Crossing Infrastructure Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The existing Thanaleng border crossing operates in a very restrictive and inefficient manner for both passenger and freight traffic, and this will become more severe as daily freight traffic grows beyond the present 300 trucks, and 1000 passenger cars and buses. In this regard, there is an urgent need to separate freight traffic from passenger traffic, also to significantly upgrade the road and other infrastructure.	Border crossing	25.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
					Financing for FS and construction is being sought

## Narrative:

- Preliminary study on the needs of infrastructure improvement was completed.
- Some minor traffic lane expansion was undertaken at the check point.
- Financing for FS and construction is being sought.



# LAO-TRA-05: Hongsa (Xayaboury)– Chomphet (Luang Prabang) Rehabilitation (156 km)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The road is part of the tourism corridor that includes Chiang Rai, Chiang Mai, Luang Prabang (Chiang Thong), and Vientiane. The section rehabilitation will promote trade, investment and tourism.	Road	90.0	

Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
March 2011	Nov 2011	Nov 2014			

## Narrative:

- The project implementation with the loan from NEDA has commenced since Sept 2015.
- As of 30 June 2016, the project sees its progress at 6%.
- It is expected to be completed in May 2018.



# LAO-TRA-06: Upgrading of NR8 East–West Transport Route; ASEAN Highway AH15 (Ban Lao-Nam Phao) 132 km

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
NR8 branches off from NR13S at Ban Lao, passing through the districts of Kamkeuth and Laksao before reaching the Lao-Viet Nam border crossing point at Namphao-Cau Treo; after the point, it connects to Cua Lo Seaport, in Vinh, Viet Nam. The road does not meet ASEAN standards. This portion of the road has been included in the ASEAN Master Plan for Connectivity for upgrading.	Road	80.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	

## Narrative:

- A team from KOICA conducted an implementation survey in April 2016.
- DoR, MPWT in collaboration with the team are preparing a RoD for the project detailed FS.
- The KOICA grant for detailed FS is expected to be effective in the 2016-2017 fiscal year.



# LAO-TRA-07: Xiengkok River Port

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Xiengkok in Luang Namtha Province is located on the Mekong River. Under the quadrilateral Lancang-Upper Mekong River Commercial Navigation Agreement (PRC, Lao PDR, Myanmar, and Thailand), it has been agreed that Xieng Kok Port will be a checkpoint for downstream river traffic from the PRC to Chiang Saen Port, in Thailand. The port is to be equipped with cargo handling equipment, immigration and customs offices, and warehouses	Inland waterway	15.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
March 2010	April 2010				

## Narrative:

- The project was included in the Sino-Lao Cooperation 2016-2020 Scheme.
- Contract agreement for construction was signed on 30 Dec 2015.
- The loan negotiation can be carried out at the end of 2016, and the construction can commence in early 2017.



# LAO-TRA-08: Ban Mom River Port

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Ban Mom in Bokeo Province is located on the Mekong River. Under the Quadrilateral Agreement on the Commercial Navigation on Upper Mekong-Lancang River (PRC, Lao PDR, Myanmar, and Thailand), it has been agreed that Ban Mom Port will be a checkpoint for upstream river traffic from Chiang Saen Port, in Thailand, to the PRC. The port will be equipped with cargo handling equipment, immigration and customs offices, and warehouses.	Inland waterway	12.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	

## Narrative:

- The project has been in the Development Plan of International Navigation on the Lancang-Mekong River 2015-2025.
- Preliminary FS is being finalised by Department of Waterways.
- The provincial government is considering using BOT method for this port upgrading project.



# LAO-TRA-09: Lalay Border–Crossing Point (NR15)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This facility is located at the Lao PDR-Viet Nam border on the newly completed NR15 in Salavan Province. This road is a crucial link to the seaport in Vietnam. The existing border-crossing facilities do not meet the requirements of the GMS CBTA.	Border crossing	10.0	As in June 2016, the cost estimate of the project has been revised to \$ 10 million.

Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
August 2012	August 2013				

## Narrative:

- A preliminary FS financed by the provincial government was completed in August 2013.
- Financing for detailed FS and construction has been sought from OPEC.



# LAO-TRA-10: Nam Phao Border–Crossing Point (NR8)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This facility is located at Lao PDR-Viet Nam border crossing point on NR8 in Bolikhamxay Province. NR8 is vital route which provides the shortest link between Vientiane to the deep seaport in Vietnam. The existing border-crossing facilities do not meet the requirements of the GMS CBTA.	Border crossing	8.0	the actual cost will be determine through the detailed FS procedure

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	

## Narrative:

- MPWT plans to propose KOICA to include the FS of this project in the scope of detailed FS assistance on NR 8 Upgrading Project.



# LAO-TRA-11: Na Phao Border–Crossing Point (NR12)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This facility is located at Lao PDR-Viet Nam border crossing point on NR12 in Khammouane Province. After the Third International Friendship Bridge was opened for transit traffic through Thailand, Lao PDR and Viet Nam, the traffic has increased considerably. The existing border-crossing facilities do not meet the requirements of the GMS CBTA.	Border crossing	10.0	the actual cost will be determine through the detailed FS procedure

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	

## Narrative:

- MPWT plans to include the FS of this project to the NR 12 upgrading project, which has been proposed for a soft loan from NEDA, Thailand.



# LAO-TRA-12: Luang Namtha– Xiengkok–Lao– Myanmar Friendship Bridge: NR17

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
NR17 starts from Luang Namtha town in Luang Namtha Province, passes through Muang Sing and Muang Long, and connects with the Lao-Myanmar Friendship Bridge at Xiengkok. This road is part of the ASEAN-India transport corridor. This section also falls in the North East-West Transport Corridor or AH 13.	Road	150.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	

## Narrative:

- MPWT sent an official letter to the WB Office in Laos to support Vietnam's request for a financing to the Pre-FS of the project.
- The project has been included in the Sector 5-year Plan.
- Lao PRD like Vietnam look forward to receiving the response from the WB on our requests.



# LAO-TRA-13: Lao-Myanmar Friendship Bridge over the Mekong at Xienglok

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The governments of Lao PDR and Myanmar jointly financed (50% each) the construction of the International Friendship Bridge across the Mekong River at Xiengkong (Lao side) and Kainglap (Myanmar side).	Bridge	30.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
May 2012	Dec 2012			Feb 2013	Construction completed

## Narrative:

- The project was completed and opened in May 2015.
- MPWT has completed the Draft Agreement on Road Transportation and sent to MOT, Myanmar for a revision.
- The official use can begin upon the completion of a few regulatory frameworks.



# LAO-TRA-14: Vientiane–Boten Railway Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The Vientiane-Boten Railway Project will connect the Chinese railway in the north of Laos, Chinese border to Vientiane, and can potentially in the near future connect to Thai rail line via Nong Khai. This standard-gauge railway with a speed of 160 km/h for passenger train and 120 km/h for freight train will form parts of the substantial 3000 km Kunming-Singapore Rail Link.	Rail	6040.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
April 2010	April 2011		1 Dec 2015		Construction is scheduled in Oct 2016

## Narrative:

- Ground Breaking Ceremony was held on 2 Dec 2015.
- The government is reviewing a Draft Concession Agreement.
- The Signing Ceremony of Concession Agreement between the government and the Lao-China Joint-Venture Railway State Enterprise is scheduled in Sep 2016.



# Overall Assessment of Progress of Transport Projects Implementation Under The RIF-IP

- In a big picture, a number of Laos's transport investment projects under the RIF-IP make a very satisfactory progress.
- 4 road projects are progressing largely on track. 1 of which has already commenced and the rest are at various progressive stages.
- 1 bridge construction project was completed and another is under a loan request process from Thailand.
- Out of 5 border crossing projects, 1 is progressing toward its completion, while the rest are seeking financing for FS and construction.



# Overall Assessment of Progress of Transport Projects Implementation Under The RIF-IP

- The implementation of 1 river port project is expected to commence in early 2017, while another port upgrading project is under a pre-FS process.
- The only railway project is at a latest stage of concession agreement review before the beginning of construction.
- It is believed that the vast majority of the projects, if not all will have commenced their implementation by the end of RIF-IP period.



# Midterm Review:

## Projects Proposed for Deletion and for Addition

- At this stage, all 14 projects under the RIF-IP remain substantial for and critically in line with the Sector Directions on International Integration and Regional Connectivity until 2025, Sector 5-Year Development Plan (2016-2020) and the 8<sup>th</sup> NSEDP (2016-2020).
- It has come to a conclusion that Lao PDR will have no project proposed for deletion and addition.



Thank You  
For Your Kind Attention



# **GMS Regional Investment Framework**

## **Implementation Plan 2014–2018**

### **Progress Report**

#### **Transport Sector**

<Myanmar>

Reported at the 20<sup>th</sup> Meeting of the  
GMS Subregional Transport Forum (STF-20)  
29–30 June 2016, Nanning, People's Republic of China

# Investment Projects

# MYA-TRA-01: GMS: East-West Economic Corridor Eindu-Kawkareik Road Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This project focuses on a key route, not only for the GMS, but also for the India-Myanmar-Thailand Trilateral Highway, and the ASEAN and Asian highway networks. It will be reconstructed to ASEAN Class II standard be financed by ADB.	Road	121.8	Feasibility study and detailed design have been completed. Approved by ADB and the Government. <b>Loan signing</b> has been done on 8 April 2016. Construction will be commenced in Sep. 2016

Activity/Date		Financing Identified	Project Approved/By ADB	Implementation Commenced	Notes
FS Commenced	FS Completed				
14 Aug 2013	30 Jan 2015	Feb. 2015	10 Nov. 2015	Aug. 2016	Procurement has been done and loan effectiveness process is ongoing

## Narrative:

- Consultant selection and procurement for civil works have been done and ADB concurrent has been received
- Construction will commence in September 2016.

# GMS EWEC

Eindu-Kawkareik, 66.4 km



## MYA-TRA-02: Mae Sot-Myawaddy Border Crossing Project and Infrastructure Improvements (with THAILAND)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
A new bypass road and bridge to the north of the existing border crossing at Mae Sot (THA)–Myawaddy (MYA), which is located in the congested area of the two border cities. This new crossing would be dedicated to cross-border freight traffic. The bypass would link with a newly envisioned special trade zone on the Myanmar side. The overall project would include about 16.9 km of a new four-lane divided highway (13.3 km in Thailand; 3.6 km in Myanmar), a 100 m-long bridge across the Moei River at the border, and associated border-crossing facilities.	Road	TBD 3,900 million	Bridge and Bypass construction is on going.

Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
April 2014	March 2015	14 Jan 2015	9 Oct 2014	July. 2015	Thai government provides 1000 million Baht grant to Myanmar .

### Narrative:

- Will be completed in 2017

# Myanmar- Thailand 2nd Friendship Bridge



# The Second Friendship Bridge

## Balance Cantilever





## MYA-TRA-03:Improvement of Inland Ports

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will construct four inland ports on the Ayeyarwaddy River (Bhamo, Mandalay, Pokokku, and Magway) and two inland ports on the Chindwin River (Monywa and Kalewa). The objective is to improve the transportation and handling of domestic and international cargo and containers.	Inland Waterway	60	The first inland port project will be started in Mandalay, the Hub of Ayeyarwaddy River and country. Feasibility Study was started in August 2013 and completed in February 2014. It was under consideration in Financial and Technical matters by Japan Government. The primary estimated cost for Mandalay Port is 38.0 million USD. The estimated time required for implementation of Mandalay Port is about 2 years. Public Consultation for ESIA concerned with the construction of Mandalay Port was done in 2013.

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
August 2013	February 2014				

**Narrative:** Some of inland water ports have old jetty facilities, however, most of the ports have no mechanical facilities for transfer and the ports rely on manual labor to handle goods. So, establishment of Inland Ports in some significant areas along Ayeyarwaddy and Chindwin River is a priority in Transport sector.

## **MYA-TRA-03:Improvement of Inland Ports**

**Project Title - Improvement of (6) Inland Ports along Ayeyarwaddy and Chindwin Rivers**

- Objectives**
- **To establish standard Inland Ports at Ayeyarwaddy and Chindwin rivers in order to promote efficient cargo handling**
  - **To promote the containerization by using inland water ways**
  - **To support the facilitation of inland water transport**
  - **To create job opportunities and develop the living standards of the people**

# MYA-TRA-03:Improvement of Inland Ports

## † Ayeyarwaddy River

- Bhamo Port
- Mandalay Port
- Pokokku Port
- Magway Port

- Benefits** - Attaining maximum loading capacity and smooth transportation by using inland waterway
- Establishing and developing new inland ports
  - Relating to areas of new inland ports , economic zones and industrial zones will be developed
  - Improving country revenues
  - Improvement of opportunities in foreign investments

## † Chindwin River

- Monywa Port
- Kalewa Port



# Mandalay Inland Port Project



- Port capacity is designed at 240,000 tons per year.
- Berth Length 180-200m, Cargo Yard 3 ha.

## MYA-TRA-04: GMS: Lao Myanmar Friendship Bridge over the Mekong River at Xiengkok-Kyainglap

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The governments of Lao PDR and Myanmar have agreed to jointly finance (50% each) the construction of the International Friendship Bridge across the Mekong River at Xiengkok (Lao PDR side) and Kyainglap (Myanmar side).	Bridge	26	Completed in 15 March 2015

Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
2003	2003			16 Feb 2013	

### Narrative:

- Narrative: The construction of the 691.6-meter bridge at a cost of 26 million U.S.dollars started in February 2013 . People used the ferry boats to cross the river previously. But now smooth and speedy road transportation after completing of the friendship bridge. This bridged was inaugurated on 9 May 2015.
- It should be deleted.



# **Technical Assistance Projects**

## **REG-TR/TA/04: GMS: Feasibility Study for the Rail Link between Laem Chabang Port and Dawei Deep Sea Port (MYA, THA)**

- **Myanmar will involve Singapore-Kunming Rail Link by a Spur Line to Thailand and it has been discussing with other members on the topic of Inter-connection from Dawei-Htikhi (Myanmar) to Kanchanaburi (Thailand) in ASEAN's every Singapore-Kunming Rail Link-Working Group Meetings.**
- **In the Dawei Deep Sea Port Project, the Railway Line Construction will be considered in third Phase.**
- **If Myanmar thinks on the construction of Dawei-Kanchanaburi new railway line only, the project could be considered as not be viable in Economical and Financial point of view.**
- **Therefore, Myanmar is considering the linkage of the Yangon-Mandalay Railway Improvement Project which has been implemented by Japan's ODA together with the existing Bago-Malawmyine-Ye-Dawei Railway Line Upgrading Project and Dawei-Htikhi new Railway Line.**

- For that reason, Myanmar Railways has been composing a Project Proposal for seeking the ADB's Technical and Financial Assistance in providing of Feasibility Study related to the existing Bago-Malawmyine-Ye-Dawei Railway Line Upgrading Project and Dawei-Htikhi new Railway Lines. If Project Proposal is ready, Myanmar will convey it to Asian Development Bank for its kind assistance.

# Dawei Port- Laem Chabang Port Railway Link



- ✚ Dawei Port- Laem Chabang Port Rail Link
- ✚ MYA may seek ADB or other development partner support for the Feasibility Study
- ✚ Bago-Dawei Rail line - (526 km)
- ✚ Bago- Dawei Railway Track Upgrading Project cost US \$ 100 M to be supported by ADB



**370 KM Trans-Border Corridor from Dawei to Bangkok**

## Overall Assessment of Progress of Transport Projects Implementation Under The RIF-IP

- Myanmar's transport projects under the RIF-IP are generally on track
- Construction of 1 project is already completed in 2015
- Construction of 1 project is already ongoing with assistance from Thailand and target completion date is end of 2017
- Construction of 1 project will be commenced in SEP.2016 with assistance from ADB
- Construction of 1 project is on the status of project formulation
- It is expected that all projects will have commenced implementation by end of RIF-IP period

Thank You

**GMS Regional Investment Framework  
Implementation Plan 2014-2018  
Monitoring Report**

Transport Sector

**THAILAND**

Reported at the 20<sup>th</sup> Meeting of the  
GMS Subregional Transport Forum (STF-20)  
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# INVESTMENT PROJECTS



# THA-TRA-01

## Bang Yai – Kanchanaburi Intercity Motorway Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
This expressway, in addition to having a strong national justification, will be part of the Laem Chabang–Bangkok–Dawai (MYA) highway corridor, linking the port at Laem Chabang with the proposed deep-water port at Dawai, and with Myanmar's highway network connecting with Mawlamyine and Yangon.	Road	2,000.0	

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
1 Aug 08	1 Aug 09	-	14 Jul 15	-

### Narrative

- The project was approved by the cabinet in July 2015.
- Source of fund is underdetermining.



# THA-TRA-02

## Tak-Mae Sot Highway Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will improve highway capacity on the East-West Economic Corridor (EWEC) in Thailand, for the section of the EWEC that connects with the Myanmar section at Myawaddy. The project will upgrade the existing road from two to four lanes; total length is 90 km.	Road	90.0	Budget allocated in FY 2015

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
-	-	30 Sep 08	30 Sep 08	5 Feb 09

### Narrative

- Upgrade the existing road from 2 to 4 lanes. Total project length is 76 km.
- Construction completed 4-lane 25 km.
- Under construction 24 km.
- Budget planned to be allocated in fiscal year 2016



# 4-lane Upgrading Construction for Tak – Mae Sot Highway



# THA-TRA-03

## Lomsak–Phetchabun Highway Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will improve highway capacity on the EWEC in Thailand between Lomsak and Phetchabun. The project will upgrade the existing road from two to four lanes; total length is 120 km.	Road	120.0	Budget allocated in FY 2015

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
-	-	12 May 15	12 May 15	21 April 2016



### Narrative

- Upgrade the existing road from 2 to 4 lanes. Total project length is 92 km.
- Fiscal year 2016 got budget for 11 km.
- The remaining part is planned to be allocated in fiscal year 2017

# THA-TRA-04

## Kalasin–Nakrai–Kamcha I Highway Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will improve highway capacity on the EWEC in Thailand between Kalasin and Kamcha I. The project will upgrade the existing road from two to four lanes; total length is 140 km.	Road	140.0	Budget allocated in FY 2015

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
-	-	12 May 15	12 May 15	15 May 2015



### Narrative

- Upgrade the existing road from 2 to 4 lanes. Total project length is 107 km.
- Fiscal year 2016 got budget for 13 km.
- The remaining part is planned to be allocated in fiscal year 2017

# THA-TRA-05

## Chiang Rai–Chiang Khong Highway Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will improve highway capacity on the North-South Economic Corridor (NSEC) in Thailand. This project will upgrade the existing road from two to four lanes; total length is 80 km.	Road	80.0	Budget allocated in FY 2016

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
-	-	30 Sep 07	30 Sep 07	9 Sep 09

### Narrative

- Upgrade the existing road from 2 to 4 lanes. Total project length is 103 km.
- Construction completed 4-lane 55 km.
- The remaining part is planned in the next 5 years plan.



# THA-TRA-06

## Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements (Thailand part)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The Thai government is studying a new road bypass and bridge to the north of the existing border crossing, currently located in the congested centers of the two border cities, Mae Sot and Myawaddy. This new crossing would be dedicated to cross-border freight traffic, and would avoid the congested urban areas of the cities. The bypass would link with a newly envisioned special trade zone on the Myanmar side. The overall project would consist of about 16.9 km of new four-lane divided highway (13.3 km in Thailand; 3.6 km in Myanmar), a 100-m long bridge across the Moei River at the border, and associated border-crossing facilities.	Road/Bridge/ Border Facilities	116.0	Detailed design to be completed by the end of 2014

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
30 Aug 13	Dec 14	2 Jun 15	6 Oct 09	30 Aug 2015

**Narrative**

Project is under construction.



# The Construction of 2<sup>nd</sup> Thai – Myanmar Friendship Bridge (crossing Moei/Thaungyin rivers)



# The Construction of 2<sup>nd</sup> Thai – Myanmar Friendship Bridge (crossing Moei/Thaungyin rivers)



# THA-TRA-07

## Mekong Bridge at Bungkan–Paksan (with LAO)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The bridge will connect Amphoe Muang, Bangkane Province (Thai side), and Muong Paksan, Bolikhamxay Province (Lao side). It will facilitate transport of goods and passengers from northeastern Thailand through central Lao PDR and central Viet Name via NR8.	Road/Bridge/ Border Facilities	110	Included on a tentative basis, and subject to the availability of budget for the THA part, indicatively 50% of the project financing (for the LAO part, the Government of Lao PDR is considering seeking financing from Thai Government's NEDA

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
26 Sep 13	Oct 14	-	-	-

### Narrative

Detailed design completed in 2015



# THA-TRA-08

## Laem Chabang Port Development Project, Phase 3 - Feasibility Study

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Projections of future demand indicate that the total containers accommodated in Basin I and Basin II will exceed 10 million 20-foot equivalent units (TEUs) per year by 2018, while the maximum capacity of Basin I and Basin II together is approximately 11 million TEUs per year. Given these projections, the development of Basin III will be necessary. The purpose will be to accommodate the increasing throughput and strengthen the port's role as a gateway port to the GMS.	Port	5.0	Port container throughput projections indicate that the existing Phase I and II facilities will soon reach capacity. The proposed study will present technical and other options for expanding the port.

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
			Approved by the cabinet	2025

### Narrative

- FS completed 98%, excluding EHIA part.
- Design and economic and financial study completed.
- CSR measures launched



# THA-TRA-09

## Single Rail Transfer Operator Development Project for Laem Chabang Port

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Currently, approximately 88% of the transport from the Laem Chabang Port to the hinterland is via the road system, with the remainder by rail (9.5%) and inland waterway (2.5 %). The proposed project will develop infrastructure and necessary facilities for serving the discharging and loading containers transported by rail to the port area. The project would facilitate rail transfer in the future, in response to the completion of the State Railway of Thailand's double-track construction project. It would increase the handling capacity of rail transport at the port from the current 500,000 TEUs/year to 1-2 million TEUs/year	Port	90.0	Objective of the project is to increase the proportion of container traffic moved by rail from 9% of port throughput to 20% of port throughput, in line with the Government's policy to reduce logistics cost.

Activity/Date				
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced
21 Dec 10	23 Sep 11	Financed by Port Authority of Thailand, and implemented by Laem Chabang port	Approved by the cabinet	2018



### Narrative

- To increase capacity of rail transport at Lam Chabang Port from the existing of 500,000 TEUs/year to 1-2 million TEUs/year.

# TECHNICAL ASSISTANCE



# TECHNICAL ASSISTANCE

Road

# REG-TR/TA/07

## Strategic Study on the Development and Management of the GMS Motorway Network System

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
<p>The improvement and expansion of the existing highway network system, raising it to an advanced highway standard with fully controlled access, is a key aspect of the strategic plan for GMS highway development, to promote cross-border and transit transport. The GMS motorway network system will be the core system of road connectivity to other modes of transport, border areas, special economic zones, and other high-potential development areas in the GMS countries. The whole system will efficiently reduce travel time, improve road safety, and reduce transport logistics costs.</p> <p>The strategic study should view all GMS corridors, and consider how they overlay the GMS motorway network system.</p>	Road	To be determined	

Activity/Date			
Financing Identified	Project Approved/By	Implementation Commenced	Project Completed

### Narrative

No activities undertaken. Pending for a project framework development

# REG-TR/TA/08

## Knowledge Transfer between Thailand and the other GMS Member Countries on Highway and Bridge Standards and Specifications, including Transport Facilitation Facilities

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Thailand's Department of Highways fulfills its role in providing technical experts and training center facilities, and organizing staff to various training courses in the areas of road and bridge engineering. The objective of the TA is to enhance knowledge and exchange experience in road engineering, as well as to brainstorm on road engineering best approaches for better solutions leading to sustainable road development in the GMS.	Road	0.4	

Activity/Date			
Financing Identified	Project Approved/By	Implementation Commenced	Project Completed

### Narrative

No activities undertaken. Pending for a project framework development



# TECHNICAL ASSISTANCE rail

RAIL-STATION . CORK . W.L.

# REG-TR/TA/04

## Feasibility Study for the Rail Link between Laem Chabang Port and Dawei Deep Sea Port

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
<p>The governments of Myanmar and Thailand signed a memorandum of understanding on 19 May 2011 to expand their cooperation in promoting sustainable development in the Dawei Special Economic Zone and its related project areas. Since railways play an important role in transporting cargo, the rail links between Laem Chabang Port and Dawei deep sea port will promote the movement of cargo between the two countries.</p> <p>Myanmar and Thailand are recommended to consider the project as joint, as well as to conduct the feasibility study jointly, to create the best outcomes for the GMS and ASEAN.</p>	Rail	3.0	

Activity/Date			
Financing Identified	Project Approved/By	Implementation Commenced	Project Completed
31 Aug 2014	30 Sep 2014	01 October 2014	30 April 2015

### Narrative

- The feasibility completed in 2015.
- Under the process of hiring consultants to do the detailed design and EIA for rail construction project in Thailand (Ban Phu Nam Ron – Laem Chabang Port)
- Expected to sign a 12-month contract in September 2016

# REG-TR/TA/10

## Study on Dry Port Development Plan along International Railway Lines Connecting Thailand with Cambodia, the Lao PDR, and Myanmar

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
<p>Thailand aims to develop Laem Chabang Port as a gateway to neighboring countries in the GMS, and to promote a modal shift from road to rail transport. Cross-border railway projects have been emphasized by the Government of Viet Nam, i.e., Nong Khai–Thanaleng–Vientiane, to connect with the Lao PDR; Aranyaprathet–Khlong Luk–Poipet, to connect with Cambodia; and Kanchanaburi–Dawei, to connect with Myanmar. Thailand seeks to formulate a clear development plan for dry ports, which function as cross-border facilities or inland container terminals, connected via GMS economic corridors. The dry ports should also be maximized by considering connections with other important ports in the GMS, such as Dawei, in Myanmar; Sihanoukville, in Cambodia; and Ho Chi Minh City, in Viet Nam.</p> <p>The TA study will determine the need for dry ports at strategic rail locations on international borders.</p>	Other Infrastructure	To be determined	

Activity/Date			
Financing Identified	Project Approved/By	Implementation Commenced	Project Completed
-	-	-	-

### Narrative

- Term of Reference (TOR) is being drafted.
- State Railway of Thailand will responsible for the cost of hiring consultant for the project by using its own revenue.
- As of May 2016, no further update

# MIDTERM REVIEW: PROJECTS PROPOSED FOR DELETION AND FOR ADDITION

## Projects Proposed for Deletion

Project Name	Implementation Constraints	Further Remarks	Countries Involved
1.			
2.			
3.			
4.			

## Projects Proposed for Addition

Project Name	Reasons for Proposing Inclusion	Source: RIF / Others	Countries Involved
1.			
2.			
3.			
4.			

**THANK YOU**



# **GMS Regional Investment Framework Implementation Plan 2014–2018 Progress Report and Midterm Review**

## **Transport Sector <VIET NAM>**

Reported at the 20<sup>th</sup> Meeting of the  
GMS Subregional Transport Forum (STF-20)  
29–30 June 2016, Nanning, People's Republic of China



# Investment Projects



# VIE-TRA-01: GMS Ben Luc – Long Thanh expressway (stage 2)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will construct a 57.1 kilometer expressway between Ben Luc and Long Thanh, south of Ho Chi Minh City. This is a section of the GMS Southern Economic Corridor.	Road	1,607.0	

Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
	<b>08 October 2010</b>	ADB, JICA and counterpart fund			

## Narrative:

- 8/11 contract packages have been implemented and the remains (3/11) under procurement.
- Land acquisition: land acquisition stake-out have been handed over to local agencies. Compensation and resettlement are approved by local agencies.
- The negotiation of the second loan (ADB) has been completed.



# VIE-TRA-02: GMS: Ha Noi – Lang Son Expressway

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will construct expressway between Hanoi and Huu Nghi, in Lang Son Province, on the border with the PRC's Guangxi Zhuang Autonomous Region.	Road	1,400.0	

Activity/Date					
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	Notes
	Intend to complete in quarter II/2016	ADB and counterpart fund	Intend in quarter II/2016		

## Narrative:

- Ministry of Transport of Viet Nam issued Decesion No. 827/QĐ-BGTVT dated 12 March 2015 and 07/QĐ-BGTVT dated 5 January 2016 on approval to adjust detailed design.
- PDO has been compiled by Ministry of Planning and Investment to submit to Prime Minister for considering to approve



# VIE-TRA-03: Second GMS Southern Coastal Corridor

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The Second GMS Southern Coastal Corridor Project will construct the missing sections of this GMS road corridor in the southern coastal region of Viet Nam, and complete the connection with Cambodia and Thailand.	Road	373.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
01 March 2012	31 December 2012	ADB and counterpart fund		2018-2020	

## Narrative:

- Rach Gia - Ha Tien route component: FS funded by ADB (TA-7924 VIE) and contract has been signed between ADB and SMEC, FS not yet approved
- Ha Tien international border gate component: this component has been put into SCCP2 (Document No. 5779/VPCP-QHQT dated 24 July 2015 of Government's Office)
- Ha Tien bridge component: this component has been put into SCCP2 (Document No. 5779/VPCP-QHQT dated 24 July 2015 of Government's Office)



# VIE-TRA-04: Second GMS Northern Transport Network Improvement (Luang Prabang – Thanh Hoa)

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
Upgrading Vietnam's National Highway 217 from Do Len to the Na Meo border gate with Lao PDR, and Lao PDRs' national highways 6, 6A and 6B.	Road	140.0	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
October 2004	June 2005	ADB and counterpart fund	2009	2009	

## Narrative:

About 90 km road from the border with Lao PDR to Batouc was substantially completed in May 2016, Additional financing project to improve another 45 km road from Batouc to Cam Thuy was approved by ADB in November 2015 with expected completion in 2019. Road construction is expected to be commenced in early 2017.



# VIE-TRA-05: National Highway 14D Improvement Project

Description	Subsector	Cost estimate (\$ Million)	Justification/Additional Information
The project will improve the highway section (72 km) from Thanh My to the border with the Lao PDR in Quang Nam Province. National Highway 14D is a part of the minimum distance route for freight transportation from Bangkok through Pakse (Lao PDR), to Da Nang (Viet Nam).	Road	110	

Activity/Date					Notes
FS Commenced	FS Completed	Financing Identified	Project Approved/By	Implementation Commenced	
Not yet	Not yet	ADB and counterpart fund			

## Narrative:

- Concept of the project is under preparation, PPTA commencement is expected in early 2017.



Thank You



# ***Review of Configuration of GMS Economic Corridors***



# Scope of Presentation

- GMS economic corridors
- Present configuration
- Proposed extension/realignment
- Other recommendations



# GMS Economic Corridors

Concept adopted at the 8<sup>th</sup> MC in 1998 to:

- Link production, trade and infrastructure in specific geographic framework.
- Expand transport corridors to enhance economic activities/benefits.
- Serve as land bridge to the PRC, Southeast Asia, South Asia and East Asia.



# GMS Economic Corridors

## Operational objectives of economic corridor approach

- Provide spatial focus to GMS activities
- Serve as mechanism for prioritizing and coordinating investment among neighboring countries
- Open up investment opportunities
- Enhance impact of subregional activities through the clustering of projects
- Generate tangible demonstration effects.



# GMS Economic Corridors

- EWEC, NSEC and SEC designated as flagship programs under the GMS Strategic Framework 2002-2012; central role continued under the GMS Strategic Framework 2012-2022.
- Transport corridor first step in transformation into an economic corridor.
- EWEC, NSEC and SEC not yet economic corridors.
  - Names reflect objective rather than actual situation.
  - Used to identify priority corridors for development into economic corridors.

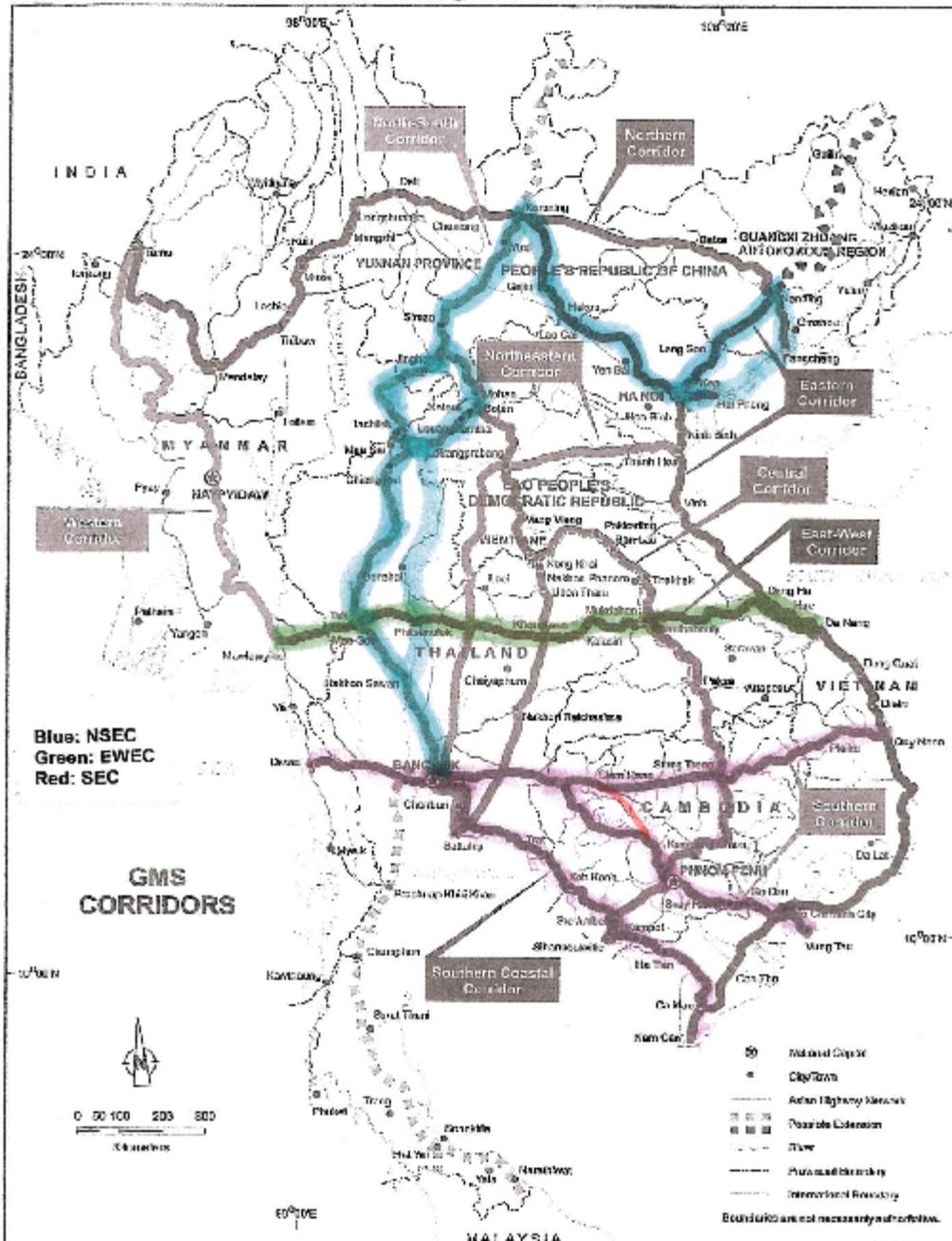


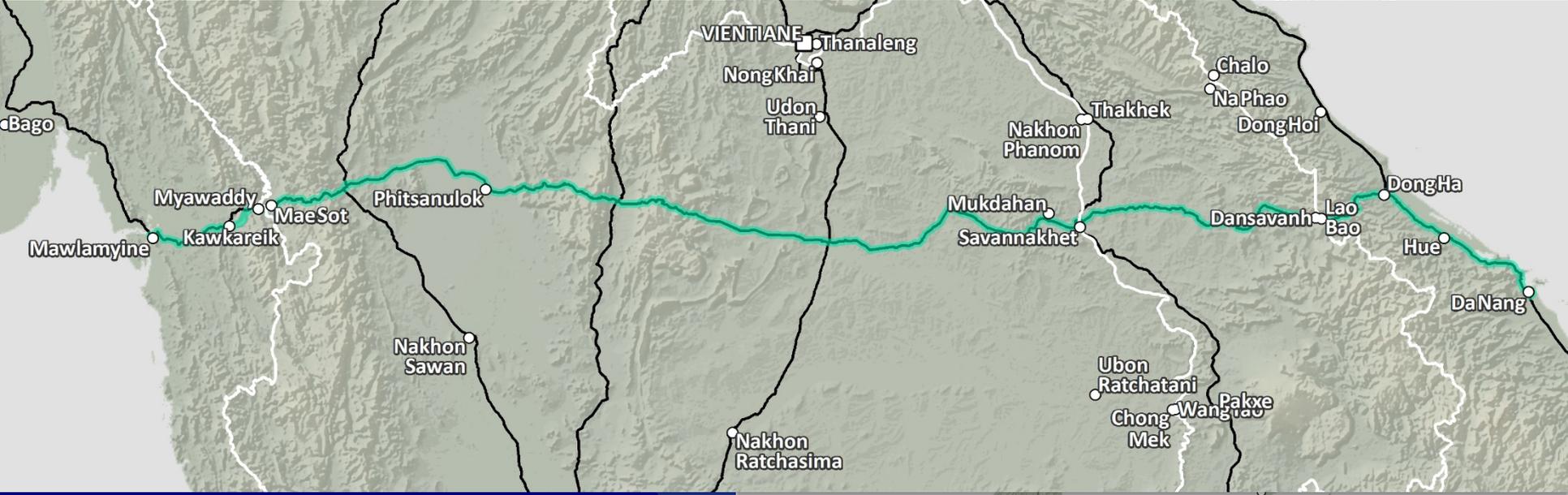
# Present Configuration of GMS Economic Corridors

- Has undergone changes since 1998.
- Current configuration based on
  - Strategies and Action Plans for EWEC and NSEC endorsed at 15<sup>th</sup> MC in 2009
  - Strategy and Action Plan for SEC endorsed at 16<sup>th</sup> MC in 2010
  - Addition of Dawei to SEC endorsed at 17<sup>th</sup> MC in 2011
- Not all corridors in the TSS 2006-2015 are part of EWEC, NSEC and SEC.



