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INCEPTION REPORT

STUDY ON

Connectivity Issues for Enhancing Coordination Among the Mekong-Lancang Countries

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Mekong Institute, Khon Kaen, Thailand

Mekong-Lancang Cooperation Special Fund Supported Project on
"Capacity Building for National Coordinators of Mekong-Lancang Cooperation"

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We expect that the recommendations of the study will provide impetus to the regional governments to enhance their cooperation for greater connectivity in the region. We hope you enjoy reading this study as much as we enjoyed producing it.

Mekong Institute
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ABBREVIATIONS AND ACRONYMS

ACMECS	Ayeyarwady-Chao Phraya-Mekong Economic Cooperation Strategy
ADB	Asian Development Bank
AEC	ASEAN Economic Community
AFAFGIT	ASEAN Framework Agreement on the Facilitation of Goods in Transit
AFAFIST	ASEAN Framework Agreement on the Facilitation on Inter-State Transport
AFAMT	ASEAN Framework Agreement on Multimodal Transport
ASEAN	Association of Southeast Asian Nations
BRI	Belt and Road Initiative
CDB	China Development Bank
CLV-DTA	Cambodia-Laos-Viet Nam Development Triangle Area Cooperation
CLMV	Cambodia, Lao PDR, Myanmar, Vietnam
EWEC	East-West Economic Corridor
GMS	Greater Mekong Sub-region
ICT	Information and Communication Technology
LMC	Lancang-Mekong Cooperation
LMI	Lower Mekong Initiative
LPI	Logistics Performance Index
MGC	Mekong-Ganga Cooperation
MI	Mekong Institute
MLC	Mekong-Lancang Cooperation
MSME	Micro, Small and Medium Enterprise

MJC	Mekong Japan Cooperation
MKCF	Mekong-Korean Cooperation Framework
NSEC	North-South Economic Corridor
PCCMLC	Plan on Connectivity Cooperation between ML Countries
RIF	Regional Investment Framework
SEC	Southern Economic Corridor
STF	Sub-regional Transport Forum
TAR Network	Trans-Asian Railway Network

EXECUTIVE SUMMARY

The Lancang-Mekong Framework (LMC) is a mechanism to address the common needs of the six countries of the Greater Mekong region, namely Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam and 2 regions of People's Republic of China (PRC). Under the Sanya Declaration, the Phnom Penh Declaration and the Five-Year Action Plan, the framework stated the need to strengthen South-South Cooperation via the different sub-regional cooperation frameworks and initiatives, such as ASEAN or the Belt and Road Initiative. With Connectivity as one of the priority areas of the LMC framework, progress has been made by drafting the Plan on Connectivity between Mekong-Lancang Countries (2020-2035), currently pending final approval. As part of the project on "Capacity Building for National Coordinators of Mekong-Lancang Cooperation" to promote effective coordination of the regional cooperation mechanisms, this report presents a study on transport connectivity issues in the Mekong-Lancang region. This assessment was carried out in a combination of desk research and online consultations, and provided recommendations for better coordination amongst the stakeholders within the connectivity plans and programs.

CURRENT STATUS

Review of Current Cooperation Frameworks: On a first stage, the study reviewed the different cooperation frameworks relevant for connectivity in the ML region. These were:

- **Mekong-Lancang cooperation (MLC)**, including the *Plan on Connectivity Cooperation between ML Countries (2020-2035)*
- **Association of Southeast Asian Nations (ASEAN)**, including the *Master Plan on ASEAN Connectivity 2025 (MPAC 2025)*
- **Greater Mekong Subregion (GMS)**, including the *GMS Regional Investment Framework (RIF) 2022*
- **Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS)**, including the *ACMECS Master Plan (2019-2023)*

Other sub-regional cooperation frameworks were briefly assessed, with the purpose of adding context to the current situation. Regarding the main mechanisms identified above, a cross-check was made with respect to the membership of the six countries on the different frameworks. This could be summarized in the table below:

Country	ASEAN				ACMECS	GMS	MLC
	AFAFGIT	AFAFIST	ADAMT	ASEAN Single Window			
PR China						✓	✓
Viet Nam	✓	✓	✓	✓	✓	✓	✓
Thailand	✓	✓	✓		✓	✓	✓
Lao PDR	✓	✓	✓	✓	✓	✓	✓
Myanmar	✓		✓	✓	✓	✓	✓
Cambodia	✓	✓	✓		✓	✓	✓

Current and Expected Status of Connectivity: To understand the current situation of connectivity in the MLC countries, and given that connectivity is a broad term, several metrics were researched.

In regard to the **transport** modes (referred to here as road, rail, air, port and inland waterways), the Logistics Performance Index (LPI) of the World Bank, and the Transport Infrastructure indicators of the Global Competitiveness Report (World Economic Forum) were considered. These were summarized in the following two tables:

Country	LPI score	LPI rank	Customs	Infrastructure	International shipments	Logistics quality and competence	Tracking and tracing	Timeliness
PR China[1]	3.61	26	3.29	3.75	3.54	3.59	3.65	3.84
Viet Nam	3.27	39	2.95	3.01	3.16	3.40	3.45	3.67
Thailand	3.41	32	3.14	3.14	3.46	3.41	3.47	3.81
Lao PDR	2.70	82	2.61	2.44	2.72	2.65	2.91	2.84
Myanmar	2.30	137	2.17	1.99	2.20	2.28	2.20	2.91
Cambodia	2.58	98	2.37	2.14	2.79	2.41	2.52	3.16
MLC region	2.98	69	2.75	2.75	2.98	2.96	3.03	3.37

[1] Values of PR China calculated for the entire country. Metrics for the 2 ML provinces could differ.

Country	Transport Infrastructure [0-100]	Road connectivity [0-100]	Quality road infrastructure [1-7]	Railroad density [km/km²]	Efficiency in train services [1-7]	Airport connectivity [score]	Efficiency air transport services [1-7]	Liner shipping connectivity [0-100]	Efficiency of seaport services [1-7]
PR China(1)	68.9	95.7	59.7	17.9	59	100	60.7	100	58.6
Viet Nam	52.2	63.3	40.1	19.1	43.3	86	49.7	68.8	47.3
Thailand	56.8	80	56.6	21.8	30.3	98.9	67.3	48	51.4
Lao PDR	45.3	51.5	44.3	NA	NA	35.9	49.3	NA	NA
Myanmar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cambodia	42.4	61.9	42.7	NA	NA	53.9	44.7	8.2	42.9

(1) Values of PR China calculated for the entire country. Metrics for the 2 ML provinces could differ.

Likewise, concerning the **Information and Communication Technology (ICT)**, the UNCTAD B2C E-Commerce Index[1] was used as a valid reference for an ML economy´s preparedness to support online purchases, as seen in the table below. Moreover, the e-commerce legislation harmonization in ASEAN, with the latest update in 2013, was reviewed.

Country	UNCTAD B2C E-Commerce Index 2019						Internet shoppers	
	Share individuals using the internet	Share individuals with an account	Secure internet servers	UPU Postal reliability score	2019 Index value	2019 rank	As % of internet users	As % of population
Thailand	57	82	61	94	73.5	48	9	5
PR China	54	80	55	85	68.8	56	69	39
Viet Nam	70	31	66	77	61.1	64	31	19
Lao PDR	26	29	30	56	35.1	113	20	6
Cambodia	40	22	41	20	30.8	122	8	3
Myanmar	31	26	24	26	26.8	126	9	3

A **preliminary finding** from the indexes above is that there is a connectivity divide between the ML countries. For all modes conserved, PR China, Thailand and Vietnam score relatively higher than Cambodia, Lao PDR, and Myanmar, which lag behind in most metrics.

[1] UNCTAD B2C E-Commerce index 2019. Available at: https://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d14_en.pdf

From these findings, the current and expected status of physical connectivity infrastructure were examined, and were then subject to feedback from the online consultations.

ONLINE NATIONAL CONSULTATIONS

Given the developments of the COVID-19 pandemic, the field visits, initially planned for March 2020, were changed to an online format. Key stakeholders from the Kingdom of Cambodia, People's Republic of China (PRC), Lao´s People Democratic Republic, Republic of the Union of Myanmar, and the Kingdom of Thailand provided their inputs and updates, as per October of 2020 on the preliminary findings from the desk research. Questions were finetuned along the way, so that more accurate discussions could be obtained from subsequent consultations. The online interviews were divided into three parts:

Part A. National and Sectoral Connectivity Plans

The table below summarizes, per country, the different national and sectoral connectivity plans:

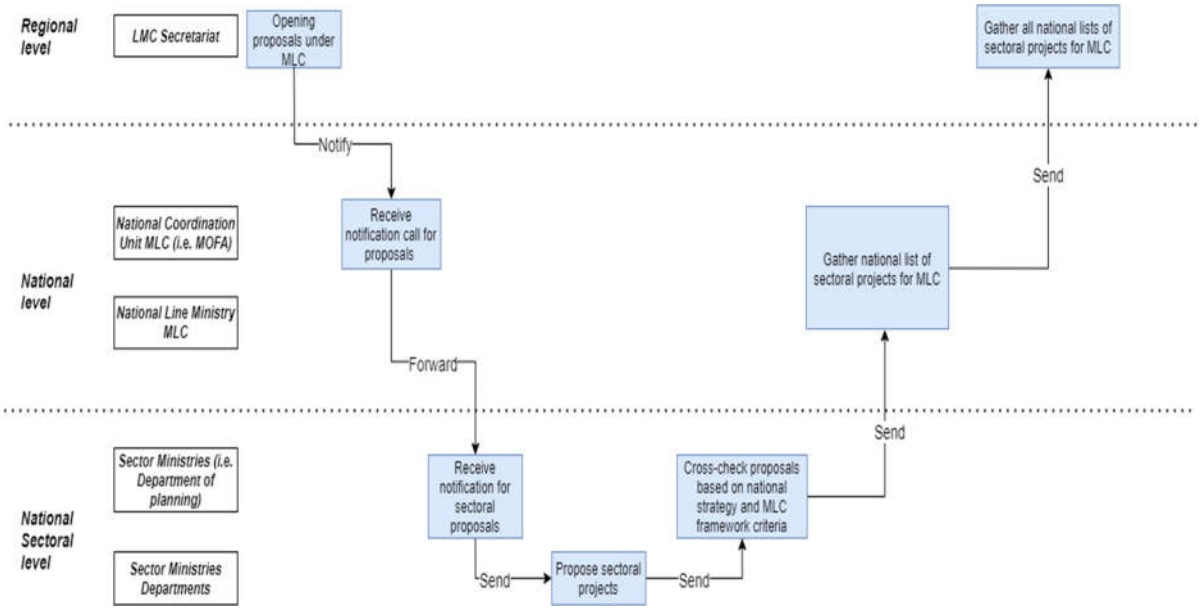
Country	National infrastructure plans	Sector Plans					
		Road	Rail	Ports	Inland waterways	Air	ICT
Thailand	20-Year Thailand's Transport Systems Development Strategy (2018 – 2037)	10-year Highway Development plan	Rail Development Master Plan to Facilitate Special Economic Zones, Tourism and Local Area Development	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Broadband Internet Project (Net Pracharat)
PR China	13th Five-Year Plan for Economic and Social Development of the People's Republic of China 2016-2020	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan
Viet Nam	Five-Year Socio-Economic Development Plan 2016-2020	N/A	N/A	N/A	N/A	N/A	N/A
Lao PDR	8th Five-year National Socio-Economic Development Plan 2016-2020	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Five Year ICT National Strategy 2020-2025*
Cambodia	- National Strategic Development Plan 2019-2023 - Intermodal Transport Connectivity & Logistics System 2020-2030	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	- Telecommunications/ ICT Development Policy 2020 - ICT Masterplan 2020 - Digital Economy Policy* - Digital Government Policy*
Myanmar	- National Transport Master Plan (MYT_Plan) - National Logistics Master Plan (draft)	Master Plan for Arterial Road Network Development in Myanmar, 2015	Incorporated in National Plan	Port Infrastructure Comprehensive Feasibility Assessment and Master Plan	- Ayeyarwady River Channel Maintenance Master Plan - Chindwin River Channel Maintenance Master Plan	Domestic Airport Master Plan 2016	E-commerce Master Plan 2015-2020

Part B. Current and Expected Connectivity Status of each Country

For all the connectivity modes considered in this study, both the current and the expected status on connectivity were reviewed by the stakeholders of the countries already mentioned above. The annex depicts the currents status, in terms of nodes and linkages, as well as the ongoing and expected development, both hard and soft, for the different modes.

Part C. Identify Bottlenecks and Recommendations to Enhance Cooperation

In order to identify bottlenecks, it was first relevant to understand how the process flow, from project identification to final selection at regional level. Based on preliminary feedback from the consultations, an idea of the process flow, and the involvement of different stakeholders as part of the MLC framework, is as follows:



BOTTLENECKS

Based on the previous, attendees were given the freedom to identify issues along the process flow, not just for the MLC, but for any other cooperation framework. These have been clustered into the following five elements:

[B.1] Lack of understanding of the problem: The proposed projects could sometimes not be addressing the bottom issue.

[B.2] Long processes: Administrative processes to identify and select a particular project a regional level could be long and tedious. Among other reasons, proposal may undergo a vertical process of review and approval from different cabinets, which coupled with paper-based administrative processing, could slow down the process.

[B.3] Misalignment of national plans: The needs and time frames of each national plan could vary from country to country, thus slowing the process of identifying potential regional projects.

[B.4] Unawareness of regional framework counterparts in neighboring countries: With different government organizational structures per country, cross-border communication could be challenging, since the allocation of tasks is not fully clear.

[B.5] Lack of funding and expertise: Several countries experience a lack of available budget to implement their connectivity projects. Funding Application from development partners requires complying with particular standards and levels for which the country may lack expertise.

RECOMMENDATIONS

Following the same line, major recommendations have been derived from stakeholders, and clustered into the following:

[Ro.1] Create and disseminate more clear guidelines to assess suitability of projects under the MLC framework: This deals with a more clear and structured approach so that suitability of a particular candidate project can be assessed more quickly to qualify for funding under the MLC framework.

[Ro.2] Clear divide between the scope of connectivity and cross-border trade in the MLC framework: Considering that both priority areas exist as separate under the MLC framework, a clearer distinction should be made and disseminated.

[Ro.3] Encourage frequent online participation: As a result of the COVID-19 pandemic, several departments reported less reluctancy to participate in online meetings, which could make communication quicker, while still keeping high-level, in-person meetings.

[Ro.4] Clarify and disseminate contacts, duties and roles of Line Ministries within the Working Groups: Each sectoral stakeholder should have a clear overview of who their counterparts are in the neighboring countries within the MLC framework.

[Ro.5] Synchronize the work under different regional frameworks: Given the difference in scope between regional frameworks, synchronization should be promoted to enhance visibility and transparency across frameworks, thus removing unnecessary duplicities and ensuring common goals within the region.

[Ro.6] Encourage participation of the private sector: The private sector could bring in technical expertise, so that process flows of coordination are optimized.

[Ro.7] Promote digital transformation and capacity building on ICT skills: This deals with digitizing processes, so that administrative processing can be accelerated, and upscaling ICT skills across the different stakeholders. The later does not suggest focusing on the government only, but also on the private sector and society as a whole, promoting ICT curriculum development across educational institutes.

CONCLUSION AND WAY FORWARD

The previous recommendations coming from the key stakeholders have grouped into three main categories, which are interlinked and span different time ranges. They are:

Information Sharing Tool

With the purpose of giving visibility to the progress status of the projects under the MLC framework, an information sharing tool is proposed, which builds on top of ongoing developments by the Mekong Institute. Among others, the following functionalities shall be provided:

- Guidelines to assess suitability of the project under the framework
- Guidelines stating a clear difference between the scope of work of different priority areas
- Duties, roles and focal contact delegates from the different working groups within the framework

- Monitoring of progress in similar regional cooperation frameworks, stating clearly duties, roles and focal contact delegates

Enhanced Communication

The course of action is twofold. First, encouraging participation of the private sector. Second, promotion of a hybrid combination of both online meetings (more frequent) and in-person meetings (less frequent and for diplomatic purposes) between the members of the joint working groups. This can bring synergies and boost efficient and effective communication, and thus coordination.

Capacity Building

Capacity building is proposed to be conducted on two levels to improve coordination. Firstly, dissemination of the information sharing tool and its requirements, so that stakeholders get acquainted with the platform. Secondly, capacity building should be conducted to upscale digital and ICT skills, with the purpose of bridging the large digital divide in the region, prepare the workforce for future jobs, and reinforce connectivity resiliency in the region against disruptions of different natures such as the COVID-19 pandemic.

Recommendations from participants	Categorical Solutions		
	Information sharing tool	Enhanced communication	Capacity building
[Ro. 1] More clear guidelines to assess suitability of projects under the MLC framework	✓		✓
[Ro. 2] Clear divide between the scope of connectivity and cross-border trade in the MLC framework	✓		✓
[Ro. 3] encourage frequent online participation		✓	
[Ro. 4] Clarify and disseminate contacts, duties and roles of line ministries within the working groups	✓		✓
[Ro. 5] Synchronize the work under different regional frameworks	✓		✓
[Ro. 6] Encourage participation of the private sector		✓	
[Ro. 7] Promote digital transformation and capacity building on ICT skills			✓
Execution time frame	Short Term (≤ 1 year)	Short Term (≤ 1 year)	Long Term (≥ 1 year)

1. INTRODUCTION

The Mekong-Lancang region is one of the most dynamic regions in Asia with its fast-growing economy. It encompasses Cambodia, People's Republic of China (PRC), Lao PDR, Myanmar, Thailand and Viet Nam. These six sub-regional countries along the Lancang-Mekong river are closely linked geographically, socially, culturally, and are endowed with abundant natural and human resources. With the aim of contributing to the socio-economic development of the sub-regional countries and enhancing the well-being of their people, the six countries initiated the sub-regional Mekong-Lancang Cooperation (MLC) mechanism. The major overall pillars of the MLC framework, in alignment with the ASEAN Community Vision 2015, are the following:

i) Public policy and security cooperation,
ii) Economic and sustainable development cooperation,
iii) Social, cultural, and people-to-people exchanges.

This framework was adopted in the first MLC-Leader's Meeting under the Sanya Declaration. Following swift implementation progress, the Five-Year Plan of Action was approved in 2018, which clearly states its alignment with the ASEAN Community Vision:
"By synergizing China's Belt and Road Initiative and the ASEAN Community Vision 2025 as well as the Master Plan on ASEAN Connectivity 2025 and visions of other Mekong Sub-regional cooperation mechanisms, the MLC is moving towards a new sub-regional cooperation mechanism with unique features driven by internal strength and inspired by South-South cooperation, which will support the ASEAN Community building and regional integration process, as well as promote the implementation of the UN 2030 Agenda for Sustainable Development."

Under the Sanya Declaration framework and the Five-Year Plan of Action on MLC (2018-2022)[2], five priority areas were identified and agreed upon: (I) Connectivity; (Ii) Production Capacity; (Iii) Cross-Border Trade; (Iv) Water Resource Management; (V) Agriculture and Poverty Reduction of Cooperation. Each Joint Working Group is assigned voluntarily to one of the priority areas. Within that area, different projects are implemented. Both coordination groups (usually Ministry of Foreign Affairs) and experts' groups (coming from government agencies or the private sector) gather on a regular bases to update, discuss and propose new projects within the area. With respect to (i) connectivity, progress has been made by drafting the Plan on Connectivity between Mekong-Lancang Countries (2020-2035), which is currently pending dissemination and approval by all member countries.

