

GMS Regional Investment Framework (RIF) 2022 Second Progress Report and Update

Transport Sector

MYANMAR

June 2019

Reported at the 23rd Meeting of the
GMS Subregional Transport Forum (STF-23)
14-15 August 2019, Bangkok, Thailand



TABLE A- I. INVESTMENT PROJECTS

PROJECTS LISTED IN RIF 2022 FIRST PROGRESS REPORT AND UPDATE

| No. | Project Title | Description | Year of Approval | Latest Cost Estimate (\$ million) | Latest Potential Funding Source and Amount (\$ million) | Status Updates | Key locations and GMS Economic Corridor Alignment | Expected/ Planned Measurable Outputs |
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| 1 | East – West Economic Corridor Eindu-Kawkareik Road Improvement Project | The project will improve 66.4km of road between Eindu and Kawkareik. It is in Myanmar’s Kayin State, which borders on Thailand | 2016 | 121.8 million | ADB—100.0 ASEAN Infrastructure Fund—20.0 Government of Myanmar - 1.8 (First Progress Report 2018) | the length of road from 0+000 km to 40+440 km, the bridges and culvert on that road are being implemented and the completion of the whole project is 41.11% resulted from the end of May 2019. As ICB-2 the length of road from 42+160 km to 66+455 km, the bridges and culvert on that road are being implemented and the completion of the whole project is 21.93% resulted from end of May 2019. | Kayin State, Myanmar EWEK | 66.4 km of upgraded road |



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| 2 | Mae Sot–Myawady Border Crossing Project and Infrastructure Improvements (with Thailand) | The project involves a new by pass road and bridge to the north of the existing border crossing at Mae Sot (Thailand)–Myawady (Myanmar), which is in the congested area between the two cities. This new crossing will be dedicated to cross-border freight traffic. The bypass will link up with a newly envisioned special trade zone in Myanmar. The overall project will include about 16.9 km of a new four-lane divided highway (13.3 km in Thailand; 3.6 km in Myanmar), a 100-meter-long bridge across the Moei River at the border, and associated border-crossing facilities. | 2015 | Project and Cost estimate listed under Thailand to avoid double counting | Thailand (First Progress Report 2018) | Overall Completed | Kayin State, Myanmar, EWEC | New 4 lanes on border line |



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| 3 | Improvement of Six Inland Ports | The project includes the establishment of six inland ports along the Ayeyarwaddy and Chindwin rivers. F/S for Mandalay Port was completed in February 2014, and received the JICA Grant Aid for construction and the total implementation cost is 53.644 million USD. Pakokku Port and Monywa Port are requested to KOICA for FS and Grant Aid to implement. Two other inland ports (Magway Port and Kalewa Port) are planned to be built with the support of private investors. | 2018 | Updated cost estimate breakdown Mandalay Port: 53.644, Monywa Port: 79.994, Magway Port, Kalewa Port and Bhamo Port: 21x3= 63.0 , Pakokku Port: 40.0 m Total 236.638 million USD. | JICA, Private Sector, KOICA, PPP | For Mandalay Port, Exchange Notes was signed with JICA. Belgium fund was cancelled. DWIR communicated with KOICA for Monywa and Pakokku port. DWIR submitted the project proposal for the construction of Bamaw, Pakokku, and Monywa to the government for approval and will proceed to invite the private investors. Other 2 ports Magwe and Kalawa are second priority and expected to construct in 2020 with private investment. | • NSEC | Inland port facilities will be upgraded and water way transportation mode will be improved |



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| 4 | Loilem – Kyaington Road Section (356km) (GMS Road Section of R7 and Secondary Road of Corridor) | This is the road section of GMS route R7 and of the Asian and ASEAN highways. It will link with the NSEC and the Northern Economic Corridor as a secondary road. It must be upgraded to ASEAN Class III standards. | 2018 | 359.0 | TBD | Proposed | Eastern and Southern Shan State, Myanmar, NSEC | 359 km of upgraded road |
| 5 | Thaton – Payagyi Road Improvement Project | The expected components of this 151 km, two-lane road improvement project will primarily consist of road repairs and upgrading along most of the road's length, with major reconstruction and widening of the road sections running through the towns of Bilin, Kyaikto, and Payagyi, including a possible grade-separated interchange with NR1 at Payagyi | 2018 | 128.0 | Private Sector, (BOT System) - 128.0 | Ongoing, Local BOT company is undergoing that road section to be 10.97- 14.63m width according to the existing road alignment. It needs to implement by pass roads such as Thaton, Kyaikto, Kyaikkaw, Theinsait and repair geometric design in some segment for transport facilitation. | Mon State & Bago Region Myanmar. EWEC | 151 km of upgraded road |