## OVERLAY OF GMS ECONOMIC CORRIDORS ON THE GMS CORRIDOR NETWORK





**GMS Economic Corridors**

— East-West

**GMS-TSS Corridors\***

— Current transport corridor

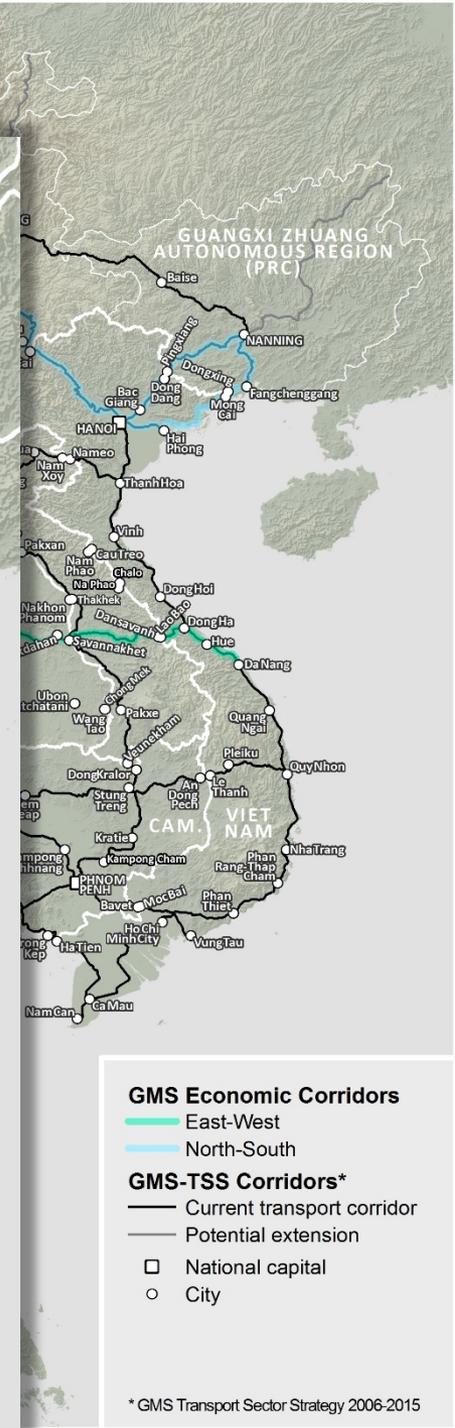
- - - Potential extension

□ National capital

○ City

\* GMS Transport Sector Strategy 2006-2015

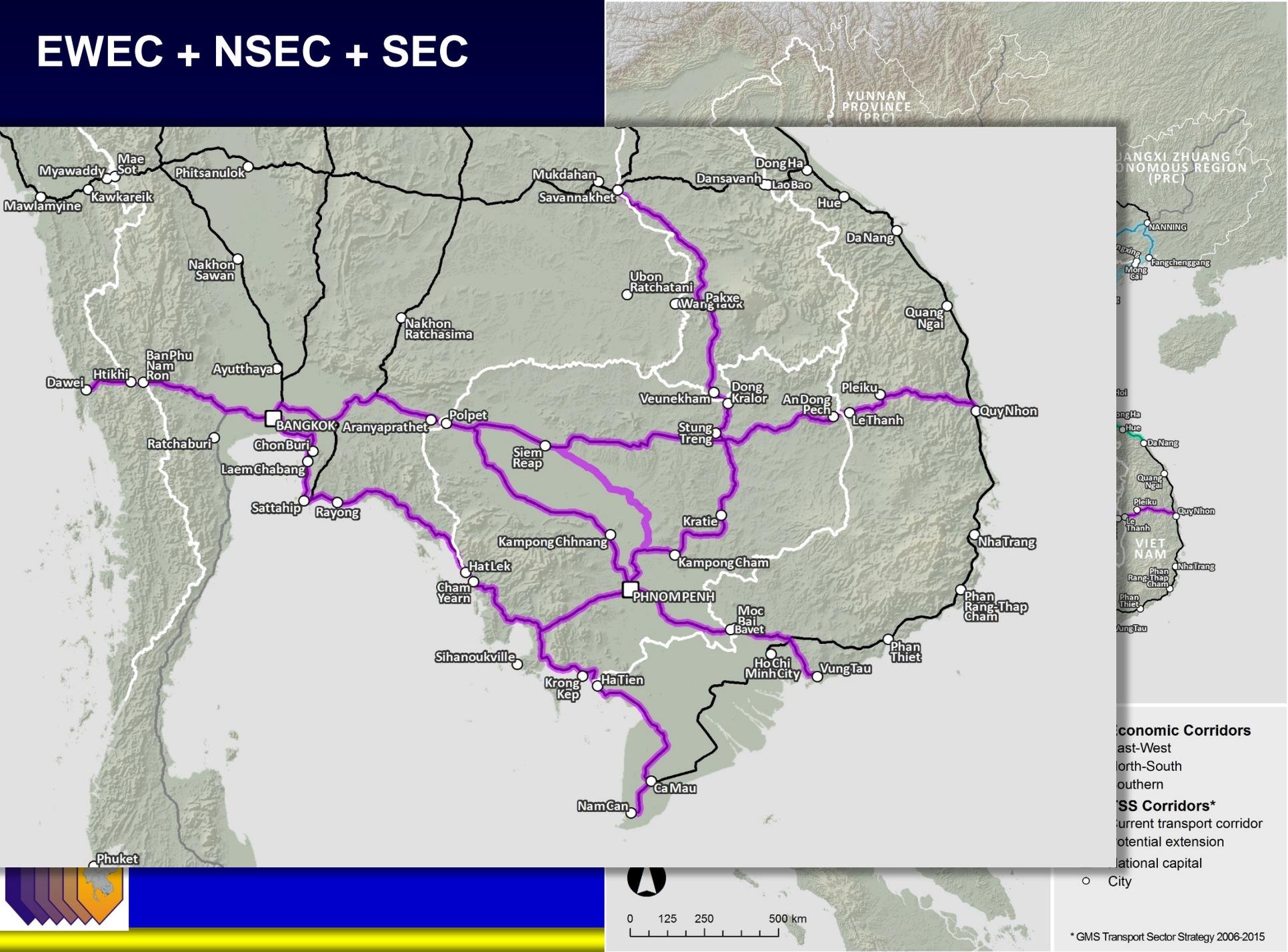
# EWEC + NSEC



- GMS Economic Corridors**
- East-West
  - North-South
- GMS-TSS Corridors\***
- Current transport corridor
  - Potential extension
  - National capital
  - City

\* GMS Transport Sector Strategy 2006-2015

# EWEC + NSEC + SEC



**Economic Corridors**  
 East-West  
 North-South  
 Southern

**SS Corridors\***  
 Current transport corridor  
 Potential extension  
 International capital

\*GMS Transport Sector Strategy 2006-2015

# Criteria for Designation as Economic Corridor

- Have greatest potential to become foreign trade, transit, investment and tourism corridors
- Have significant sections that can be developed into hubs for regional trade, investment and tourism.



# Extension and/or Realignment

## Primary Considerations

- Developments following opening up of Myanmar taken into account.
- Corridors include and link all GMS capitals and major economic centers.
- Corridors are connected to major maritime gateways and industrial hubs.
- Major trade flows are reflected in the alignment of the economic corridors.



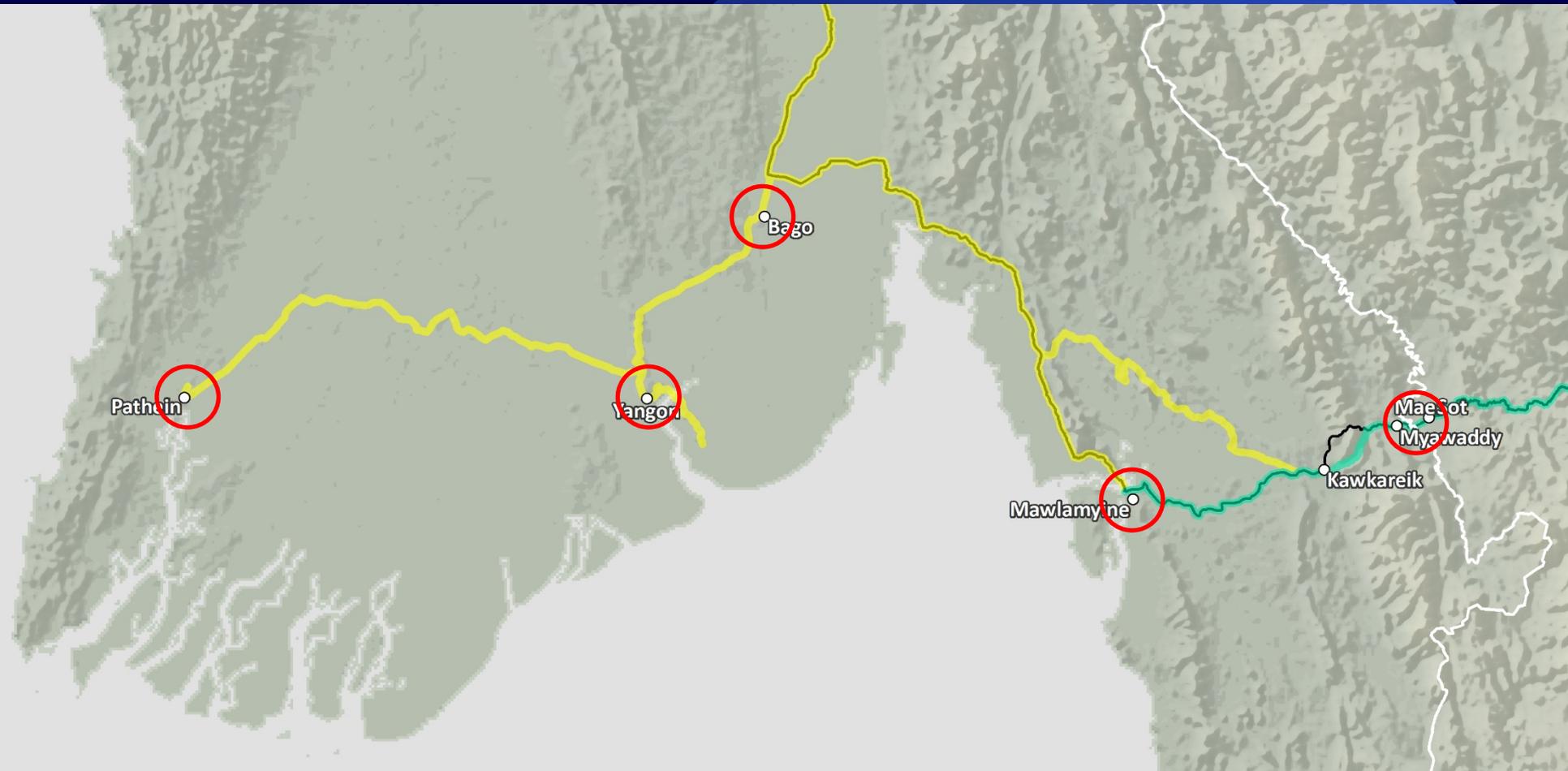
# Extension and/or Realignment

Major gaps in present configuration:

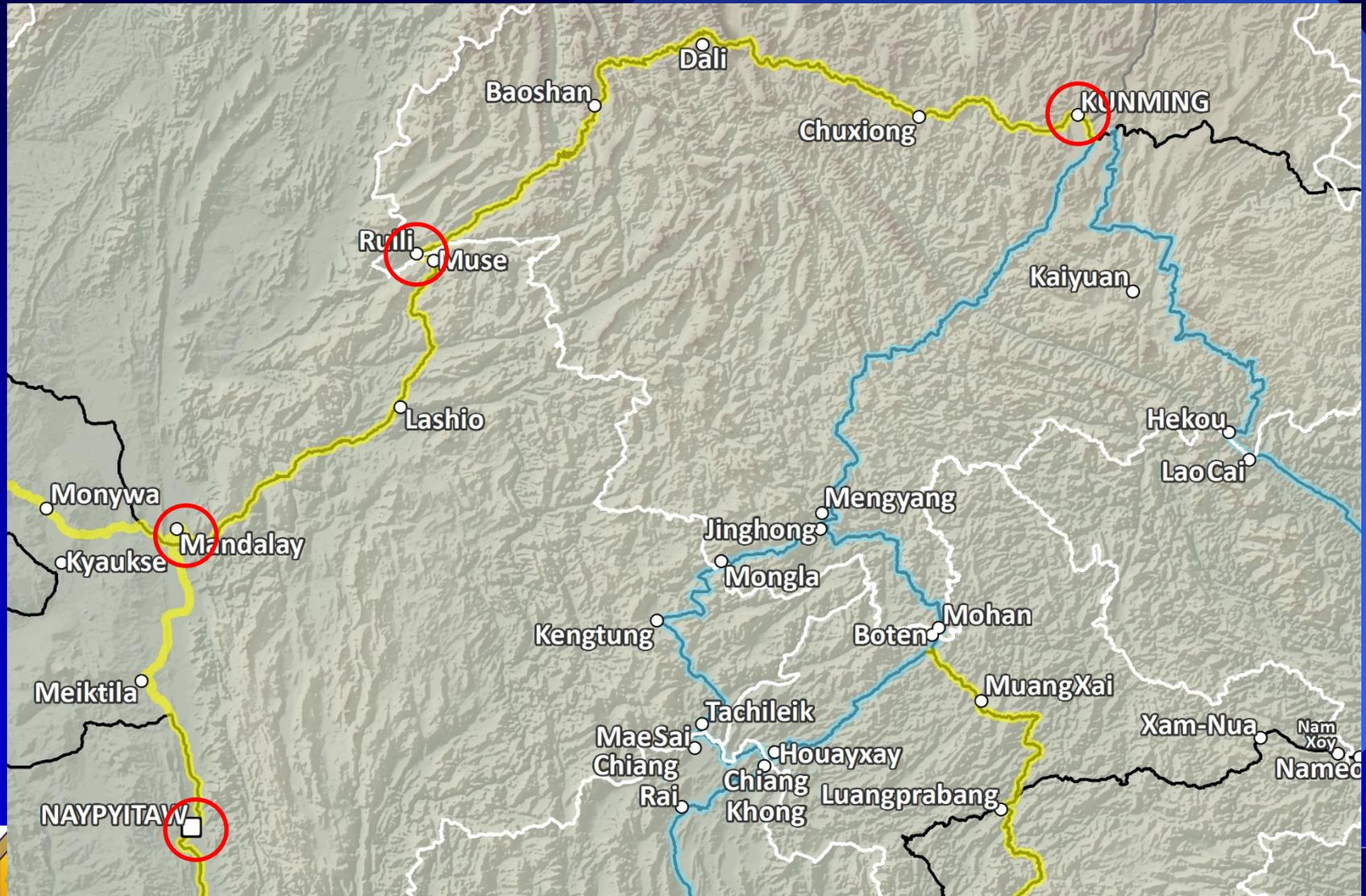
- Relatively limited coverage in Myanmar and Lao PDR.
- Yangon, Nay Pyi Taw and Vientiane not included in any economic corridor.
- Yangon port not linked to any economic corridor.
- Principal cross border trade routes not reflected -
  - PRC-Myanmar
  - Myanmar-Thailand
  - PRC-Lao PDR-Thailand



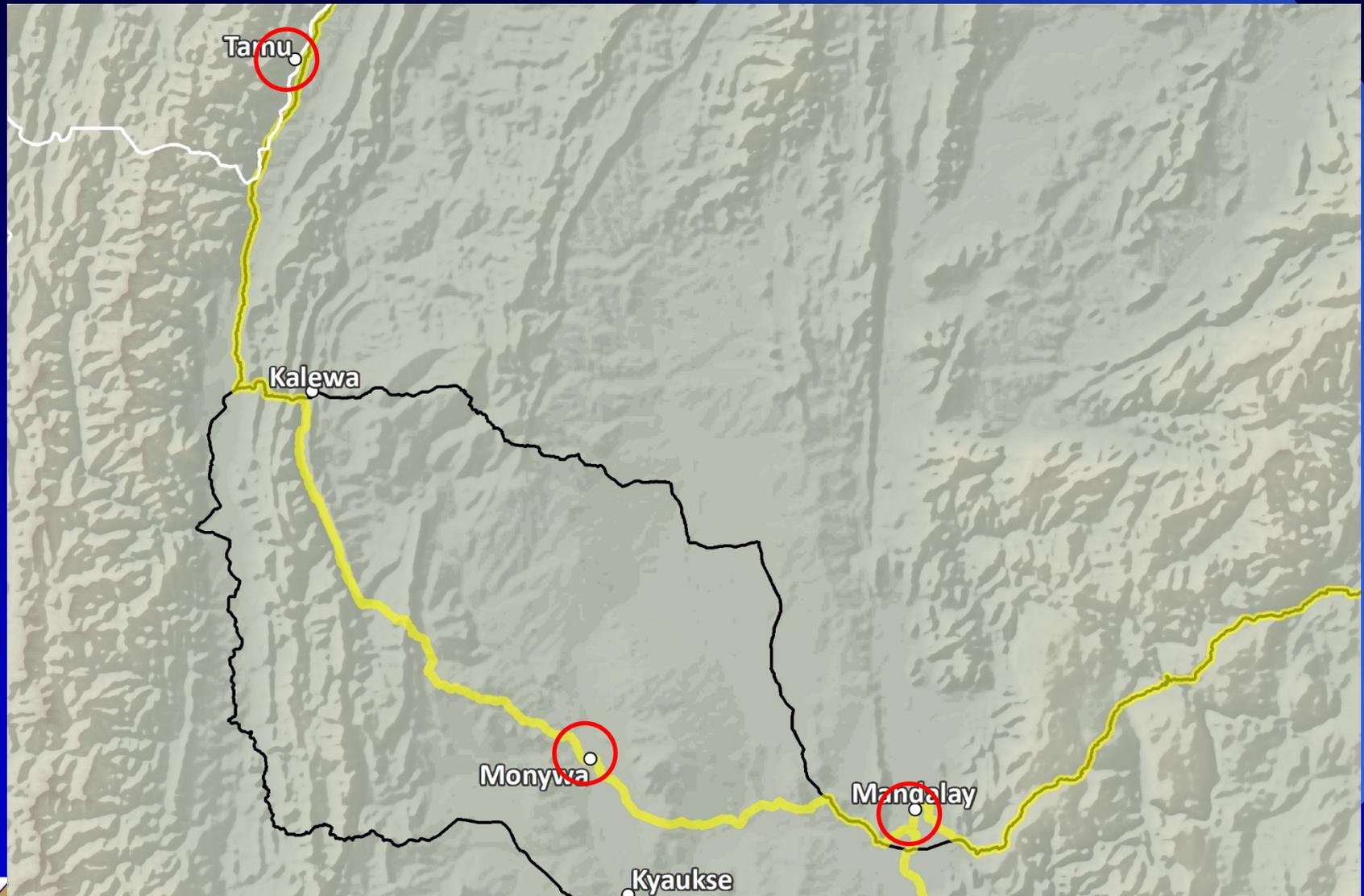
# Include an extension to Yangon/Thilawa-Pathein at the western end of EWEAC



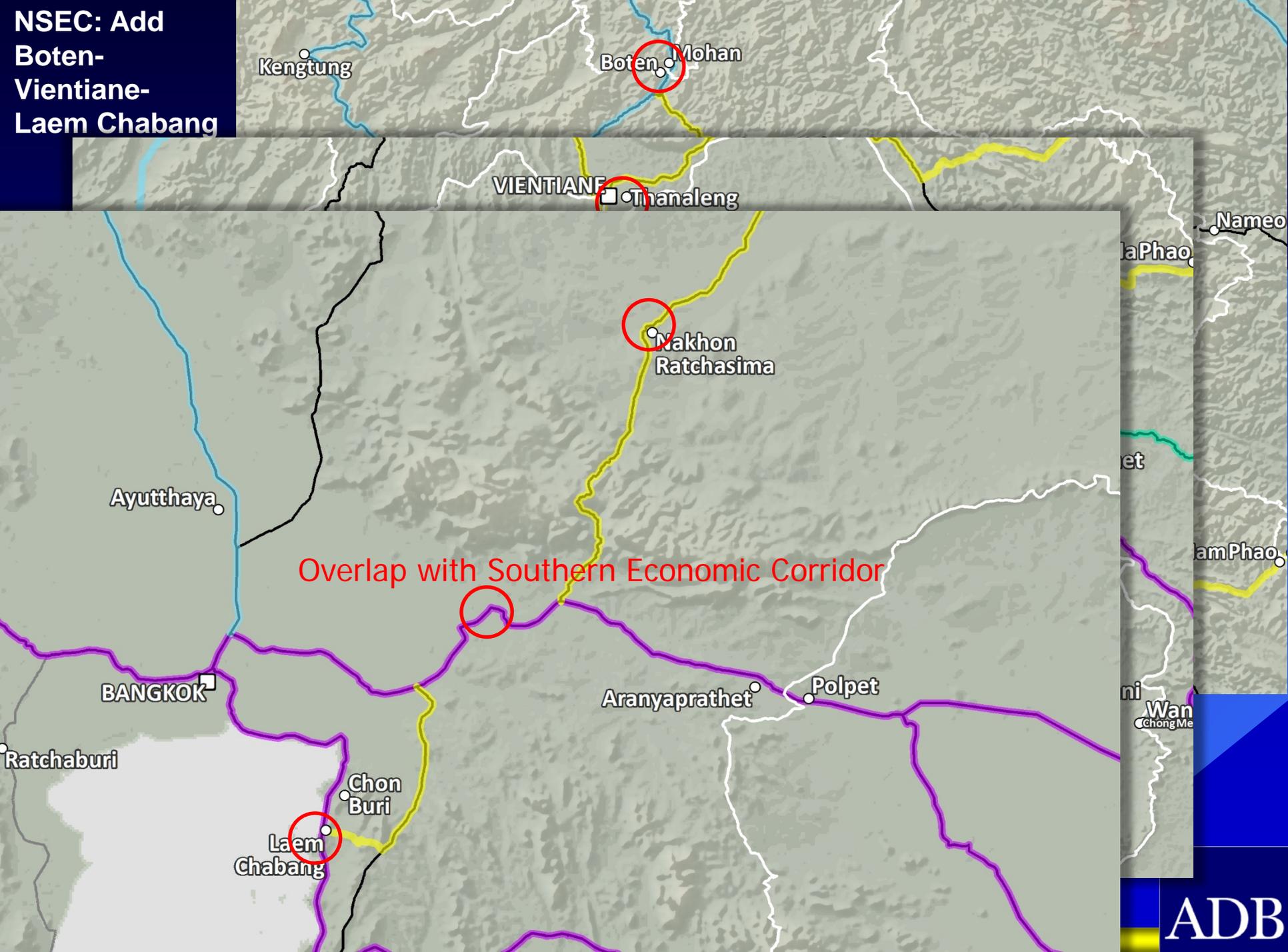
# NSEC: Include the Kunming-Dali-Ruili-Mandalay-Nay Pyi Taw-Yangon route



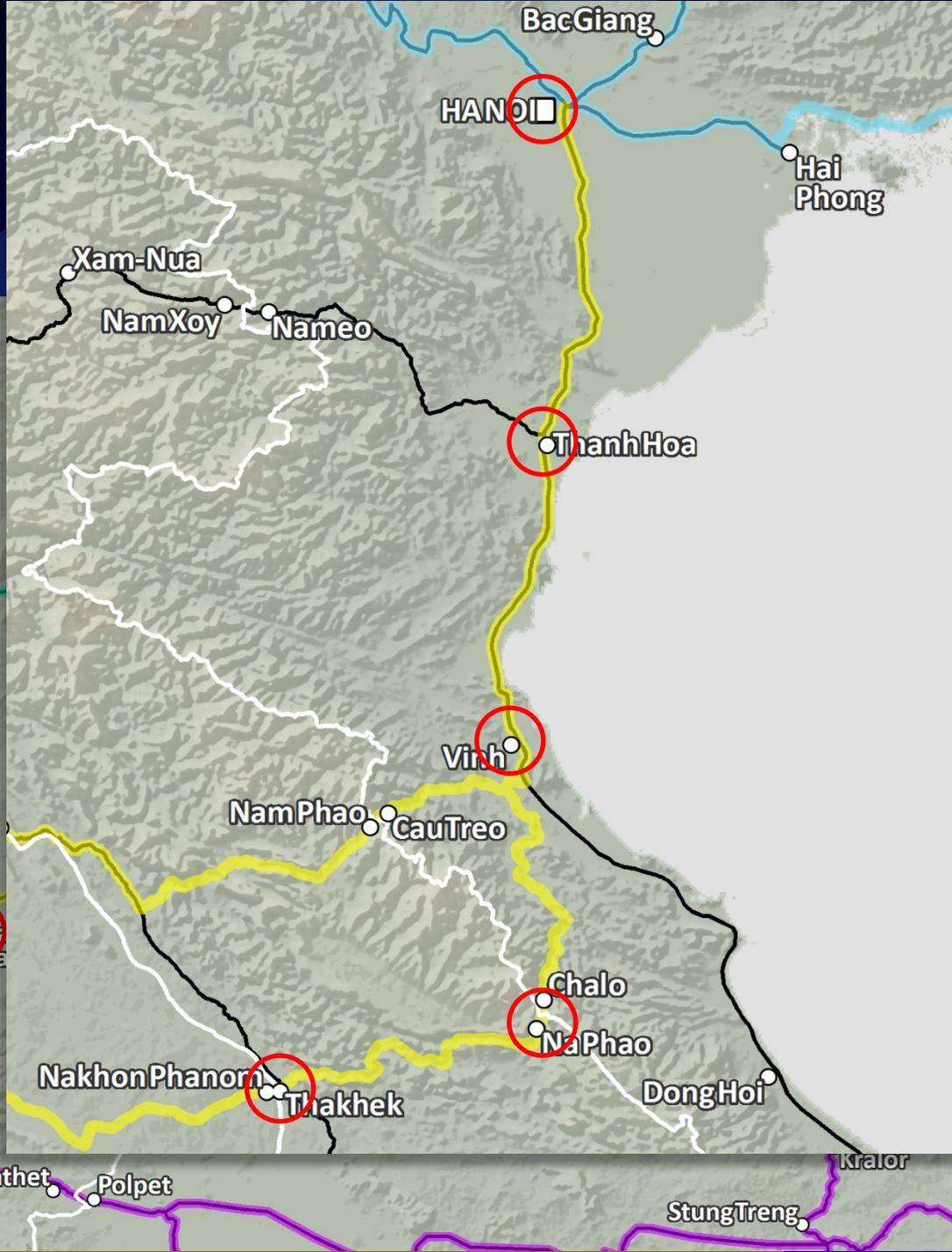
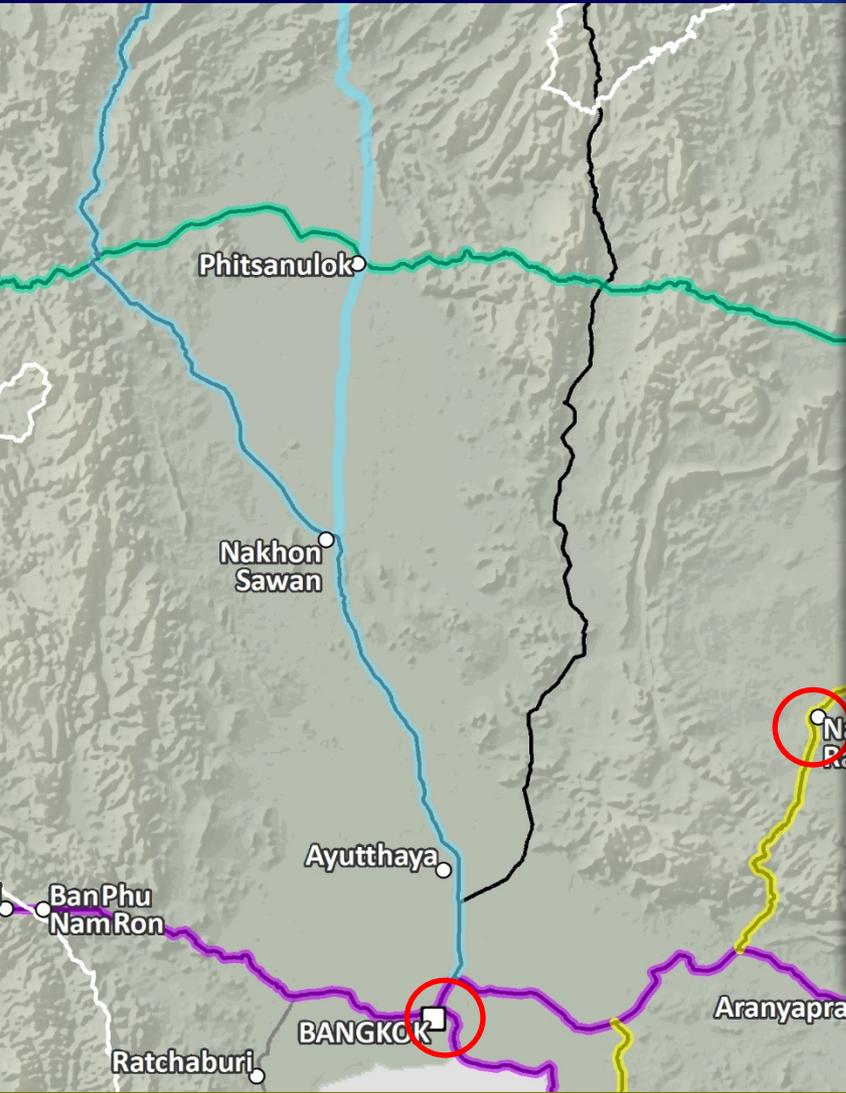
# NSEC: Add an extension to link Mandalay to Tamu

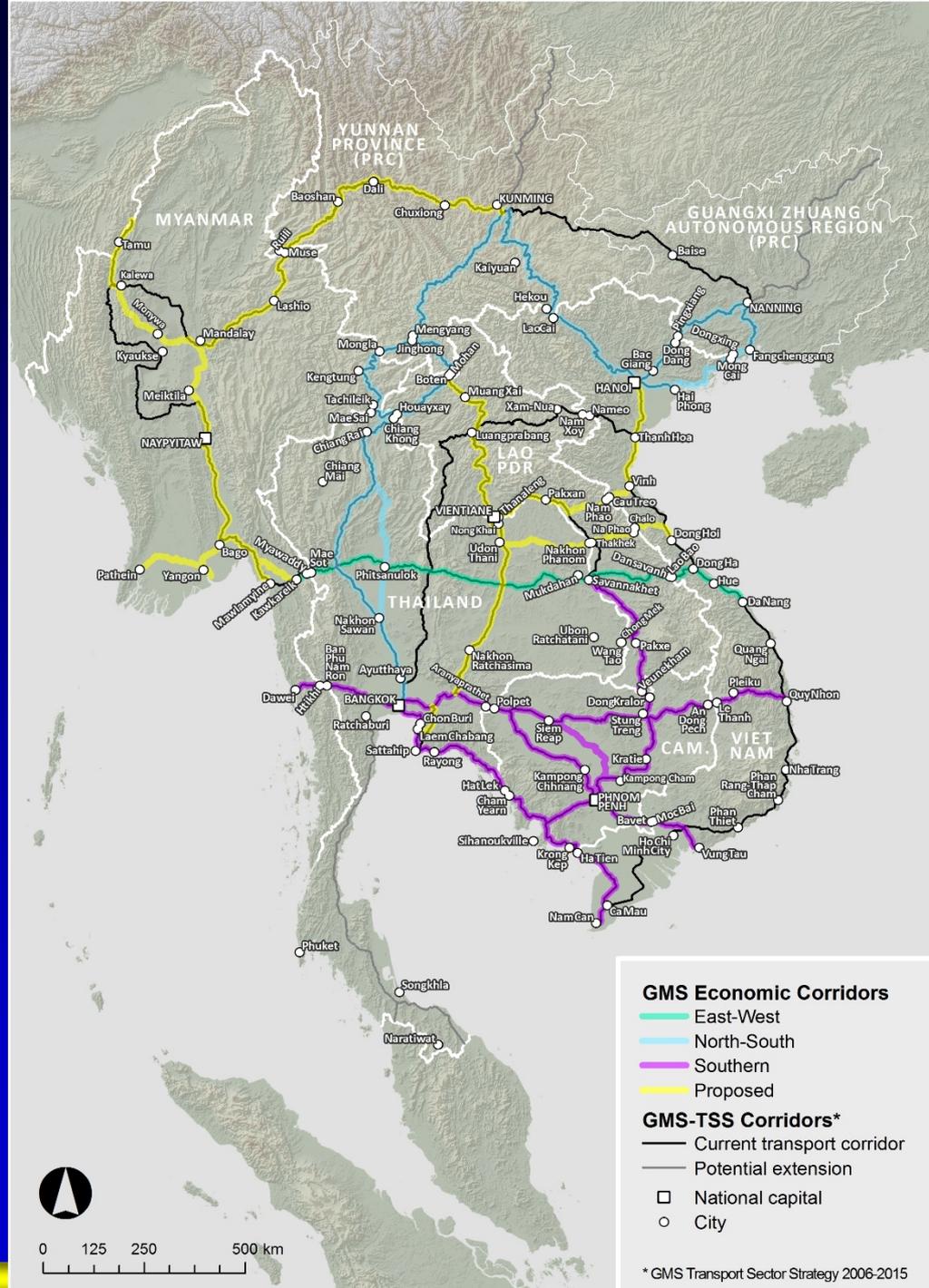


**NSEC: Add  
Boten-  
Vientiane-  
Laem Chabang**



# NSEC: Include Bangkok-Hanoi link through Nakhom Phanom-Thakhek





\* GMS Transport Sector Strategy 2006-2015

# Complementary Measures

- Adopting classification system to guide interventions/investments
- Changing nomenclature of economic corridors



# Other Recommendations

- Preparing GMS Multimodal Transport Strategy
- Adopting network approach
- Maximizing benefits from economic corridor development
  - ✓ Accelerate CBTA/TTF implementation
  - ✓ Develop feeder roads and national networks linked to economic corridors
  - ✓ Intensify programs to expand employment along and around economic corridors



***Thank you.***



# **Initial Concept on the Preparation of a New Greater Mekong Subregion Transport Sector Strategy**

Presentation by  
Hideaki Iwasaki

The logo of the Asian Development Bank (ADB), consisting of the letters "ADB" in white serif font on a dark teal square background.

ADB

# Background

- Term of the GMS Transport Sector Strategy (TSS 2006–2015) ended last year
- A review of its performance against its overarching objectives undertaken in 2014 (reported to STF-18) with overall result ranging from partly successful to highly successful
- Pipeline of TSS 2006–2015 evolved, some projects included in Vientiane Plan of Action for GMS Development 2008-2012
- A new pipeline under RIF and RIF-IP (2014-2018) was developed
- In the meantime, significant changes in the region, e.g., opening of Myanmar, AEC, other emerging RCI initiatives
- A new strategy is required to meet new needs and give broad directions for overall transport development in the medium-to-long term.