As part of the project on "Capacity Building for National Coordinators of Mekong-Lancang Cooperation" to promote effective coordination of the regional cooperation mechanisms, this report proposes a study on transport connectivity issues in the Mekong-Lancang region. Via this assessment, recommendations for better coordination amongst the stakeholders within the connectivity plans and programs will be provided.

[2] Five-Year plan of Action on Mekong-Lancang Cooperation (2018-2022). Available at: https://pressocm.gov.kh/wp-content/uploads/2018/01/ENG-Five-Year-Plan-of-Action-on-Mekong-LancangMekong-Lancang-Cooperation-2018-2022.pdf

2. METHODOLOGY AND SCOPE OF THE STUDY

The study herein presented combined the first stage of desk review followed by participatory-based online consultations. As a result, connectivity issues were identified. Furthermore, best practices, learning, regional impact, achievement and issues of coordination and cooperation among the MLC countries were assessed. A final dissemination workshop is to be conducted to share and validate the results presented.

2.1 Desk Review

As a first stage, the following were reviewed:

i) Five-Year Plan of Action on MLC (2018-2022),
ii) Draft of the Plan on Connectivity Cooperation between ML Countries (2020-2035),
iii) ACMECS Master Plan (2019-2023),
iv) GMS Regional Investment Framework 2022,
v) Master Plan on ASEAN Connectivity 2025, and
vi) National infrastructure development plans of the six member countries in the MLC framework

The previous were complemented with studying available and relevant documents. The sources came, but were not limited to, from development banks such as World Bank and Asian Development Bank and intergovernmental organizations (i.e. UNESCAP), the ASEAN Secretariat and other credible scientific papers or company reports. The purpose of the desk review was to (i) have an initial understanding of the mechanisms of coordination in the ML Countries, and (ii) to identify and outline the current and expected status on physical connectivity. The later included transport (road, rail, air, inland waterways, and deep sea ports) and ICT linkages as well as sub-regional transport agreements and terms in which the MLC countries were bounded together.

2.2 Online Consultations

With the aim to obtain more comprehensive understanding on coordination among the agencies in the MLC Countries, interactive online consultations were organized. Officials and representatives from Ministries of Foreign Affairs and other Line Ministries that are involved in any of the connectivity modes invited to the meetings. The topics of consultations were divided into three parts:

Part A: Confirming national and sector specific plans,
Part B: Confirming current and expected connectivity status, and
Part C: Identifying bottlenecks and best practices in your sector projects.

2.3 Questionnaires

As additional information, questionnaires were developed for key ministries, especially Ministries of Foreign Affairs of the six member countries. The purpose was to complement the findings from the desk research and the online consultations. Given time restrictions, the questionnaires were sent to key representatives for them to fill in on a volunteering basis.

3. CURRENT STATUS

This chapter presents the results of the desk research conducted to give a better overview of the cooperation mechanisms that influence the ML region, as well as current regional infrastructure status in the six member countries.

3.1 Review of Current Cooperation Frameworks

3.1.1 Mekong-Lancang Cooperation

As already introduced in Section 1, the MLC framework by the six member economies which share the Lancang Mekong river, with the purpose of enhancing socio-economic development of the sub-regional countries and enhancing the well-being of their people. Under the Sanya Declaration, the Phnom Penh Declaration, and the Five-Year Plan of Action, the MLC frameworks seeks to improve infrastructure connectivity via a coordinated approach with other cooperation mechanisms.

Sanya Declaration (First MLC Leaders' Meeting)
Paragraph 6:
"*Encourage synergy between China's belt and Road Initiative and MLC activities and projects, as well as relevant development programs of the Mekong countries, including the Master Plan on ASEAN Connectivity (MPAC)".*

Phnom Penh Declaration (Second MLC Leaders' Meeting)
Paragraph 10:
"Recognizing the ever changing forces of globalization and the evolving development trend and committing to maximize win-win cooperation by seeking the optimal combination of the MLC with other development strategies like the Master Plan on ASEAN Connectivity 2025 (MPAC), Initiative for ASEAN Integration (IAI) Work Plan III the United Nations 2030 Agenda for Sustainable Development and the Belt and Road Initiative (B&R), all the while carefully dovetailing with the national strategies, development visions and general plans of the respective Mekong-Lancang countries."

Five-Year Plan of Action on MLC (2018-2022)
Established in 2018 and built "*on the principles of consensus, equality, mutual consultation and coordination, voluntarism, common contribution and shared benefits*", this plan of action laid the ground of the Mekong-Lancang Cooperation (MLC). Paragraph 4.2.1 (articles 21 through 27) outlines the needs and goals related to connectivity from an infrastructural and institutional perspective. The need for a plan on connectivity in line with the Master Plan on ASEAN Connectivity (article 21), as well as the promotion of infrastructure upgrade and construction (article 22), are well stated in the document.

Plan on Connectivity Cooperation between ML Countries (2020-2035)

The Plan on Connectivity Cooperation between ML Countries 2020-2035 (henceforth PCCMLC) was drafted by China Development Bank (CDB), and reviewed by the National Development

and Reform Commission of PR China. Its final adoption is still pending, and is expected to be ratified in the next MLC Leaders' meeting[3].The goal of the plan is to benefit the establishment of comprehensive and multilayered infrastructure connectivity among the MLC countries. It is expected that the PCCMLC will help governments of the MLC countries to strengthen cooperation on developing and implementing specific projects to effectively improve infrastructure connectivity.

Highway and railway connectivity are meant to be promoted by optimizing the layout and capacity of infrastructure facilities for water, air and land transport in the ML region. A connectivity network featuring "three horizontal routes and three vertical routes", is expected to connect the ASEAN to the Belt and Road[4].

Concerning the **road** mode, the three horizontal and three vertical high-grade highway routes will be built for promoting trade exchanges between major cities in the ML region. Focus will be put on upgrading and renovating major sections of cross-border highways which connect major cities.
As part of the **rail** priority area, two major horizontal (east-west) railways and two major vertical (north-south) railways are mentioned under the PCCMLC:

- East-West route I: Connection Yangon – Kyaukpyu – Mandalay – Kunming – Hanoi – Hai Phong, as part of the Myanmar – China – Viet Nam horizontal route,
- East-West route II: Connection Yangon – Bangkok – Phnom Penh - Ho Chi Minh as part of the Myanmar – Thailand – Cambodia – Viet Nam horizontal route,
- North-South route I: Connection Kunming – Vientiane – Bangkok – Hat Yai as part of the China – Lao PDR – Thailand vertical route,
- North-South route II: Connection Nanning – Ha Noi –Ho Chi Minh City as part of the China – Viet Nam vertical route

Four branch lines complete the entire planned railway network: Kunming -Nanning-Fangchenggang; Vientiane -Thakhek- Vung Ang; Vientiane- Thakhek- Pakse -Vermkham - Phnom Penh -Sihanoukville; Nakhon Ratchasima-Ubon Ratchathani-Chong Mek -Pakse-Hue.

The upgrade of **waterway** transport infrastructure will also be accelerated via research and planning in the area of inland waterway transport. The conditions at key inland river ports will be upgraded, and new river wharfs will be constructed. This will enhance the development of multimodal transport along the riverside economic centers with highway, railway and inland networks. A regional waterway transport channel will be developed based on the ML international waterway, the China – Myanmar land-water passage via the Irrawaddy River, the interconnected waterway of Red River via China and Viet Nam, and a network to facilitate the connection between river and sea transport.

[3] The MLC Leaders' meeting in Lao PDR of March 2020 has been postponed by the member countries, following the guidelines from the World Health Organization regarding the development of the COVID-19.
[4] Draft of the Plan on Connectivity Cooperation Between Mekong-Lancang Countries (2020-2035)

The construction and upgrading of **port** infrastructure is also in the agenda to enhance a coastal port shipping connectivity network among the ML countries. Their hinterland will also be strengthened, especially via expressways and railways connecting to cargo terminals. Information sharing will be promoted via modern information technology systems for more efficient, safer and sustainable port operations.

The **air** corridor in the ML region will also be strengthened via cooperation in airport construction, capital, technology and talent development. More direct flights will be opened via the major international airports, and the frequency of existing itineraries will be increased.

A safe, efficient and interconnected **information network** is to be built via planning and construction of digital infrastructure (i.e. land or submarine cables), to support and narrow the digital divide within the ML countries. The recent focus is on promoting existing cable expansion projects, such as the China -Viet Nam or the China – Lao PDR projects. Other projects will be launched as well, such as Myanmar's domestic land cable; the land cable across Dawei (Myanmar) – Bangkok (Thailand) – Phnom Penh (Cambodia) – Ho Chi Minh City (Viet Nam); and the submarine cable across Hong Kong - China – Viet Nam – Cambodia – Thailand – Myanmar.