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| 6 | Ruili (PRC)-Kyaukpyu (Myanmar) Highway | The road will promote connectivity between the PRC and Myanmar, and will improve the region's road network overall. The PRC and Myanmar have already had some technical discussions concerning the project. | 2018 | 1,000.0 | Private Sector (China Hobour Engineering Co.Ltd [CHEC]) | Proposed. It has already signed MoU with CHEC which was recommended by China Embassy and MOFA. It is implementing Feasibility Study. | Northern Shan State, Mandalay Region, Nay Pyi Taw, Magway Region & Rakhine State. NSEC | New Expressway |
| 7 | Daluo (PRC) - Tachilek (Myanmar) Highway | This project involves the improvement of an existing highway that is a part of the GMS NSEC (and of the Asian and ASEAN highways) in Myanmar, linking with the PRC to the north and Thailand to the south. This highway is also one of the major border trade routes between Myanmar and Thailand via Tachileik. The improvement will consist of upgrading the Kyaington-Mongla section (93 km) of this highway to ASEAN Class II standards. | 2018 | 93.0 | Public Private Partnership (BOT) | Ongoing, Ministry of Construction is undergoing Minelar- Kengtung road section (3.66 - 6.7 m) and local BOT company is undertaking Kengtung - Tachileik road section (9.14 m). It needs to repair geometric design in some segment for transport facilitation | Eastern Shan State. NSEC | 87.51 km of upgraded Mongla - Kyaington road, 156.8 km of upgraded Kyaington-Tachileik road |

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| 8 | Bridge on the Kyaington–Lyainglin–Taunggyi Road (AH2) | The service life of the Tarkaw (Thanlwin) Bridge (bank- to-bank 900 feet) is about 40 years, and its load capacity is only HS-20. A new bridge of four lanes with an HS-25 load capacity has been proposed. The type of bridge will be specified after the feasibility study. | 2018 | 15.8 | Government of Myanmar-15.8 | Ongoing, F.S completed in March 2018. Bridge is under construction using FY 2018–2019 Myanmar Government budget. | Eastern & Southern Shan State, Myanmar. NSEC | A new bridge with capacity of HS-25. |
| 9 | GMS EWEC Corridor Improvement I and II | The bridges and expenditure amounts involved in this project are: Attran Bridge (\$68.25 million), Gyaing (Kawkareik) Bridge (\$122.86 million), Gyaing (Zathapyin) Bridge (\$129.11 million), and Sittaung (Kyaikhto) Bridge (\$180.7 million, proposed for approval in 2020). | 2017 | 550.22 | JICA-550.2 | Ongoing, Gyaing (Kawkareik) Bridge Contract Agreement completed and Starting the Project. Gyaing (Zathapyin) Bridge and Attran Bridge are under process of selection of contractor Conducting Feasibility Study for Sittaung (Kyaikhto) Bridge | Mon State, Kayin State, EWEC | Four new 4-lane Bridges |

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| 10 | Mae Sot-Myawady Border Crossing Project and Infrastructure Improvements (with Thailand) | The project involves a new by pass road and bridge to the north of the existing border crossing at Mae Sot (Thailand)-Myawady (Myanmar), which is in the congested area between the two cities. This new crossing will be dedicated to cross-border freight traffic. The bypass will link up with a newly envisioned special trade zone in Myanmar. The overall project will include about 16.9 km of a new four-lane divided highway (13.3 km in Thailand; 3.6 km in Myanmar), a 100- meter – long bridge across the Moei River at the border, and associated border-crossing facilities. | 2015 | Project and Cost estimate listed under Thailand to avoid double counting | Government of Thailand | 100 % Completed | Kayin State, Myanmar EWEC | New 2 lanes with 2.5 m extra lanes on border line. |