# Nature and Basic Elements of New TSS

- The New TSS will provide the strategic directions, basic principles, and broad priorities to guide GMS transport development and cooperation in the next 5-10 years
- It will not be a pipeline of specific projects
- Some of the basic elements that will be embodied in the new TSS are:
  - Multimodalism
  - Climate change mitigation/adaptation
  - Sound transport asset management and cost recovery principle
  - Complementary logistics development
  - Smoother cross-border transport flow
  - Involvement of private sector

# Next steps and Timeline

Target: present the proposed new TSS for review/ finalization at STF-21 in midyear 2017

Final endorsement: either *ad referendum* by GMS Ministers prior to the 6th Summit in 2017, or at the Summit itself

## Timeline

- Preparation of TOR and engagement of consultant/s, inception report: 3rd Qtr 2016
- Consultations with countries to obtain their inputs, guidance and commitment: 4th Qtr 2016–1st Qtr 2017
- Preparation of Draft Report and circulation to countries for comment: end of 1st Qtr 2017
- Preparation of Final Report: 2nd Qtr 2017
- Review and finalization of TSS: STF-21 midyear 2017

(Note: 6<sup>th</sup> GMS Summit tentatively scheduled in July or August 2017)

**THANK YOU**

**ADB**

# GMS – STF 20

**Twentieth Meeting of the GMS  
Subregional Transport Forum  
Nanning, People's Republic of China**

## **Overview of the Greater Mekong Railway Association**

Presented by Cambodia, Chairman, GMRA

June 29-30, 2016  
Nanning, China



# Purpose

- The purpose of my presentation is to:
  - Explain the rationale for developing a connected railway network in the GMS
  - Describe the role and activities of the GMRA in achieving a connected railway network in the GMS
  - Discuss the challenges facing the GMRA
- Let's start by having a look at a snapshot of GMS railways

# Snapshot of GMS Railways 2014

**200 MILLION  
PASSENGER TRIPS**

**250 MILLION  
TONNES CARRIED**

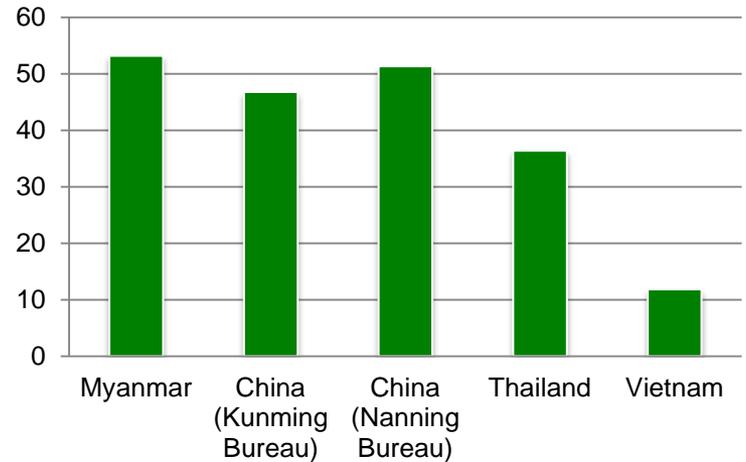
**20,520 ROUTE  
KILOMETERS**

**140  
Billion  
tonne  
kilometers**

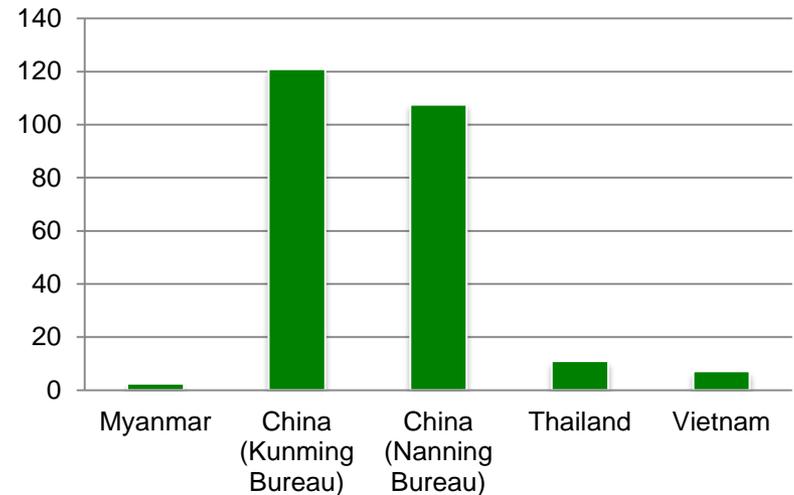
**50  
Billion  
passenger  
kilometers**



**Passengers (million)**



**Freight tonnes (million)**



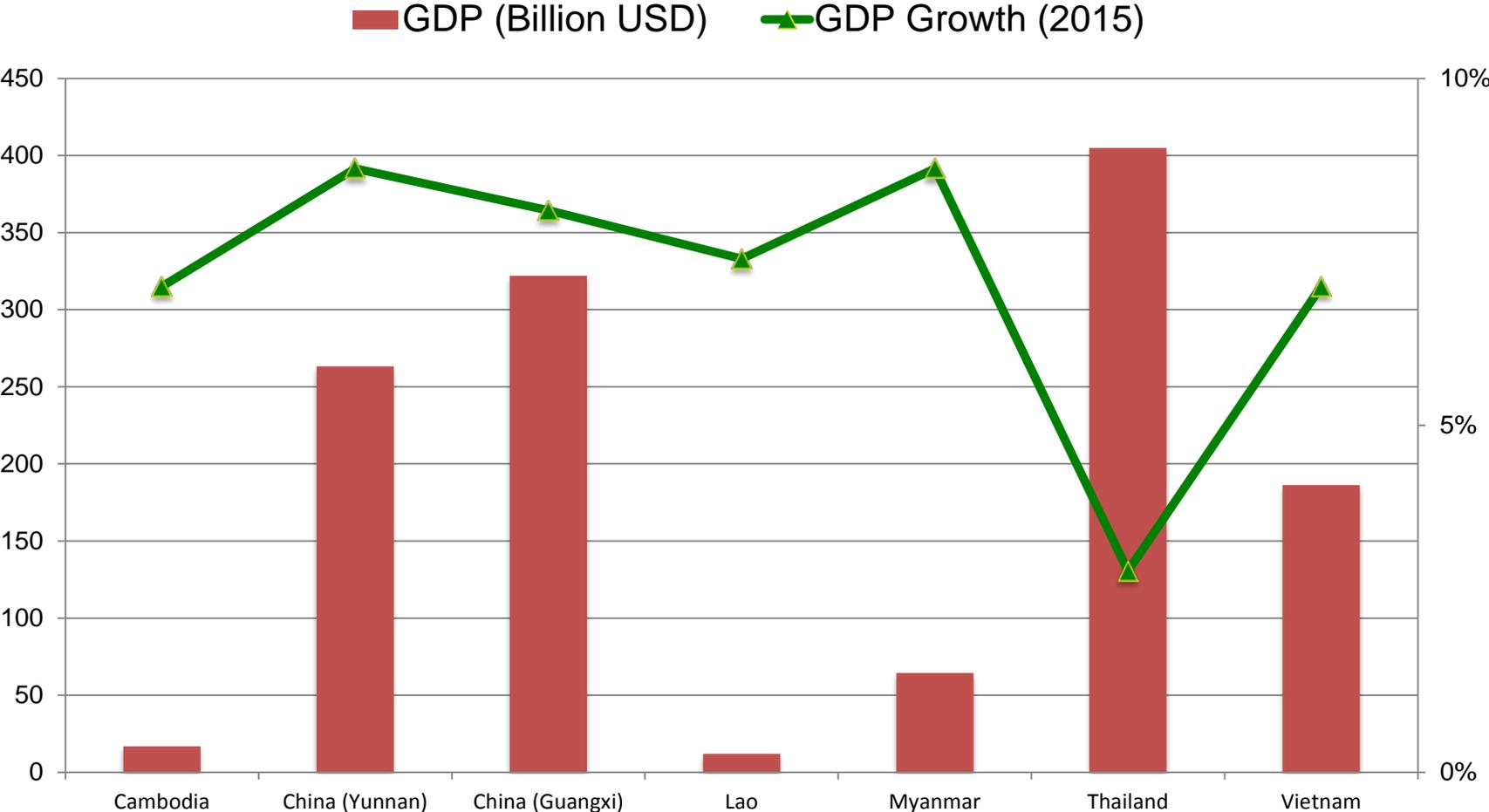
# Railway Transport in GMS

- Most of the GMS railway cargo is internal to China. The share of freight traffic carried by rail in other GMS countries is low (less than 5% of the current market for freight transport)
- International surface freight transport in the GMS moves primarily by road because GMS railways are not connected—the only railway connections are between China and Vietnam and between Lao PDR and Thailand
- GMS railways carry a large number of passengers. But the railway share of the passenger market is also small (less than 10%)
- Passenger travel by train in the region is restricted by the lack of international railway connections

# GMS Rail Traffic Potential

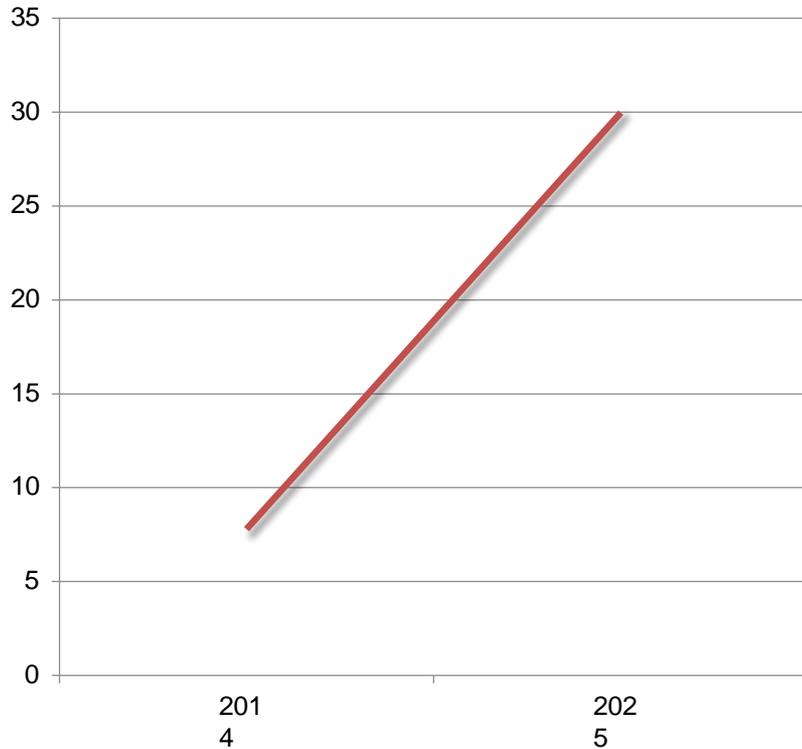
- The market for cargo transport and travel in the GMS is significant
- A connected railway network in the GMS has huge untapped potential to carry passengers and cargo
  - ❑ Projections of cross border railway traffic, made in 2009, showed a market of almost 30 Million tonnes of cargo and 2 Billion passengers
  - ❑ Since 2009, GDP growth in the GMS has averaged 6%
- The next 2 slides underscore this

# GMS economies are growing strongly

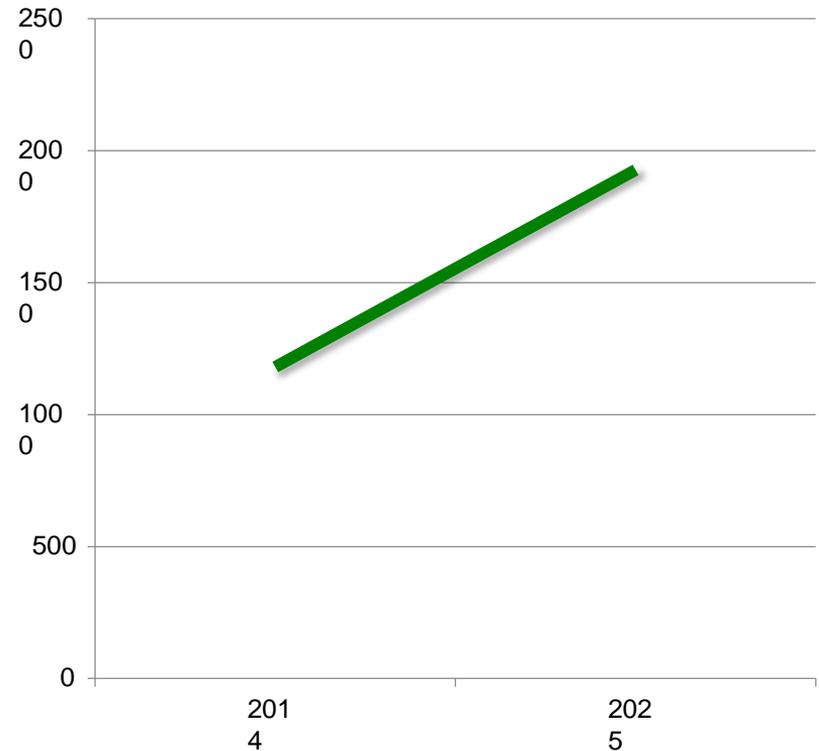


# There is a large market for cross border railway transport in the GMS

Projected Cargo (million tonnes)



Projected Passengers (millions)



Source: GMS Rail Strategy Study (ADB)

# Benefits of a connected Railway Network in the GMS

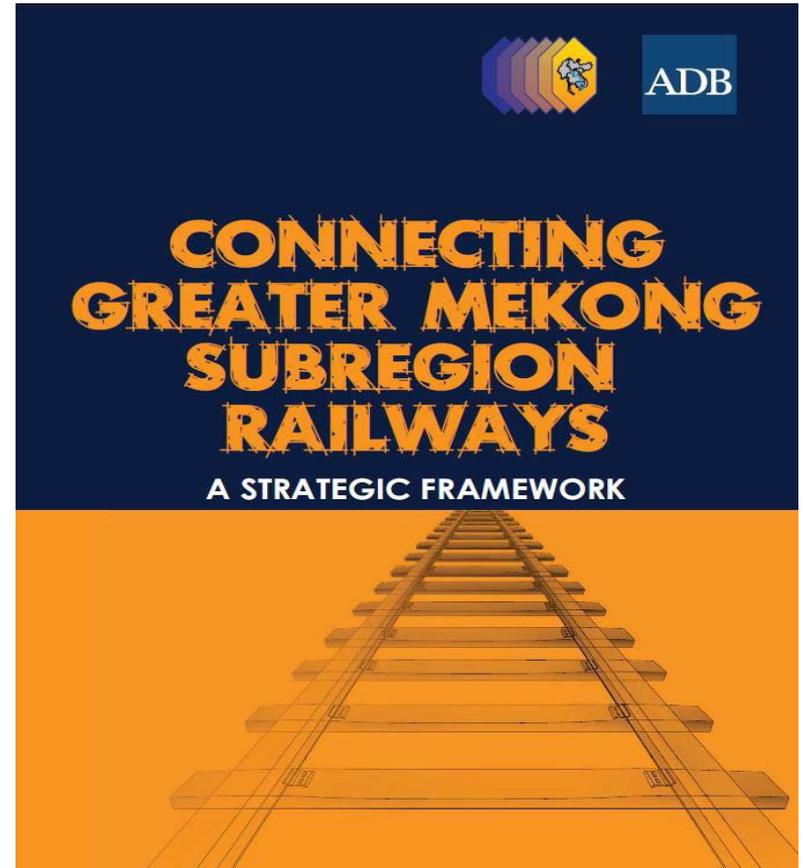
- The problem is that there is no regional railway network to serve the marketplace
- Improving transportation options for travelers and shippers will increase the modal share of railway transport and rail transport has benefits
  - ❑ Railway transport is more resource-efficient than road transport for moving large volumes of freight and people
  - ❑ Trains are more environmentally “friendly” than cars, trucks and airplanes—*they have a lower carbon footprint*
  - ❑ Trains are a safer means of travel and transport of dangerous goods
- A connected railway network will support more efficient regional supply chains, a topic which is being discussed elsewhere in this forum
- A connected railway network will be the product of regional cooperation – and I would now like to discuss the GMRA’s role in accomplishing this

# History

- Efforts to build a connected railway network in Southeast Asia began with the Singapore-Kunming Railway Link concept **(SKRL)** – which was raised in the late 1990s.
- In 2006, the Trans-Asian Railway Network Agreement (TAR) designated the SKRL as one of the Trans Asian Railways.
- SKRL is now a core ASEAN initiative – part of the ASEAN Master Plan on Connectivity
- Despite this support, progress on creating an integrated railway network has not been very successful - there are still only two connections as I have said earlier.
- In 2009, ADB commissioned the development of a strategy for connecting GMS railways

# One of the key recommendations of the framework was to form an association for developing the railway network

- Formation of the Greater Mekong Railway Association (GMRA) was ratified by an MOU signed at the 18th GMS Ministerial Meeting, Nanning, PRC on 12–13 December 2012
- GMRA membership comprises the 6 GMS countries as the founding members
- GMRA is a non-legal intergovernmental forum
- ADB has served as the GMRA's initial Secretariat



# Objectives of the GMRA

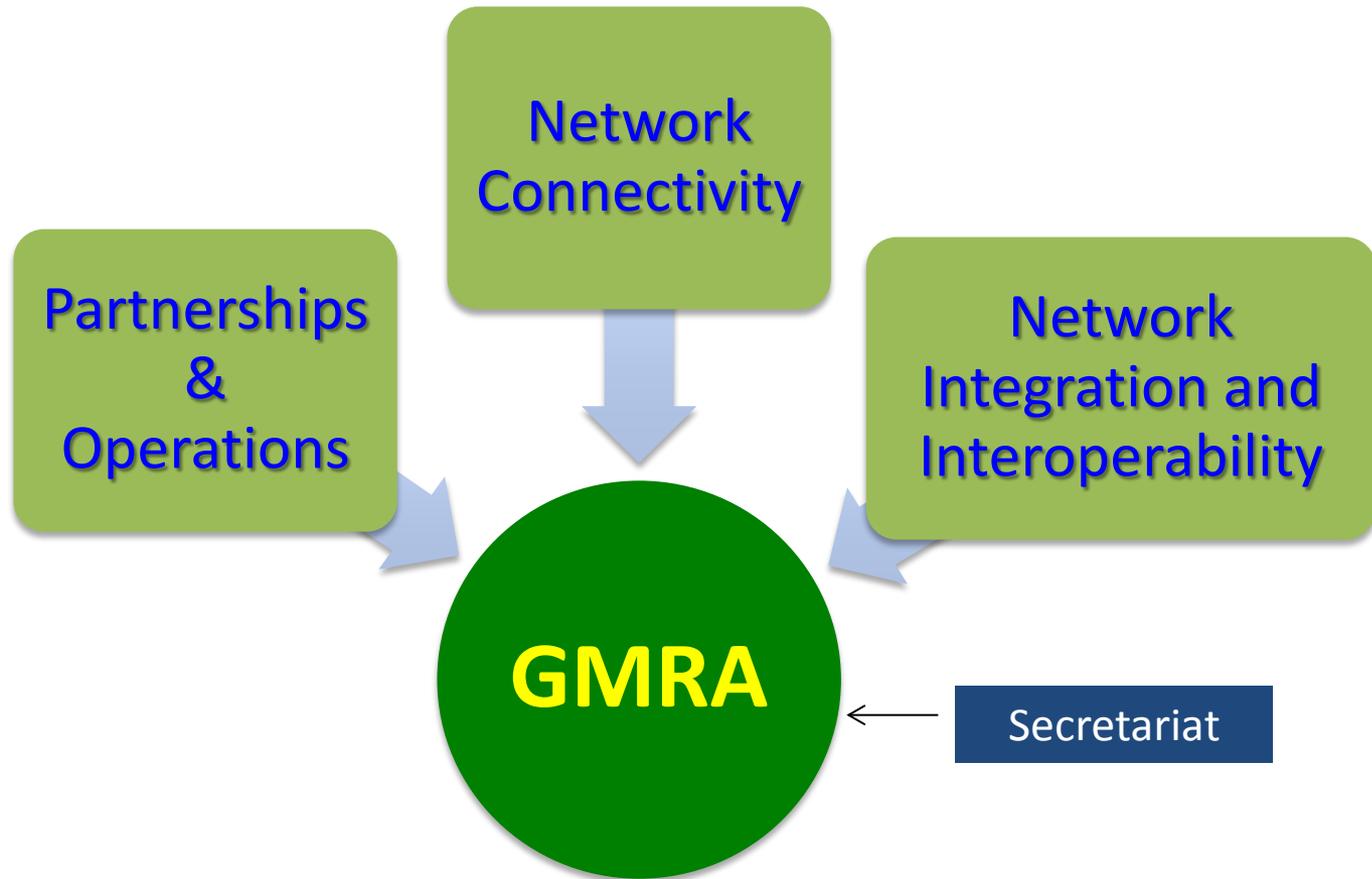
The founding MOU set outs the tasks of the GMRA, they are:

1. Ensure that all GMS countries are connected to a GMS rail network by 2020.
2. Promote the development of a seamless GMS rail network by:
  - Agreeing on technical standards of interoperability
  - Streamlining and harmonizing procedures for cross border movement of goods and people.
3. Develop the institutions and procedures to effectively integrate the national railways across the GMS.
4. Ensure that tracks, rolling stocks, locomotives, signaling and equipment are modern and sufficient to meet the demand for rail services.
5. Involve the private sector, as required, in the planning and development of the GMS railway network.

# GMRA Organization and Activities

- The GMRA held its first General Meeting in Kunming, Yunnan, PRC on 10 March 2015
- Cambodia is currently the Chair of the GMRA
- China will become the Chair at the next General Meeting to be held in Beijing in September 2016
- The GMRA's activities are organized into 3 Working Groups, supported by a Secretariat
- 8 meetings of the Working Group have been held since October 2014

# GMRA Organization Structure – Working Groups



# Tasks of GMRA Working Groups

Working Group	Objectives (ToR)	Country Co-Leads
Network Connectivity (WG 1)	<ul style="list-style-type: none"> <li>• Develop a plan for completing the 9 priority missing links</li> <li>• Develop investment requirements and identify financing options</li> <li>• Develop a marketing program to sell opportunities to invest in rail to potential financiers</li> </ul>	Cambodia Vietnam
Network Integration and Interoperability (WG 2)	<ul style="list-style-type: none"> <li>• Develop a cross border railway transport agreement               <ul style="list-style-type: none"> <li>• The agreement will not replace the need for bi-lateral agreements but will be general agreement to facilitate cross border transport by rail (and later the movement of trains across borders)</li> </ul> </li> <li>• Develop regional rail institutions to support an interconnected railway network – regulatory institutions, standards, regional ticketing and inter railway accounting</li> </ul>	Lao PDR Thailand
Partnerships and Operations (WG 3)	<ul style="list-style-type: none"> <li>• Identify and assess future organizational options</li> <li>• Identify GMRA operational funding requirements and examine options for obtaining financial support for GMRA operations</li> </ul>	China Myanmar
Secretariat	<ul style="list-style-type: none"> <li>• Provides support to working groups</li> </ul>	

# GMRA Accomplishments

- The GMRA agreed on a list of 9 priority missing links at the First Annual General Meeting in 2015
  - The ADB is providing technical assistance to WG 1 to examine how to finance the investment needed to develop a connected railway network in the GMS
- WG 2 has developed a draft outline of a cross border rail transport agreement
  - The ADB will be supporting the development of this agreement through an on-going GMS technical assistance project
- WG 3 has developed a 3 year rolling budget for GMRA operations and is developing options for funding its operations on an on-going basis—for consideration by the Members at the next Annual General Meeting

# GMRA Priority Missing Links

- The 9 priority links comprise 3,600 km of new railway lines
- The capital investment required to physically connect GMS railways could be more than \$35 billion, (based on figures that are to be updated)
- This figure does not include the investment needed to upgrade and to modernize existing national railway systems

# CONNECTING THE RAILWAYS OF THE GREATER MEKONG SUBREGION



This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.



# Agreed Priority GMS Missing Links (1)

LINK	CORRIDOR	MISSING LINK	Length (km)	Cost Estimate (USD Million)
1	Kunming, Ha Noi, HCMC, Phnom Penh, Bangkok (SKRL Main Line)	CAM: Poipet - Border Bridge/Aranyaprathet	6.5	6.5
		THA: Aranyaprathet - Klong Luk Bridge (Border Bridge with CAM)	6	3.5
2	Kunming, Ha Noi, HCMC, Phnom Penh, Bangkok (SKRL Main Line)	CAM: Bat Doeung - Snoul (Loc Ninh)	258	1300
		VIE: Loc Ninh (Snoul) - Ho Chi Minh City	129	900
3	Kunming, Mandalay, Mawlamyine, Yangon, Bangkok (SKRL West Spur Line)	MYA: Dawei - Banpunamron	170	N/A
		THA: Banpunamron - Kanchanaburi	88	136
4	Kunming, Mandalay, Mawlamyine, Yangon, Bangkok (SKRL West Spur Line)	MYA: Lashio - Muse (Ruili)	232	N/A
		PRC: Ruili (Muse) - Baoshan	196	3000
5	Kunming, Vientiane	LAO: Vientiane - Luangprabang - Boten (Mohan)	417	7000
		PRC: Mohan (Boten) - Yuxi	504	7200

# Agreed Priority GMS Missing Links (2)

LINK	CORRIDOR	MISSING LINK	Length (km)	Cost Estimate (USD Million)
6	Kunming, Ha Noi, Vung Ang, Thakek, Vientiane (SKRL East Spur Line)	LAO: Vientiane - Thakhek - Mu Gia	450	4119
		VIE: Mu Gia - Vung Ang	119	N/A
7	GMS East-West Corridor	THA: Mukdahan - Savannakhet	N/A	N/A
		LAO: Thakhek - Savannakhet - Pakse - Vangtau (Chongmek)	342	5000
		THA: Ubonrachatani - Chongmek (Vangtau)	78	N/A
		LAO: Savannakhet - Lao Bao	220	5000
		VIE: Lao Bao - Dong Ha	114	800
8	Vientiane - Pakse - Phnom Penh	LAO: Pakse - Dong Kralor (Voun Kam)	N/A	N/A
		CAM: Voun Kam (Dong Kralor) - Snoul	249	1200
9	Kunming, Ha Noi, HCMC, Phnom	VIE: Lao Cai - Hekou	4	N/A
		PRC: Hekou - Lao Cai	4	20
<b>Total Estimated Cost</b>				<b>35.7 Billion</b>

# Institutional Development and Interoperability

- The focus of our discussions in WG 2 has been on
  - Defining the elements of a cross border rail transport agreement
    - Considering what should be addressed in the agreement versus what is best served by bi-lateral agreements
  - Considering how the standards and mechanisms used by other bodies such as UIC and OSJD could be adapted to ensure interoperability in GMS railways

# Structure of GMRA

- The GMRA is an is a non-legal intergovernmental forum
- GMRA operations were funded by the ADB for the first 2 years
- In accordance with the founding MOU, GMRA operations are now to be funded by its Members
- We are discussing various options for funding the GMRA in the short term and over the medium term, for changing the nature of its organization (from an intergovernmental forum) to allow it to manage and to raise funding

# Challenges

- The GMRA's priority is to assist its Members to secure the funding to build the missing links
- To do this we must
  - analyze the feasibility of each of the 9 missing link projects
  - quantify the benefits of a connected railway network
  - prioritize the sequence of actions
- We expect to report our findings on this by the 3<sup>rd</sup> Annual General Meeting
- At the same time is important that we continue with the development the institutions and mechanisms that will underpin the operation of the a regional railway network – actions that will also be important to potential investors
- To that end we will be seeking the approval of the GMRA Board on the scope of a cross border rail transport agreement (at the upcoming Annual General Meeting)

# Challenges

- Perhaps the GMRA biggest challenge is surviving financially
- As I indicated, GMRA Members are now responsible for funding the GMRA's operations and
- We have yet not resolved how this could be implemented in a practical manner
- This matter will be considered at the upcoming Annual General Meeting

ကျွန်ုပ်တို့အား  
ကျေးဇူးတင်အပ်နှံရန်

Thank You!

# Successful Example of Axle Load Control in Southeast Asia — Singapore

20<sup>th</sup> Subregional Transport Forum (STF-20)

Nanning, PRC

S. Date

Asian Development Bank

30 June 2016

ADB

# As agreed during STF-19...

ADB has initiated a study on stock-taking of axle load control on GMS countries

Consultant selection ongoing July 2016

Consultant visit to each country July 2016  
Meet with related stakeholders

Data collection Aug 2016

Analysis, assessment and recommendation Oct 2016

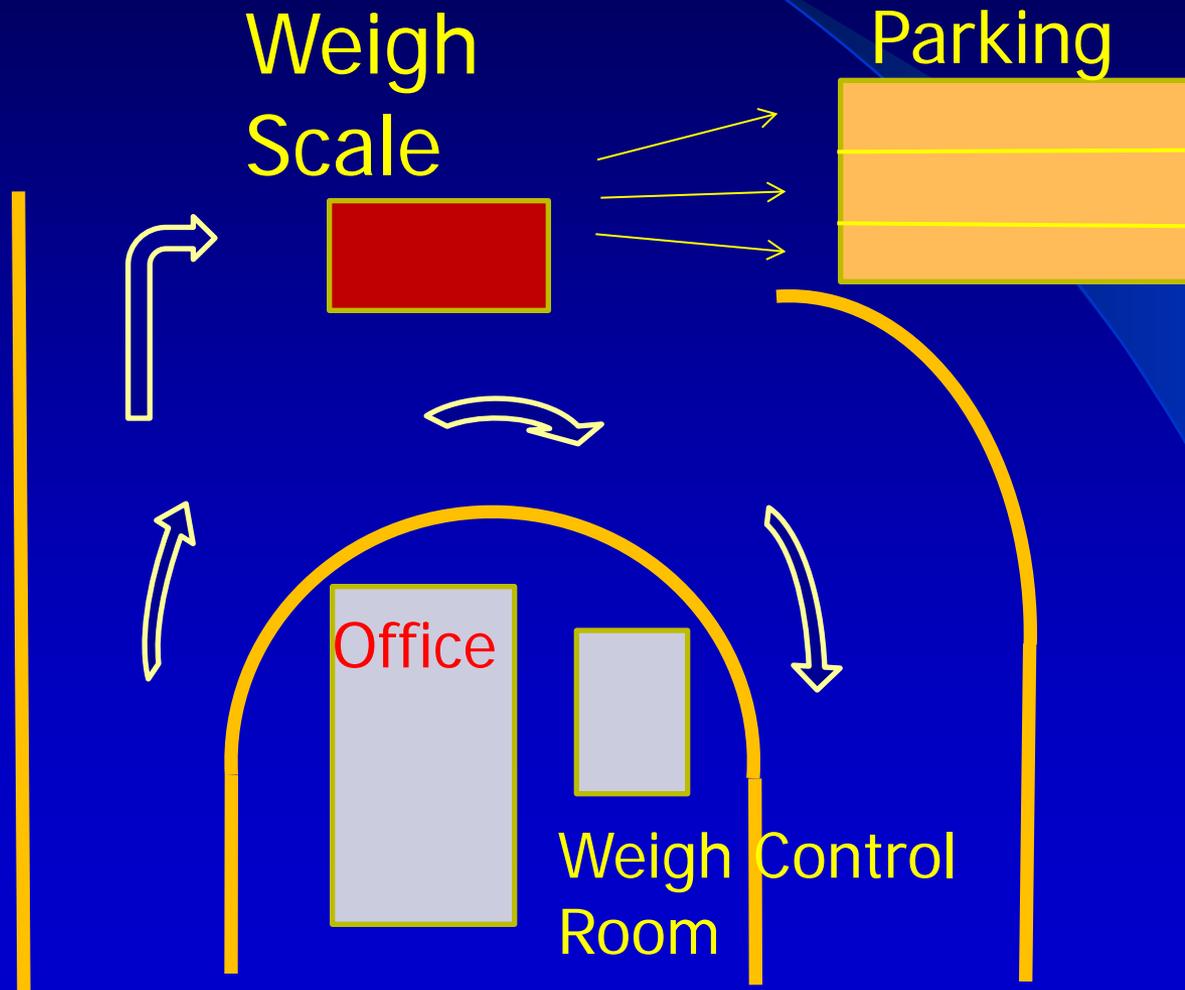
# Axle Overload Enforcement Process by Land Transport Authority (LTA) under Min of Transport

Max axle weight: 12 tons (t)      Axle weight not measured

Only total weight measured: max: 200 kg LGV or 500 kg HGV

- Inspectors on motor cycles patrol and flag down suspicious vehicle; issue slip – plate number, time, location, cargo
- Escort vehicle to Authorized Inspection Center (AIC); 4 AICs
- Submit slip to weigh scale operator; driver in vehicle
- Static scale: weighs vehicle, operator enters vehicle data
- Driver moves vehicle to parking spot, comes to AIC office
- Operator issues overload data slip to driver; sends same to LTA head office
- LTA issues penalty: first time S\$1,000 (US\$750) or max 3 month jail; second time or more S\$2,000 or max 6 months jail

# Singapore AIC Weigh Operation Layout



# Operations in Pics



Weigh scale



Inside control room



Weigh control room



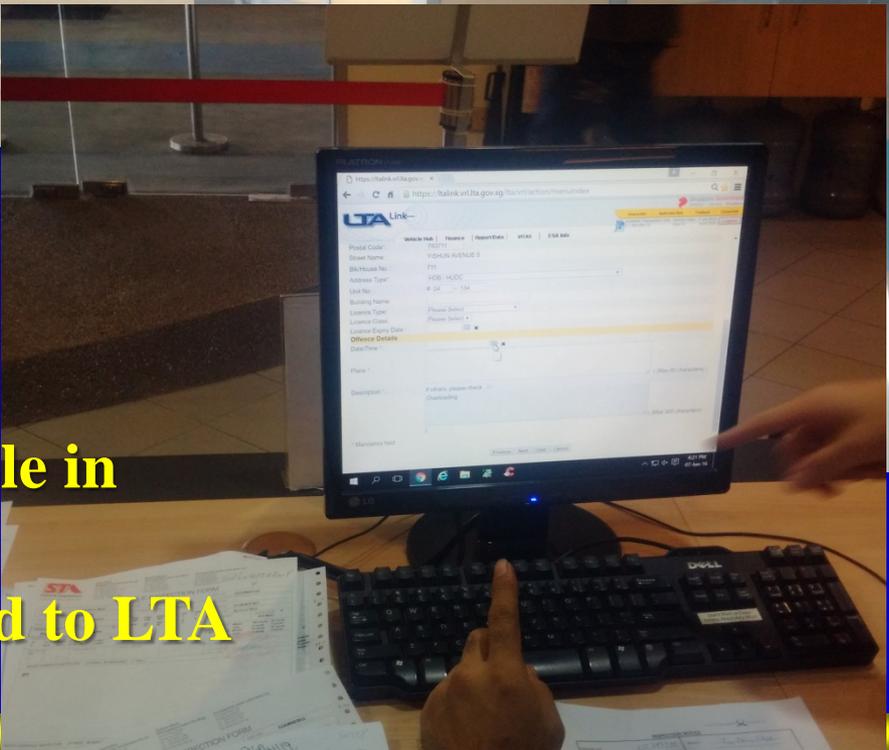


**Overloaded truck with sand**



**Bruce Lee, Enforcement Officer**

**Weigh Control Room**



**Console in Office Linked to LTA**

**Office this way**

# Conclusion

- Overloading...not an issue
- Country size small to encourage truck travel to achieve **profitable overloading**
- Nevertheless, effective systems in place to curtail overloading
- Static scale good enough for few cases of overload
- Cross-border overloaded trucks from Malaysia: **stricter**

**Thank You!**

**ADB**

**Attachment 2A:****Questions for Land Transport Authority (LTA), Singapore**

- Does weigh station enforce for both ways of traffic, or are there 2 weigh stations on both sides of the road?
- What are the regulations for unloading cargo if the truck is overloaded? How is it actually operationalized?
- What is the percentage of overload above the allowable limit for penalty application...like 5% or 10%?
- Does the penalty apply for total overload as well as overload per axle?
- What is the peak overloading time period for this weigh station by experience so far...like 11 pm to 3 am every day?
- What is the penalty for second offence and third etc., probably in increasing amount of penalty?
- How frequently do you calibrate weigh scales for accuracy of measurement? What do you do when a truck driver challenges that "weight measured by weigh scale is not accurate", how do you resolve?
- What is the average time taken for weight check?
- Do the truck drivers complain that weighing takes time and they lose profit for late arrival at destination that they wish to go?
- Is there political interference by powerfully connected truck operators?
- Do some trucks escape without stopping? in such case do you chase them and bring them to weigh scale or catch them later through another operation as an offence related to re-registration?
- Do trucks modify their original dimensions to accommodate overloading?
- How do you deal with such case if yes to question above, banning garages that modify trucks, and confiscating modified vehicles?
- What is the reporting procedure for penalty collection and enforcement?
- Have the violations decreased since the weigh station started operational? If yes please show statistics. And how do you stop trucks from escaping the weigh station through bypass roads of lower standard?
- Do you use CCTV for monitoring and to increase transparency in operations by operational staff?
- What is the real time information dissemination of operations through a tool like your website?
- Are there hotlines for complaints? if yes, how efficiently are complaints handled? Please explain each step of complaint handling mechanism.
- How do you address governance issues in operations, if there has been any?
- Are there financial incentives for operational staff in doing an efficient job?
- What are the risks involved for operational staff especially against violence by unhappy truckers? How do you handle security and safety? Were there incidents in the past breaching safety?

- Have you considered or are you implementing full automation in operations as a measure to resolve safety/security, governance issues, better transparency, and better efficiency?
- What are the lessons learned in the process of operations so far?
- What are the issues unresolved so far?
- What have been your indicators that show axle load control operations have an effect? How did you measure so far?
- What is the coverage of weigh stations in Singapore do all roads have strategic weigh locations? and what are future plans?
- Please explain database system in all weighs stations for operational efficiency?

**Answers:**

The weigh stations are located at various parts of Singapore within Authorised Inspection Centres (AICs) and not along the roads. Enforcement Officers, upon suspecting that the vehicle is over laden in weight, will send the vehicle for weighing at one of the weigh stations. If it is lower than 200 kg and 500 kg (for light [LGV] and heavy goods vehicles [HGV] respectively) of the max laden weight, a warning is issued. The weighing is overall weight not by axle weight. Truck drivers do complain, so we have to be discerning – through experience, officers are well versed in identifying over weight vehicles. If they abscond, we charge them for failing to comply with officers' instructions. There are no financial incentives for enforcement officers. If assaulted by the drivers, the officers will call the police for assistance. If there is reason to believe security is risky, we'll inform the police and perhaps do a joint ops. Alternatively, the officers will patrol in pairs. There are no peak hours. However, they usually carry their load during day time when construction is active.

LTA's Vehicle Registration and Licensing System (VRLS), a web-based database, has approved weight limits of every goods vehicle. All LTA- AICs have access to VRLS. As part of LTA's enforcement against overladen vehicles to maintain vehicle/road safety and to prevent overladen vehicles from causing damages to the roads and bridges, weighing of overladen vehicles caught by LTA-Enforcement Officers on the roads is carried out at the AICs. Vehicle inspectors at the AICs will access the VRLS to input the actual measured weight of overladen vehicles. The VRLS would show information including the excess weight and an overladen vehicle report/weight certificate can be generated. AIC weighbridge system can also print the measured weights of the vehicles.

Of the 9 AICs located island-wide, 4 of them are equipped with weighbridges. To ensure accuracy, these weighbridges must be regularly serviced, maintained and calibrated. The calibration of weighbridges is certified biennially by the Weights and Measures Office of SPRING Singapore, which regulates the standards and use of weighing and measuring instruments. AICs must also carry out their own calibration and accuracy tests for the weighbridge on a regular basis (at least once a year).

If a vehicle is overladen, both the vehicle driver and registered owner are taken to task as they are responsible to ensure that the loads carried complies with the maximum permissible weight of the vehicle. First-time offenders can be fined up to S\$1,000 or jailed for up to three months. For repeat offenders, the penalty is a maximum S\$2,000 fine or a jail term of up to six months

The background of the slide features a vibrant coastal scene. On the left, a large red steel arch bridge spans across a body of water. In the center, a cargo ship with a white hull and a deck stacked with colorful containers (red, blue, green) is moving towards the right. On the right side, a modern city skyline with several tall skyscrapers is visible under a bright blue sky with scattered white clouds. The overall atmosphere is one of active transportation and urban development.

**20<sup>th</sup> Meeting of GMS Transport Forum**

# **Management of Highway Axle Load in China**

**Department of Road Networks, Ministry of Transport of PRC  
CCCC First Highway Consultants Co., Ltd.**

**June 30,  
2016**

# CONTENTS

- 1** **Current Situation of Highway Development in China**
- 2** **Technical Standard of Highway Load**
- 3** **Management of Highway Traffic Load**
- 4** **Conclusions**

# I. Current Situation of Highway Development in China



By the end of 2015, the total length of highways in China had exceeded 4.78 million kilometers, among which the length of expressways in operation reached 124 thousand kilometers. Before that, China had become the country with the longest expressways in the world in 2012.

# I. Current Situation of Highway Development in China

## Hongkong-Zhuhai-Macau Bridge

Bridge design theme for the night is 'Lingding beads', matching the bridge overall landscape theme of 'perfect match'. Night design focused on three bridges and two artificial islands, thus showing the bridge's majestic fantasy momentum and effect of artificial islands through brightness and colour of the lighting. At the same time, Bridge Night implement green design, environmental protection and energy saving ideas.



**HongKong–Zhuhai–Macau Bridge under construction, with a total length of 49.97km, a project which was started in 2009, and will be put into service by the end of 2017.**



# I. Current Situation of Highway Development in China



**Qingdao Jiaozhou Bay Bridge, with a total length of 41.58km.**

# I. Current Situation of Highway Development in China



**Hangzhou Bay Bridge, connecting Shanghai and Ningbo, with a total length of 36km.**

# I. Current Situation of Highway Development in China



**Sutong Yangtze River Bridge, a cable-stayed bridge, with the main span of 1,088m .**



**Zhoushan Xihoumen Bridge, a suspension bridge, with the main span of 1,650m.**



**Zhenjiang-Yangzhou Yangtze River Bridge, a suspension bridge, with the main span of 1,490m.**

# I. Current Situation of Highway Development in China



**The longest highway tunnel in the world: Qinling Zhongnanshan Highway Tunnel, with a length of 18.02km.**

# I. Current Situation of Highway Development in China



**Ya' an-Xichang Expressway, with the total length of 240km, climbing from 600m ASL to 3200m ASL, regarded as an "expressway in the cloud"**

# I. Current Situation of Highway Development in China



**We are committed to ensure:**

- Safe and durable service of highway facilities for the society;
- Communication and transportation of safety and high efficiency;
- Highway transport adaptive to social and economic development.