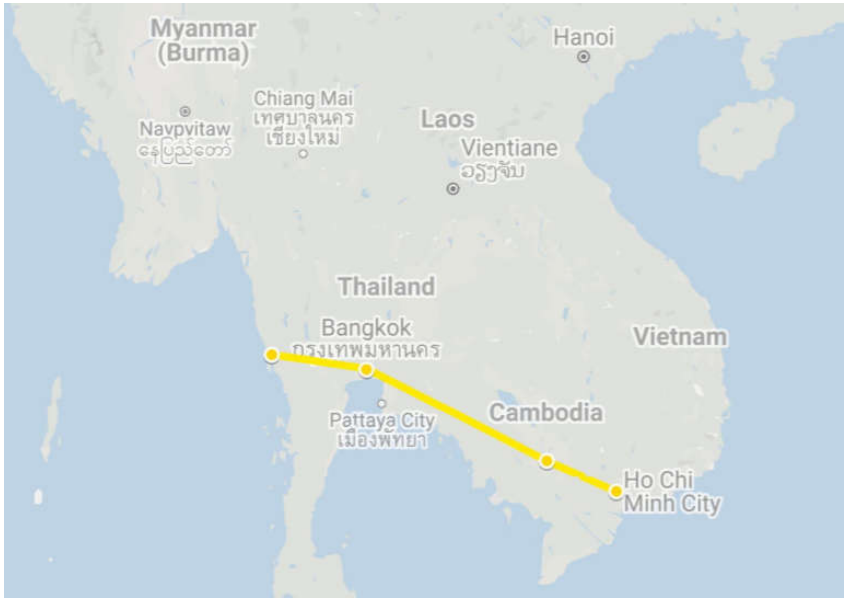


Figure 1: Planned IT land cable under the draft of the PCCMLC

Efforts are still to be made to identify proper investment and financing models. This means promoting cooperation between bilateral and multilateral financial institutions, such as the World Bank, the Asian Development Bank, the Asian Infrastructure Investment Bank, and the Silk Road Fund, as well as the application of PPP. As already mentioned, it is intended to coordinate the MLC mechanism with other multilateral cooperation frameworks such as ASEAN, GMS and ACMECS.

The latest draft version, unpublished at the time of the submission of this Inception Report, includes a list of early harvest projects that have been proposed by the Chinese counterparts. The project selection criteria under the early harvest of the PCCMLC was the following:

1. Projects that can effectively promote the economic development of the LMC countries, remove development bottlenecks, and meet the urgent needs of the participating countries.
2. Projects that involve more than three countries and can build a consensus for cooperation, expand common interests, create more opportunities for cooperation, and promote the LMC concepts.
3. Projects helping to promote transport, energy, telecommunications, and other infrastructure connectivity between the LMC countries and to promote harmony among the standards, norms and technologies for infrastructure construction.
4. Projects helping to enable more convenient transport, customs clearance, investment and trade, improve the business environment, and strengthen the economic ties between countries.
5. Projects that are feasible and can produce quick results and notable benefits for all parties involved.
6. Projects helping to promote policy coordination, cultural exchange and people-to-people bonds between the participating countries

3.1.2 Association of Southeast Asian Nations (ASEAN)

Established in 1967 in Bangkok, Thailand, the ASEAN is one of the largest regional mechanism in the entire Asia-Pacific region, comprising a total of 10 member countries: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

Figure 2:ASEAN member countries

Under the ASEAN Economic Community Department (AEC Department), the study investigated the Transport and ICT divisions. With respect to transport and trade facilitation agreements, several emanate from ASEAN, the most relevant being: (i) the ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT), 1998; (ii) the ASEAN Framework

Agreement on the Facilitation on Inter-State Transport (AFAFIST), 2009; (iii) ASEAN Framework Agreement on Multimodal Transport (AFAMT), 2005; and (iv) the Agreement to Establish and Implement the ASEAN Single Window, 2005. Their full implementation and operationalization, including the development of necessary transport facilitation-related procedures, were already identified as a priority under the Master Plan on ASEAN Connectivity 2010, with the purpose of achieving a seamless logistics system in the entire ASEAN region. The new master plan described below in more detail, is set the continue tracking these ongoing efforts.

Master Plan on ASEAN Connectivity 2025 (MPAC 2025)

Adopted in 2016 to replace the previous Plan on ASEAN Connectivity of 2010, the new vision is to "achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community". Connectivity in this sense deals with three dimensions, namely physical, institutional and people-to people. There are five main strategic areas in which MPAC 2025 focuses on: (i) Sustainable infrastructure; (ii) digital innovation; (iii) seamless logistics; (iv) regulatory excellence; (v) people mobility. These comprehensive areas translate to general strategic objectives, as shown in Figure 3:

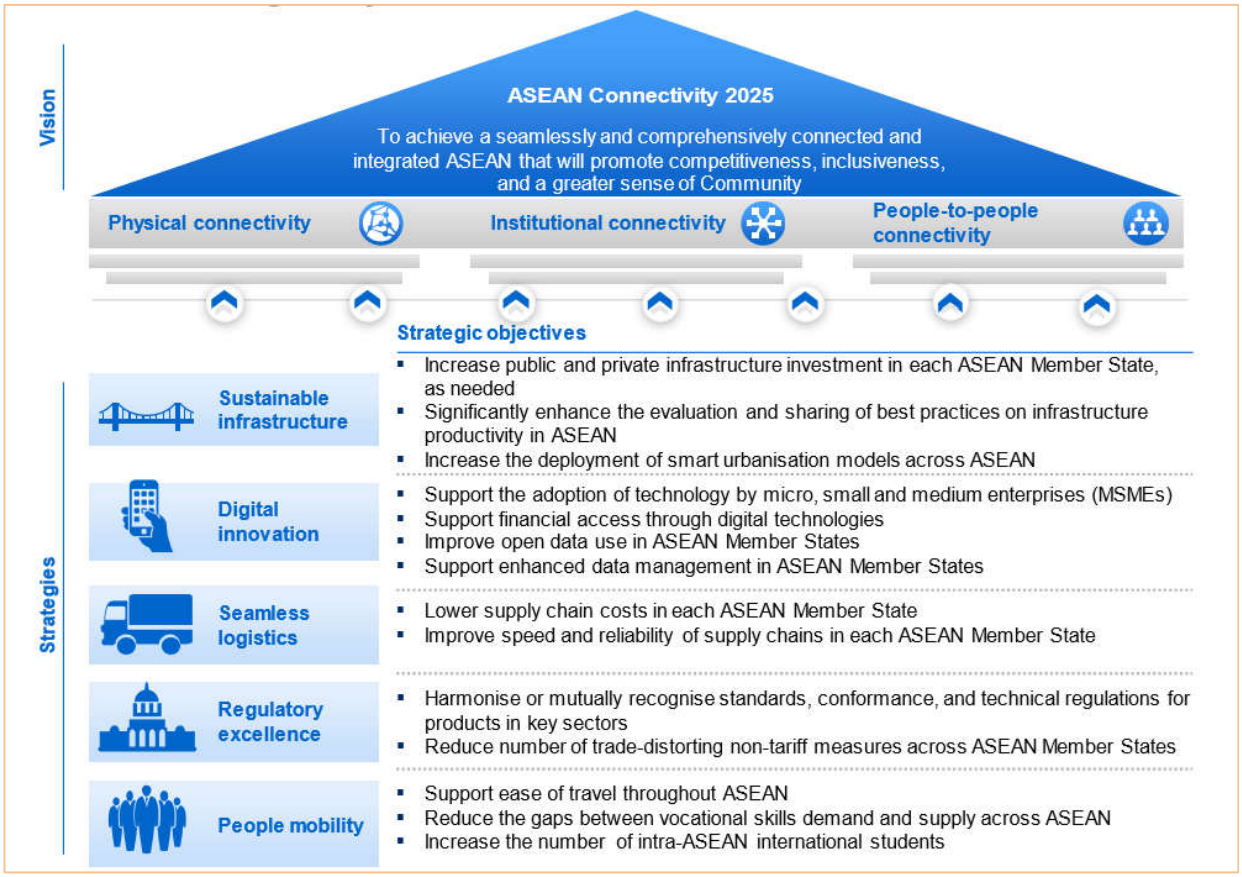


Figure 3:Vision and strategic objectives of the MPAC 2025

Figure 4:Example of road upgrade project proposed in the ASEAN initial pipeline (Reference: ASEAN)

The previous general strategic objectives were broken down into more detailed key initiatives[5]. One that is relevant is the establishment of a rolling priority pipeline list of potential ASEAN sustainable infrastructure projects. Up to now, after the submission and screening of 42 applications by the Member States, a list consisting on 19 initial projects and 21 potential projects have been listed[6].

With respect to the digital innovation strategic objectives, efforts are aligned with the ASEAN ICT Master Plan 2020, which is more thoroughly explained in Section 0.

To ensure a successful implementation of the MPAC 2025, the plan is arranged in a multi-layered structure, where coordination between external, regional and national levels is needed. This can be found in Figure 5.

[5] Key initiatives can be found in exhibit 9 of the MPAC 2025, available at https://asean.org/wp-content/uploads/2016/09/Master-Plan-on-ASEAN-Connectivity-20251.pdf
[6] ASEAN Secretariat (2019): Enhancing ASEAN Connectivity. Initial Pipeline of ASEAN infrastructure projects.