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| 11 | Bago–Kyaikto Road | The project entails a new highway alignment on an extension of the EWEC, between Bago and Kyaikto, in order to provide easier access to Thilawa SEZ. This road is expected to be reconstructed as an asphalt-concrete, two-lane road of 7-meter in width, with 1.5-meter paved shoulders. The goal is to achieve a safer and more efficient movement of goods and people along the GMS EWEC and NSEC in Myanmar. | 2020 | 164.3 | ADB-164.3 | Proposed. The Project will be processing up to the FS report under the TA project | Bago Region and Kayin State EWEC | 70 km new arterial highway between Bago and Kyaikto |



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| 12 | Upgrading of Wan Pong Port with 500-ton container-handling facilities | The project will modernize the facilities at Wan Pong Port for handling shipping containers. It will thus help increase the trade in cargo between Myanmar and other GMS countries. Myanmar will be extensively involved in GMS trade, and will effectively use the Mekong River transport route to boost the country's economic development. | 2018 | 50.0 | Joint Committee on Coordination of Commercial Navigation Lancang–Mekong Cooperation Special Fund | Proposed, USD 500,500 was approved by JCCCN for feasibility study (F/S) of Wan-Pong port. F/S started in October 2018 and port construction is expected in 2021-2022 fiscal year. | Eastern Shan State, NSEC | Wan Pong port will be improved and port handling capacity will be increased. |



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| 13 | Upgrading of Mawlamyine – Dawei – Hteekhee Rail Link (452.58 km) | Mawlamyine-Dawei railway section (310.58 km) was constructed during 1994–1998. It is one of the most important branch lines of Myanmar Railways, not only for local railway transport but also for its link to Thailand and the ASEAN railway network. This project will improve railway transport for passengers and freight. This railway line is a part of the Trans-Asian Railway (TAR) southern corridor in Myanmar. It will be linked with the new Dawei– Hteekhee line as a proposed spur line of the Singapore–Kunming Rail Link (SKRL) to Thailand. | 2020 | TBD | ADB, NEDA Thailand | Proposed | Mon State Tanintharyi Region, SEC | Upgraded Rail Link and New spur line |



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| 14 | Border Control Facilities at Border Crossing Points: Tachilek and Muse | These border control facilities are needed to facilitate cross-border transport with neighboring GMS member countries under the full GMS CBTA | 2018 | TBD | ADB, PRC, NEDA & Thailand | Proposed. It needs to construct BCF at Tachilek and Muse BCPs. Lao- Myanmar Friendship Bridge and BCF completed in May 2015.with Government of Myanmar funding of MMK 2,604.0 million | Eastern and Northern Shan State, NSEC | Border Crossing Facilities constructed at Tachilek and Muse border crossing points. |
| 15 | GMS Highway Modernization Project | The project will improve transport conditions along Myanmar's East-West Economic Corridor (EWEC) and North-South Economic Corridor (NSEC) by (i) improving about 99 km of GMS highways, (ii) improving the safety of the Yangon- Mandalay Expressway, and (ii) preparing detailed designs for other highway projects, also along GMS corridors. | 2018 | 202.1 | ADB-200.0 Government of Myanmar-2.1 | Ongoing. Highway Modernization Project was approved Hluttaw on 26.3.2018. ADB and MOPF are negotiating the loan on 3 Oct 2018. Loan signing date was on 28 Dec 2018. Loan effective date was on 25 Feb 2019 .CSRN stage is submission (2) on 12-June 2019. | Yangon Region, Mandalay Region Bago Region & Ayeyawaddy Region, Myanmar, EWEC & NSEC | 64 km of Yangon-Mandalay Expressway improved 99 km of Bago-Thanlyin road upgraded. Detailed engineering designs prepared for the improvement of Yangon-Pathein Highway (165 km) and new highway alignment between Bago and Kyaikto (70km). |

TABLE A- II. TECHNICAL ASSISTANCE PROJECTS

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| 1 | GMS Road Corridors Maintenance | The TA will provide institutional and operational strengthening of GMS road maintenance and road asset maintenance | TBD | TBD | Seeking financing | Proposed. Proposed by MOT of Viet Nam to ADB to undertake a survey on the need for road maintenance and road asset management on GMS corridors. | | |
| 2 | Strategic Study on the Development and Management of the GMS Motorway Network System | The improvement and expansion of the existing motorway network system, raising it to an advanced standard with fully controlled access, is a key part of the strategic plan for the development of GMS highways to promote cross-border transport, including transit traffic. The GMS motorway network system will be the main point of road connectivity to other modes of transport, border areas, special economic zones (SEZs), and other high-potential development areas in the GMS countries. It will efficiently reduce travel time, improve road safety, and lower transport logistics costs. The strategic study will look at all the GMS corridors, and consider how they mesh with the GMS motorway network system. | TBD | TBD | Seeking financing | Proposed | | |