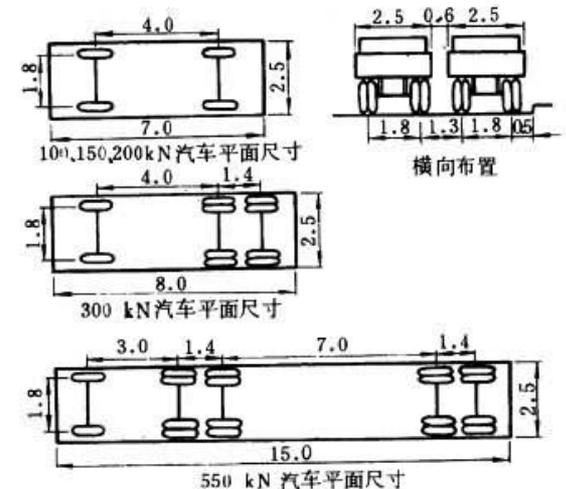
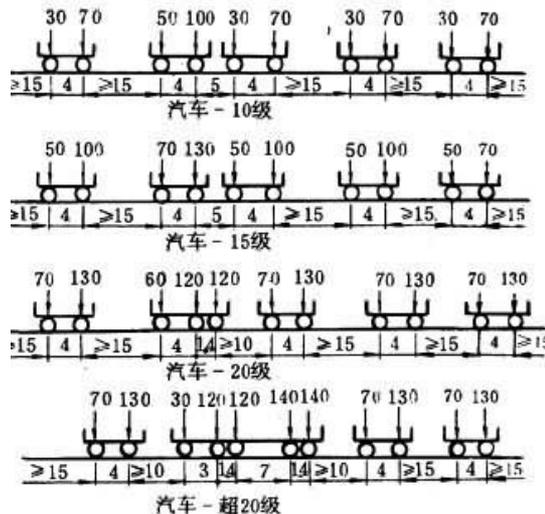
**For these purposes, the highway vehicle load standard plays a very important role.**



# II. Technical Standard of Highway Load

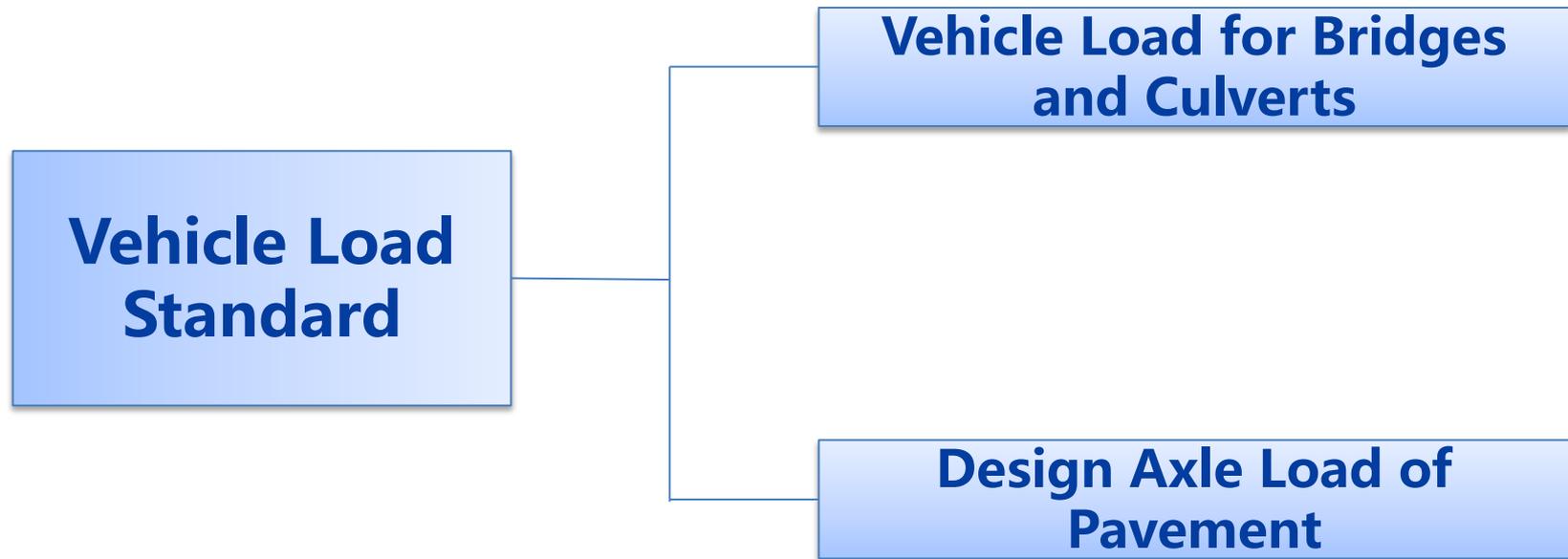
## Background and History:

- 1951 *Rules*: **Truck-13** (the class is represented with the weight (t) of a standard truck)
- 1954 *Rules*, 1956 *Rules*, 1961 *Code*: **Truck-18**
- *Regulation on Standard Vehicle Loads and Clearance for Highway Bridges and Culverts* 1967: **Truck-26**.
- *Technical Standard of Highway Engineering* (Tentative) 1972: **Truck-20**.
- *Technical Standard of Highway Engineering* 1981: **Truck-super 20**.
- *Technical Standard of Highway Engineering* 2003: **Highway-Class I and Highway-Class II**.



## II. Technical Standard of Highway Load

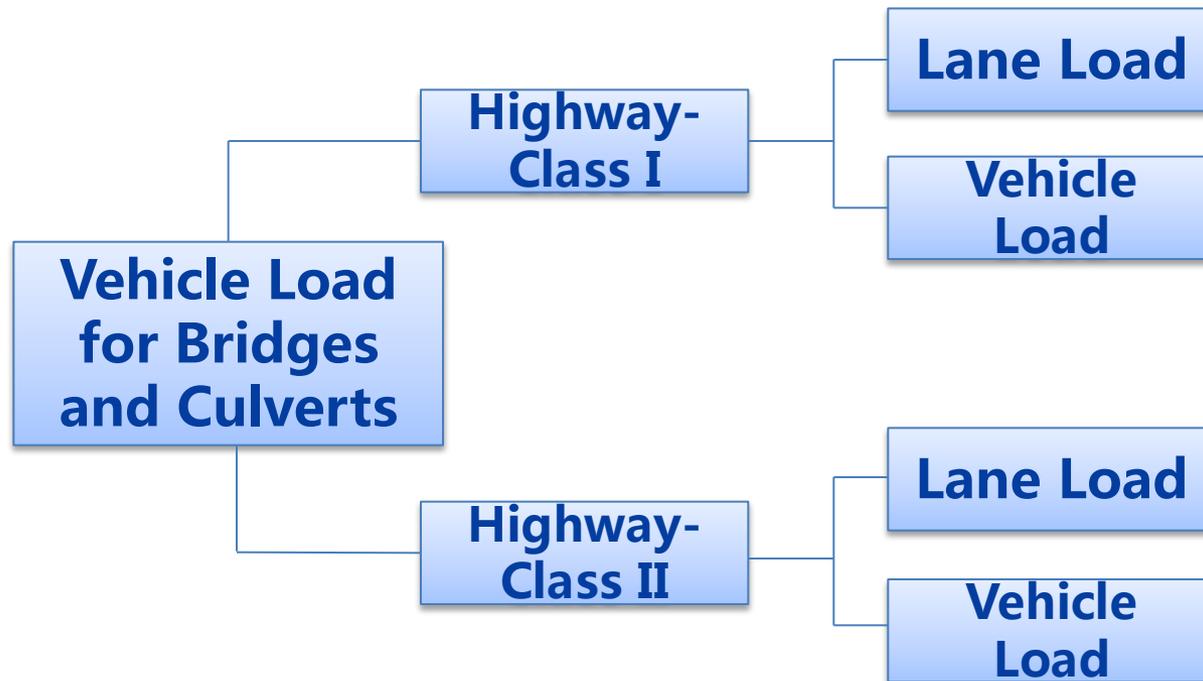
The current vehicle load standard of China: Technical Standard of Highway Engineering (JTG B01-2014), which has been put into practice since January 1, 2015.



Classification of Vehicle Loads

## II. Technical Standard of Highway Load

Automobile load for Bridges and Culverts consists of lane load and vehicle load.

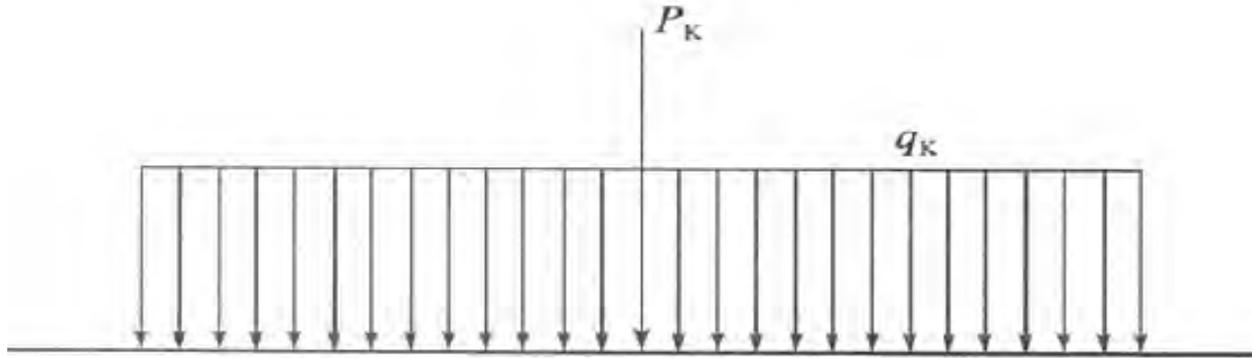


**Classification of Automobile load for Bridges and Culverts**

## II. Technical Standard of Highway Load



### Calculation Mode of Lane Load:



**The uniform load for Highway-Class I lane load is  $q_k = 10.5 \text{ kN/m}$ ; and the concentrated load  $P_k$  shall be determined as follows:**

$P_k = 270\text{kN}$ , when the calculated span of the bridge/culvert is not up to 5m;

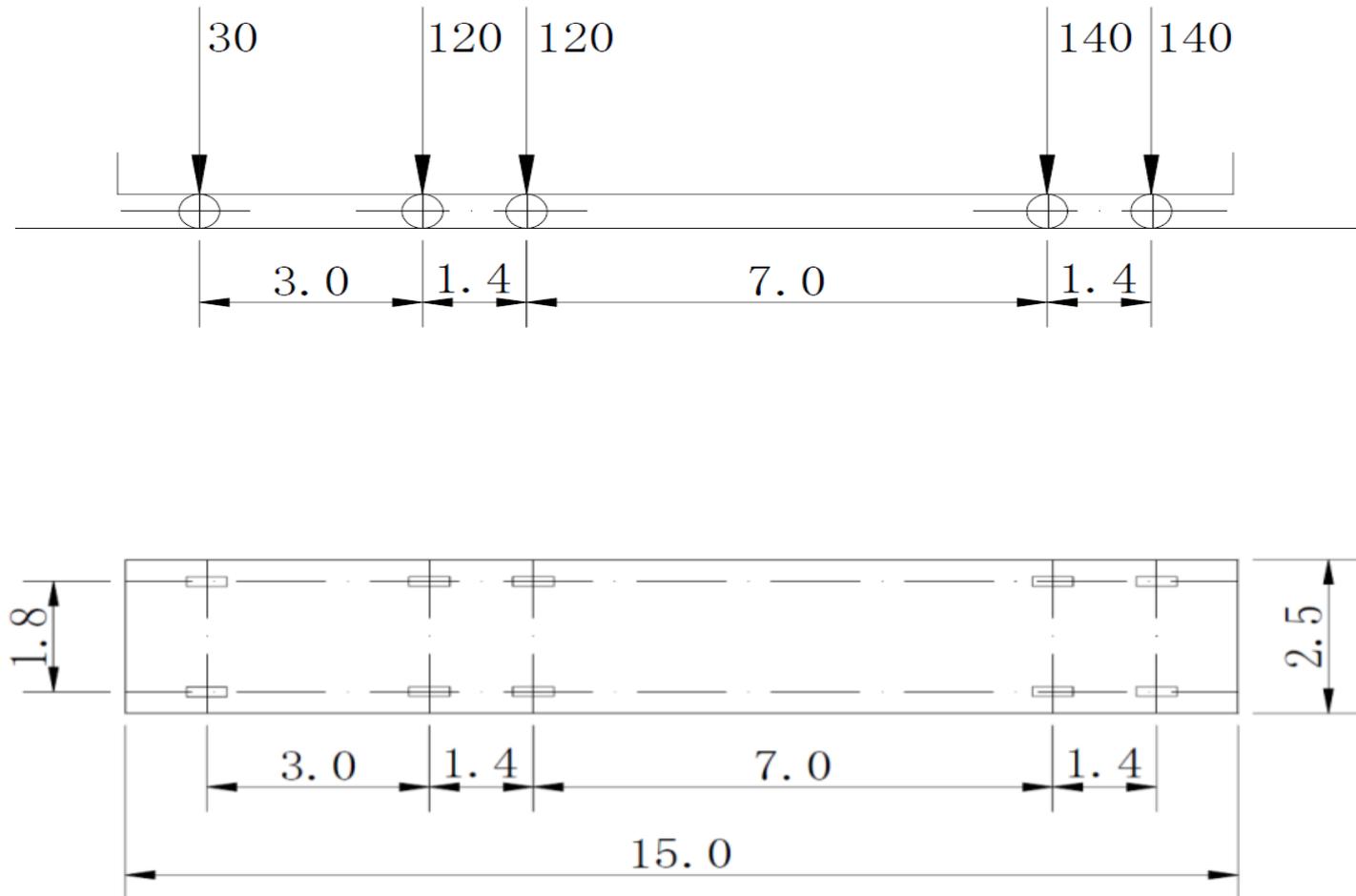
$P_k = 360\text{kN}$ , when the calculated span of the bridge/culvert is 50m or greater;

$P_k$  is obtained by using linear interpolation, when calculated span of the bridge/culvert is between 5m and 50m.

## II. Technical Standard of Highway Load



### Calculation Mode of Vehicle Load:



## II. Technical Standard of Highway Load

Double-wheel unit is adopted for the standard axle load for pavement design, with uni-axle weight of 100kN and tire pressure of 0.7 MPa.



## II. Technical Standard of Highway Load

For any highway with a large proportion of heavy traffic, a vehicle load mode adaptive to the its traffic composition should be adopted for integral and local structural check.



## II. Technical Standard of Highway Load



### **Comparisons with the load standards of developed countries:**

- A simply supported bridge, with the standard lane width of 3.75m and the span of 10m, 20m, 30m, 40m and 50m respectively, is selected as the comparative object;
- Single-lane, double-lane, three-lane and four-lane vehicle loads are applied respectively;
- The longitudinal and traverse reductions of load are taken into consideration;
- The impact effect of vehicle load is taken into consideration;
- Comparison is made with the load standards of the US, Japan, Britain and France respectively.

## II. Technical Standard of Highway Load



### Conclusions of Comparison:

- The effect of the load standard of China is **slightly greater than that of the US.**
- **Equivalent to that of Japan.**
- **Generally equivalent to that of Britain and France.**

**Generally, the standard vehicle load of China is equivalent to those of foreign developed countries.**

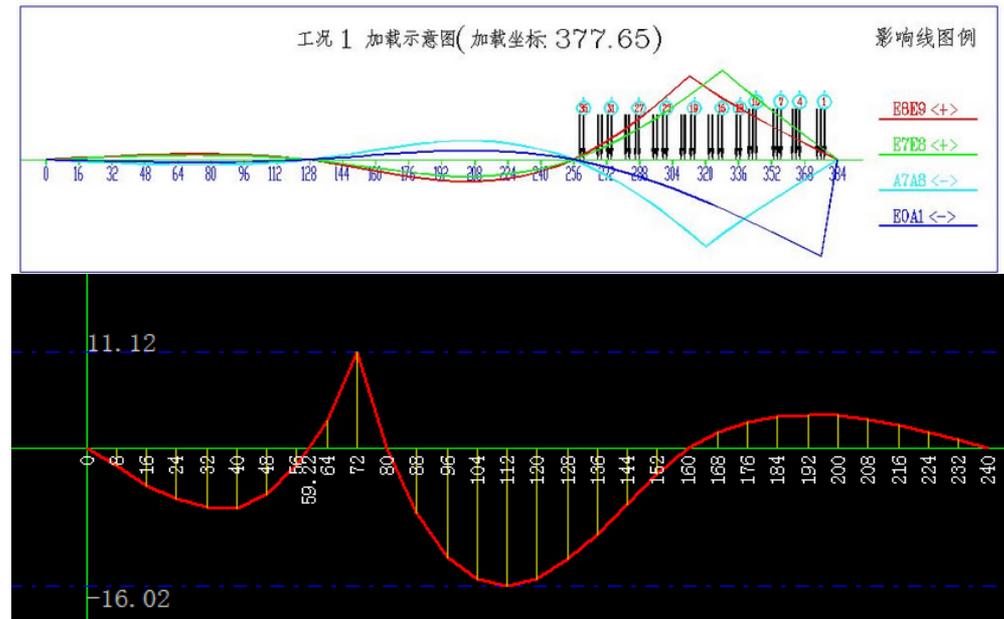
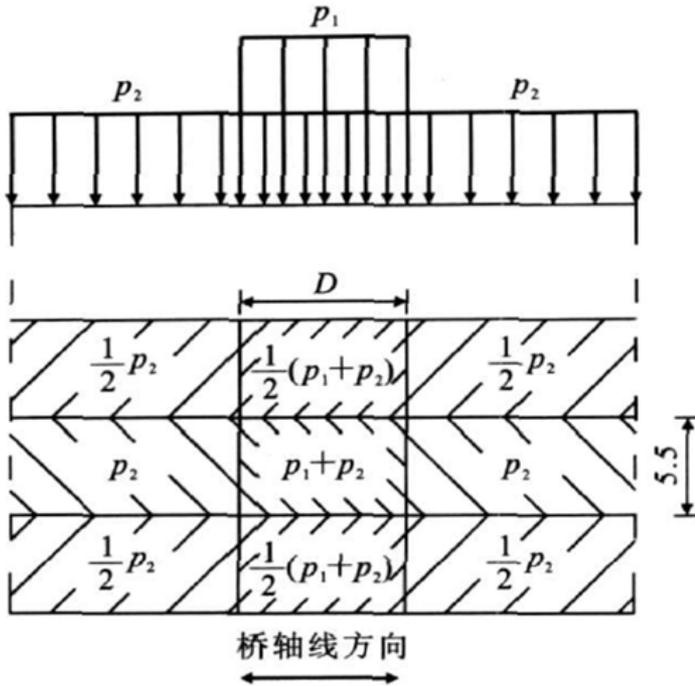
# II. Technical Standard of Highway Load



## Features of Vehicle Load of China:

The calculation mode for load standard of China is advanced.

- Virtual lane load is adopted for the integral calculation of bridge structure, in accordance with the development of load standard across the world.



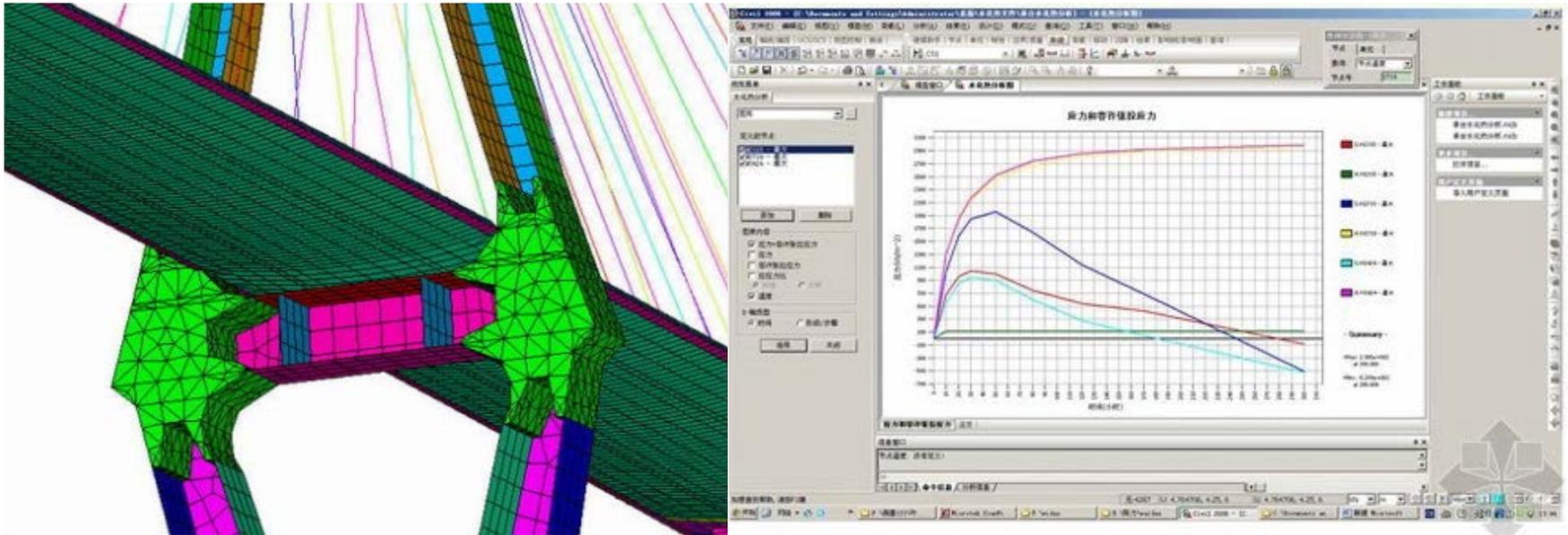
# II. Technical Standard of Highway Load



## Features of Vehicle Load of China:

**The load standard of China is scientific and reasonable.**

- Data source for the current load standard: the vehicle load data obtained from 23 provinces across the country, covering 65 highway sections, 42.776 million vehicles in 72 time intervals during 2007-2011.



## II. Technical Standard of Highway Load



### Features of Vehicle Load of China:

#### The load standard of China is widely adaptive.

- China is a vast country with complex traffic composition.
- Unbalanced economic development between areas.
- Significant difference between roads in terms of functions and roles.

**It is allowed in Chinese standards that for highway project with a large proportion of heavy traffic, not only can Highway-Class I (or Highway-Class II) be used for structural calculation, but any other load type (special load) adaptive to the project can be also adopted for structural check, to improve the compatibility of the vehicle load standard.**

## II. Technical Standard of Highway Load



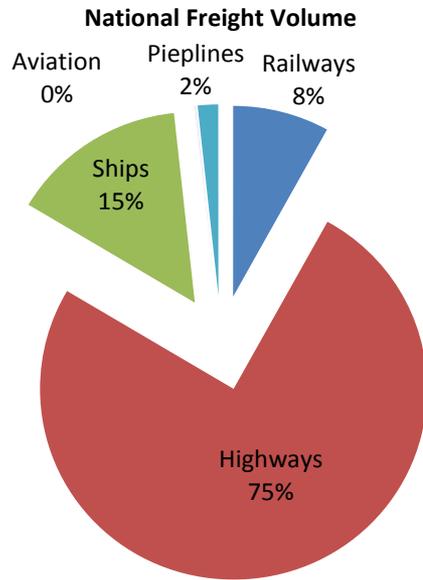
### Features of Vehicle Load of China:

#### The load standard of China is widely adaptive.

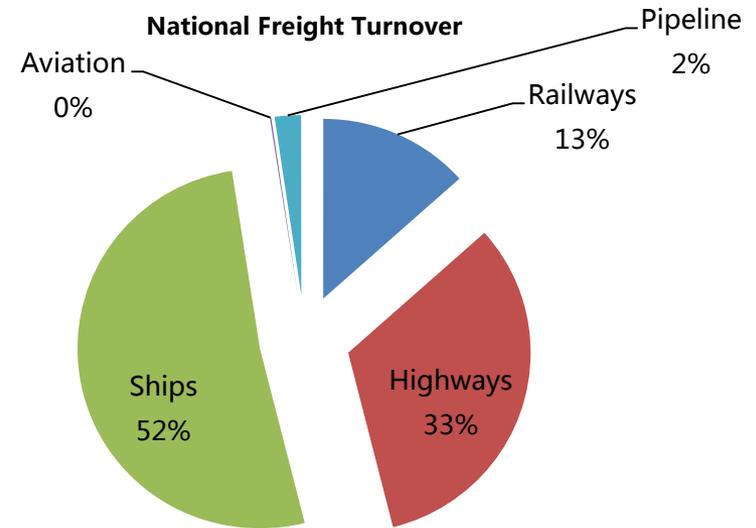
- Most of the developed countries in the world have substantially completed the construction of highway networks during 1960' s-1970' s, while the highway construction in China has been in a rapid development just in recent 20 years. The vehicle load standard of China has absorbed the merits and advantages of the load standards of those developed countries, taking into consideration the specific condition of China as a developing country, **so that it is applicable to not only China, but also other developing countries across the world.**

# III. Management of Highway Traffic Load

As highway transportation plays an important role in the transportation system of China, the management of load is facing a great challenge.



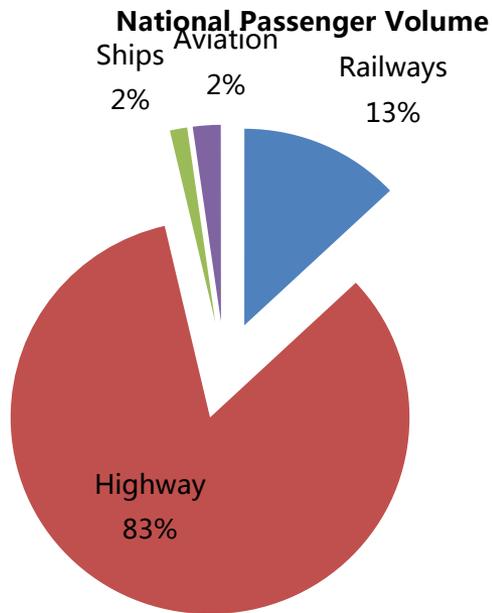
Freight volume transported via highways in 2015 was 31.5 billion tons



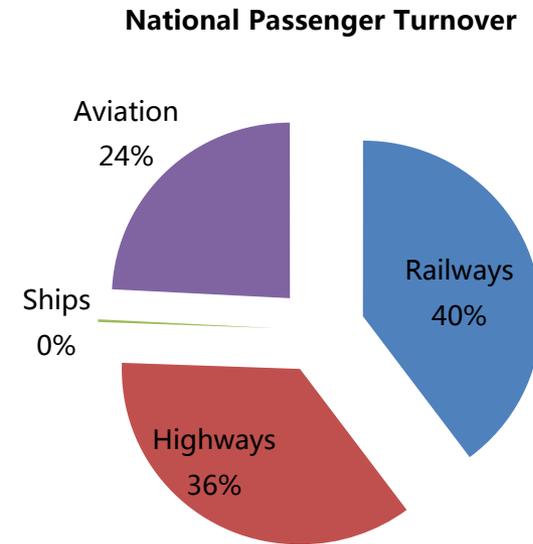
Highway freight turnover in 2015 was 5795.57 billion ton.km

# III. Management of Highway Traffic Load

As highway transportation plays an important role in the transportation system of China, the management of load is facing great challenge.



Passenger volume transported via highways in 2015 was 16.19 billion persons



Highway passenger turnover in 2015 was 1074.27 billion persons.km.

# III. Management of Highway Traffic Load



Potential damage may be caused by overload and overlimit :

- Various diseases of highways, even collapse of bridges
- Traffic accidents and loss of life and properties
- Reduction of transport efficiency and service level of highways



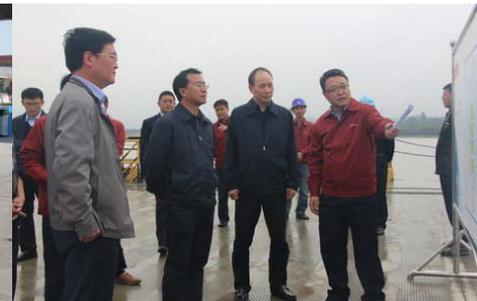
# III. Management of Highway Traffic Load



## Management Department:

In China, the mode adopted for highway load management is multi-department cooperation and interaction:

- Ministry of Transport
- Ministry of Public Security
- National Development and Reform Commission
- General Administration of Quality Supervision, Inspection and Quarantine
- State Administration of Work Safety
- State Administration for Industry & Commerce
- Legislative Affair Office of the State Council
- Ministry of Industry and information Technology.



# III. Management of Highway Traffic Load

## Management Mechanism:

“manage strictly by law, resolve the current problems and eliminate the root causes, based on the source, and take prolonged actions”.

Utilize legal, administrative, economic and technological means comprehensively to control overload vehicles.



# III. Management of Highway Traffic Load



## Bases of operation load management:

### 1. National laws and regulations:

- *Highway Law of the People' s Republic of China*
- *Regulations on Highway Safety Protection*
- *Law of the People's Republic of China on Road Traffic Safety*



# III. Management of Highway Traffic Load



Bases of operation load management:

## 2. Departmental management and implement scheme:

- *Implementation Scheme of National Wide Vehicle Overloaded or Overlimited Control*, issued jointly by Ministry of Transport and other 6 ministries and commissions.
- *Regulations on the Administration of Vehicles Over-limited on Highways* (Order #2 in 2000 of the Ministry of Transport) .
- *Notice on Further Centralized Vehicle Overloaded or Over-limited Control* (issued by JGL [2004] Doc. #455) .



超限运输车辆行驶公路管理规定  
中华人民共和国交通运输部令 2000年第2号  
《超限运输车辆行驶公路管理规定》已于2000年1月14日经第12次部长办公会议通过，现予发布，自2000年4月1日起施行。  
(2000-2-13) 部长 黄镇东

### 第一章 总则

第一条 为加强对超限运输车辆行驶公路的管理，维护公路完好，保障公路安全畅通，根据《中华人民共和国公路法》及有关法规，制定本规定。

第二条 在中华人民共和国境内公路上进行超限运输的单位和个人（以下简称“承运人”），均应遵守本规定。

第三条 本规定所称超限运输车辆是指在公路上行驶的、有下列情形之一的运输车辆：

- (一) 车货总高度从地面算起4米以上；
- (二) 车货总长18米以上；
- (三) 车货总宽度2.5米以上；
- (四) 单车、半挂列车、全挂列车车货总质量40000千克以上；集装箱半挂列车车货总质量46000千克以上；
- (五) 车辆轴载质量在下列规定值以上：单轴（每侧单轮胎）载质量6000千克；单轴（每侧双轮胎）载质量10000千克；双联轴（每侧单轮胎）载质量10000千克；双联轴（每侧各一单轮胎、双轮胎）载质量14000千克；双联轴（每侧双轮胎）载质量18000千克；三联轴（每侧单轮胎）载质量12000千克；三联轴（每侧双轮胎）载质量22000千克；

交通部、公安部、工信部、国家工商总局、  
国家质检总局、国家安监总局关于进一步加  
强车辆违法超限超载治理工作的通知

交公路发〔2011〕577号

二〇一一年十月十二日

各省、自治区、直辖市人民政府，新疆生产建设兵团：

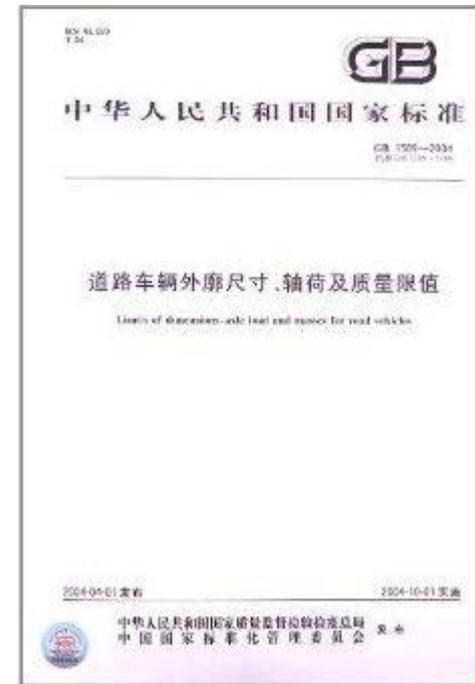
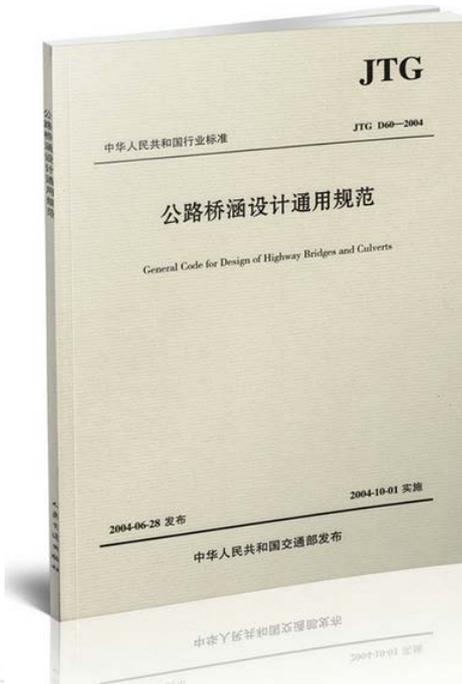
《国务院办公厅关于加强车辆超限超载治理工作的通知》（国办发〔2005〕30号）印发以来，全国的车辆超限超载治理（以下简称“治超”）工作取得了较为明显的成效，道路交通安全事故有所下降，公路、桥梁等基础设施得到有效保护。但最近一个时期以来，一些地方治超工作力度有所减弱，部分地区和局部路段严重违法超限超载运输现象出现反弹，导致连续发生多起违法超限超载车辆压垮桥梁、造成人员伤亡等安全事故，引起社会各界的高度关注。为进一步加强车

# III. Management of Highway Traffic Load

Bases of operation load management:

## 3. National standards and specifications:

- *Limits of Dimensions, Axle Load and Masses for Road Vehicles (GB1589)*
- *Technical Standards of Highway Engineering (JTG B01-2014)*
- *General Specifications for Design of Highway Bridges and Culverts (JTG D60-2015)*



# III. Management of Highway Traffic Load

## Main objects of load management:

- Overload: the rated loading capacity of a vehicle is exceeded.
- Over-limit: The dimensions or axle load of a vehicle exceed regulations.



# III. Management of Highway Traffic Load

Highway vehicles are subject to the following two overload control:

- **Axle weight of vehicle:** *Regulations on the Administration of Vehicles Over-limited Running on Highways.*
- **Total vehicle weight:** *Implementation Scheme of National Wide Vehicle Overloaded or Overlimited Control.*



# III. Management of Highway Traffic Load

## Specific management measures:

1. Establish stations for the monitoring of vehicles over-limited and conduct road law enforcement work.



# III. Management of Highway Traffic Load

## Specific management measures:

2. Arrange weighing facilities at each expressway entrance to inspect for vehicles over-limited and prevent over-limited and overloaded vehicles from running into expressways.



# III. Management of Highway Traffic Load



## Specific management measures:

3. Strengthen the supervision of vehicles and freight sources and prevent lawbreaking vehicles from leaving the factory (site).



# III. Management of Highway Traffic Load



## Specific management measures:

4. Implement toll-by-weight measures for toll roads to eliminate illegal profit-earning activities.



# III. Management of Highway Traffic Load



## Specific management measures:

5. Build supervision and monitoring systems for vehicle overloaded or over-limited control and form an information network.



# III. Management of Highway Traffic Load



Specific management measures:

6. Set signboards of load limit



# IV. Conclusions



## 1. Highway load management in China:

- Adapt to the construction and development of highways.
- Adapt to the development of highway transportation.

## 2. Highway load standard of China:

- Advanced calculation modes
- Scientific and reasonable limits
- Applicable to not only China, but also other developing countries.

**The highway load management and standards of China are advanced and scientific, ensure the safety of highway transportation, and can meet the requirements of developing countries.**



# Thanks!

Department of Road Networks, Ministry of Transport of PRC  
CCCC First Highway Consultants Co., Ltd.