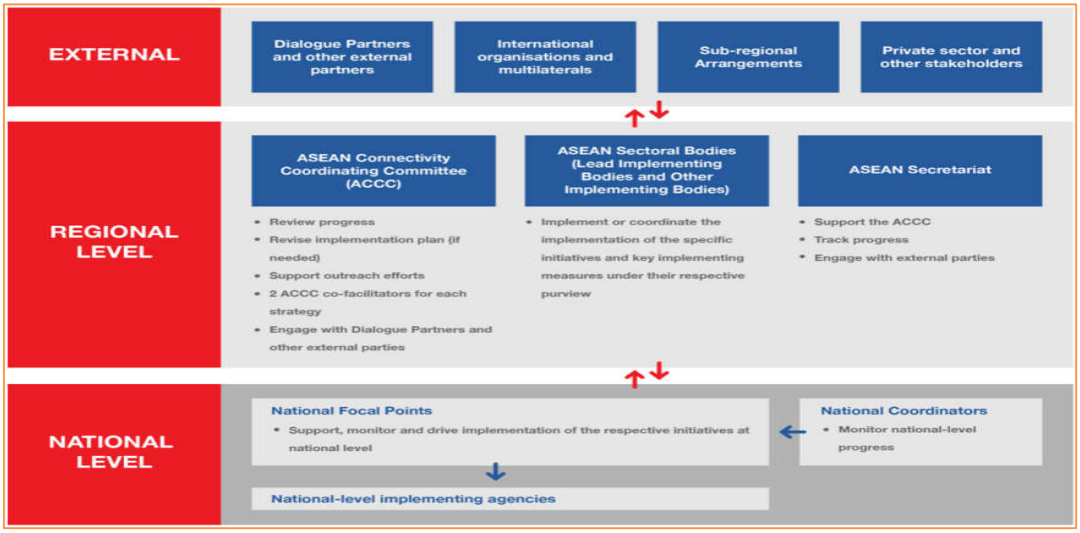


Figure 5:Coordination structure of the MPAC 2025

3.1.3 Greater Mekong Subregion (GMS)

The Greater Mekong Subregion Economic Cooperation Program was established in 1992, with Cambodia, the People's Republic of China (Yunnan and Guangxi provinces), Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam as the member countries. Via the Regional Investment Framework (RIF), and with the Asian Development Bank performing the function of Secretariat, it supports the implementation of high-priority projects in the six nations that share the Mekong river.

The economic corridor concept was adopted by the member countries in 1998. Revised versions of the East-West Economic Corridor (EWEC), the North-South Economic Corridor (NSEC), and the Southern Economic Corridor (SEC) have been proposed under the GMS Transport Sector Study, with the latest update in 2018 (see old and new configuration in FIGURE 6). Under this concept, the first set of transport projects were proposed (such as the Phnom Penh – Ho Chi Minh City Highway in Viet Nam).

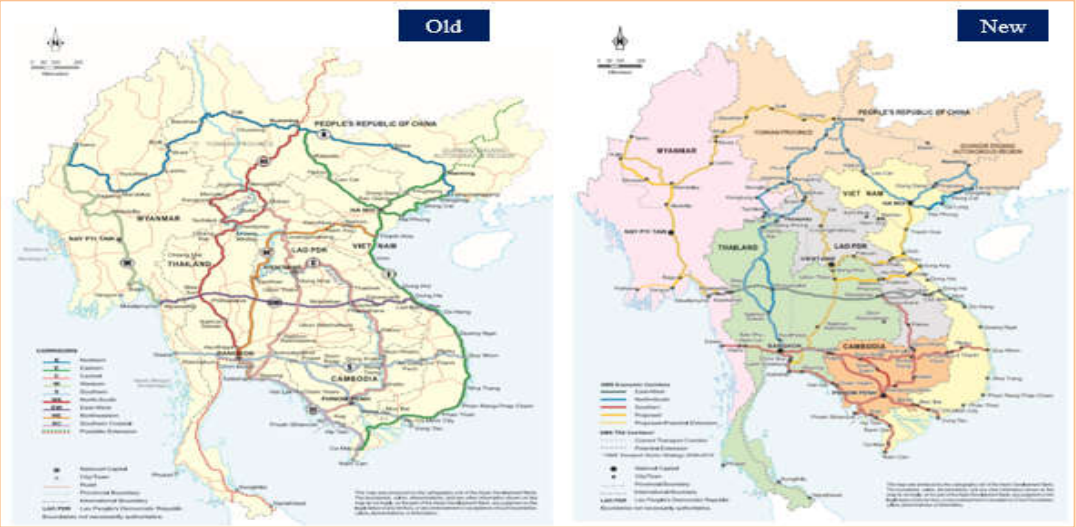


Figure 6: Old and new proposed configuration of EWEC, NSEC and SEC (SOURCE: ADB, 2018. Review of configuration of the Greater Mekong Subregion Economic Corridors)

Moreover, with the purpose of addressing policy and regulatory issues regarding cross-border movement of goods and people, the GMS Cross-Border Transport Facilitation Agreement (CBTA) was initiated in 1999. The CBTA promotes integration of production and supply chain processes in the region, and is designed to facilitate intra-regional flows of goods and the designation of key economic corridors that connect major cities and economic centers within the GMS. It must be however noted that, under the MLC framework, cross border trade falls in a different priority area than connectivity.

GMS Regional Investment Framework (RIF) 2022

As part of the development agenda under the GMS Program, the RIF was created as a medium-term pipeline of priority projects in the entire GMS region, operationalizing the strategic thrust under the GMS Strategic Framework 2012-2022 and Hanoi Action Plan 20218-2022. The pipeline includes planned investment in the GMS from various multilateral, bilateral and private sector partners. RIF 2022 is to be used (i) as an instrument for greater alignment between regional and national planning for GMS projects, and (ii) as a marketing tool to galvanize new financing for projects.

The RIF is annually reviewed and updated to maintain its relevance and responsiveness as a planning tool for sub-regional initiatives. Under the GMS Program, Sub-regional Transport Forum (STF) serves as the key body for reviewing, coordinating and monitoring the regional transport plans and projects of GMS member countries. The last gathering was during the 23rd Meeting of the GMS Subregional Transport Forum (STF-23), held in August of 2019 in Thailand. Each country presented their progress and updated list of projects that fall under the GMS umbrella within the transport sector. Status in the different projects are divided into (i) proposed (study phase); (ii) ongoing; and (iii) complete[7].

[7] The latest progress update of the six member countries can be found at: https://greatermekong.org/sites/default/files/RIF%202022.%20Overview%202019_0.pdf

3.1.4 ACMECS

The Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) is the framework for economic cooperation among Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam. ACMECS focuses on the following areas of cooperation: trade and investment, agriculture, industry, energy, transport, tourism, human resource development and healthcare.

ACMECS Master Plan (2019-2023)

The five-year ACMECS Master Plan was approved in 2019 during the 8th Summit held in Thailand. Focusing on multidimensional connectivity, the plan aims to complement the already mentioned MPAC 2025, as well as other regional and global development efforts. Three overall goals, known as the "3S", were identified:

Seamless connectivity; focused on multi-modal transport infrastructure, including roads, rails, ports, aviation, maritime and inland waterways; digital infrastructure and energy infrastructure.

i) Synchronized ACMECS; which deals with institutional synchronization and application of a standard set of (digital) rules and regulations for seamless flow of goods, services, investment and people in the region.
ii) Smart and sustainable ACMECS; focused on development of human capital and application of modern technology on the one hand, and on the promotion of environmental cooperation and sustainable activities (i.e. agriculture, industry, tourism).

With the aim to avoid overlapping activities, this plan already states the need to "promote overall and closer coordination between ACMECS and its development partners through existing Mekong programs and frameworks", including, but not limited to, the GMS and the MLC. Furthermore, the ACMECS countries agreed to "explore the possibility to streamline the organizational structures of all Mekong sub- regional frameworks".

Similar to the steps made by the MPAC 2025, a list of prioritized projects, by partner country, were proposed under the ACMECS Master Plan. These are missing links and required infrastructure that have been based on the member countries national's plans and in alignment with other regional cooperation plans such as GMS.

3.1.5 Other Sub-Regional Cooperation Frameworks

With the purpose of adding context to the current situation in the area of study, other sub regional Cooperation Frameworks within the region have briefly been identified, yet left out of the scope of the study:

- Mekong Japan Cooperation (MJC). Initiated in 2008 with six members: Cambodia, Lao PDR, Myanmar, Viet Nam, Thailand and Japan. The key objective of MJC is to promote economic, cultural and social cooperation, therefore reducing the development gap in ASEAN.
- Mekong-Korean Cooperation Framework (MKCF). Initiated in 2011, it involves the Republic of Korea, Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam. Under the

Han River Declaration, infrastructure was considered as one of the key pillars narrow ASEAN's commitment for a connected and integrated ASEAN region.

- Mekong-Ganga Cooperation (MGC). Established in 2000, it comprises Thailand, Myanmar, Cambodia, Lao PDR, Viet Nam and India, with transportation as one of the focus areas.
- Lower Mekong Initiative (LMI). Established in 2009, it a multinational partnership among Thailand, Myanmar, Cambodia, Lao PDR, Viet Nam and the United States to address development and policy challenges in the Lower Mekong sub-region.
- Cambodia-Laos-Viet Nam Development Triangle Area Cooperation (CLV-DTA). Formed in 2018, the three countries aim to foster increased cooperation and integration
- Cambodia-Lao PDR-Myanmar-Viet Nam Cooperation (CLMV). With the first summit in November 2004, the CLMV aim to enhance economic cooperation and integration within the Mekong sub-region, with the purpose to narrow development gaps.

Sub-Regional Agreements along the ML Countries

Table 1 identifies the ML countries and the reviewed relevant sub-regional agreements which they are currently part of. As can be seen, only the GMS and MLC cover the six countries of study.

Country	ASEAN				ACMECS	GMS	MLC
	AFAFGIT	AFAFIST	ADAMT	ASEAN Single Window			
PR China						✓	✓
Viet Nam	✓	✓	✓	✓	✓	✓	✓
Thailand	✓	✓	✓		✓	✓	✓
Lao PDR	✓	✓	✓	✓	✓	✓	✓
Myanmar	✓	✓	✓	✓	✓	✓	✓
Cambodia	✓	✓	✓		✓	✓	✓

Table 1: Selected Sub-regional agreements along the ML region

3.2 Current and Expected Status of Connectivity in the MLC Countries

3.2.1 Connectivity Indexes

To understand the current situation of connectivity in the MLC countries, and given that *connectivity* can be a broad term, several metrics are displayed. For the transport modes (referred to here as road, rail, air, port and inland waterway), the Logistics Performance Index, as well as the Transport Infrastructure indicators of the Global Competitiveness report[8], are considered. Concerning the Information and Communication Technology (ICT), the UNCTAD B2C E-Commerce Index[9] was used as a valid reference for an ML economy´s preparedness to

[8] For more information on the Global Competitiveness Report 2019 and how the different metrics are calculated, visit page 617 of http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

[9] UNCTAD B2C E-Commerce index 2019. Available at: https://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d14_en.pdf

support online purchases. Moreover, the e-commerce legislation harmonization in ASEAN[10], with the latest update in 2013, has also been reviewed.