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| 3 | Knowledge Transfer between Thailand and the Other GMS Member Countries on Highway and Bridge Standards and Specifications, including Transport Facilitation Facilities | The objective of this TA is to enhance knowledge and experience sharing in the field of road engineering, and to brainstorm better engineering ideas for sustainable road development in the GMS. Thailand's Department of Highways will fulfill its role of providing technical experts and training-center facilities, and of organizing the staff for various training courses in road and bridge engineering | TBD | 0.4 | Seeking financing | Proposed | | |



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| 4 | Study on Dry Port Development Plan along International Railway Lines Connecting Thailand with Cambodia, the Lao PDR, and Myanmar | 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. Among the cross-border railway projects that are being emphasized by the GMS countries governments are: the NongKhai–Thanaleng–Vientiane line, to connect with the Lao PDR; the Aranyaprathet–KlongLuk–Poipet line, to connect with Cambodia; and the Kanchanaburi– Dawei line, 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 and are 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, Myanmar; Sihanoukville, Cambodia; and HCMC, Viet Nam. The TA study will determine the need for dry ports at strategic rail locations on international borders. | 2018 | 0.5 | Government of Thailand—0.5 | Ongoing. Thailand already hired the consultant to study the project. The study will complete at the end of year 2018. | NSEC, EWEC , SEC | |

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| 5 | GMS Transport Database Capacity Development | This is a project proposed by a transport and logistics assessment study conducted under the process for preparing the GMS Regional Investment Framework2022. The project is intended to set up a systematic and coordinated approach to gathering (i) existing cross-border traffic and commodity data; and (ii) existing traffic data for major road corridors, including periodic traffic surveys. The TA project may be implemented in two steps:(i) small-scale assistance in scoping out the required database (including individual country database activities), and a GMS secretariat and coordination function for a concept paper for large-scale capacity development; and (ii) a large-scale standardized and integrated database capacity-building assistance targeted at Cambodia, the Lao PDR, and Myanmar, but incorporating data from the PRC,Thailand, and Viet Nam. | TBD | TBD | Seeking financing | Proposed | | |



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| 6 | Feasibility Study on Upgrading of Mawlamyine-Dawei – Htiikee Rail Link (452.58 km) | The railway section that is the focus of this feasibility study is one of the most important branch lines of Myanmar Railways, not only for local transport, but also for its links to Thailand and the railway network of the Association of Southeast Asian Nations (ASEAN). However, the railway line is in poor condition. The project will contribute to the improvement of passenger, freight, and logistics transport on this line. Given that the line is part of the SKRL and Trans-Asian Railway (TAR) networks, Thailand has already conducted a full feasibility study on the Laem Chabang–Bangkok– Kanchanaburi–Ban Phu Nam Ron (border crossing) section. A feasibility study for Myanmar’s Htikhee–Dawei missing link has not yet been done, however. The feasibility study for an extension of the Dawei–Mawlamyine section is expected to be conducted as soon as possible, to promote the continuity of the TAR corridor | 2018 | TBD | TBD | Proposed | Mon State Tanintharyi Region, SEC | Upgraded Rail Link and New spur line |
| 7 | Transport Sector Reform and Modernization (additional financing) | This TA project will support the next phase of ADB’s participation in the development of Myanmar’s road transport sector | 2017 | 2.0 | ADB-2.0 | Ongoing. This TA was being implemented Pre-Feasibility Study (F.S) before HMP Project. Feasibility Study (F.S) was completed in Nov: 2017. | | |