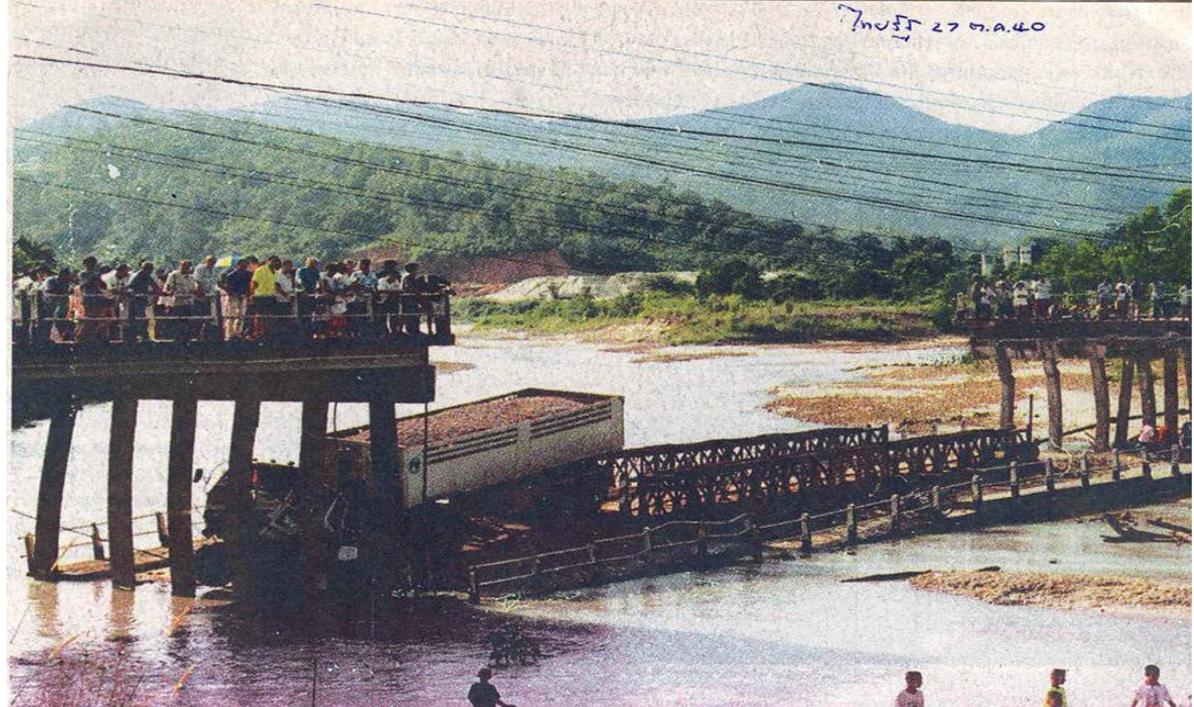
June 30,  
2016

# MINISTRY OF TRANSPORT



**DEPARTMENT OF HIGHWAY (DOH)  
OFFICE OF TRAFFIC WEIGHT CONTROL**

# Distress of Highway and Bridge





# OFFICE OF TRAFFIC WEIGHT CONTROL

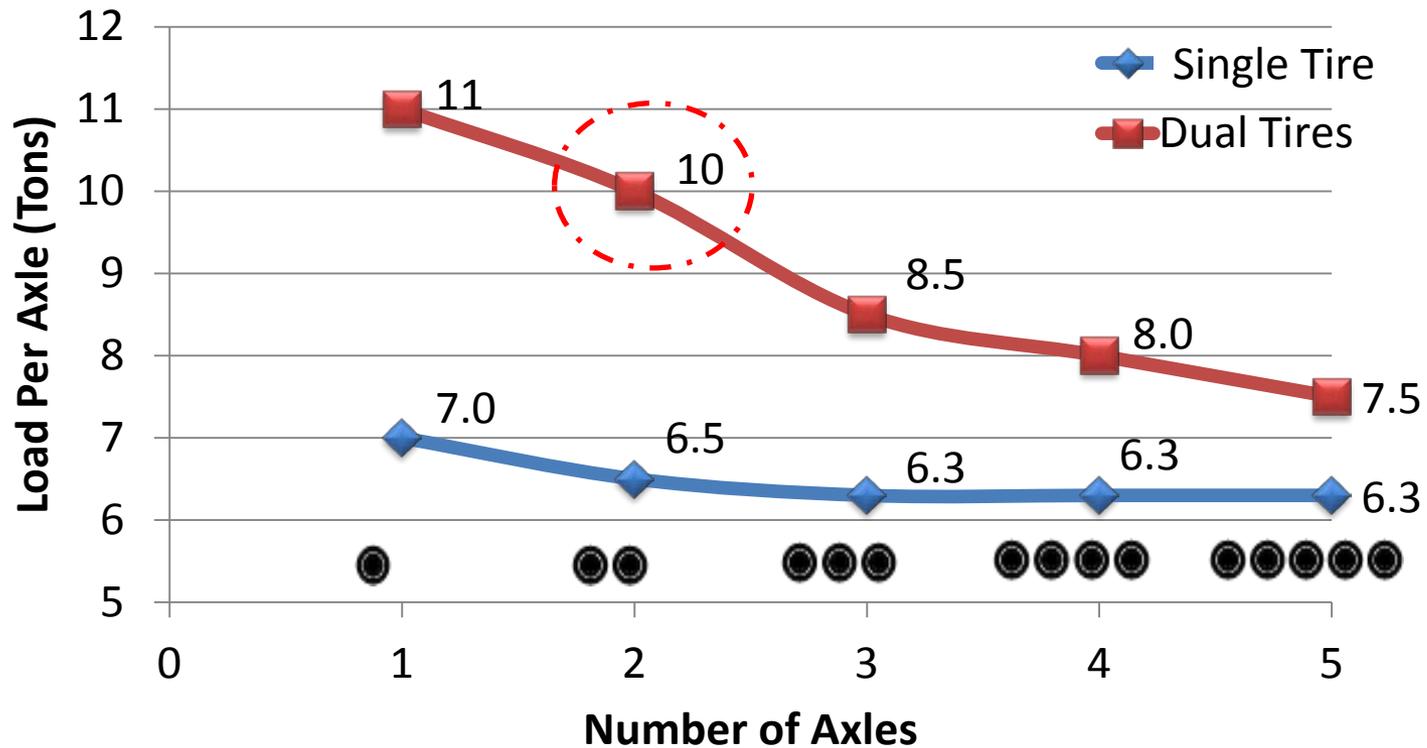


<b>WEIGH STATION</b>	<b>70</b>	<b>Locations</b>
<b>VIRTUAL WEIGH STATION</b>	<b>9</b>	<b>Locations</b>
<b>MONITOR ROOM</b>	<b>1</b>	<b>Location</b>



# LEGAL TRUCK IN THAILAND

## Allowable Load per Axle

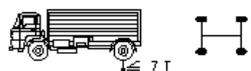
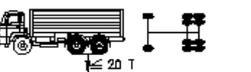
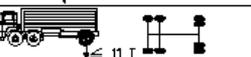
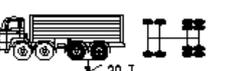


**REMARK : DISTANCE BETWEEN AXLE 1.2-1.8 m.**

# LEGAL TRUCK IN THAILAND

## HIGHWAY WEIGH CONTROL HIGHWAY DEPARTMENT

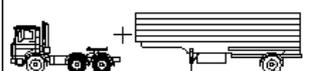
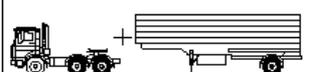
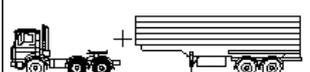
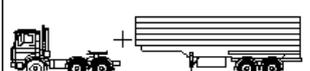
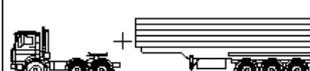
### CHAPTER 2

ALLOWABLE TOTAL TRUCK LOAD ON HIGHWAY (SPECIAL HIGHWAY AND HIGHWAY)				
NO.	VEHICLE CLASS	REAR SINGLE AXLE LOAD OR REAR DOUBLE AXLE LOAD NOT MORE THAN (TONS)	GROSS WEIGHT (TONS)	
11	 2-axle, 4-wheel 4-tire	7	8.5	
12	 2-axle, 4-wheel 8-tire, buses	11	—	
	 2-axle, 4-wheel 6-tire	11	15	
13	 3-axle, 6-wheel 8-tire, buses	13	—	
	 3-axle, 6-wheel 6-tire	13	18	
14	 3-axle, 6-wheel 8-tire, buses	16.5	—	
	 3-axle, 6-wheel 8-tire	16.5	21.5	
16	 3-axle, 6-wheel 10-tire	20	25	
18	 3-axle, 6-wheel 8-tire, buses	11	—	
	 3-axle, 6-wheel 8-tire	11	21	
17	 4-axle, 8-wheel 8-tire	13	23	
19	 4-axle, 8-wheel 12-tire	20	30	



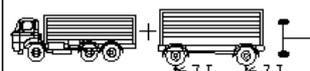
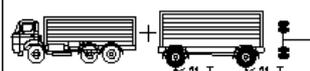
## HIGHWAY WEIGH CONTROL HIGHWAY DEPARTMENT

### CHAPTER 2

ALLOWABLE TOTAL TRUCK LOAD ON HIGHWAY (SPECIAL HIGHWAY AND HIGHWAY)				
NO.	VEHICLE CLASS (SEMI-TRAILER)	TOTAL LOAD FOR AXLES NOT MORE THAN (TONS)		
(1)	 Single Axle, Single Wheel	7		
(2)	 Single Axle, Double Wheel	11		
18	(3)  Double Axle, Single Wheel	13		
	(4)  Double Axle, Double Wheel	20		
(5)	 3-Axle, Double Wheel	25.5		

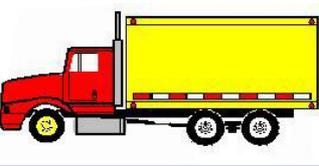
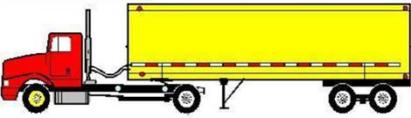
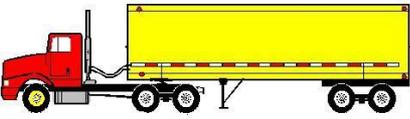
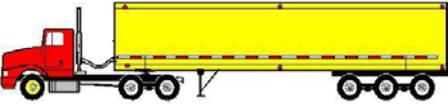
REMARK: THE ENGINE TRUCK EACH TYPE IN ITEM 11-18 (PART 1) WHEN CONNECTED TO THE SEMI-TRAILER THE COMBINED AXLE LOAD OR TOTAL LOAD OF THE TRUCK INCLUDING SUPERIMPOSED LOAD NOT MORE THAN THE ALLOWABLE LOAD

### CHAPTER 4 (PART 3)

NO.	VEHICLE CLASS (FULL-TRAILER)	TOTAL LOAD FOR AXLES NOT MORE THAN (TONS)	GROSS WEIGHT (TONS)
20	(1)  Front axle and Rear axle to single axle use single tire	7	14
	(2)  Front axle and Rear axle to single axle use Double tire	11	22

REMARK: THE ENGINE TRUCK EACH TYPE IN ITEM 11-18 (PART 1) WHEN CONNECTED TO THE FULL-TRAILER THE COMBINED AXLE LOAD OR TOTAL LOAD OF THE TRUCK INCLUDING SUPERIMPOSED LOAD NOT MORE THAN THE ALLOWABLE LOAD

# LEGAL TRUCK IN THAILAND

TYPE OF VEHICLE	THAILAND (TONS)	ASEAN (TONS)
	<b>25</b>	<b>21</b>
	<b>30</b>	<b>25</b>
	<b>35</b>	<b>32</b>
	<b>45</b>	<b>36</b>
	<b>50.5</b>	<b>38</b>

# LEGAL PUNISHMENT FOR OVERLOADING TRUCKS



**Fine  $\leq$  10,000 Baht**



**Imprisonment  $\leq$  6 Months**

**or Both**

# HOW TO CONTROL OVERLOADING ON HIGHWAYS

## TYPE OF EQUIPMENT TO CONTROL OVERLOADING

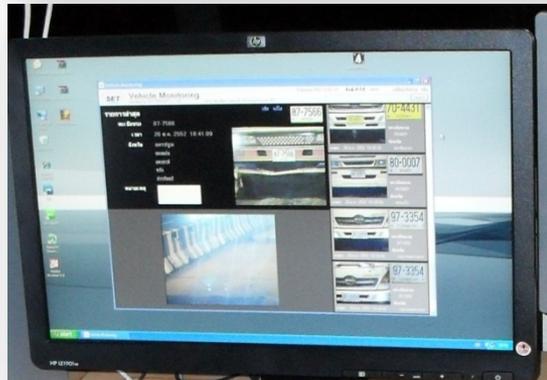
1. WEIGH STATION
  - ✓ STATIC SCALE
2. VIRTUAL WEIGH STATION
  - ✓ WEIGH IN MOTION (WIM : FAST WIM)
3. SPOT CHECK
  - ✓ PORTABLE SCALE



# WEIGH STATION

## STATIC SCALE

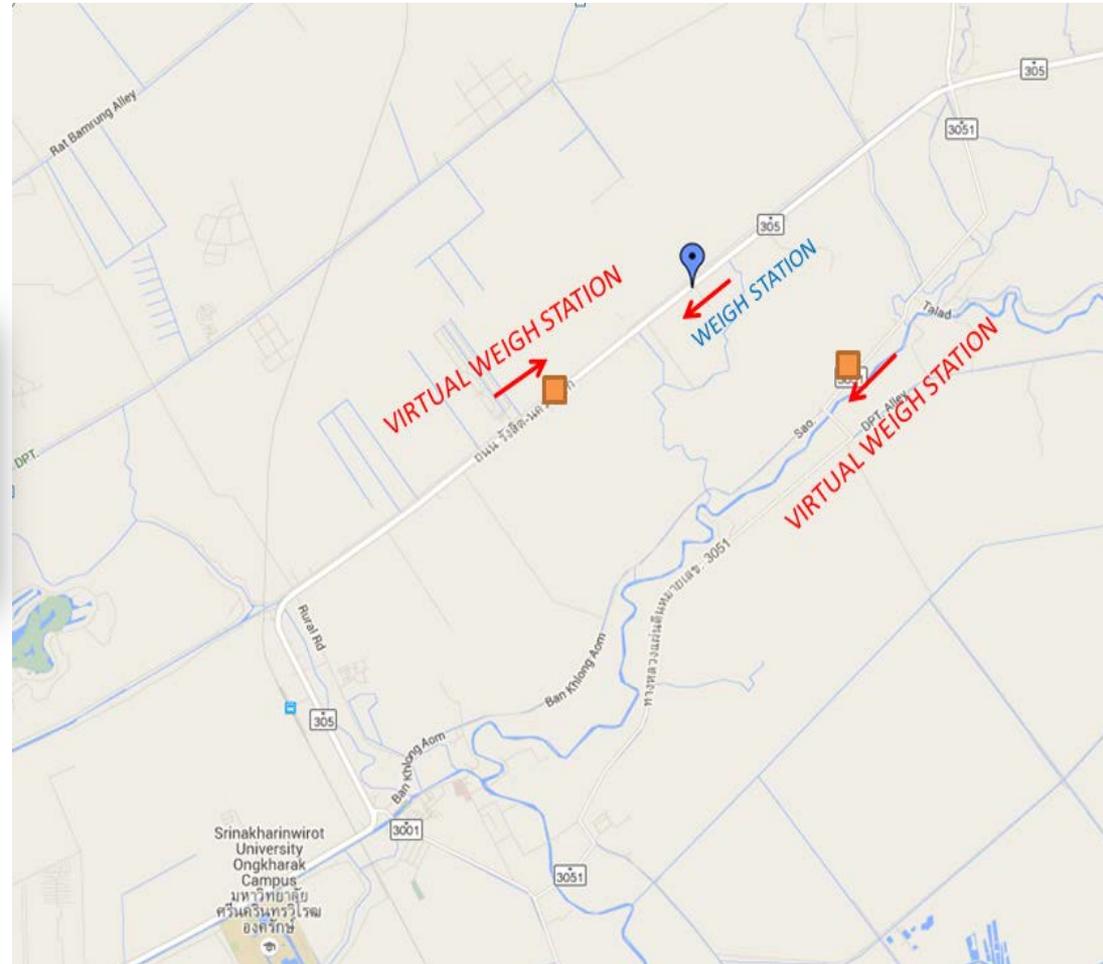
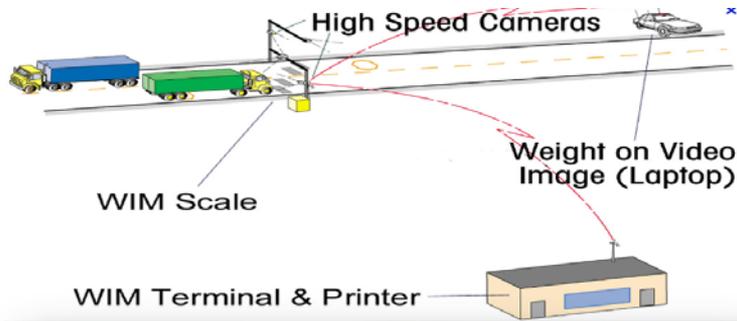
Weigh Station used for legally truck weighing



# HOW TO CONTROL OVERLOADING ON HIGHWAYS

## VIRTUAL WEIGH STATION

WIM used for classification of overloaded trucks



# HOW TO CONTROL OVERLOADING ON HIGHWAYS

## SPOT CHECK

Portable Scale used for legally truck weighing



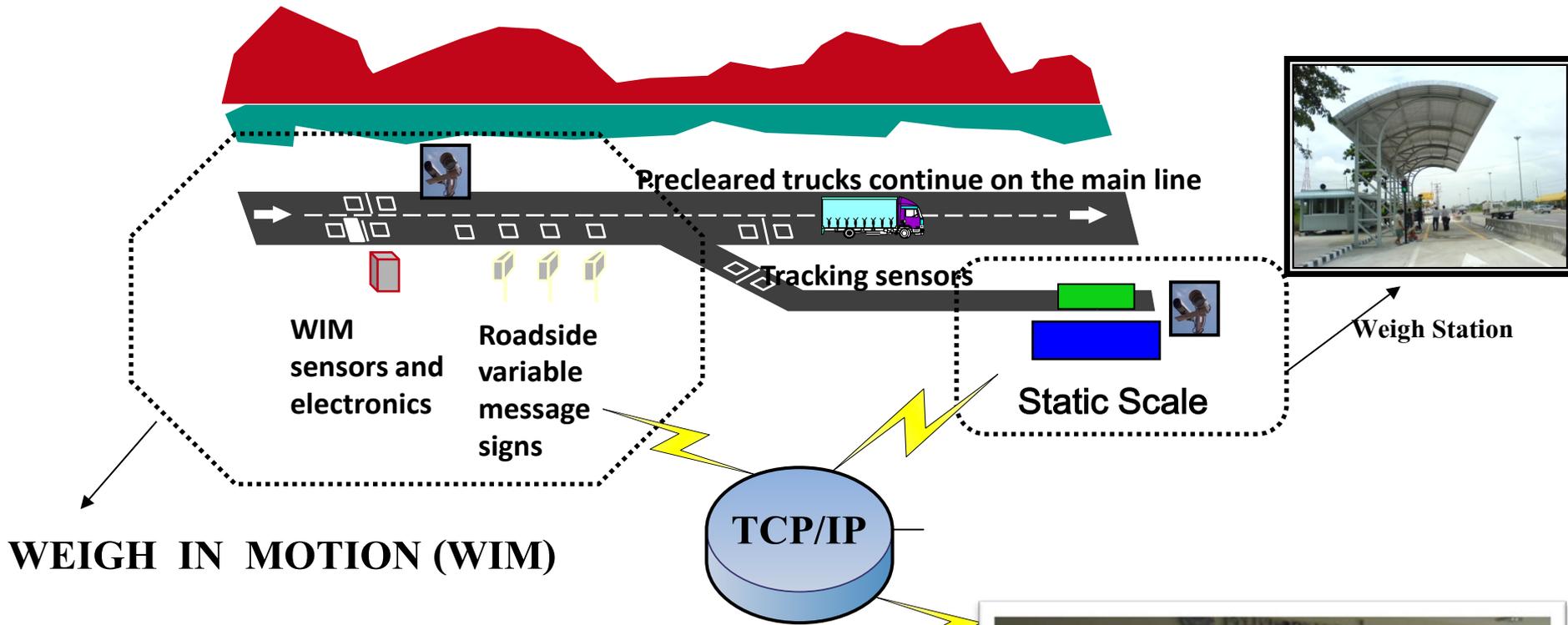
# HOW TO CONTROL OVERLOADING ON HIGHWAYS

## MONITOR ROOM

Monitor Room to operate for visual and audio

Information from Weigh Stations and Virtual weigh stations





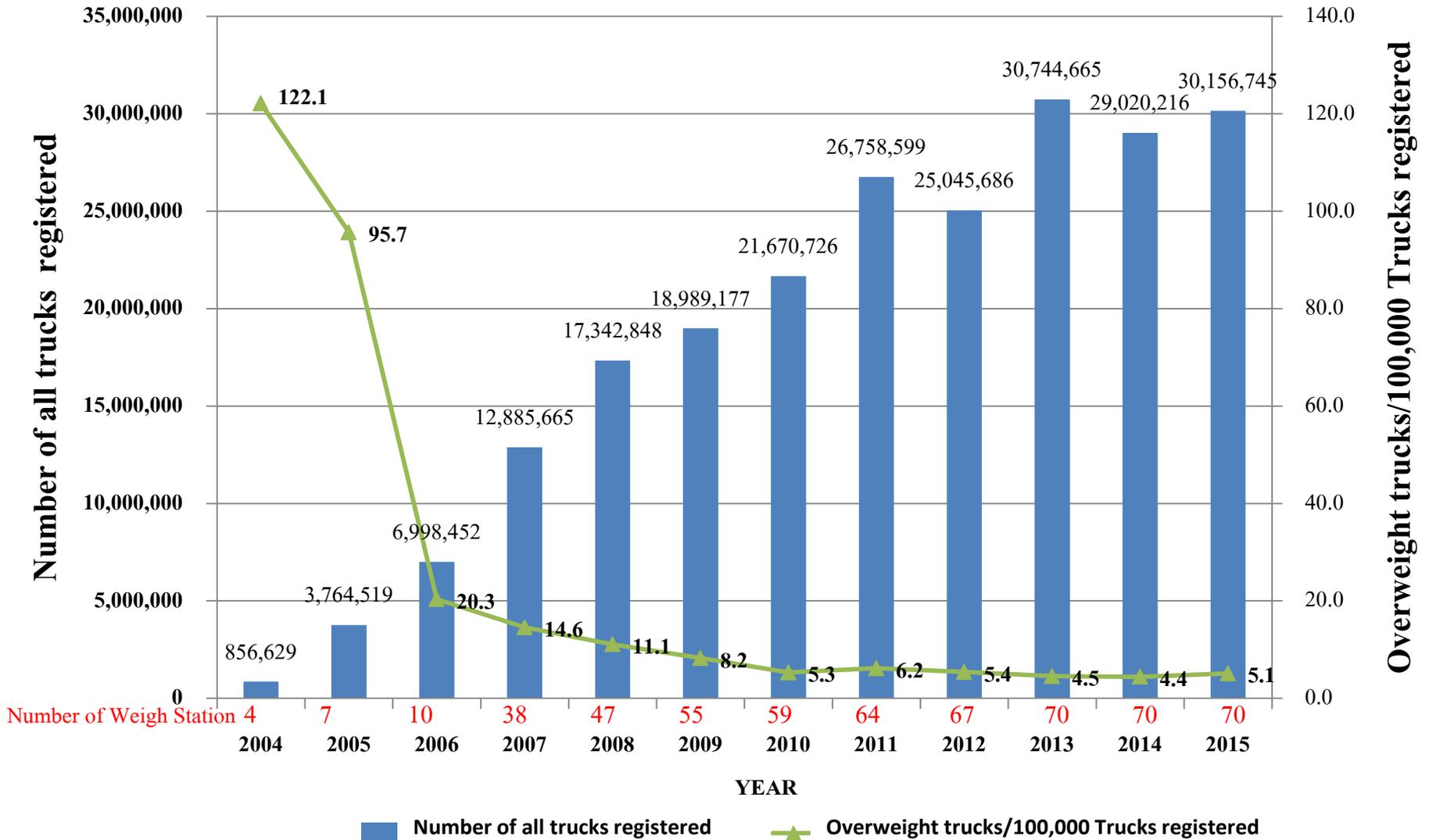
## Weighing System

1. Weigh Station: used for legally truck weighing
2. Fast WIM : used for classification of overload truck
3. Monitor Room: operated for visual and audio Information from Weigh Station and Fast WIM.



**Monitor Room**

# STATISTICS OF WEIGH STATION



# Process to Enforcement Overloading Trucks

## Weighing Process



## Arrest records



## Penalty Form



## Police Station



## Court



## Decide Penalty



Fine  $\leq$  10,000 Baht  
Imprisonment  $\leq$  6 Months  
or Both



**【Case Study】 JICA's Support for Axle Load Control**

**Cambodia**

1. Current situation of overloading in JICA projects

- For the Government of Cambodia, countermeasure against the overloading is one of the priority policy<sup>1</sup>
- There are some temporary bridges damaged by overloaded vehicles.
- Tsubasa Bridge, which is completed last year, is also damaged by overloaded vehicle.
- Overloaded vehicles affect road and bridge.

Figure 1 Damage examples of Temporary Bridges in Cambodia <sup>2</sup>

Damage	Damage on Steel deck Slab	Damage on Wood deck slab	Damage on Main Structural Members	Bridge Collapse
Damage Photo				
Major cause	<ul style="list-style-type: none"> <li>• Vibration caused by passing vehicles</li> <li>• Passage of overloaded vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Corrosion of the timber</li> <li>• Passage of overloaded vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Passage of overloaded vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Passage of overloaded vehicles</li> </ul>

2. Issues of axle load control in JICA project

- Axle load scales aren't available because of inadequate maintenance.
- There is lack of capacity for undertaking enforcement activities

3. JICA's support for axle load control

- 2 weigh stations will be installed at both ends of Tsubasa Bridge in JICA's technical cooperation project.
- JICA experts instruct way of adequate equipment maintenance and use.
- Develop regular check – reporting system.

[Reference] Tsubasa Bridge

- Located on the National Road 1 between Phnom Penh and Ho Chi Minh City, the bridge connects both sides of the two kilometer-wide River (Mekong River).
- Tsubasa Bridge was built with grant assistance of Japan.

<sup>1</sup> National Strategic Development Plan 2014-2018

<sup>2</sup> Preliminary Survey by JICA expert

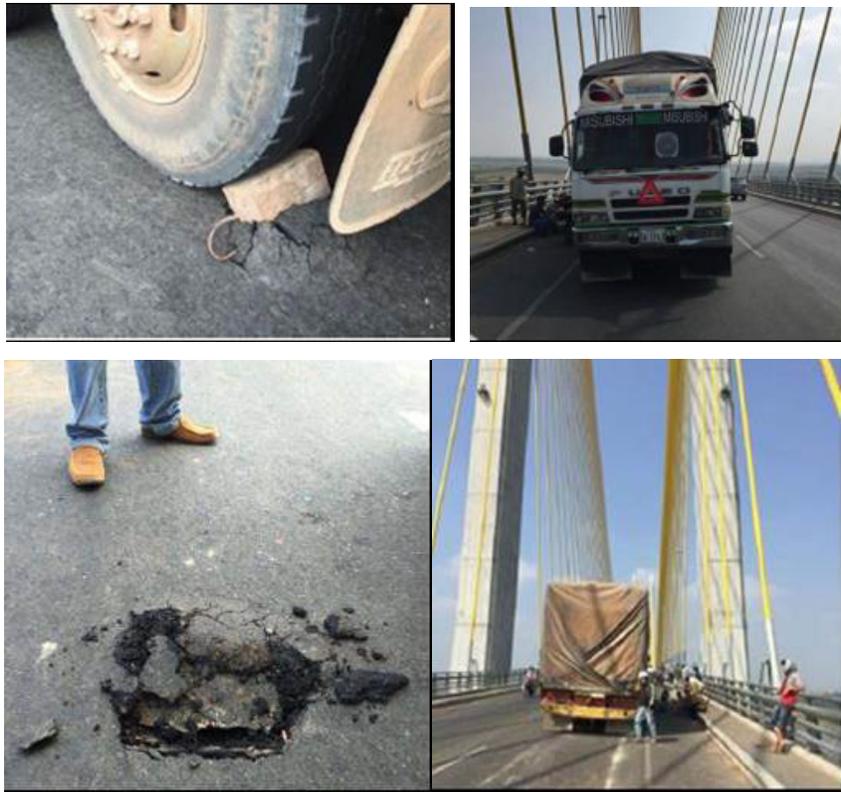


Figure 2 Damaged bridge Pavement due to overloaded vehicle  
(At Tsubasa Bridge)

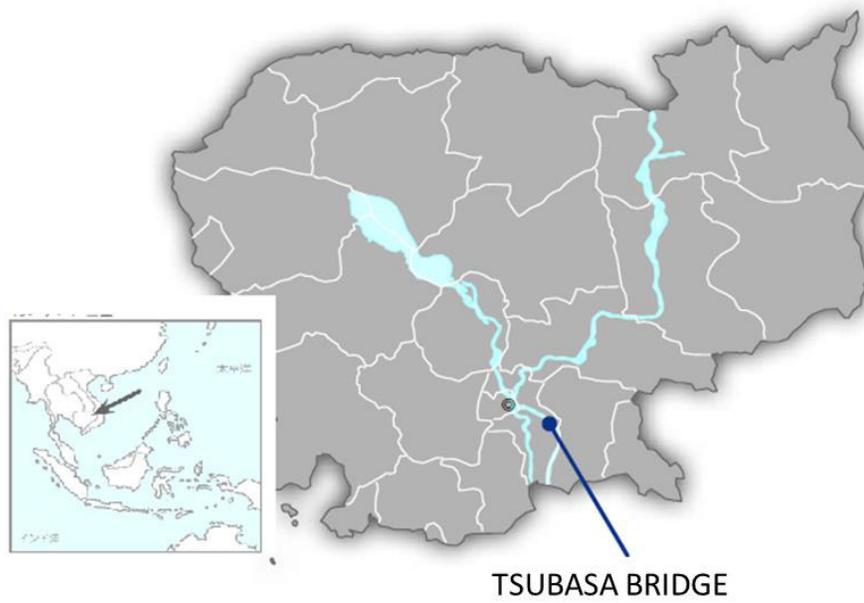


Figure 3 Location of Tsubasa Bridge

## 【Case Study】 JICA's Support for Axle Load Control

### Laos

#### 1. Current situation of overloading in JICA projects<sup>1</sup>

##### (1) Type of Main Load

- Timber: (Export products to Vietnam) 2%<sup>2</sup>
- Materials from Xepon mine (copper, Sulfuric acid, lime stone) 62%
- Lime stone, Charcoal (Export products to Vietnam) 23%

##### (2) Situation of axle load control

- Number of vehicles measured at weigh station: 15,536
- Number of overloaded Vehicles : 2,996 19.3%
- Number of vehicles which ignored weigh station: 14,738 48.7%

#### 2. Issues of axle load control in JICA project<sup>3</sup>

##### (1) Equipment

- Axle load scales are out of order and not repaired for long period.
- The number of axle load scale is few (There is only one scale in Savannakhet)
- Poor accuracy of axle load scale (Error ratio 20%)
- Lack of central control system
- No automated system. Measured by visual and recorded by handwriting

##### (2) Enforcement Action

- Limited capacity of Crackdown. (Esp. during night)
- Lack of Countermeasure for vehicles which ignored weigh station
- No engagement by police into overloading
- Loading after passing a weigh station
- No third party's inspection

#### 3. JICA's Support for Axle Load Control

- Design, procure and install a weigh station along National Road No.9 as a pilot project
- Develop operational manual(s) and conduct OJT for overloading control in the pilot province
- Develop regular check – reporting system.

⇒ Government of Laos plans to install weigh stations by own budget

<sup>1</sup> Result of monitoring by Contractor : 20/May/2013~14/Dec/2014 (82 weeks), Weigh station on No.9 (Atsaphangthong District)

<sup>2</sup> No Data due to Not Passing Weigh station

<sup>3</sup> Technical Cooperation “Project for Improvement of the Road Management Capability”



Figure 1 Broken axle load scale



Figure 2 Overloaded Truck with Timber



Figure 3 Blocked road by Rolling due to Overloading



Figure 4 Loading after passing a weigh station



Location Map of No.9



# AFD (French Development Agency) and Transport

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Stéphane Carcas

AFD – Transport and Energy division, Paris

Lead Transport specialist



**20<sup>th</sup> GMS Subregional Transport Forum (STF) meeting**

Nanning, PRC, June 2016

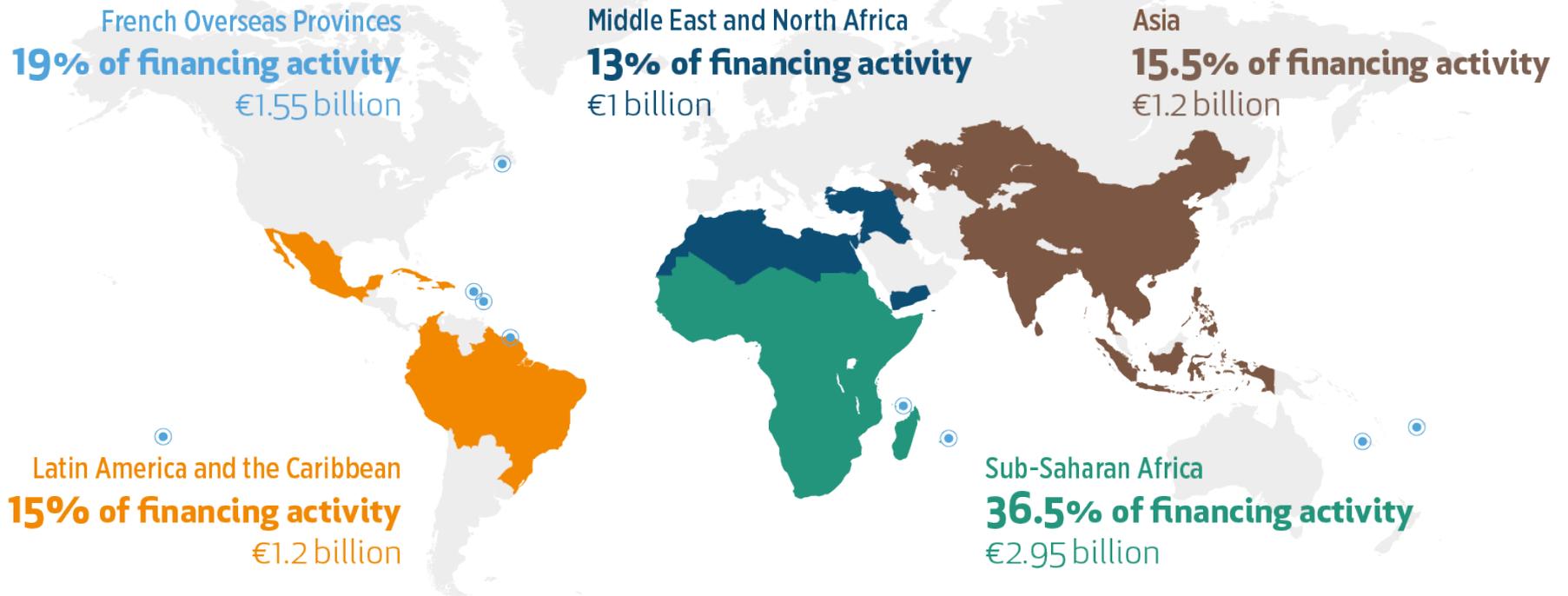
# AFD, the French Agency for Development

- A bilateral development bank
- A strong player in the global arena for international solidarity, poverty reduction and climate change
- A support to private sector when projects align with its social mandates (Proparco)



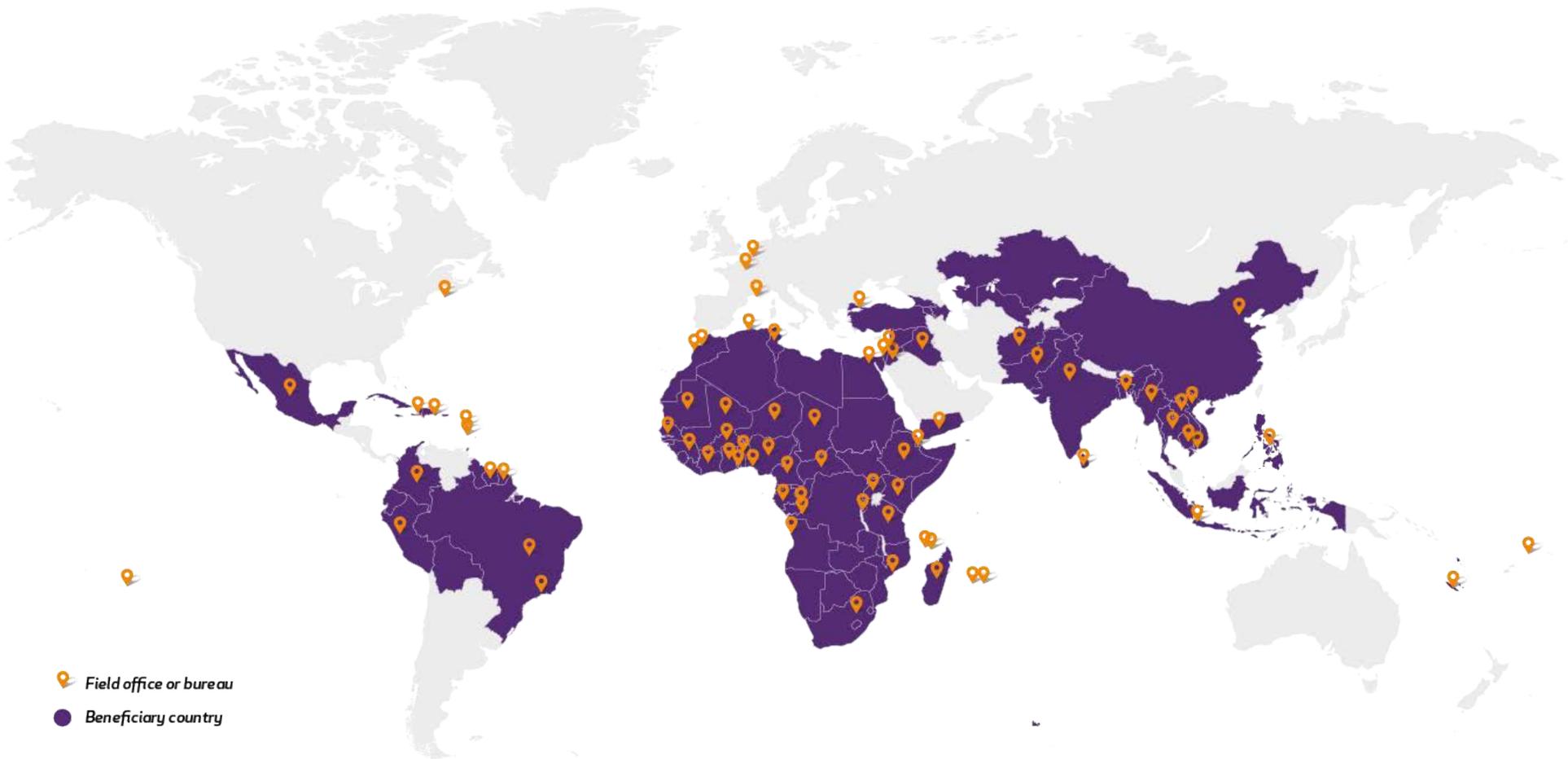
# AFD, the French Agency for Development

## WHERE DOES AFD FINANCE PROJECTS?



- 70 countries
- 8+ billion € commitment / year
- 1-1.5 billion € for Transport / year