3.2.2 Transportation Indexes

First of all, the *Logistics Performance Index* (LPI) shows, on a 1 to 5 scale, how each country performs for different attributes, with "Infrastructure" as the most relevant for the scope of this study. Table 2 displays the current status for the six MLC countries, including the regional average. For benchmarking purposes, the average of the European Union member states is also displayed.

Country	LPI score	LPI rank	Customs	Infrastructure	International shipments	Logistics quality and competence	Tracking and tracing	Timeliness
PR China (1)	3.61	26	3.29	3.75	3.54	3.59	3.65	3.84
Viet Nam	3.27	39	2.95	3.01	3.16	3.40	3.45	3.67
Thailand	3.41	32	3.14	3.14	3.46	3.41	3.47	3.81
Lao PDR	2.70	82	2.61	2.44	2.72	2.65	2.91	2.84
Myanmar	2.30	137	2.17	1.99	2.20	2.28	2.20	2.91
Cambodia	2.58	98	2.37	2.14	2.79	2.41	2.52	3.16
MLC region	2.98	69	2.75	2.75	2.98	2.96	3.03	3.37
(1) Values of PR China calculated for the entire country. Metrics for the 2 ML provinces could differ.								

Table 2: Logistics performance Index. Source: World Bank. Available from https://lpi.worldbank.org/international/aggregated-ranking

Moreover, the Global Competitiveness Report agglomerates useful indexes from several sources (i.e. World Bank, UNCTAD, etc.) that can be used for benchmarking purposes as well. As part of the 2nd pillar, under *Transport infrastructure*, different metrics are quantified for all countries. For the purpose of this study, only the road, rail, air and (deep-sea) ports are outlined in Table 3.

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Country	Transport Infrastructure [0-100]	Road connectivity [0-100]	Quality road infrastructure [1-7]	Railroad density [km/km^2]	Efficiency in train services [1-7]	Airport connectivity [score]	Efficiency air transport	Liner shipping connec	Efficiency of seaport servic

[10] Review of e-commerce legislation harmonization in the ASEAN. Available at: https://asean.org/storage/2019/01/UNCTAD-Review-of-e-Commerce-Legislation-Harmonisation-in-ASEAN-2013.pdf

							servic es [1-7]	tivity [0-100]	es [1-7]
PR China [1]	68.9	95.7	59.7	17.9	59	100	60.7	100	58.6
Viet Nam	52.2	63.3	40.1	19.1	43.3	86	49.7	68.8	47.3
Thailand	56.8	80	56.6	21.8	30.3	98.9	67.3	48	51.4
Lao PDR	45.3	51.5	44.3	NA	NA	35.9	49.3	NA	NA
Myanmar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cambodia	42.4	61.9	42.7	NA	NA	53.9	44.7	8.2	42.9
[1] Values of PR China calculated for the entire country. Metrics for the 2 ML provinces could differ.									

Table 3: Transport Infrastructure index of the six MLC countries. Source: World Economic Forum

3.2.3 ICT Indexes

Leveraging information and communication technologies has for long been recognized as a key priority in most of the cooperation frameworks that involve the ML region. Table 4 displays the status, as in 2013, of e-commerce law harmonization in five of the six member countries within ASEAN that are also part of the MLC framework.

Country	Electronic Transactions	Privacy	Cybercrime	Consumer Protection	Content Regulation	Domain Names
Thailand	Enacted	Partial	Enacted	Enacted	Partial	Partial
Viet Nam	Enacted	Partial	Enacted	Enacted	Enacted	Enacted
Lao PDR	Enacted	None	None	Draft	Enacted	Partial
Cambodia	Draft	None	Draft	None	Draft	Enacted
Myanmar	Enacted	None	Enacted	Enacted	Enacted	Enacted

Table 4: Status of E-Commerce Law Harmonization in ASEAN (2013). Source: UNCTAD

Given this snapshot, the ASEAN ICT Master Plan 2020, published in 2015, focuses on further enabling the transition to the digital economy and developing the human capacity necessary for this transformation, facilitating the emergence of a single integrated market, and building a digital environment that is trusted and safe. Specific initiatives are reflected in the MPAC 2025, which include: enhancement of Micro, Small and Medium Enterprises (MSME) Technology Platform; development of an ASEAN digital Financial Inclusion Framework; establishment of an ASEAN Open Data Network; and the establishment of an ASEAN Digital Data Governance Framework.

Moreover, under the GMS, the Lancang-Mekong Sub-regional Economic and Trade Development Center (LMEC) serves as a focal point for the so-called Business Alliance of GMS

Cross-border E-commerce Cooperation Platform[11]. Established in 2016, it promotes the exchange of cross-border e-commerce policies and standards and the execution of capacity-building programs. The alliance involves both private sector and government stakeholders. As part of the Cross-Border E-Commerce framework, the countries update their e-commerce situation based on their national strategies, promotion of e-commerce in SMEs, implementation of existing legislation, and government bodies responsible for e-literacy.

As per 2019, the *UNCTAD B2C E-Commerce Index* is displayed in Table 5 below:

Country	UNCTAD B2C E-Commerce Index 2019						Internet shoppers	
	Share individuals using the internet	Share individuals with an accountt	Secure internet servers	UPU Postal reliability score	2019 Index value	2019 rank	As % of internet users	As % of population
Thailand	57	82	61	94	73.5	48	9	5
PR China	54	80	55	85	68.8	56	69	39
Viet Nam	70	31	66	77	61.1	64	31	19
Lao PDR	26	29	30	56	35.1	113	20	6
Cambodia	40	22	41	20	30.8	122	8	3
Myanmar	31	26	24	26	26.8	126	9	3

Table 5: IT snapshot of Thailand with respect to the rest of the ML countries, based on the UNCTAD B2C E-Commerce Index of 2019

3.3 Conclusion from the Connectivity Indexes

Table 2, Table 3, and Table 5, suggest a connectivity divide between the ML countries. For all modes considered in this study, one group composed of PR China, Thailand and Viet Nam, shaded in grey, score relatively higher, whereas another group composed of Cambodia, Lao PDR, and Myanmar lag behind in most metrics. Based on these findings, it is interesting to know what the current status on the physical connectivity infrastructure is, and what the most relevant project proposals are for each country.

3.4 Current and Expected Physical Infrastructure

Both the current and expected status of physical connectivity infrastructure per country, which can be found in the Appendix, was identified **based on the findings from the desk review and the feedback from the online consultation sessions with Line Ministries** (see Section 4).

[11] See Progress Report GMS Cross-Border E-Commerce Cooperation Platform, available at: https://greatermekong.org/progress-report-gms-cross-border-e-commerce-cooperation-platform

As already stated, connectivity under the MLC framework excludes cross border trade, and for that reason only the physical connectivity was considered for the current status. Nodes (vertices) and links (connection between nodes) were presented, following the topology of network theory.

Expected status was identified as proposed both hard and soft connectivity projects, which expands the scope of the current status from current status section. Major sources of information have been national infrastructure plans (updated in Section 4), the ASEAN initial pipeline[12], the latest update on the GMS RIF 2022[13]; the ACMECS Master Plan (2019-2023); and the early harvest of the draft on the Plan on Connectivity Cooperation of Mekong-Lancang Countries (2020-2035). Given the scope of the study to improve coordination among the ML countries via the MLC cooperation framework, especial attention is given to the draft on the PCCMLC (2020-2035), by shading proposals included in the early harvest of the PCCMLC in grey.

Those projects which were not identified by the national ministries during the consultations, albeit being found in a particular regional plan, or could be potentially sensitive, have been excluded from the annex.

[12] Initial pipeline of ASEAN Infrastructure Projects. Available at: https://asean.org/?static_post=enhancing-asean-connectivity-initial-pipeline-asean-infrastructure-project

[13] GMS RIF 2022 Second Progress Report and Update. Available at: https://greatermekong.org/sites/default/files/RIF%202022.%20Overview%202019_0.pdf

4. ONLINE NATIONAL CONSULTATIONS

Given the developments of the COVID-19 pandemic, the field visits, initially planned for March 2020, were postponed and changed to an online format. The following table summarizes, for each member country, the dates and line ministries which participated in the sessions. The questions presented to participants, as well as the full list of attendees, are outlined in the Appendix.

Figure 7:Example online consultations with line ministries. Case of Myanmar

As already stated, the purpose of the online meetings was to (PART A) update the identified national and sectoral plans; (PART B) update the current and expected connectivity status of each country; and (PART C) get insights into bottlenecks as well as recommendations to streamline connectivity projects of importance at a regional scale.

The last item (PART C) concerns with understanding how cooperation is done between the different member countries at the regional level. In a typical process flow of infrastructure projects (see Figure 8 on page 18), the first phases usually start with a long-term blue print of future developments, where general goals are stated. This is usually done via a Master Plan, a planning tool that may span up to 20 or 30 years of time horizon, and can have a general sectoral reach (i.e. road plan, port master plan, etc.), as well as a national or regional scope.

After assessing the current situation, projects which can help meet the overall goals of the long-term plans can be proposed and announced, and be screened according to different evaluation techniques (i.e. MCA, CBA, SCBA, …) and the funding structure (public, private, PPP, …). The following steps of filtered projects after pre-evaluation involve the tendering process, the design phase, and lastly construction and commissioning.