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| 8 | Various TA projects proposed by the Lao PDR Department of Waterways and Ministry of Public Works and Transport | The TA projects are as follows: (i) regulatory TA to standardize the vessel and waterway classifications, set up a vessel inspection system, develop a short- and long- term fleet policy, and build a search-and-rescue center (timeline: 2020–2030, no cost estimate yet); (ii) feasibility studies for a multimodal transportation system and for an import-and-export logistics information system (timeline: 2018–2020, no cost estimate, Republic of Korea as source of funding); (iii) the formulation of a regional plan for developing inland waterway transport in the ASEAN countries (timeline: 2016–2018, \$100,000, to be carried out by the Korean Maritime Institute); (iv) a development plan for international navigation on the Lancang/Mekong River, 2015–2025 (timeline for the planning: 2015–2018, no cost estimate, to be carried out by the Joint Committee on Coordination of Commercial Navigation expert group);(v) the implementation of the Mekong River Commission Waterborne Transport Master Plan (timeline: 2016–2040, no cost estimate); and (vi) the implementation of the Sustainable Management of Dangerous Goods on Waterway Transport Plan (12 documents have been completed, but funding is needed for implementation, no cost estimate). | 2018 | TBD | PRC, Republic of Korea | | | |



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| 9 | Greater Mekong Subregion East–West Economic Corridor Highway Development Project (formerly GMS EWEC Road Corridor Improvement II) | The project will develop a direct highway link between Bago and Kyaikto, along the Greater Mekong Subregion (GMS) East–West Economic Corridor (EWEC). The project will (i) improve connectivity between Myanmar and Thailand; compounding with ongoing ADB transport infrastructure and cross-border transport facilitation activities to enable more intense trade between Myanmar and Southeast Asia, (ii) enhance road access to Mon and Kayin state, demonstrating the government’s commitment to improving the well-being of people in areas that have long been affected by conflict, (iii) provide a new high-class road access to Kyaikto, a major tourism and pilgrimage site, and (iv) build governments capacity to develop and manage high- class highways meeting international standards. | 2017 | 2.0 | ADB—2.0 | Ongoing. It is planning to perform traffic survey, topography survey, geotechnical investigation, environmental testing, inventory of loss & socio-economic survey, poverty & social assessment data collection survey, biodiversity survey and give awareness to the people with local authorities on the new alignment. | | |



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| 10 | GMS Regional Transport Corridor Improvement | The technical assistance project will prepare a project to upgrade sections of Myanmar's GMS North-South and East-West transport corridors. | 2019 | 1.5 | ADB-1.5 | Proposed | | |
| 11 | Technical assistance to complete the draft Framework Agreement for Cross-Border Railway Transport Connectivity in the GMS | The draft Framework Agreement currently only draft the Main Text, which has many references to the Protocols, the Annexes (from Article 6 to Article 30). According to ADB Consultants, these documents will be developed later. To ensure the consistency and feasibility of the Framework Agreement, recommendations ADB should continue to support research and develop draft the Protocols and the Annexes. | 2020 | TBD | TBD | Proposed by MOT of Viet Nam | | |



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|-----|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 | Road Safety for Highway Development in the Greater Mekong Subregion East-West Economic Corridor | This is a Transactional TA project with expected outcome of a more efficient and safer movement of goods and people between Bago and Kyaikto along the GMS EWEC | 2018 | 1.1 | ADB (Trust Fund for Road Safety for Highway Development in GMS EWEC)—1.0, Government of Myanmar—0.06 (non-cash) | Proposed | Bago-Kyaikto section of EWEC | 1.Road safety approach for existing Bago-Kyaikto road section established; 2.Government's capacity to collect and analyze road safety data improved; 3.Police capacity |