# AFD offices



# AFD Transport strategy

## Economic growth



**Efficient transport**

**Vehicle for trade and for territorial and regional integration in the global economy**

## Poverty reduction



**Inclusive transport**

**Improve global mobility, open access to areas and support economic growth and poverty reduction**

## Global public goods protection



**Sustainable transport**

**Safe, improving energy efficiency, reducing carbon footprint and contributing to food security**

# AFD Transport portfolio 2010-2015

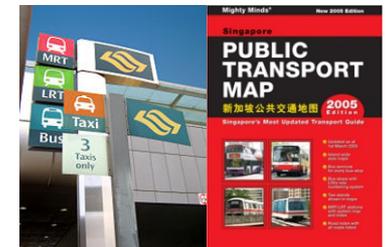
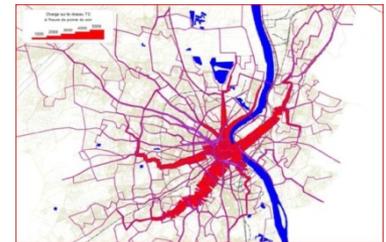
- 15 % of AFD yearly commitments, 1-1.5 bn EUR/year
  - (2014: 1,37 Bn € ; 2015 : 1,28 Bn €).
- Geographic breakdown (all modes) :
  - **Asia 16%**
  - Africa 39%
  - South America 25%
  - Mediterranean area 14%
  - French overseas territories 6%
- 48 % on rail
- 27% of non sovereign commitments
- 55% dedicated to urban transport
  - **2/3 of rail-based projects in the urban transport share**

# Modal approach: AFD is “mode-neutral”, financing all modes

Priority	Mode	Financing modality
	Urban transport	Sovereign and non sovereign loans
	Interurban rail	Sovereign and non sovereign loans
	Ports and airports	Non sovereign loans (except for river transport)
	Roads, rural roads	Sovereign loans with strong selective criteria

# Assistance and technical cooperation

- Supporting regional transport bodies
  - SSATP in Africa (regional/national transport policies)
- Technical cooperation on mobility and governance
  - Medellin (Colombia), Cap town (South Africa), São Paulo, Rio de Janeiro (Brazil), Kochi (India), Cairo (Egypt), Tunis (Tunisia), Sto Domingo (Dominican Republic)
- Peer to peer technical partnerships
  - Local governments and transport authorities (STIF, SYTRAL-Lyon, Lille Métropole.)
  - Public technical agencies (CEREMA, Codatu, ADEME)
- Training and technical master class
  - *Centre pour l'Intégration Méditerranéenne* (CMI) and CEFEB
  - Leaders in Urban Transport Planning (LUTP) with WB
- Research and think tank
  - Who pays what? An urban transport AFD-CODATU handbook
  - Best practices (Paratransit transport)



QUI PAIE QUOI  
EN MATIÈRE DE  
TRANSPORT  
URBAIN ?  
Guide de bonnes pratiques

Édition 2014

# Geographical approach: financing all scales

- International: ports and airports



- Regional integration / national level: esp. railways, aiming at economic development and modal shift for specific transport markets

- Cities: all solutions: metro (MRTs), tramways (LRTs), cables, road, river transport, traffic management, big data solutions

- National / local interactions:

*Shaping sustainable futures*



# MobiliseYourCity was launched during COP 21



## Objectives:

- At least **100 cities** commit to elaborate and implement a **Sustainable Urban Mobility Plan (SUMP)** before 2020
- Cities involved commit to 50 to 75% **reduction in urban transport-related GHG emissions** in 2050
- At least **20 developing or emerging countries** commit to elaborate and implement a **National Urban Transport Policy (NUTP)** that includes institutional strengthening and robust financing schemes to promote sustainable urban mobility



Avec le soutien de :



Shaping sustainable Contact: [mobiliseyourcity@codatu.org](mailto:mobiliseyourcity@codatu.org)

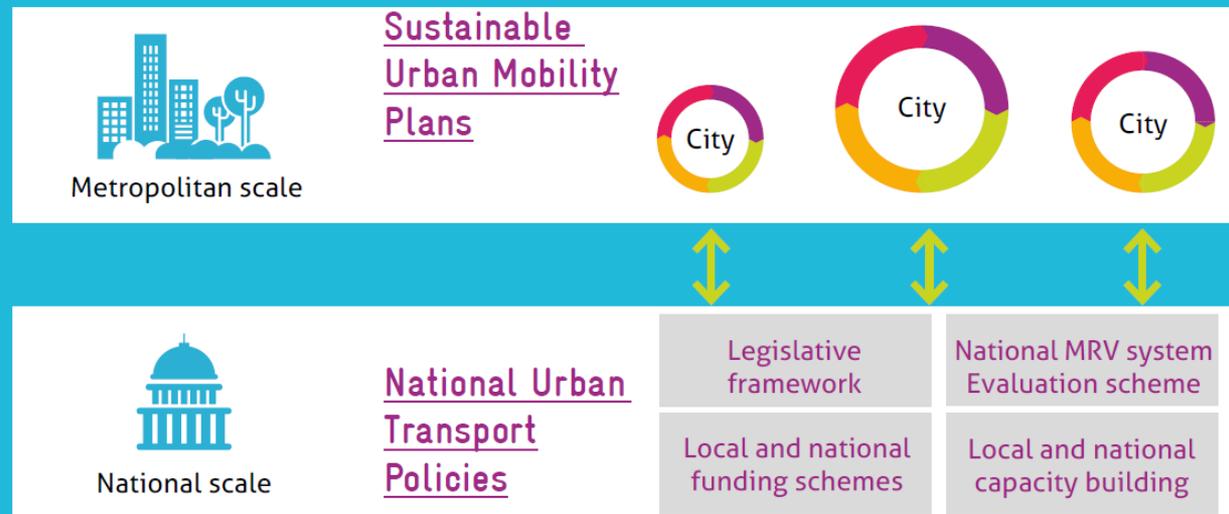
Follow us on Twitter: [@mobiliseCity](https://twitter.com/mobiliseCity) and [#mobiliseyourcity](https://twitter.com/mobiliseyourcity)

# Combining local and national approaches to Urban Transport

- **National actions** through National Urban Transport Policies (on norms, fuel subsidies, etc.)
- **Local actions** through SUMP (Sustainable Urban Mobility Plans)

## Mobilise Your City

- Financing SUMPs and NUTPs
- Methodological framework
- Technical assistance and capacity building
- Support to access financing
- International reference platform
- Foster city-to-city cooperation



# Implementation steps for the initiative



# Some financing elements

**Pilot phase (2016 - mid 2018)\*:** initial partners implement different sub-programs, AFD mobilizing grants

Budget	FFEM	UE-AIF (AFD)	CEREMA + ADEME	BMUB	TOTAL
<b>TOTAL</b>	<b>2000</b>	<b>3000</b>	<b>1500</b>	<b>3000</b>	<b>9 500</b>
Pilot countries	Morocco Tunisia Senegal Ivory Coast	India	Technical assistance	To be defined during first semester 2016	

**Scaling up phase (2018-2020):** creation of a trust fund to channel and administrate funding for the initiative



# Pilot cities and countries (as of end 2015)



Shaping sustainable futures

Pilot Countries

Showed interest



# Scaling up the MYC initiative in Asia from India pilot (3 cities)?: Tentative Prospects in South Est Asia?

## GMS countries

- Vietnam : Hanoi, Ho Chi Minh, Da Nang
- Cambodia: Phnom Penh
- Thailand: Bangkok
- Myanmar: Yangon
- Lao PDR
- PRC

## Non-GMS countries

- Indonesia: Djakarta, Bandung, Surabaya, Palembang
- Philippines: Cebu, Davao
- Bangladesh: Dhaka, Chittagong
- Sri Lanka: Colombo, Candy, Galle
- Pakistan: Islamabad, Rawalpindi, Karachi, Faisalabad, Lahore

# Conclusion: Scales - AFD recent Transport projects in GMS - Lessons learned - Perspectives in GMS

## Scales

- corridors link the region, countries, ...ports and cities
- developing corridors also means addressing transport in cities; interurban and urban transport are related issues
  - *Ex. Yangon, Myanmar*
- **support for integrating urban transport in next GMS Transport Strategy**

# Conclusion: Scales - AFD recent Transport projects in GMS - Lessons learned - Perspectives in GMS

## Past/recent projects

- long time ago, AFD financing the first studies for the rail link between **Thailand and Lao PDR**
- 2006-2011, 3 railway projects in **PRC**, combining infrastructure and energy efficiency issues
- 2014, study on Improvements for passenger rail transport in **Thailand** (other components on rail by ADB and JICA)
- Rehabilitation of a GMS **rail link northern VietNam** towards chinese Border, HaNoi Lao-Cai (part of SKRL)  
ADB/AFD cofinancing, completed 2015
- Urban transport projects, such as **VietNam HaNoi metro** (with ADB and EIB)
- Beyond GMS: large transport projects in **India (Bangalore, Kochi MRTs)**, **Bangladesh (BRT)**, **the Philippines** (Cebu and Manila urban transport projects)

# Conclusion: Scales - AFD recent Transport projects in GMS - Lessons learned - Perspectives in GMS

## Past/recent projects: GMS rail rehabilitation in VietNam

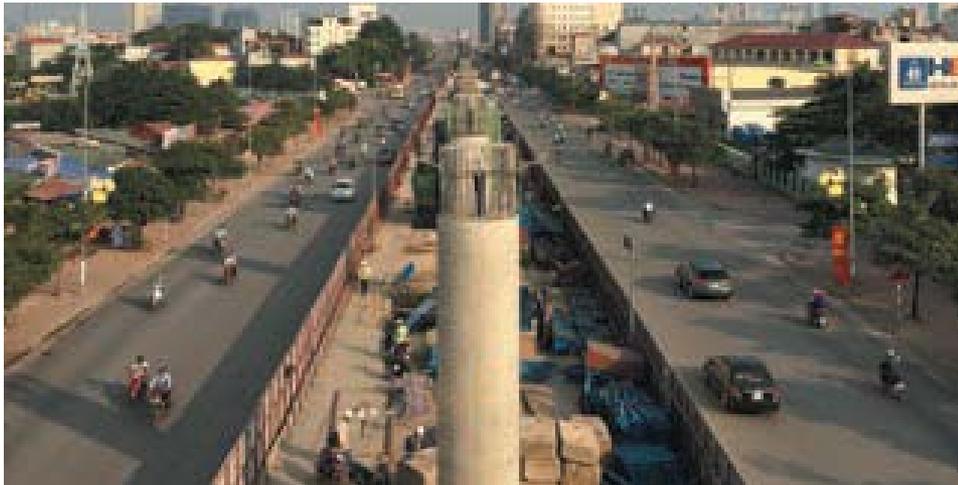
- 160 MUSD, AFD 32 MUSD



# Conclusion: Scales - AFD recent Transport projects in GMS - Lessons learned - Perspectives in GMS

## Past/recent projects: HaNoi Metro (ongoing)

- 1176 MEUR, AFD 179 MEUR



# Conclusion: Scales - AFD recent Transport projects in GMS - Lessons learned - Perspectives in GMS

## ■ Past/recent projects: Metros (MRTs) in India (ongoing)

- Bangalore, 8M inhab., 2 lines, 42 kms

- Kochi, 2M inhab., 25 km, compl. end 2016-2017
- 760 MEUR, AFD 180 MEUR



# Conclusion: Scales - AFD recent Transport projects in GMS - **Lessons learned** - Perspectives in GMS

## ■ Lessons learned

- when across two countries, both physical and “soft” (institutional) issues to be dealt for the border crossing
- importance of transport infrastructure and service: trade/economic and social benefits gained, safety, energy efficiency and climate change, maintenance, financial sustainability, institutional arrangements,...Infrastructure alone does not bring growth.
- economic viability assessment for prioritizing and improving the projects is key: financial partners are lending money to...ministries of Finance of the countries to be convinced by ministries of Transport
- considering all scales: corridors are links between freight (ports) and passengers nodes (cities), to be addressed

# Conclusion: Scales - AFD recent Transport projects in GMS - Lessons learned - **Perspectives in GMS**

## ■ AFD Perspectives in GMS and broader Asia

- AFD ready for considering:
  - *railway projects, for freight and passengers*
  - *“green ports” investments*
  - *river transport projects*
  
  - *urban transport projects and partnerships*
  
  - *sovereign and non sovereign loans*
  
  - *continuing cofinancing projects with development partners*



**Thank you for your attention**

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*développeur d'avenirs durables*

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Quality infrastructure and JICA's support for the partnership

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**PART 1**

**ADB and JICA's Partnership for  
Quality Infrastructure  
(December 2015)**

## 0-1. Background: Quality Infrastructure

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### Quality Infrastructure

The Asian region needs a huge amount of infrastructure development to continue to be a growth center. According to ADB's study, about 8.2 trillion US \$ is needed for infrastructure development in Asia from 2010 to 2020.

To achieve inclusive, sustainable, and resilient “**quality growth**,” it is necessary to promote “**quality infrastructure investment**” for bridging the infrastructure gap, which has become a bottleneck against global economic growth. The importance of quality infrastructure investment has been confirmed in recent years by the G20, APEC, the 2030 agenda for sustainable development, etc.

1) Annex to the [Beijing APEC Declaration](#) in November 2014 “APEC Connectivity Blueprint”

“We will develop, maintain and renew quality infrastructure,[...]”

2) [G20 Leaders' communiqué Brisbane Summit](#), in November 2014

“We endorse the Global Infrastructure Initiative, a multi-year work programme to lift quality public and private infrastructure investment.”

### Sustainable Development Goals (SDGs)

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

## 0-3. Partnership for Quality Infrastructure (1)

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### Partnership for Quality Infrastructure : Investment for Asia's future

On 21 May 2015, Japanese Government announced "Partnership for Quality Infrastructure"

Japan promotes "quality infrastructure investment" through "Partnership for Quality Infrastructure: Investment for Asia's Future," which consists of four pillars, in collaboration with other countries and international organizations.

To that end, Japan, in collaboration with the strengthened Asian Development Bank (ADB), will provide approximately USD 110 billion (about a 30% increase) for "quality infrastructure investment" in Asia over the next five years.

This initiative will play a catalytic role in further mobilizing financial resources and know-how from the private sector across the globe to Asia, a region full of potential, in such a way that promotes infrastructure investment that the region needs, both in terms of quantity and quality.

## 0-4. Partnership for Quality Infrastructure (2)

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### Elements of “Quality Infrastructure Investment”

- (i) “Quality infrastructure” may first appear costly; however, since it is easy to use and durable, as well as environmentally friendly and disaster resilient, “quality infrastructure” is indeed cost-effective in the long run.
- (ii) “Quality infrastructure” also contributes to enhancing connectivity among Asian countries, creating jobs for local people, increasing local skills and improving people’s lives.
- (iii) Japan has been a long-standing partner for Asian countries to invest in “quality infrastructure” based on each country’s development plan.

# 1. Quality-Infrastructure's Requirements

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ADB and JICA's Partnership for Quality Infrastructure (December 2015)

Areas and Modalities for Operational Cooperation

Targeted projects and/or investments:

Projects and/or investments, objectives or designs which satisfy at least one of the following **quality-infrastructure requirements** to promote **sustainable**, **resilient** and **inclusive** development, including addressing **climate change**:

- (1) **Resilience** against natural disasters (systems taking into account durability, backups, and prompt recovery);
- (2) Reduction in environmental burdens and social costs (**Sustainability**) ;
- (3) **Economic efficiency** (low life-cycle cost, durability, and strong operation and maintenance capacities);
- (4) Ensuring **safety** in use and operation; and
- (5) **Development of local human resources** (including transfer of related skills).

## 2. Railway: Delhi Mass Rapid Transport System Project (India) (1)

### [Background]

Sharp increase in the population of the urban area in Delhi

9.42 million in 1991 → 16.75 million in 2011

Deterioration of environment and traffic congestion due to the increased number of automobiles

Number of registered vehicles in Delhi:

1.83 million in 1990 □ 6.93 million in 2011



### [Project summary]

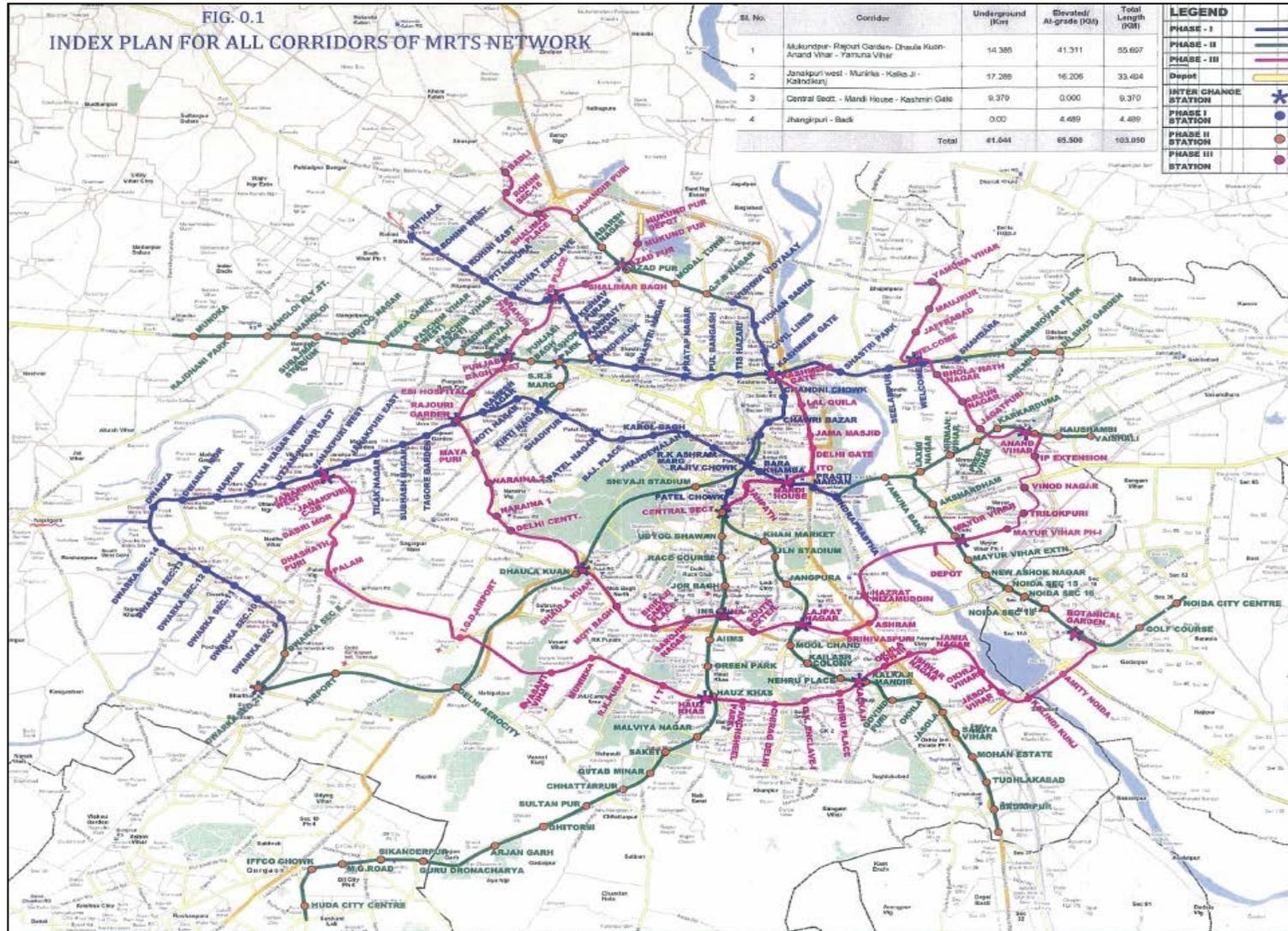
The project consists of the construction of a rapid transport system and the procurement of vehicles. Phase 1 (65 km) from October 1998 to November 2006. Phase 2 (125 km) from April 2006 to August 2011. Phase 3 (116 km) from June 2011 to October 2020. (Phase 1-3 Total: 306 km)

ODA Yen Loan Amount: 5.7 Billion US\$ (Phase 1-3)

### [Result]

On average, about 2.5 million people use the metro every day (cf. 3 million people use underground railways per day in London). The metro system has contributed to reducing the number of vehicles by 120,000 in Delhi.

# 3. Railway: Delhi Mass Rapid Transport System Project (India) (2)



## 4. Railway: Delhi Mass Rapid Transport System Project (India) (3)

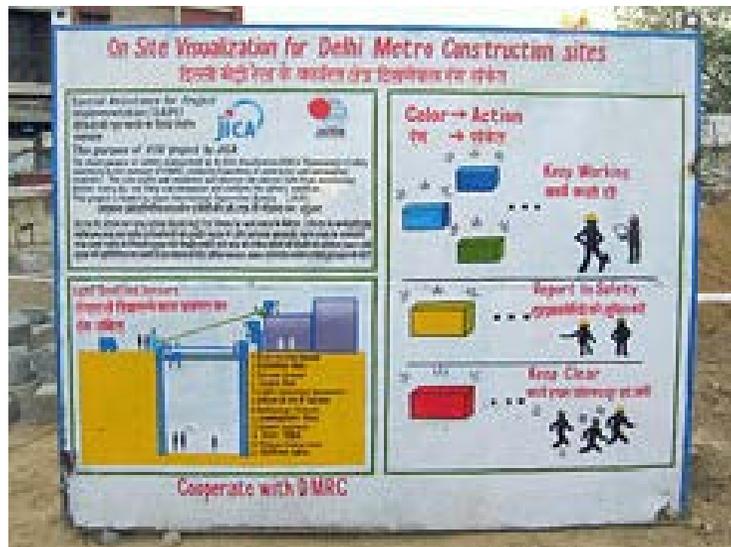
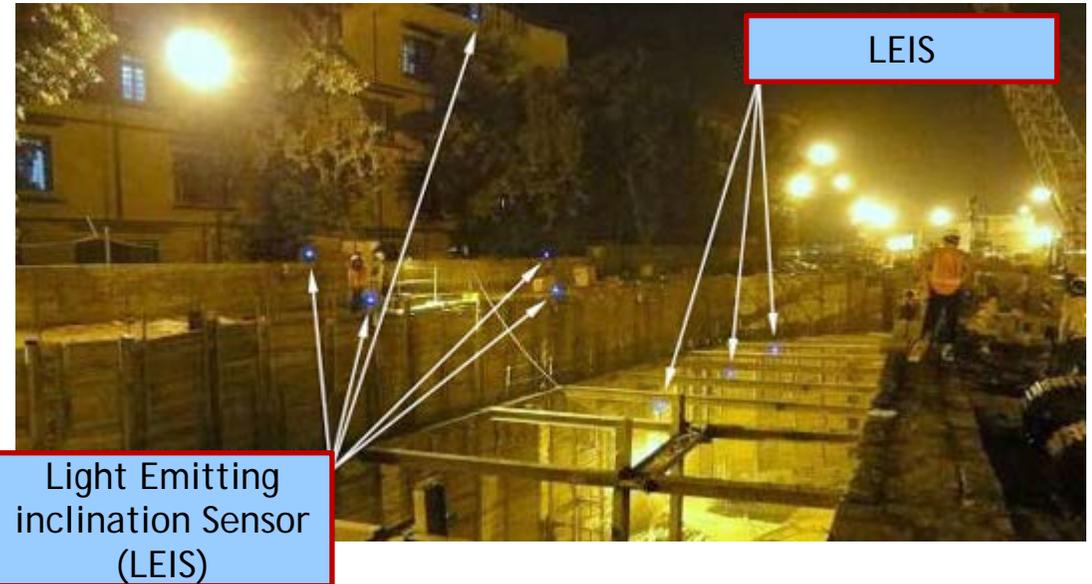
### [Quality Infrastructure's requirements]

(2) Sustainability	“Regenerative brake system”, introduced to metro as Japanese company’s energy-efficient technology, is expected to reduce CO2 emission by 22 million tons (total reduction between 2002 and 2032). The Project was registered by the United Nations as the world’s first Clean Development Mechanism (CDM) project in the railway sector.
(3) Economic Efficiency	
(4) Safety	Safety measures are tightened by introducing “On Site Visualization (OSV)” developed by Kobe University (which indicates the danger of collapse by color of light when the ground or a structure gets displaced).
(5) Development of local human resources	To improve the capacities regarding safe operation and vehicle maintenance, technical cooperation is provided to the Delhi Metro Rail Corporation with the cooperation of Tokyo Metro Co., Ltd. and Metro Sharyo Co., Ltd., both of which run Tokyo Metro trains.

## 5. Railway: Delhi Mass Rapid Transport System Project (India) (4)

### On Site Visualization (OSV)

OSV indicates the danger of collapse by color of light when the ground or a structure gets displaced.



### Explanation board at the construction sites

An easy-to-follow response to each light color was displayed on a board and shown to workers.

## 6. **Railway**: Mass Transit System Project in Bangkok “Purple Line” (Thailand) (1)

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### [Background]

Increasing demand for transport in **Bangkok**, traffic congestion, air pollution, etc.

### [Project summary]

○ Project for the development of **an urban railway** (elevated railway) (**23 km** in total; scheduled to open in December 2016)

ODA Yen Loan Amount: **1 Billion US\$**

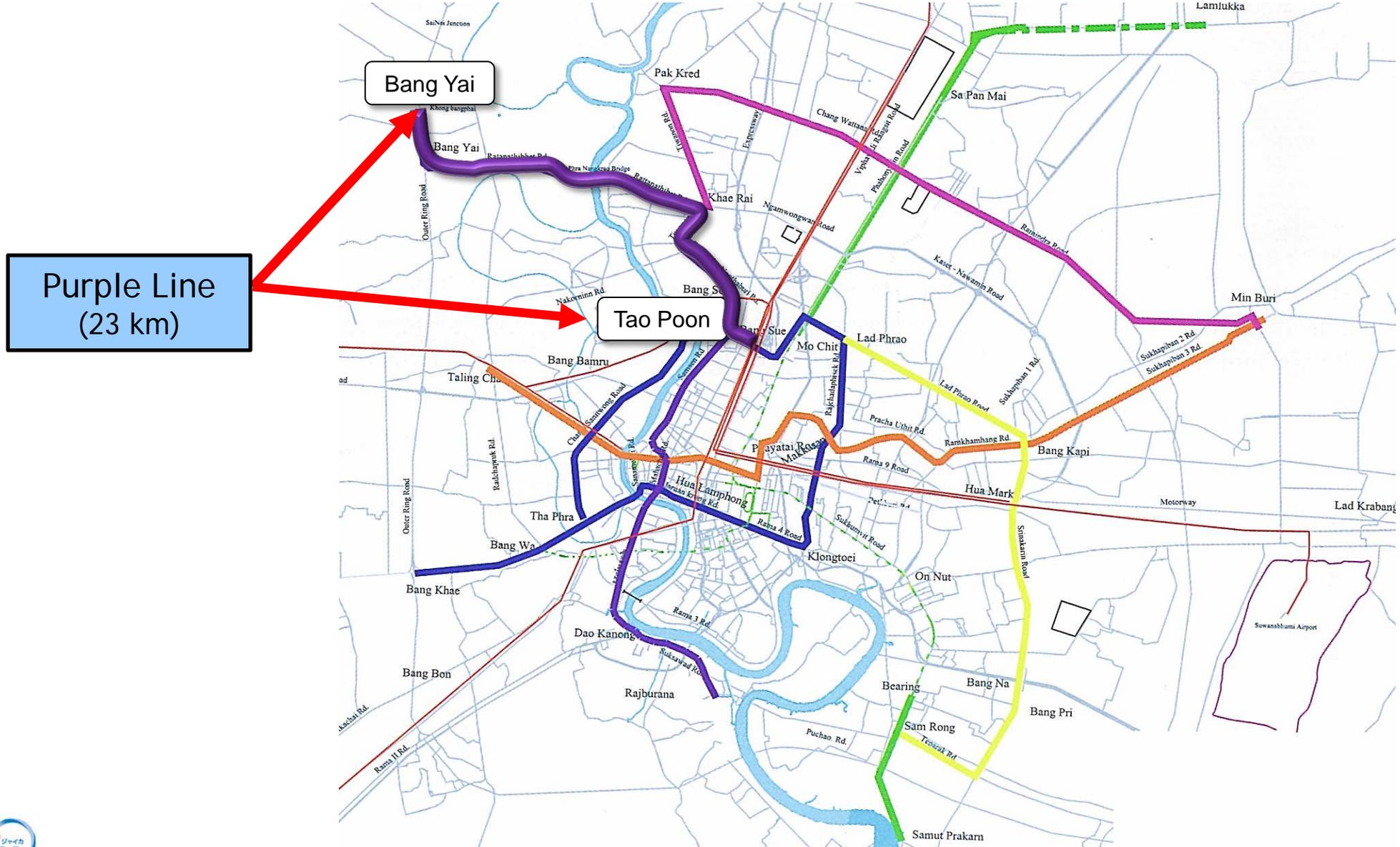
○ In November 2013, a consortium of Japanese companies received orders for **the provision and maintenance of railway system** (such as **train cars and signals**).

○ Japanese railway companies received an order for the maintenance of overseas train cars for the first time.

○ Japanese train cars were introduced for the first time in urban railway projects in Bangkok.



# 7. Railway: Mass Transit System Project in Bangkok “Purple Line” (Thailand) (2)



## 8. Railway: Mass Transit System Project in Bangkok “Purple Line” (Thailand) (3)

---

### [Quality Infrastructure’s requirements]

<p>(3) Economic Efficiency</p>	<p>Japanese companies concluded a 10-year maintenance contract in addition to the provision of a railway system. The life-cycle cost of the railway system will be reduced through appropriate maintenance and management.</p>
<p>(4) Safety</p>	<p>Defects in train cars are prevented by continuing appropriate maintenance. This enabled passengers to travel safely and stably.</p>
<p>(5) Development of local human resources</p>	<p>Japanese companies established a new company for the maintenance service. By dispatching technical experts, it became possible to train local employees and to transfer maintenance skills gradually.</p>

## 9. Airport: New Bohol Airport Construction and Sustainable Environment Protection Project (Philippines) (1)

---

### [Background]

**Sharp increase in the number of passengers in the existing airport**

39,268 in 2001 → 572,476 in 2010

**Expected increase in the number of tourists to Bohol, a province with rich sightseeing resources**

About 0.5 million in 2010 → about 1.4 million in 2020

### [Project summary]

The project is to construct a new airport to meet the increasing demand for air traffic to the Province of [Bohol](#), which has attractive sightseeing resources (such as diving spots), as well as to replace the existing airport which is un-extendable due to the limited land availability.

The project features the “[Eco-Airport](#)” concept that uses [Japanese technology](#) and is supplemented by the implementation of [a technical cooperation project](#) that curbs impacts to the natural environment from an increase in the number of tourists as a result of the opening of the new airport. The project applies STEP (Japanese-tied loan condition). The Project will be completed in 2018.

ODA Yen Loan Amount: [90 Million US\\$](#)

# 10. **Airport:** New Bohol Airport Construction and Sustainable Environment Protection Project (Philippines) (3)

## (1) **Compatibility: Modern Infrastructure and Sustainable Tourism**

White sand beach and Tropical resort in Bohol Island



Image of New Bohol Airport



## 11. Airport: New Bohol Airport Construction and Sustainable Environment Protection Project (Philippines) (2)

---

### [Quality Infrastructure's requirements]

#### (2) Sustainability

Under the “Eco-Airport concept,” the airport is constructed with consideration for the environment by the use of Japan’s excellent technologies, such as (i) solar power systems, (ii) energy-efficiency air conditioners, (iii) LED lights, and (iv) a filtering system to avoid polluting the surrounding environment by drainage during construction.

The opening of the new airport will result in an increase in the number of tourists. In order to mitigate negative impacts on the natural environment, a technical cooperation project is implemented, consisting of (i) support of tourism development compatible with environmental protection; and (ii) support in strengthening and monitoring of the drainage facilities of hotels and others.

## 12. **Airport:** New Bohol Airport Construction and Sustainable Environment Protection Project (Philippines) (4)

### (2) Introduction of Eco-Friendly Technology

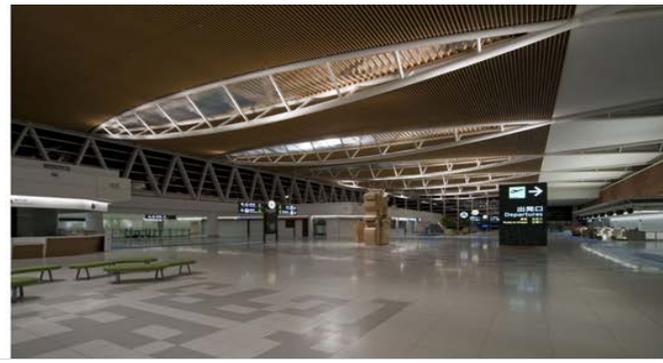
#### Avoiding pollution:

A filtering system to avoid polluting the surrounding environment by drainage



#### Reducing CO2:

Application of green technology (Solar photovoltaics, energy-efficiency air conditioners, and LED light) leading to reduction in carbon emissions



## 13. Bridge: Nhat Tan Bridge Construction Project in Viet Nam (1)

### [Background]

#### **Deterioration of traffic conditions**

Deterioration of traffic conditions due to rapid increasing of automobiles as a result of population growth in the central part and suburbs of the metropolitan area.

### [Project summary]

To meet increasing traffic demand, a bridge (3 km long; 8 lanes) over the Song Hong River, which runs across Hanoi City, and approach roads (north and south roads of 6 km in total) were constructed under the STEP (Japan-tied loan conditions). The bridge opened in January 2015.

ODA Yen Loan Amount: 450 Million US\$

### [Result]

Efficiency improvement of distribution, mitigation of traffic congestion (required time between Noi-bai airport and Hanoi City was reduced by about 20 min) Promotion of economic development and improvement of international competitiveness in Hanoi City and the northern part of Vietnam.



## 14. Bridge: Nhat Tan Bridge Construction Project in Viet Nam (2)

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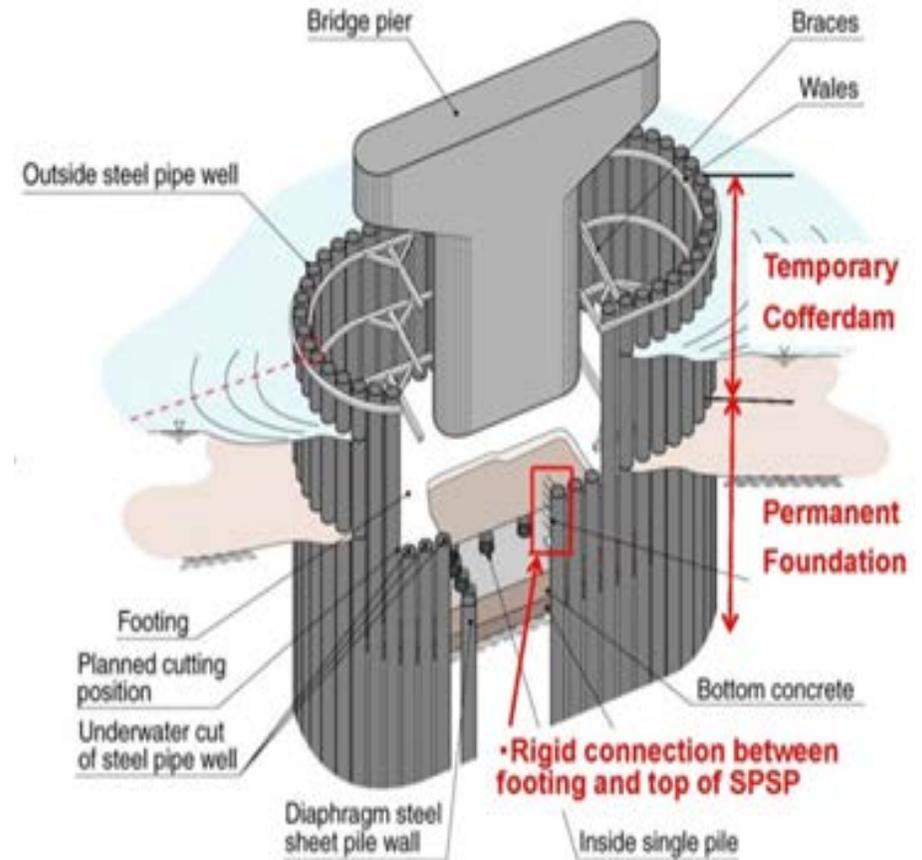
### [Quality Infrastructure's requirements]

<p>(3) Economic Efficiency</p>	<p>“Steel Pipe Sheet Pile Wall structure (SPSP)” (soft-ground construction method) reduce the size of the bridge foundation and contribute to cost reduction.</p>
<p>(4) Safety</p>	<p>The above-mentioned SPSP was used in Vietnam for the first time. As a result of the application for this project, the method was adopted as the country's bridge design standard, contributing to safe construction of bridges.</p>
<p>(5) Development of local human resources</p>	<p>Japanese skilled engineers transfer skills to Vietnamese engineers. Bridge parts and materials are manufactured local subsidiary of a Japanese company (many of whose employees are Vietnamese).</p>

## 15. Bridge: Nhat Tan Bridge Construction Project in Viet Nam (3)

### Steel pipe sheet pile's features

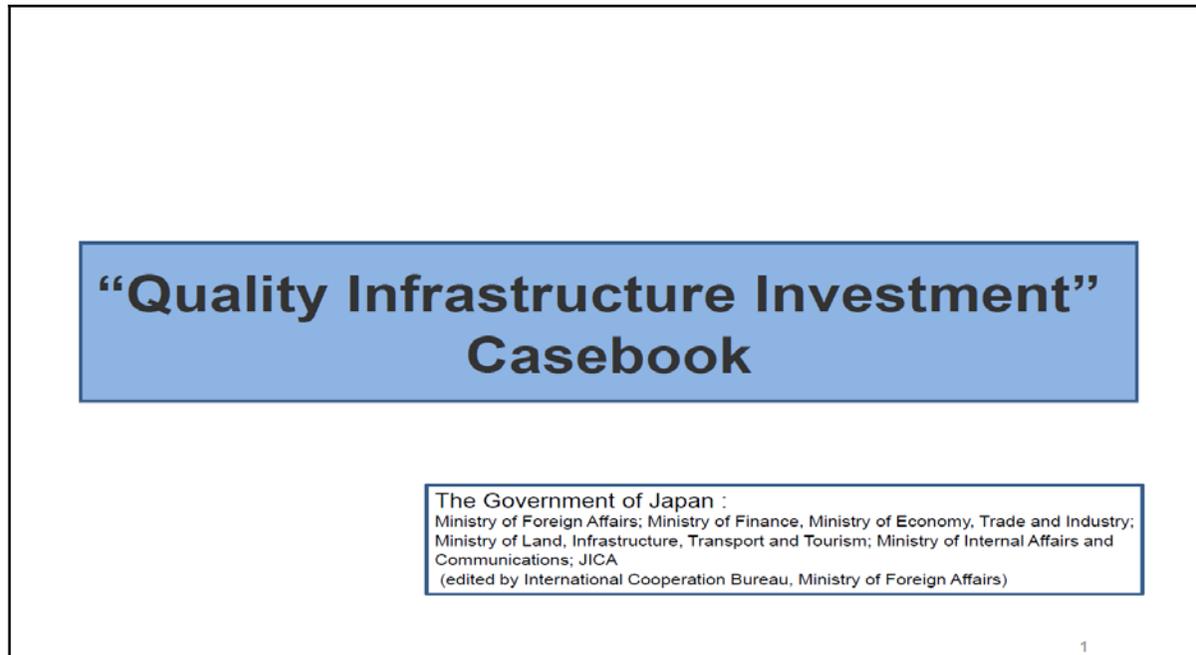
- Soft-ground construction method
- Greater bending rigidity and vertical bearing capacity than with normal pile foundations
- Reducing the size of foundations and cost



(by Courtesy of Sumitomo Mitsui Construction Co. Ltd)

# “Quality Infrastructure Investment” Casebook

Railway, Road, Bridge, Airport, Port, Energy, Traffic, Disaster Management Sectors



<http://www.mofa.go.jp/mofaj/gaiko/oda/files/000095681.pdf>

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# **PART 2-1: JICA's support for the Partnership**

## 17. JICA's PPTA and technical assistance

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ADB and JICA's Partnership for Quality Infrastructure (December 2015)

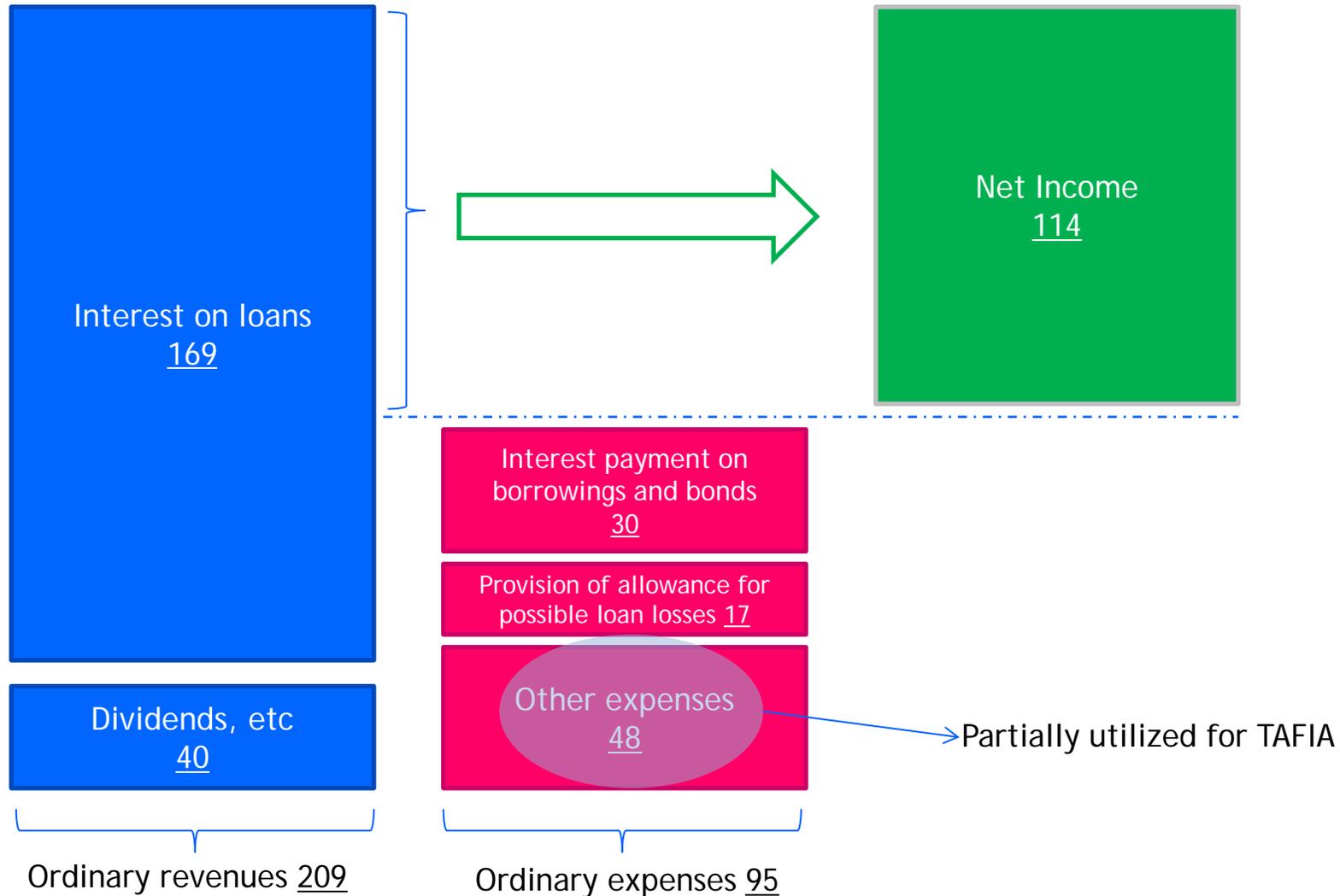
Partnership Arrangements for Sovereign Operation

- (a) The parties will make every effort to **allocate with high priorities technical assistance resources** (e.g. Technical Assistance financed under JICA's Finance and Investment Account (TAFIA), and ADB's JFPR);
- (b) JICA will conduct comprehensive **project preparation technical assistance** (e.g. **M/P, F/S and D/D**) and **technical cooperation projects**, covering even ADB financing components when deemed appropriate;
- (c) The parties will, jointly or in close coordination with each other, conduct **soft-component supports** including, but not limited to, **policy advisory, policy and institutional reform, Implementation arrangement, and capacity development**.