Country	Date of online meeting	Stakeholders present

Kingdom of Thailand	10th July 2020	• Ministry of Transport
		  ○ International Affairs
		  ○ Office of Transport and Traffic Policy and Planning
		  ○ Department of Airports
		  ○ Department of Highways
		  ○ Department of rail transport
		  ○ Port Authority of Thailand
		• Ministry of Foreign Affairs
		  ○ Department of International Economic Affairs

	20th July 2020	• Ministry of Digital Economy and Society

Republic of the Union of Myanmar	17th July 2020	• Ministry of Transport and Communications
		  ○ Myanmar Railways
		  ○ Myanmar Port Authority
		  ○ Department of Civil Aviation
		  ○ Road Transport Administration Department
		  ○ Information, Technology and cyber Security Department
		  ○ Water Resources and Improvement of River Systems
		• Ministry of Construction
		  ○ Highway Department
		• Ministry of Planning, Finance and Industry
		• Ministry of Foreign Affairs

Kingdom of Cambodia	13th July 2020	• State Secretariat Civil Aviation
	24rd July 2020	• Ministry of Post and Telecommunications

	3rd August 2020	• Ministry of Public Works and Transport
		  ○ Department of Planning and Policy
		  ○ Department of Inland Waterway, Maritime and Port
		  ○ Railway Department
		  ○ Department of Land Transport
		  ○ Department of expressway Mega Bridge and Investment

Lao's People Democratic Republic	23rd July 2020	• Ministry of Public Works and Transport
		  ○ Road department
		  ○ Rail department
		  ○ Aviation department
		  ○ Water department

	29th July 2020	• Ministry of Posts and Telecommunications
People's Republic of China	30th July 2020	• MLC Secretariat

Socialist Republic of Viet Nam	N/A	N/A

Table 6: Schedule of online consultation meetings

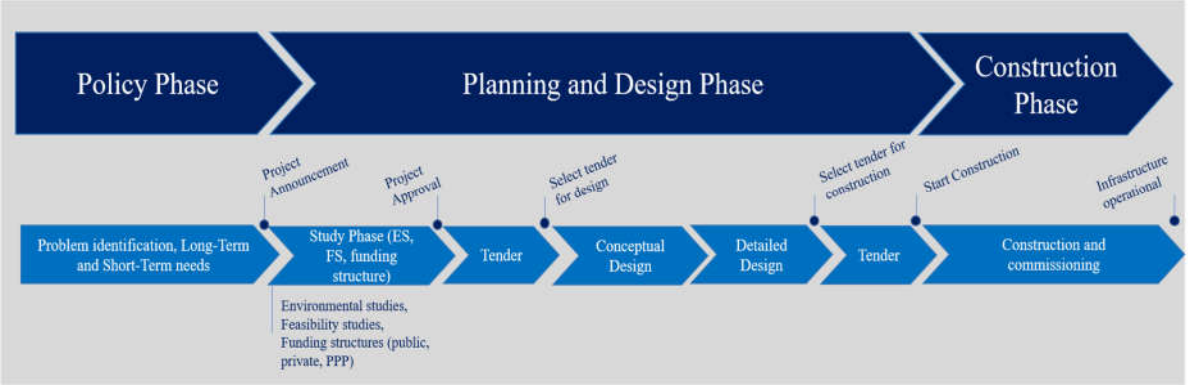


Figure 8: Typical process of infrastructure connectivity projects. Source: Author

4.1 Part A: Confirm National and Sector Specific Plans

Table 7 (on page 19) displays the ongoing national and sector specific (if applicable) master plans in the six member countries as of August of 2020.

4.2 Part B: Confirm Current and Expected Connectivity Status

To avoid excessive length of the report, the schematic maps in the Appendix already include the feedback from the online consultations with respect to the current and expected connectivity of all modes for the six member countries.

4.3 Part C: Identify Bottlenecks and Recommendations in Sectoral Projects

The last part involved first understanding what the process flow is with respect to identifying a sectoral project which can have relevance at a regional (ML) level, and how the different government agencies interact and coordinate under the MLC framework. Common bottlenecks and recommendations to improve the process flow were pinpointed based on the feedback from the consultations with the different stakeholders.

Based on the feedback from some of the attendees, an idea of the process flow to identify projects at the national level and push them into the regional level, via the MLC secretariat, can be as follows:

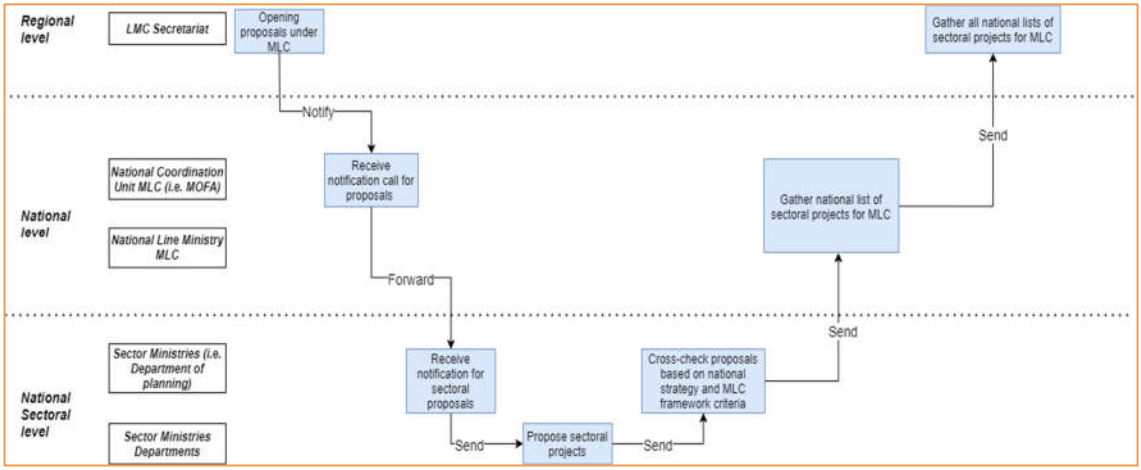


Figure 9: Process flow and involvement of different stakeholders as part of the MLC framework.

Country	National infrastructure plans	Sector Plans					
		Road	Rail	Ports	Inland waterways	Air	ICT
Thailand	20-Year Thailand's Transport Systems Development Strategy (2018 – 2037)	10-year Highway Development plan	Rail Development Master Plan to Facilitate Special Economic Zones, Tourism and Local Area Development	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Broadband Internet Project (Net Pracharat)
PR China	13th Five-Year Plan for Economic and Social Development of the People's Republic of China 2016-2020	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan
Viet Nam	Five-Year Socio-Economic Development Plan 2016-2020	N/A	N/A	N/A	N/A	N/A	N/A
Lao PDR	8th Five-year National Socio-Economic Development Plan 2016-2020	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Five Year ICT National Strategy 2020-2025*
Cambodia	- National Strategic Development Plan 2019-2023	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in National Plan	Incorporated in	- Telecommunications/ ICT

	- Intermodal Transport Connectivity & Logistics System 2020-2030					National Plan	Development Policy 2020 - ICT Masterplan 2020 - Digital Economy Policy* - Digital Government Policy*
Myanmar	- National Transport Master Plan (MYT_Plan) - National Logistics Master Plan (draft)	Master Plan for Arterial Road Network Development in Myanmar, 2015	Incorporated in National Plan	Port Infrastructure Comprehensive Feasibility Assessment and Master Plan	- Ayeyarwady River Channel Maintenance Master Plan - Chindwin River Channel Maintenance Master Plan	Domestic Airport Master Plan 2016	E-commerce Master Plan 2015-2020

*Table 7: Current national and sectoral plans. * in draft phase.*

A few remarks from the online consultations need to be taken into consideration:

- Overall, there was a **high level of attendance** and participation among the invited stakeholders, with low absence identified. This could be due to the large flexibility given by online consultations, which expanded for a period of 4 weeks. High attendance could have been more challenging in the initial 2-weel planning considered for the in-person field visits.
- There were **asymmetries** in the level of understanding of the scope and goal of the study by the participants. Many attendees addressed cross-border trade issues, which is not part of the scope of this study. A clarification of the entire scope of the MLC framework should have been made more explicit at the beginning of each meeting. Coupled in some cases with low internet connection, much of the information had to be gathered and confirmed via e-mail as follow-up.
- **Some stakeholders were not aware of the MLC process flow**. In some cases, the process flow for other cooperation frameworks (i.e. GMS or ASEAN) were mentioned instead. This suggest that the MLC framework may still be in an early phase, and further dissemination could be needed to ensure a smooth process flow of connectivity projects under the MLC framework.

4.4 Bottlenecks Identified from the Consultations

Considering the previous, participants were given freedom to identify common **bottlenecks** in the process flow of any cooperation framework. Some relate directly to the problem flow, while others are more generic. These have been grouped and summarized in the following paragraphs, with supporting quotes from the participants[14]:

[B.1] Lack of Understanding of the Problem

Common in many other countries and regions around the world, the proposed projects can sometimes not be addressing the bottom issue. Among other reasons, this can be due to a lack of technical-based robust planning on the early policy phases, resulting in an inefficient allocation of scarce expertise efforts, reducing necessary expert allocation for other projects. Moreover, should the project move forward to the next of development, scare funding efforts would be reduced to sub-optimal projects.

> *"In many cases we need more scientific-based reasoning so that the proposed project can truly solve the issue"*

[14] For sensitivity purposes, the quotes from the participants have been rephrased and left anonymous.

[B.2] Long Processes

Several departments remarked that the administrative processes to identify and select a particular project at a regional level can be long and tedious. Among other reasons, a particular proposal may undergo a vertical review and approval of different cabinets. This, coupled with paper-based administrative processing, can slow down the process.