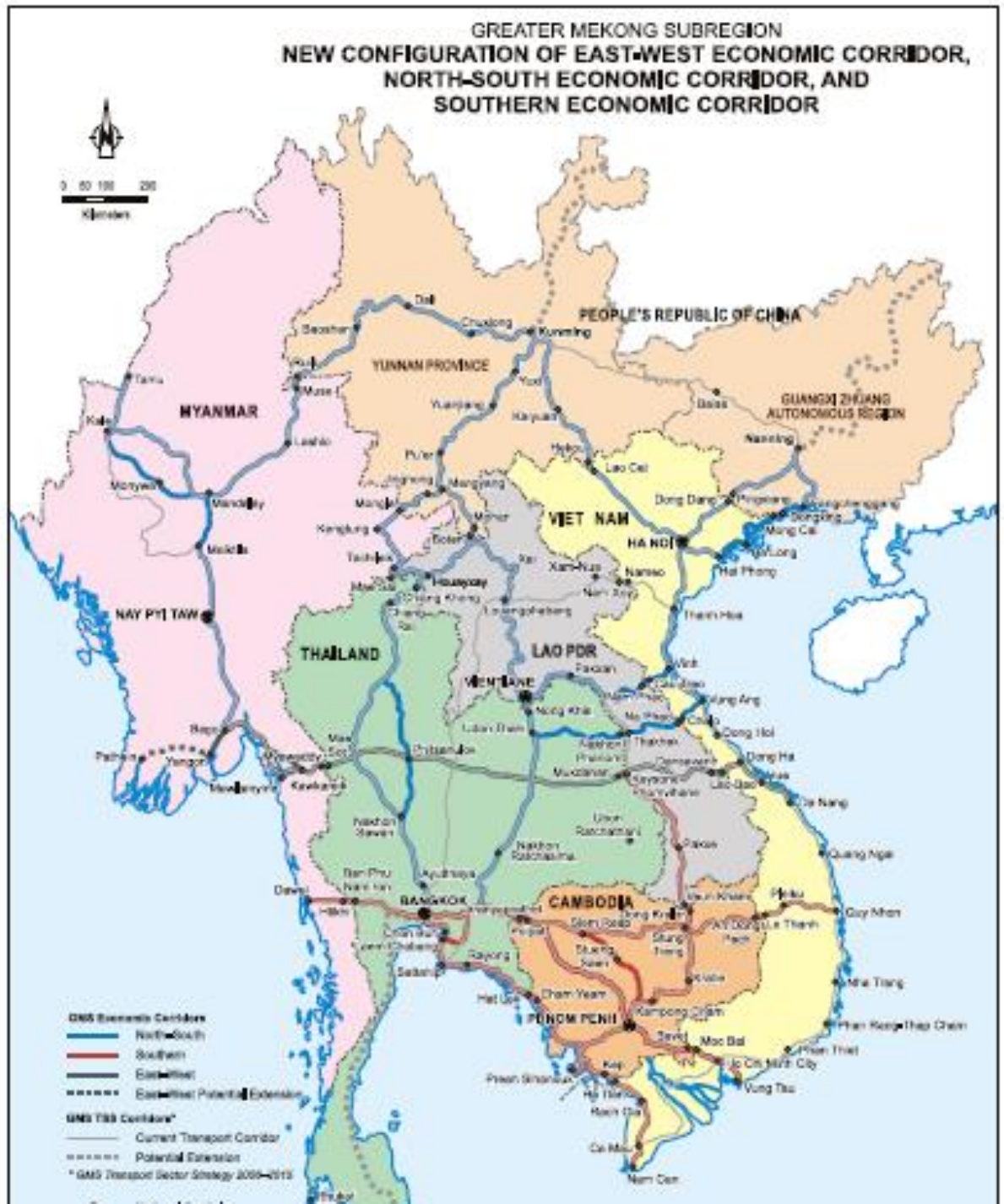
TABLE B. PROPOSED NEW PROJECTS FOR INCLUSION IN RIF 2022 SECOND PROGRESS REPORT AND UPDATE

| No. | Project Title | Description | Year of Approval | Cost Estimate (\$ million) | Potential Funding Source and Amount (\$ million) | Justifications | | Key locations and GMS Economic Corridor Alignment | Expected/Planned Measurable Outputs |
|-----|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------|------------------------------------------------------------------------------------|
| | | | | | | (a) Strategic thrust/operational priority in HAP and or TrSS supported (Refer to Annex I) | (b) Other Justifications | | |
| 1 | Feasibility Study for Mae Sot - Myawaddy - Hpa-an - Thaton New Railway line. | The proposed Technical Assistance project is to connect with Thailand. It is situated in Kayin and Mon State, Myanmar. | | TBD | TBD | Which is a spur line of Singapore-Kunming Rail Link (SKRL) with the Technical Assistance by development partner instead of Dawei-Htiki-Ban Phunam Ran(Thai) was proposed to input ACMECS Master Plan in 2019. Besides, which was proposed to input NEDA 2019-2022. Although there is no response to Myanmar. Therefore, we would like to propose to conduct the feasibility study for Mae Sot -Myawaddy- Hpa-an- Thaton Rail line project to input the RIF-2022. | | Kayin and Mon States of Myanmar. EWEK | To support a spur line of SKRL and estimate the cost of the project implementation |



New/Expanded Configuration of GMS Economic Corridors

(For use only as possible reference in indicating location of projects.)



Thank You

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