# 18. Finance and Investment Account

## Statement of Income (FY 2014)

( in billion JPY)



# 19. Technical Assistance under Finance and Investment Account

---

Technical Assistance under Finance and Investment Account (TAFIA)

✓Introduced in FY 2008, reflecting synergy effect by the merger

✓Utilized only for the purpose of expediting, and developing further effect of the ODA Loan/PSIF project. (clear demarcation from T/A in general account)

✓Applicable scheme:

**1) Feasibility Study / Supplementary Study**

**2) Detail Design**

**3) Data Collection Survey**

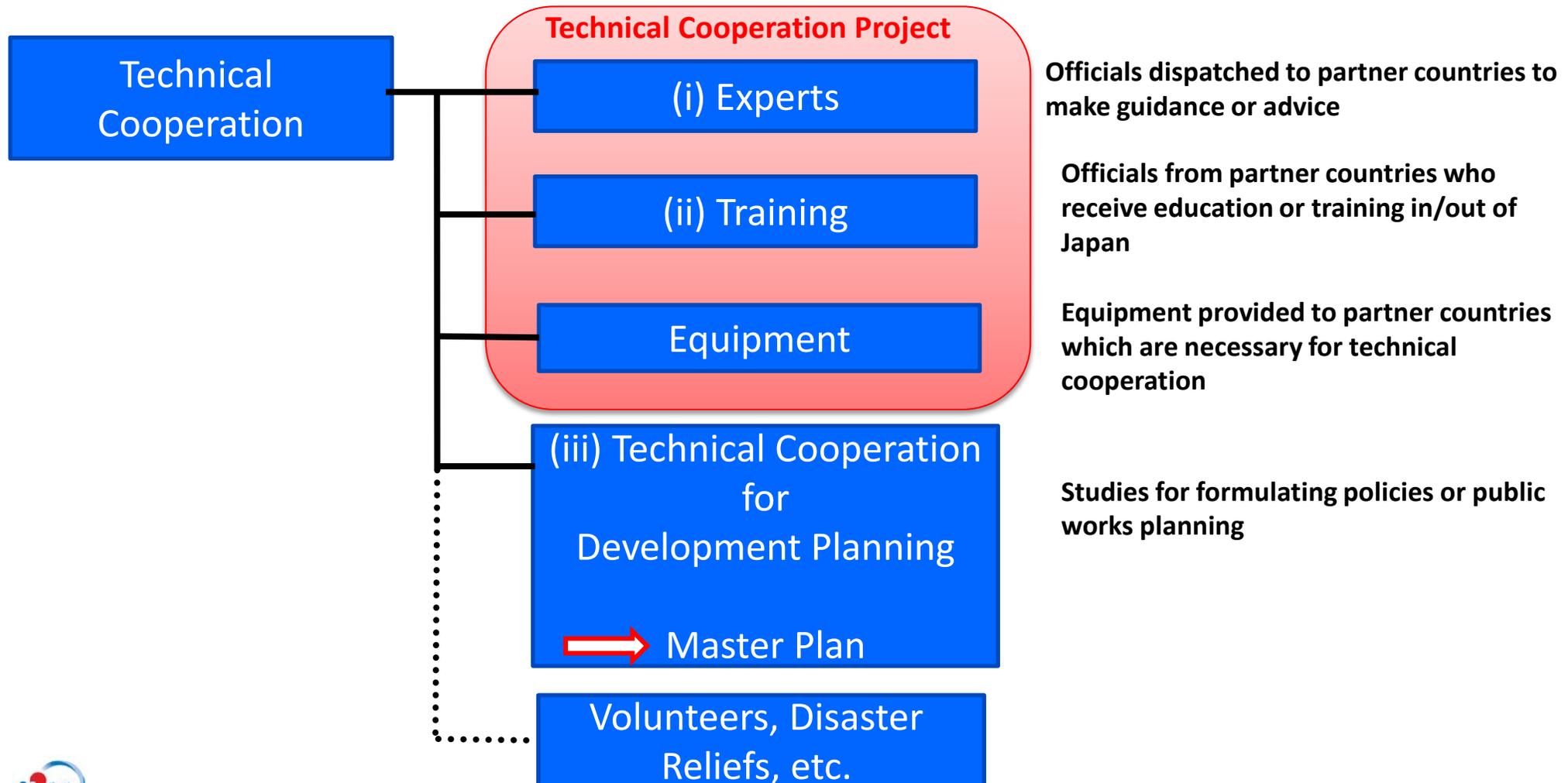
**4) Technical Cooperation Project**

**5) Dispatch Expert**

**6) Training Program**

# 20. Technical Cooperation (1)

## Types of Technical Cooperation



## 21. Technical Cooperation (2)

### Dispatch of Expert

Contributing to developing human resources and building institutional capacities by dispatching personnel with technical expertise, know-how and experiences to developing country and working together with their counterparts.



2011.08.20

## 22. Technical Cooperation (3)

### Budget for Technical Cooperation (General Account)

Technical Cooperation	2010	2011	2012
Training	207.13	201.25	170.23
Expert	242.07	646.78	567.61
Study Mission	104.90	402.68	367.14
Volunteers	170.95	137.77	117.15
Equipment	42.20	87.61	53.37
Others	920.43	413.40	402.96
Total	1,687.67	1,889.49	1,678.45

(100mill JPY)

(Outline of JICA' Operations (TC) in FY 2012)

- ✓ Number of Trainees: 26,911
- ✓ Number of Experts: 10,880
- ✓ Number of Study Mission Members : 9,476
- ✓ Number of Volunteers: 4,096

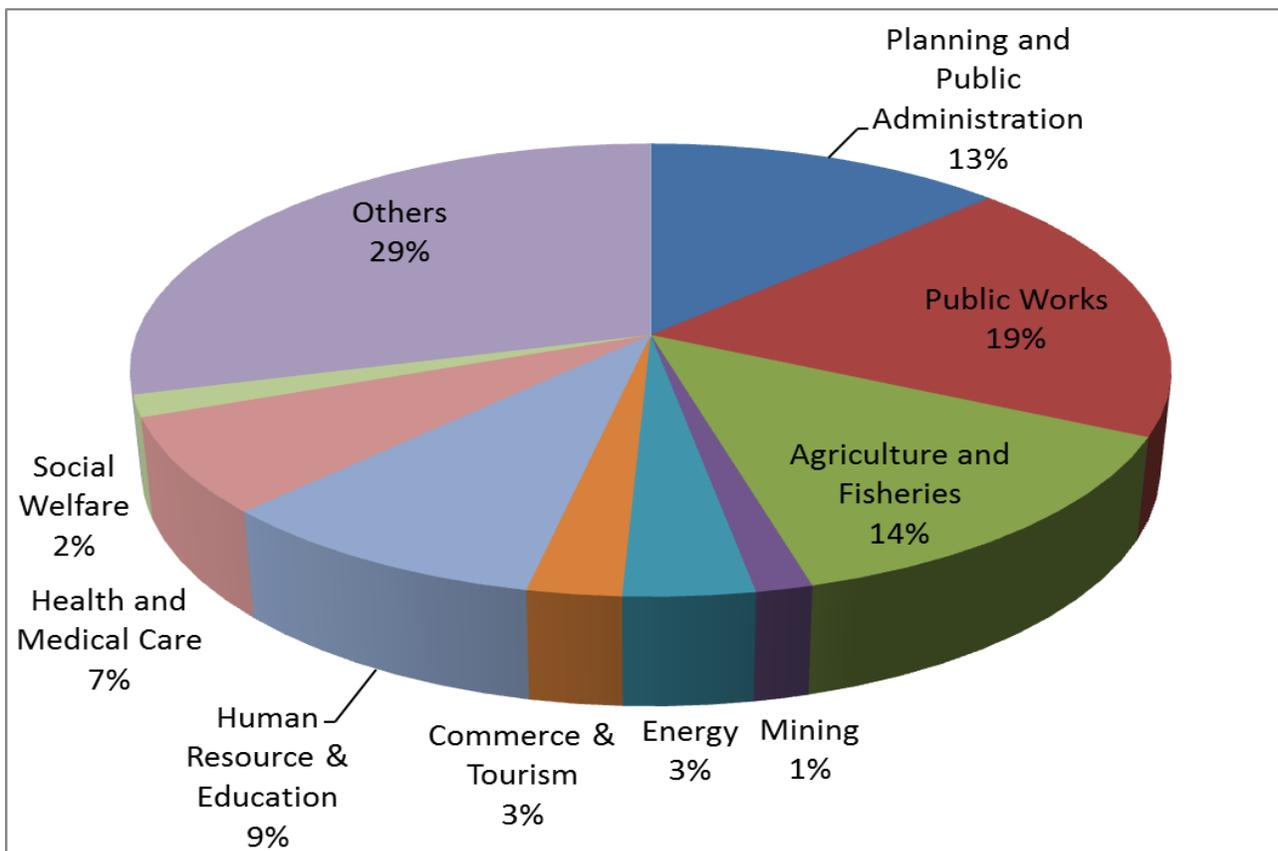
## 23. Technical Cooperation (4)

### Budget for Technical Cooperation by Sectors

(100mill JPY)

Sector	Amount
Planning and Public Administration	217.88
Public Works	321.02
Agriculture and Fisheries	228.13
Mining	25.63
Energy	59.14
Commerce & Tourism	42.56
Human Resource & Education	152.95
Health and Medical Care	115.00
Social Welfare	26.36
Others	489.78
<b>Total</b>	<b>1,678.45</b>

Data Source: JICA



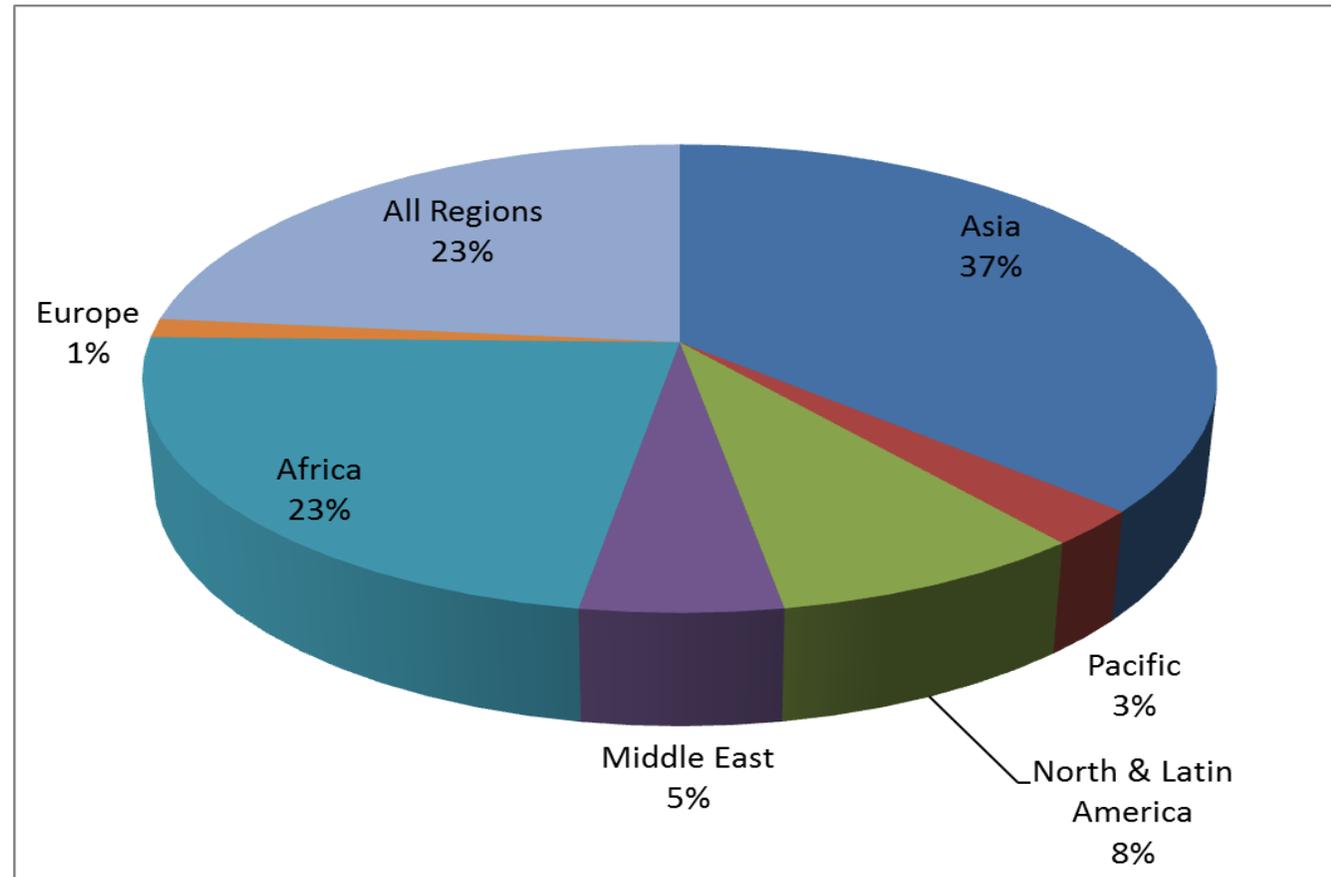
## 24. Technical Cooperation (5)

### Budget for Technical Cooperation by Regions (FY2012)

(100mill JPY)

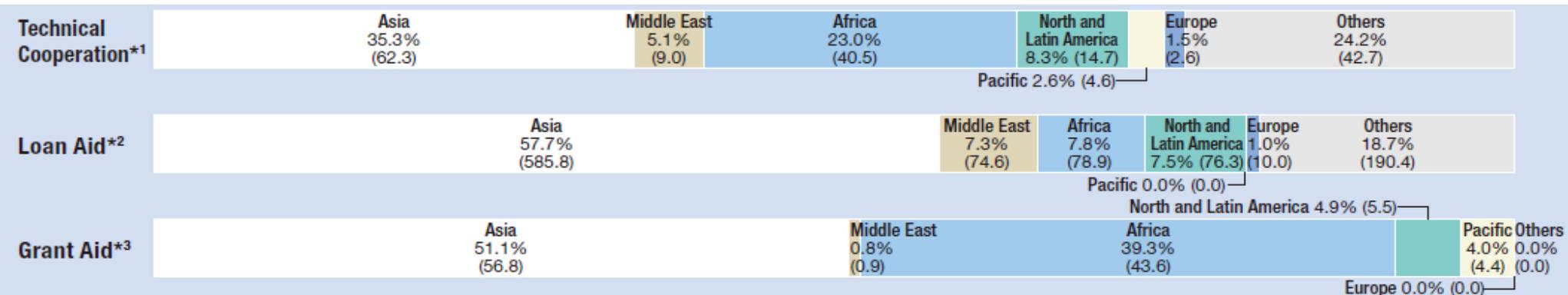
Region	Amount
Asia	613.22
Pacific	42.03
North & Latin America	138.40
Middle East	88.08
Africa	381.96
Europe	21.59
All Regions	391.63
International Organizations	1.55
Total	1,678.45

Data Source: JICA



## 25. JICA's operation

### (1) Distribution by region (FY2014)

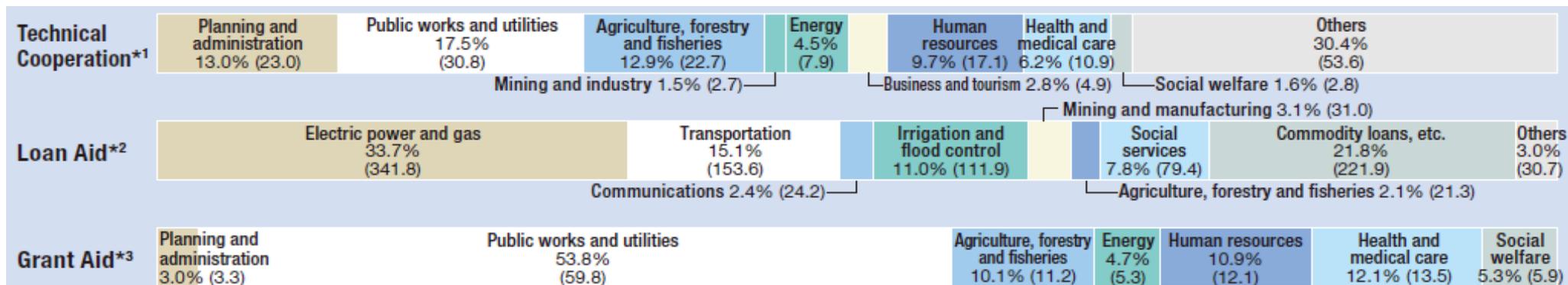


\*1 Expenses that include expenses required for dispatching volunteers and Japan Disaster Relief Team.

\*2 Total Commitment Amounts of ODA Loan and Private-Sector Investment Finance.

\*3 Amount of concluded Grant Agreements. However, for projects running over several fiscal years, the maximum amount allowed for each fiscal year is counted for that fiscal year.

### (2) Distribution by sector (FY2014)



\*1 Expenses that include expenses required for dispatching volunteers and Japan Disaster Relief Team.

\*2 Total Commitment Amounts of ODA Loan and Private-Sector Investment Finance.

\*3 Amount of concluded Grant Agreements. However, for projects running over several fiscal years, the maximum amount allowed for each fiscal year is counted for that fiscal year.

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## **PART 2 -2**

# **JICA's Technical Cooperation Projects**

## 26. Project for Capacity Enhancement in Road Maintenance in Viet Nam (1)

- Background

- JICA conducted a technical assistance project on capacity enhancement in road maintenance (Phase I Project), from July 2011 to March 2014 in Directorate for Roads of Viet Nam (DRVN) with Road Maintenance Bureau (RMB) I (as a pilot area, aiming to improve management capacity of PDCA (Plan-Do-Check-Act) cycle for road maintenance including road information management system, pavement maintenance budget planning, road facility inspection and repair technology, road maintenance administrative procedure and intuition and training programs. In order to upgrade output of Phase I Project to make them applicable to nationwide national road network, support legalization of outputs as DRVN institution, and implement some pilot repair works on new road maintenance technology, JICA and DRVN is now implementing a technical cooperation for “the Project for Capacity Enhancement in Road Maintenance Phase II”

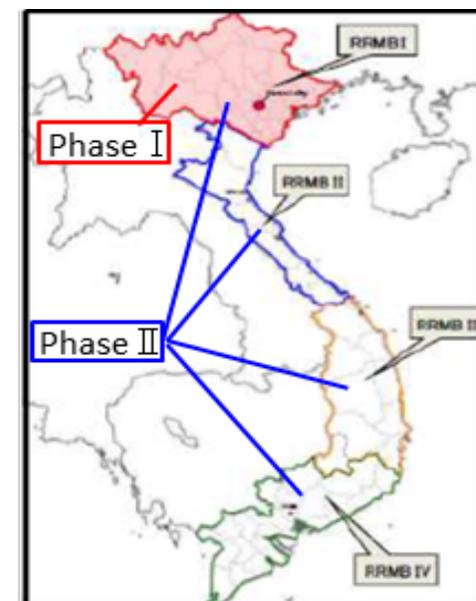
- Term of Project: Phase I July, 2011 ~ Phase II Feb, 2015 ~

- Project Purpose

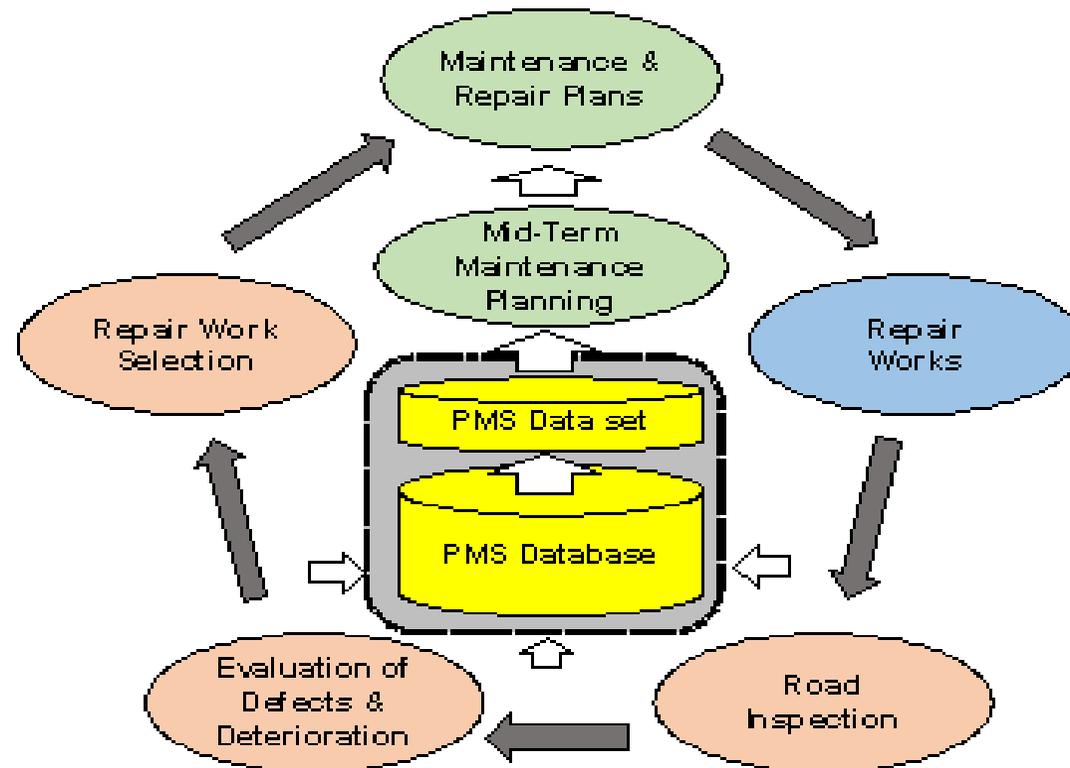
- Implementation Capacity for Road Maintenance is Strengthened in Viet Nam

- Outputs

- PMS Data Development Technology is improved
- PMS is upgraded and applied to the planning of trial pavement repair work plans
- Technical Specification for Inspecting Road Facility and Selecting Repair Work are developed
- Responsibility Assignment and Administration procedure are Clarified for Road Maintenance

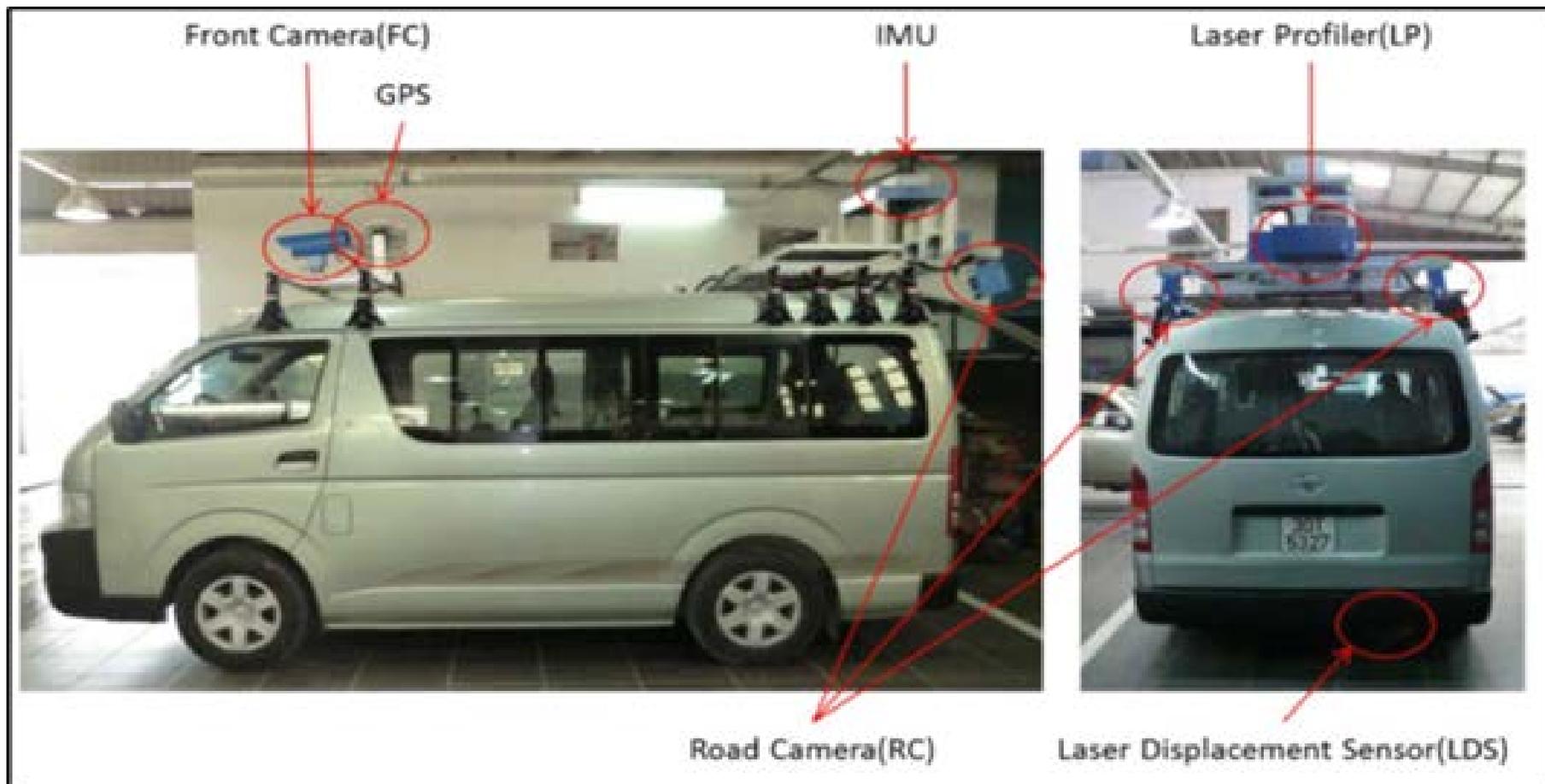


## 27. Project for Capacity Enhancement in Road Maintenance in Viet Nam (2)



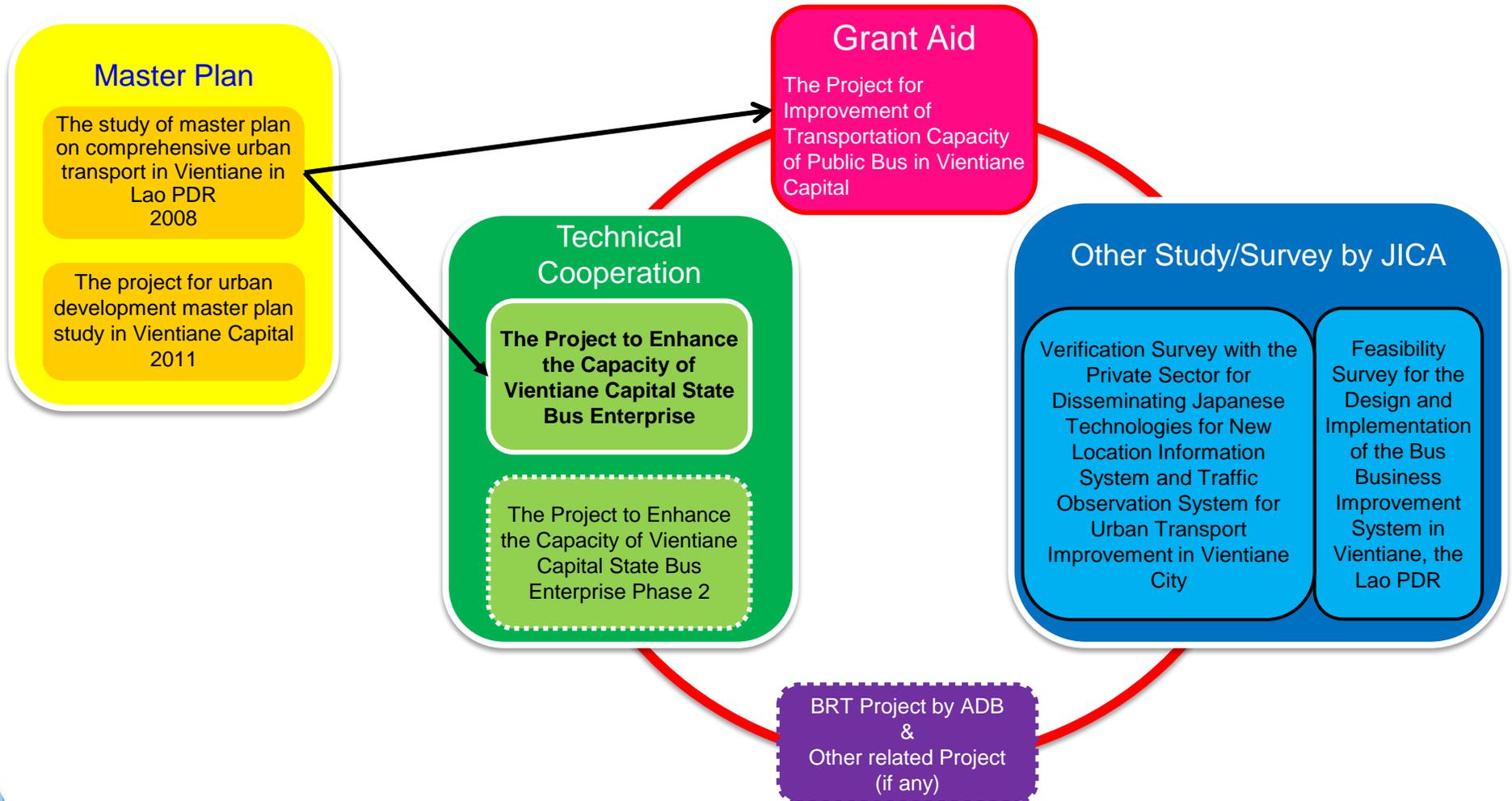
PDCA Cycle

## 28. Project for Capacity Enhancement in Road Maintenance in Viet Nam (3)



Pavement Condition Survey Vehicle

# 29. The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise in Lao PDR (1)

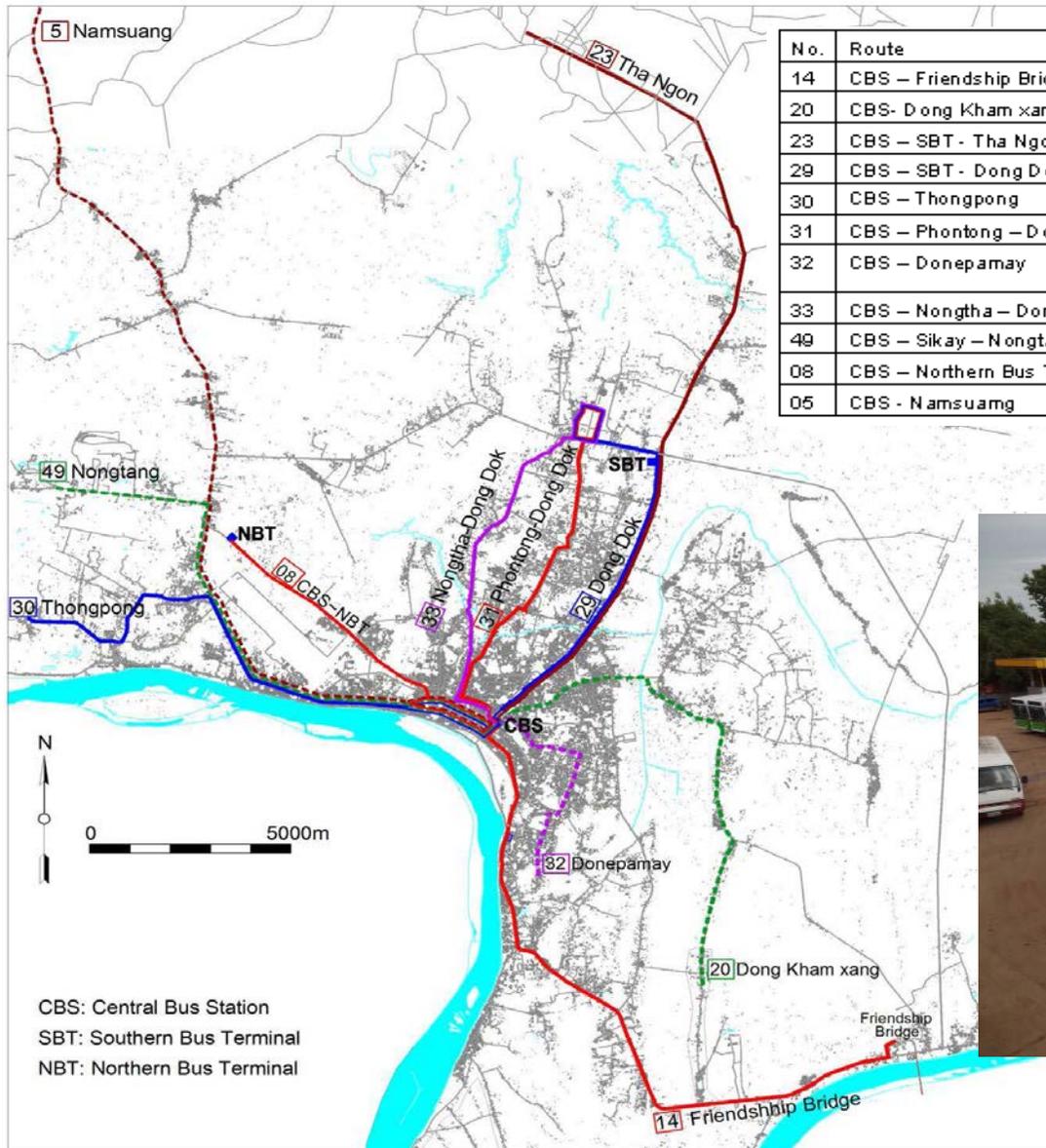


## 30. The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise in Lao PDR (2)

### Project Profile

Super Goal	Environmentally sustainable transport policy is promoted in the target area.
Overall Goal	Public bus service coverage in Vientiane is expanded.
Project Purpose	Urban public bus service of Vientiane Capital State Bus Enterprise (VCSBE) is improved.
Duration	January 2012 – March 2015
Output	Corporate management is improved by VCSBE
	Measures for improvement of VCSBE's service are implemented in Vientiane responding to citizens' requests.
	Public transport policies and plans favorable to public bus are established.
	Safe and smooth bus operation is conducted at the temporary Bus Station (TBS).
	New Central Bus Station (CBS) function is secured.
Input by JICA	Expert & Equipment

# 31. The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise in Lao PDR (3)



No.	Route	Bus	Fare (kip)	CBS departure time and headway
14	CBS – Friendship Bridge	New Bus	6,000	5:50 – 18:00, every 15 minutes
20	CBS- Dong Kham xang	Minibus	4,000	6:30 – 17:20, every 25 minutes
23	CBS – SBT- Tha Ngon	New Bus	5,000	5:45 – 17:30, every 20 ~ 30 minutes
29	CBS – SBT- Dong Dok	New Bus	3,000	6:30 – 18:00, every 15 ~ 20 minutes
30	CBS – Thongpong	New Bus	4,000	6:00 – 17:30, every 20 ~ 30 minutes
31	CBS – Phontong – Dong Dok	New Bus	3,000	6:10 – 17:30, every 20 minutes
32	CBS – Donepamay	Minibus, Electric Bus	2,000	6:30 – 17:55, every 15 ~ 20 minutes
33	CBS – Nongtha – Dongdok	New Bus	3,000	6:10 – 17:20, every 30 ~ 60 minutes
49	CBS – Sikay – Nongtang	Minibus	4,000	6:15 – 17:30, every 35 ~ 60 minutes
08	CBS – Northern Bus Terminal	New Bus	5,000	6:00 – 17:00, every 30 minutes
05	CBS - Namsuang	Minibus	10,000	10:30, 16:30



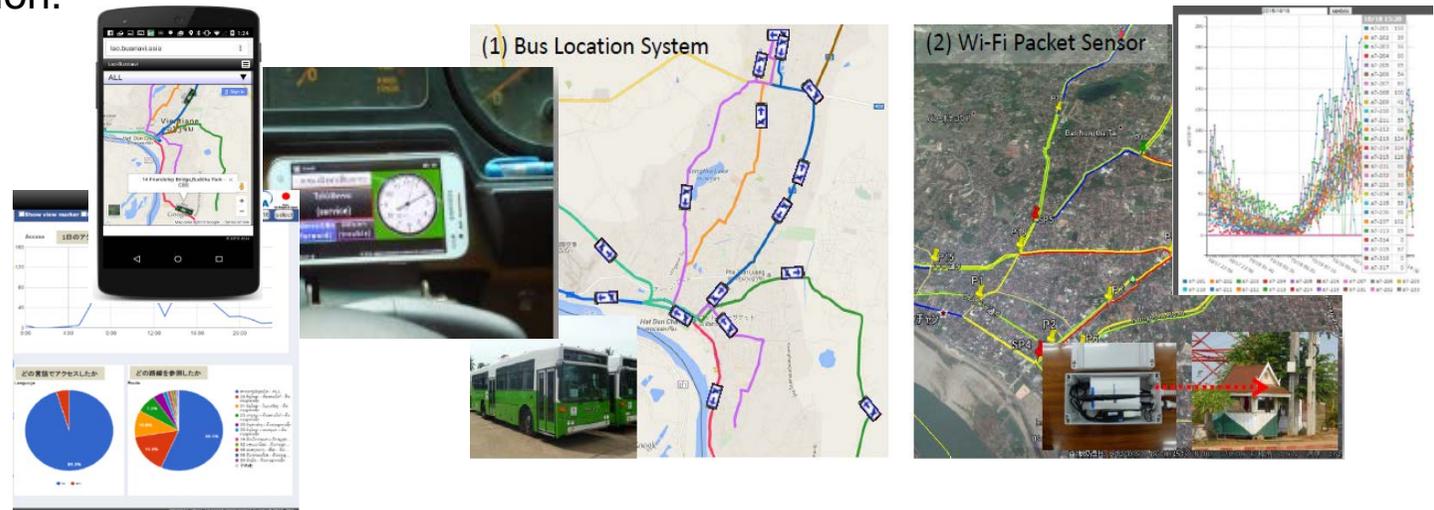
# 32. The Project to Enhance the Capacity of Vientiane Capital State Bus Enterprise in Lao People's Democratic Republic (4)

## Japan Research Institute for Social Systems Co., Ltd

### “Verification Survey with the Private Sector for Disseminating Japanese Technologies for New Location Information System and Traffic Observation System for Urban Transport Improvement in Vientiane City”

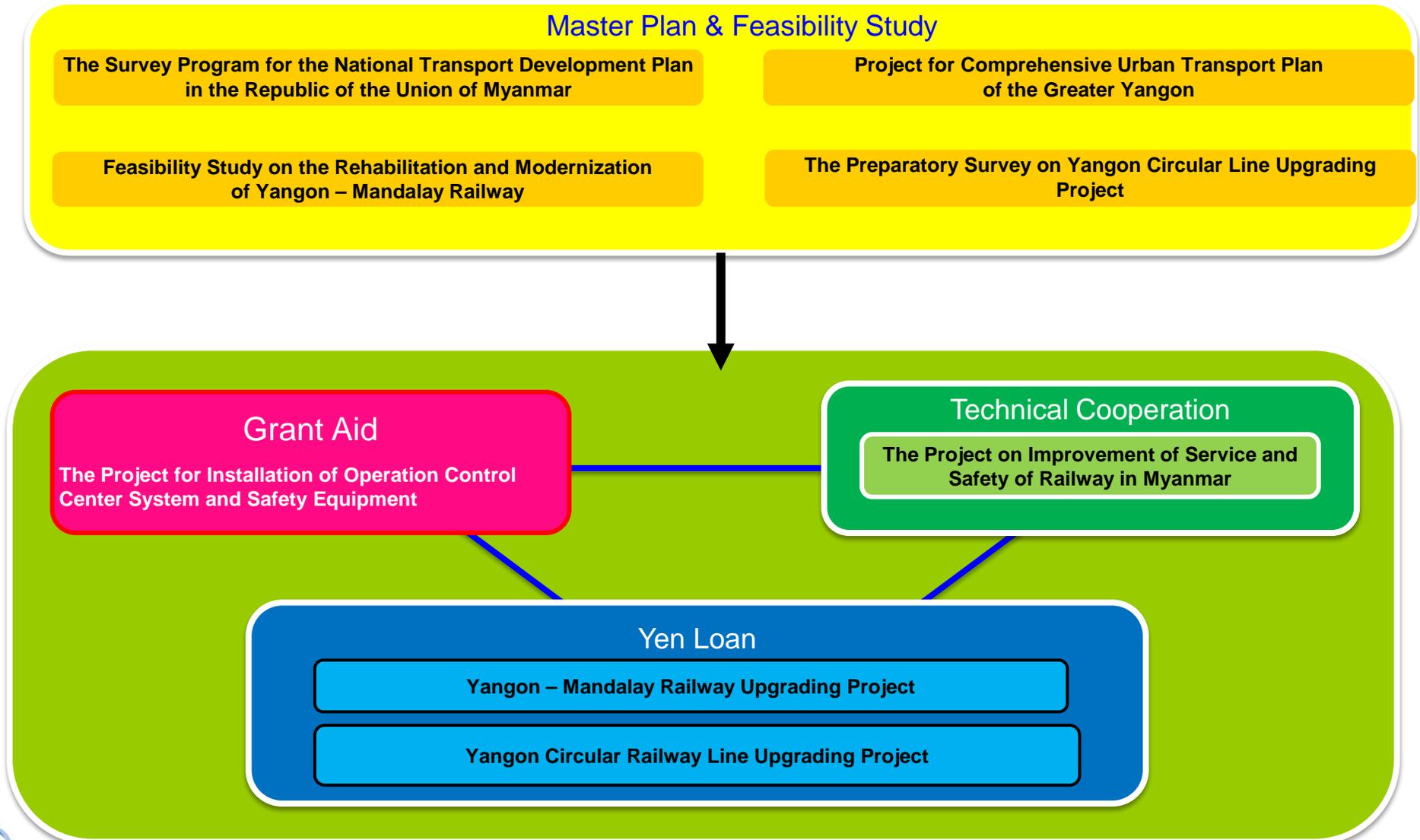
Implementing “Bus Location System (50 bus)” and “Traffic Observation System via WIFI (25 location in the City)”.

Bus Public Corp. analyzes and examines the location and traffic data to ease traffic congestion and promote public transportation.



\*Note: The Private Sector for Disseminating Japanese Technologies: To verify the usefulness of selected Japanese products and technologies through actual installation and operation of products. The products will be handed over to the counterpart organization upon completion of the survey.

### 33. The Project on Improvement of Service and Safety of Railway in Myanmar (1)



## 34. The Project on Improvement of Service and Safety of Railway in Myanmar (2)

---

### Project Profile

Overall Goal	Service and safety level of Myanmar Railways is improved.
Project Purpose	Administration and maintenance ability is improved for the enhancement of service and safety of Myanmar Railways.
Duration	May 2013 – March 2016
Output	Issues are clarified for the enhancement of service and safety in the administration and maintenance process, and the improvement plan is drawn.
	Technical capability is improved through emergency track maintenance to improve the level of service and safety.
Input by JICA	Expert & Equipment

## 35. The Project on Improvement of Service and Safety of Railway in Myanmar (3)

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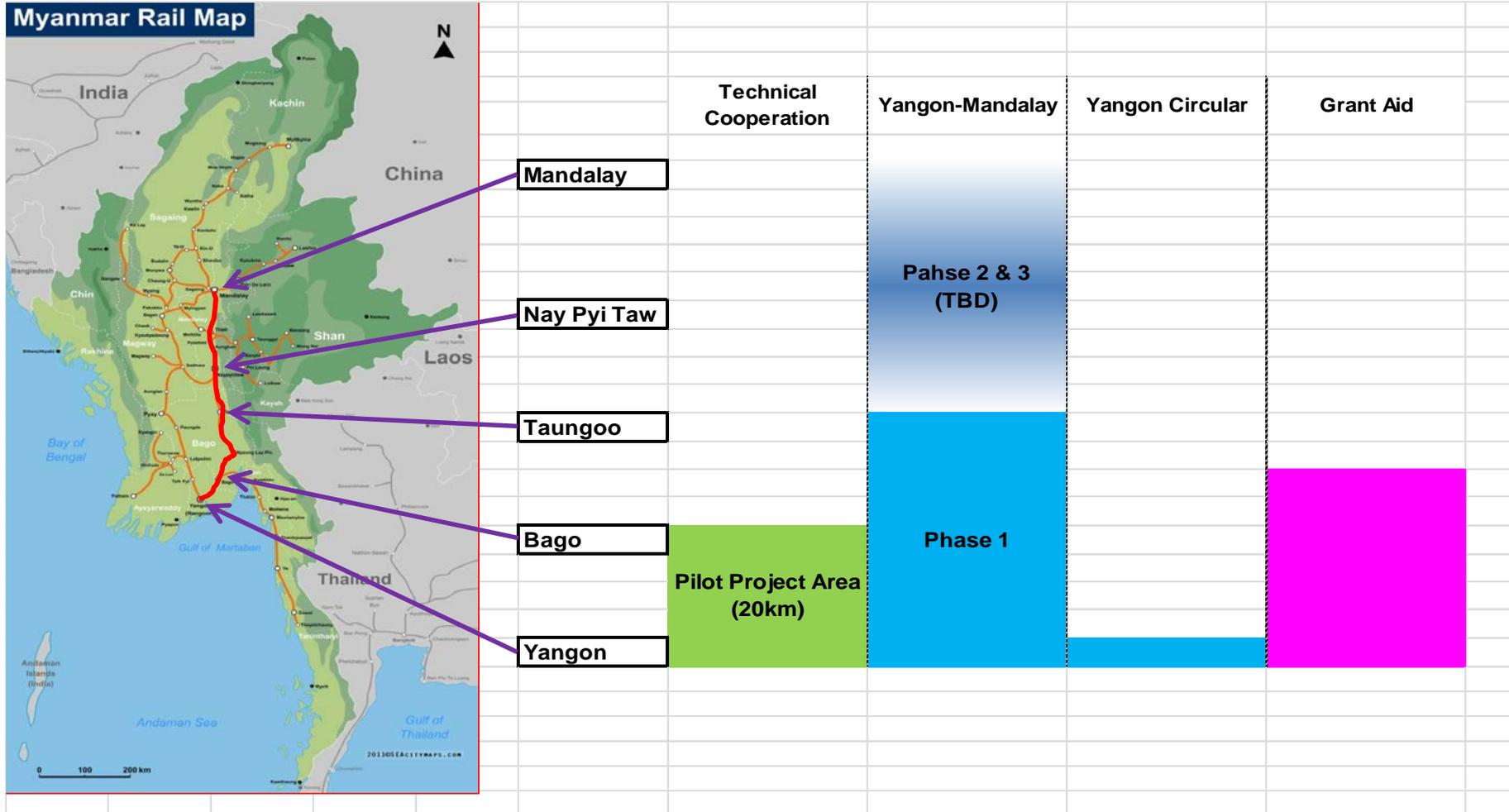
### Technical Assistance: Railway Safety Improvement Project in Myanmar



- Technical transfer on track maintenance in the pilot section by the Japanese Experts' support



# 36. The Project on Improvement of Service and Safety of Railway in Myanmar (4)



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**Thank you.**



สำนักงานความร่วมมือพัฒนาเศรษฐกิจกับประเทศเพื่อนบ้าน (องค์การมหาชน)  
Neighbouring Countries Economic Development Cooperation Agency



To be an ally agency with Neighbouring Countries for the Economic Development Cooperation, leading to the prosperity and well – being of the region



# Type of Projects



Facilitate Trade and Investment



Promote Industrial and Agricultural Cooperation



Transportation Linkage



Support and Promote the Service and Tourism Sector

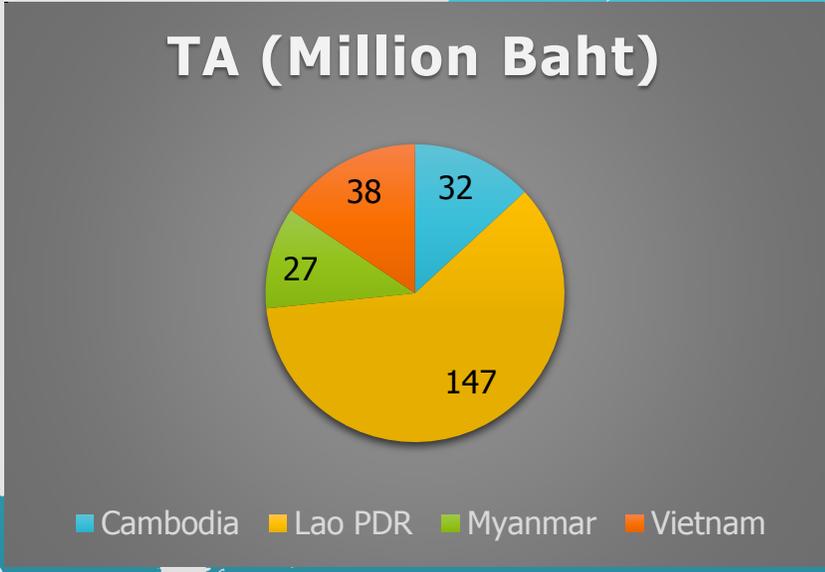
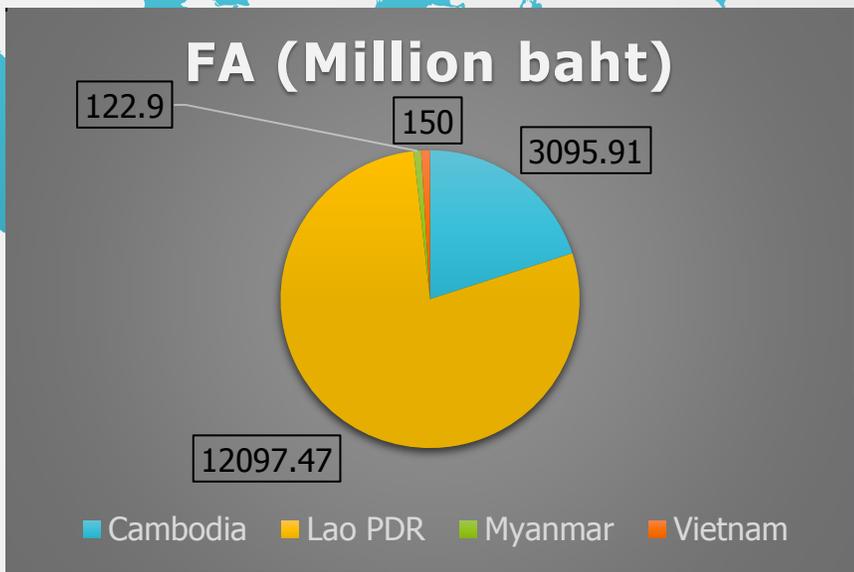


Support the Human Resource Development



Support the Urban Development

# NEDA's Projects



# NEA's Projects



## On-going Projects (Transport sector)

### 1. Hongsa-Chiangman Road Construction Project (Lao PDR)

Description	Budget (\$ million)
To improve road approximately distance 114 km	55.82



# NEDA's Projects



## On-going Projects (Transport sector)

### 1. Hongsa-Chiangman Road Construction Project (Lao PDR)



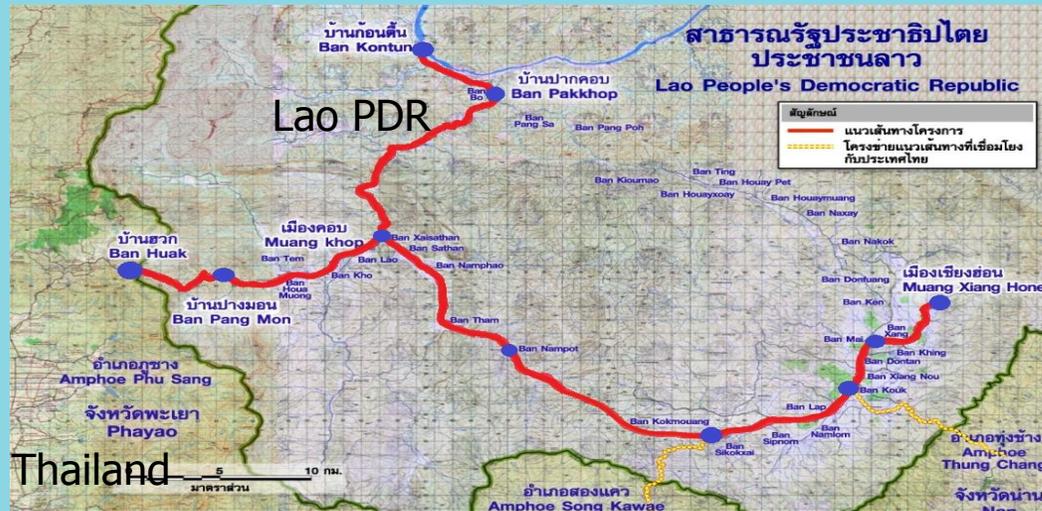
# NEA's Projects



## On-going Projects (Transport sector)

### 2. Ban Huag (Phayao)-Muang Khob-Muang Xing Hone and Muang Khob Ban Pakhob-Ban Kone Teun Road Improvement Project

Description	Budget (\$ million)
To improve road a total of distance 117.77 km	39.24



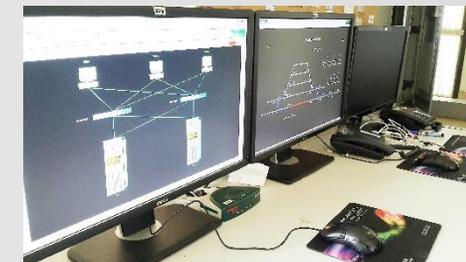
# NEA's Projects



## On-going Projects (Transport sector)

### 3. Nong Khai-Thanaleang Railway Construction Project

Description	Budget (\$ million)
– Office Building	46.58
– Container Yard (CY)	
– Upgrading signaling	



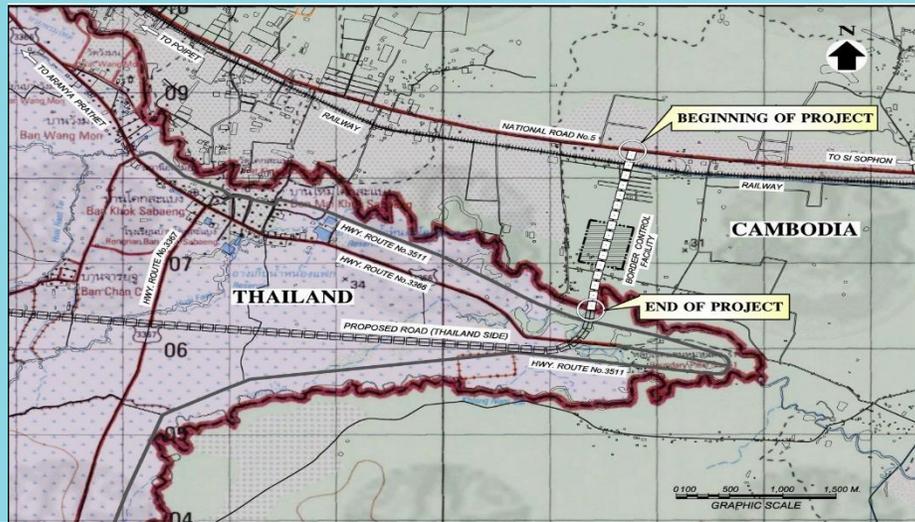
# NEA's Projects



## On-going Projects (Transport sector)

### 4. The Development of Stung Bot Border Crossing facilities and the Access Road to National Road No. 5 Project

Description	Budget (\$ million)
To develop Stung Bot Border Crossing facilities and construct Access Road to National Road No. 5	26.23



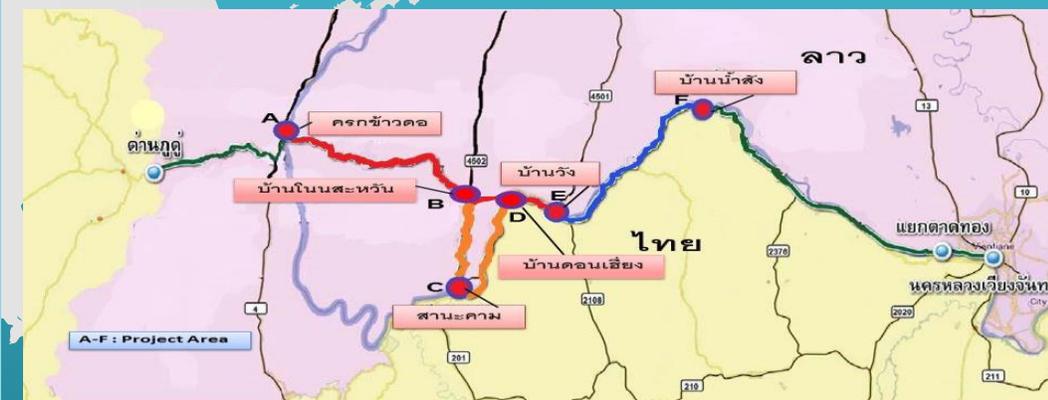
# NEDA's Projects



## On-going Projects (TA) (Transport sector)

### 1. Detailed Design of The Development of National Road 11 (R11) section Khok Khaodor-Ban Nonsavanh-Sanakham District-Ban Vang-Ban Nam Sang Project

Description	Budget (\$ million)
<ul style="list-style-type: none"> <li>- Survey and Detailed Design has been undertaken with the total length of 151 km</li> <li>- This road, when completed, will enhance connectivity of the "Chiang Mai – Vientiane Economic Corridor"</li> </ul>	



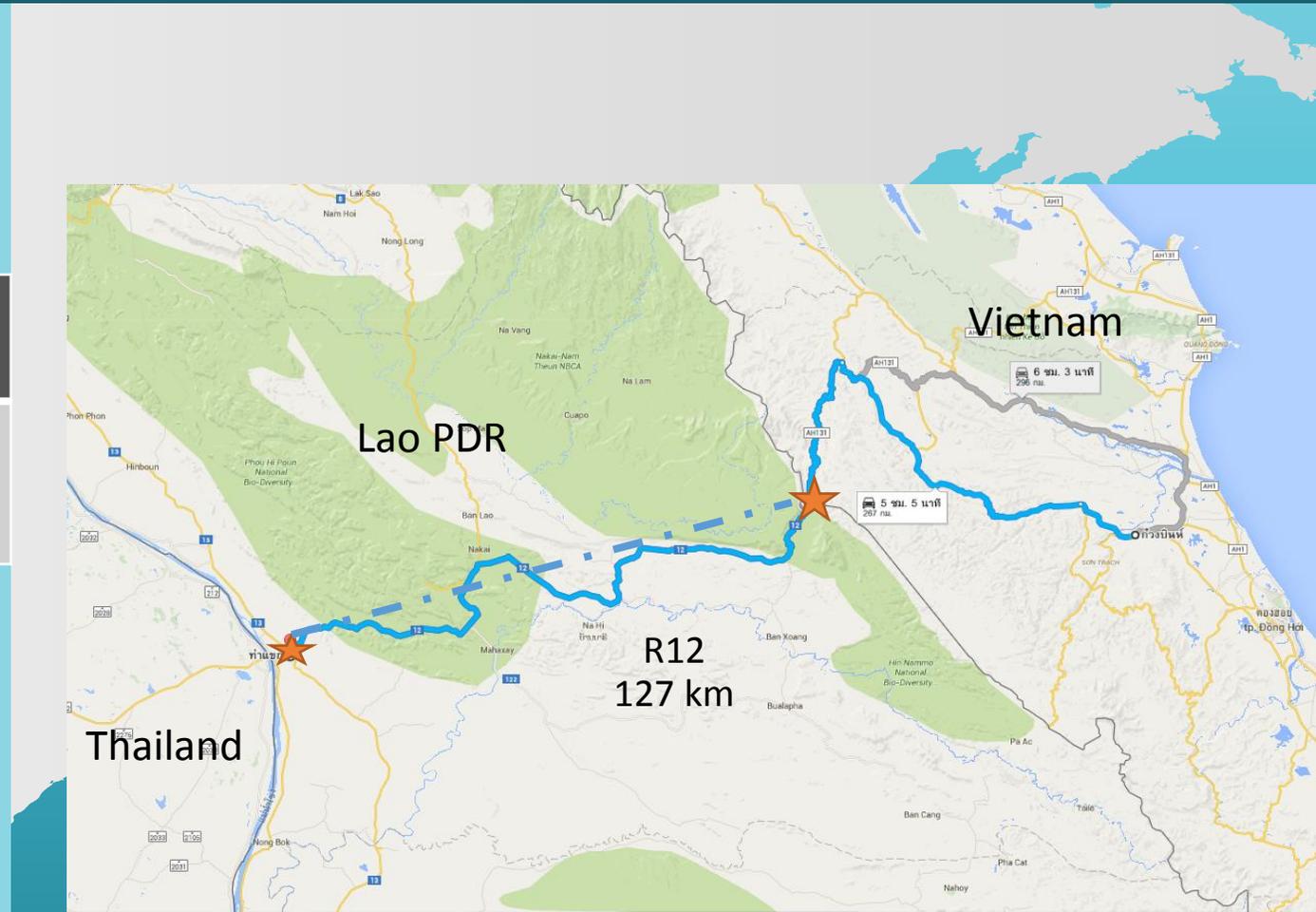
# NEA's Projects



## Future Projects (Transport sector)

### 1. The improvement of National Road No.12 (R.12) (Lao PDR)

Description	Budget (\$ million)
The potential linkage among Thai-Lao-Vietnam in transportation of goods in the GMS region.	-



# NEDA's Projects



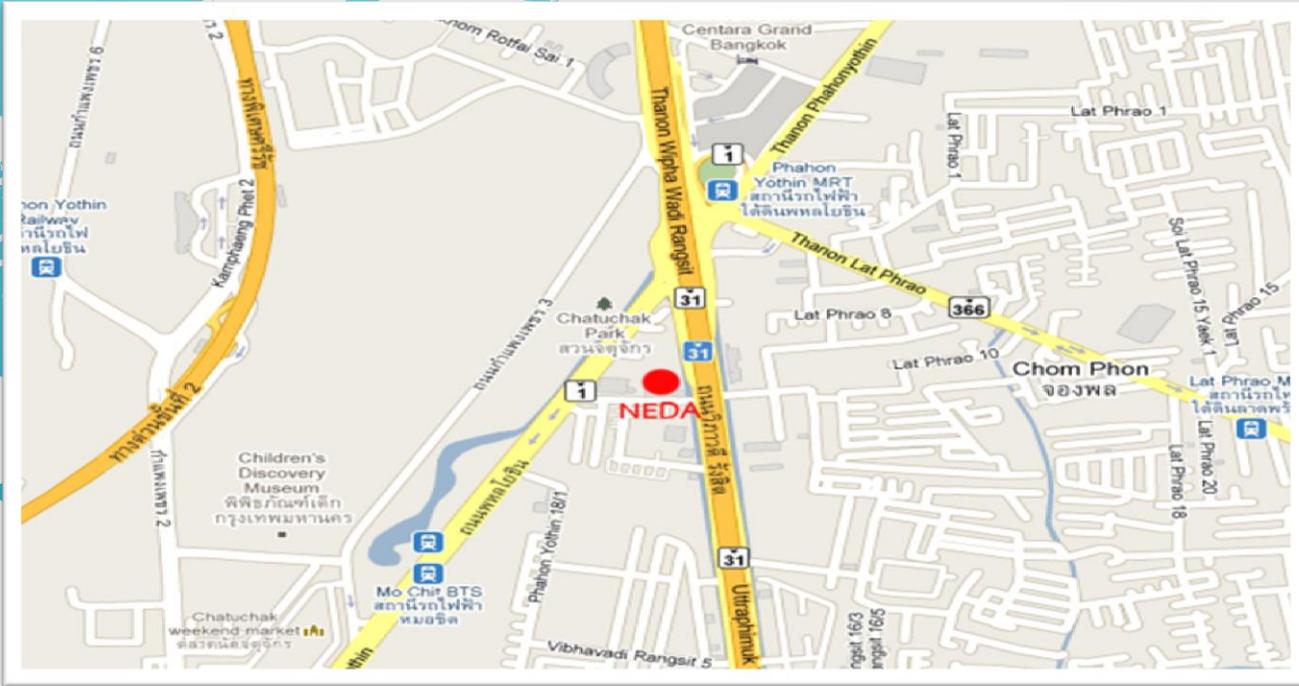
## Future Projects (Transport sector)

### 2. The improvement of National Road No. 62 Project (An Ses-Trapaeng Sangkae)

Description	Budget (\$ million)
The potential bilateral transport project between Thailand-Cambodia	-



# Thank you



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Bangkok, 10900.**

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Fax: (662) 617 7683-84**

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<http://twitter.com/nedapr>**

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# Greater Mekong Subregion: STF-20

Nanning, China 29-30 June 2016

## Transport Division Transport Facilitation and Logistics Section

***Mr. Edouard CHONG***

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*Economic Affairs Officer  
Transport Facilitation and Logistics Section*



UNITED NATIONS

**ESCAP**

Economic and Social Commission for Asia and the Pacific

# ESCAP: What we do?

- ❖ *Regional think-tank, analytical and policy work, norm setting, good practices for development, knowledge sharing and technical assistance to member States in the implementation of the recommendations*

## Transport Division:

- ❖ *3 sections: Infrastructure, Policy & Development, Facilitation & Logistics*
- ❖ *Transport Facilitation and Logistics Section supports countries in achieving regional operational connectivity for enhanced regional economic cooperation and integration*
  - ❖ *through identification, assessment and elimination of non-physical barriers, to ensure seamless transport across the Region*
  - ❖ *materialized in Transport Facilitation Tools and Recommendations*

**GREATER MEKONG SUBREGION**



# Major transport corridors of the Greater Mekong Subregion

*-Infrastructure*

**-Facilitation**

# Trans-Asian Railway: Challenges in the subregion



**Infrastructure:**  
 ❖ *Missing links*

**Facilitation:**  
 ❖ **Break-of-gauge**

❖ **Standards for railway infrastructure, facilities and equipment**

❖ **Regulatory controls and inspections at border interchange stations**

❖ **Different legal regimes**

# Asian Highway: Challenges *in the subregion*



**Infrastructure:**  
 ❖ *Different road categories across borders*

**Facilitation:**  
 ❖ Road transport permits and traffic rights

❖ Visas for drivers and crews

❖ Temporary importation of vehicles

❖ Insurance

❖ Vehicle weight and dimensions

❖ Vehicles registration and inspection certificates

# Transport Facilitation Tools

## Two Regional Frameworks

- ❖ Regional Strategic Framework for the Facilitation of International Road Transport
  - ❖ 7 key modalities
  
- ❖ Regional Cooperation Framework for Facilitation of International Railway Transport
  - ❖ 11 areas for cooperation

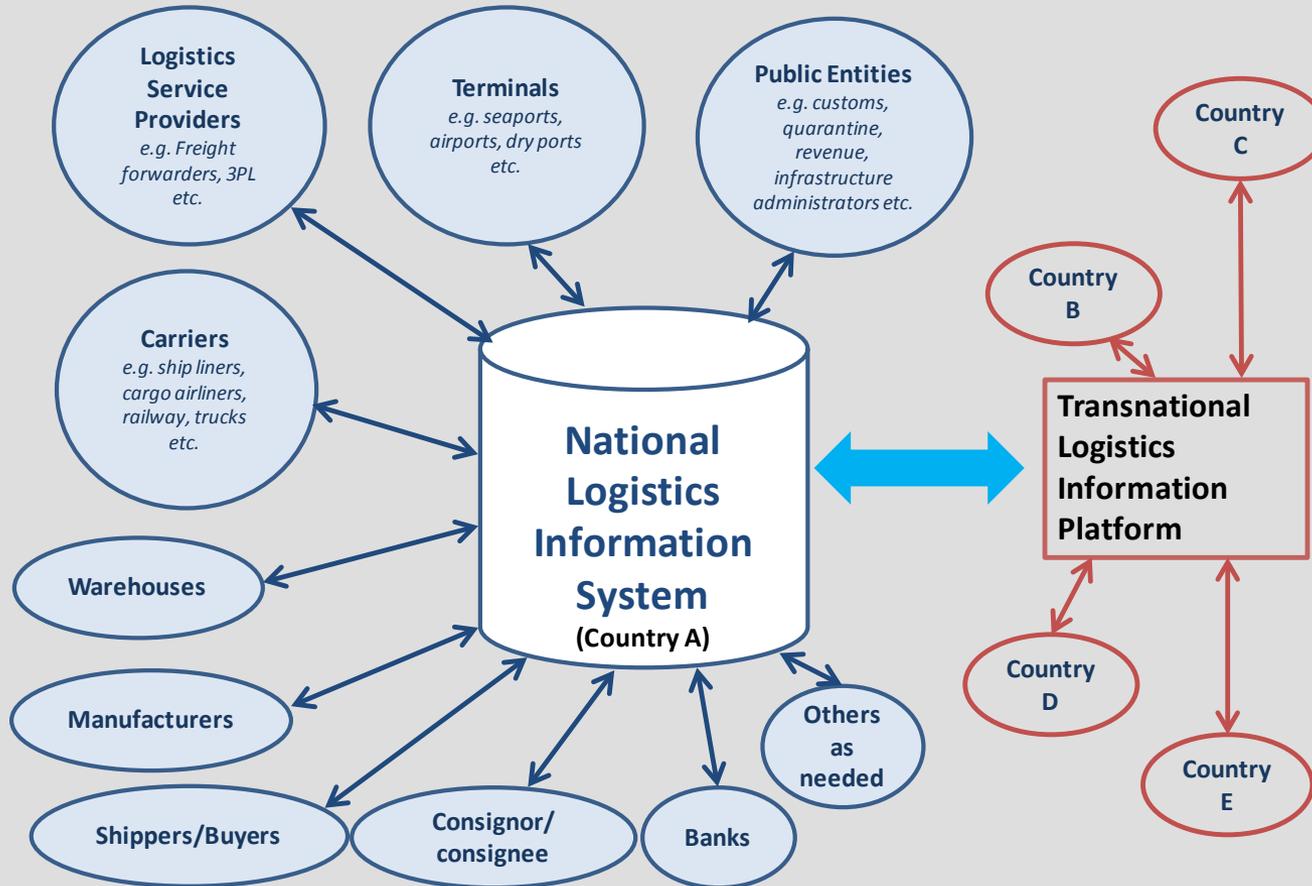
## Four models

- ❖ Secure Cross-border Transport Model
- ❖ Model on Integrated Controls at Border Crossings
- ❖ Efficient Cross-border Transport Model
- ❖ Time/Cost-Distance Methodology

## Forthcoming models:

- ❖ Model bilateral agreement on road transport
- ❖ Model Subregional Agreement on Transport Facilitation
- ❖ Model Multilateral Road Transport Permit

# Standard Model for Logistics Information System



**Regional Study:**  
**The use of Logistics Information Systems for increased efficiency and effectiveness**





A public platform that allows for harmonized and simplified information exchanges, and fulfilling administrative requirements between transport and logistics service providers, government agencies and private stakeholders at national and trans-national level.

## **On-going projects relevant to facilitation in the subregion:**

- ❖ Enhancing efficiency and effectiveness of cross-border transport on the Asian Highway Network
- ❖ Comprehensive planning of Eurasian transport corridors to strengthen the intra- and inter-regional transport connectivity

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**Thank you**  
**Email: [chonge@un.org](mailto:chonge@un.org)**

***Mr. Edouard CHONG***

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***Economic Affairs Officer  
Transport Facilitation and Logistics Section  
Transport Division***



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Economic and Social Commission for Asia and the Pacific