> *"Many of the processes to push the projects are paper based"*
> *"It takes time to push projects forward"*
> *"Getting approval of the cabinet takes several steps, up to weeks or months"*
> *"We have submitted our projects 3 years ago to the MLC and we still don't know about the status of our applications"*

[B.3] Misalignment of National Plans

Each country has its own circumstances and needs, which can lead to a larger focus on other areas besides connectivity. This diversification can hinder a smooth flow of coordination under the connectivity priority area. Moreover, the time frame of each national and sectoral plan can vary from country to country (i.e. from 5 years to 15 years), which could also slow down the process of identifying and developing a particular project at a regional level.

Unbalanced development of infrastructure projects linking two or more countries was identified in various sectors between different countries, with a lack of joint planning on a regional level.

> *"Our leaders now agree to spend more resources in other cooperation areas, such as customs, education or environmental matters"*

[B.4] Unawareness of Regional Framework Counterparts in Neighboring Countries

Considering the diverse government structure in each country, communication between them is done case by case. While in one country, the Ministry of Transport can be overseeing all connectivity modes for a particular cooperation framework, in other countries the share of those modes can be split among different ministries (i.e. Ministry of Construction, Ministry of Public Works and Transport and so forth). While no bottlenecks were identified in the intra-

> *"If our Ministry is going to cooperate with a neighboring country under this particular framework, we would like to know who to reach"*
> *"Selecting a project regionally can be difficult: who is my counterpart? Do their roles align with us, or do we need more agencies involved?"*
> *"We still haven't seen our sector counterparts in the sector meetings"*

communication within a country, several stakeholders remarked that cross-border communication can be more challenging.

[B.5] Lack of Funding and Expertise

Several countries, such as Cambodia or Lao PDR, experience a lack of available budget to implement their connectivity projects, which in many cases leads to the need to seek aid from development partners, such as the World Bank or other cooperation agencies. In other to apply for funding, projects need to be assessed according to the guidelines and requirements of those development partners, such as feasibility studies. Ministries may be lacking enough workforce to conduct such studies, and can therefore hinder progress of those project proposals.

> *"Funding is always a problem"*
> *"We have proposed many projects but they are lacking Feasibility Studies, and therefore they don't meet the requirements of the development partners"*

4.5 Recommendations identified from the consultations

Major **recommendations** from the participants have been summarized below.

[Ro. 1] Create and disseminate more clear guidelines to assess suitability of projects under the MLC framework

In the project identification process flow, sectoral departments check whether a project proposal is aligned with the national plan, as well as with the respective regional cooperation framework. Some stakeholders highlighted the need for a more structured approach to quickly assess the suitability of a connectivity project to qualify for funding under the MLC framework.

A standardized matrix with quantitative values for different criteria should be made visible as an efficient way to gather and assess the suitability of projects.

> *"Clear guidelines to meet the MLC funding criteria, could help us cross-check whether a proposed project at a national level complies with the MLC. The ASEAN has a matrix where you can check relatively quickly."*
> *"MLC needs a robust strategic plan and clear guidelines, with allocated work and budget plan"*

[Ro. 2] Clear divide between the scope of connectivity and cross-border trade in the MLC Framework

While conducting the online consultation sessions, several participants were addressing cross-border trade issues and bottlenecks. Albeit accepting that cross border trade and connectivity go hand in hand, the scope of work of both priority areas, which fall under the MLC framework, should be further clarified and disseminated. This was especially remarked under IT connectivity.

> *"ICT Infrastructure seems to fall under Connectivity priority, but it is also relevant for Cross-Border Trade, which is another priority area. This should to be clarified."*
> *"Especially in these times, ICT and digital technology are relevant within every sector"*

[Ro. 3] Encourage Frequent Online Participation

In many cases, arranging formal meetings can be costly. The outbreak of the COVID-19 pandemic has remarked not only a need but also an opportunity to promote frequent online meetings. Many stakeholders admitted that their respective departments are less reluctant to use online tools for meeting purposes. At the same time, other attendees clarified that in-person meetings are still needed, especially at the policy phase.

> *"As a result of COVID-19, our country is now more open to the use of online applications and tools to communicate and interact. We could use this opportunity to boost online participation"*

[Ro. 4] Clarify and Disseminate Contacts, Duties and Roles of Line Ministries within the Working Groups

Several stakeholders remarked the need for more visibility with respect to who their counterparts are under the MLC framework. Moreover, in some cases, regional projects do not clearly allocate the duties and roles of the line ministries involved from different countries, which can create bottlenecks in the successful implementation of connectivity projects.

> *"Our Ministry of Transport may have different national duties than our neighboring counterparts. This should be clear from the very beginning to avoid overlaps or misunderstandings."*

[Ro. 5] Synchronize the Work under Different Regional Frameworks

It was noted both from the desk review, as well as the some of the online consultations, that the difference in scope between some regional cooperation framework is not fully clear. For

instance, under the IT connectivity sector, the scope of work of the "GMS Cross-Border e-commerce cooperation platform" and the "MLC E-commerce cross-border project" seem to be relatively similar. This can cause duplicities in the allocation of Line Ministries in some countries, which was identified for the Working Groups under the Kingdom of Thailand.

Synchronization could be enhanced via information visibility and sharing between both projects on a regular basis. A common platform for information sharing on the progress of both frameworks could be used. Conversely, the use of online meetings between framework coordinators can be an opportunity to share a common approach, time frame and goals for a more interconnected ML region. In line with the previous, the MLC could also provide, on a regular basis, an update on the status of the progress of the different connectivity projects, just like under the webpage of the GMS[15].

"A common online platform between the different cooperation frameworks enhance coordination."

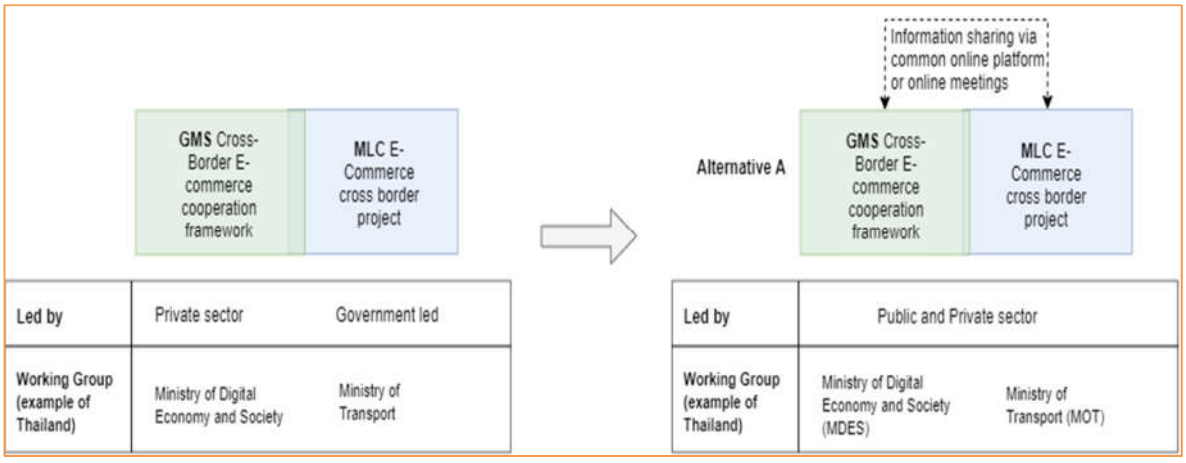


Figure 10: Current and proposed situation or synchronization between GMS Cross-Border E-commerce cooperation platform and the MLC E-Commerce cross-border project. Example of Thailand

[Ro. 6] Encourage Participation of The Private Sector

According to some ministries, the private sector could be involved in the MLC discussions, which could enrich the debate around the most optimal process flow of coordination. Moreover, stakeholder consultation could be used to determine the suitability of a particular project, which is already in use in some of the countries.

"The cooperation frameworks should not be only at the government level. The private sector should join the discussions as well"

[15] Visit greatermekong.org, where each country updates on a regular basis the progress of their transport projects.

[Ro. 7] Promote Digital Transformation and Capacity Building on ICT Skills

From the desk research, a significant ICT and digital divide was identified between the different countries. Some sectoral departments also confirmed this issue by pinpointing during the online consultations the need to promote the following:

Digitized processes, accelerating administrative processing between different departments to push a project forward. Moreover, it can help enhance paperless trade, therefore reducing some of the bottlenecks that have been identified as a result of the COVID-19 pandemic.

Capacity building on ICT skills, not only at the government level, but also at the private sector and societal level, promoting for instance a curriculum development at the university level to boost the telecommunications sector. Re-training and capacity building on ICT skills is in fact gaining especial relevance as a result of the COVID-19 pandemic, where several attendees mentioned the larger focus that is being paid to digitalization. A more regional coordinated approach should be in place to reap the full benefits on digital transformation, and thus avoid an even larger digital divide among the countries.

"Funding should not go only to the infrastructure side, but also on capacity building of ICT"

4.6 COVID-19

Already addressed in some of the recommendations above, the COVID-19 pandemic has changed the way societies interact, communicate or do businesses. With respect to changes in priorities under connectivity in the ML region, the following could be highlighted:

Regarding ongoing connectivity (infrastructure) projects, few delays have been identified. Countries with several ongoing projects are prioritizing to those closer to completion. With respect to longer term projects, only a few countries have reported having reviewed their priorities as a result of the effects of the pandemic. Overall, a larger focus is being put on the ICT infrastructure, given the need for different segments to adapt to digital tools (i.e. homeschooling).

The response measures of each country are diverse. This is creating bottlenecks with respect to cross-border trade, which albeit being in a different priority area of the MLC, affects connectivity as well. Some stakeholders called for the need to keep borders open, to ensure a proper flow of goods between countries, including sanitary relief. A more regional-based approach could tackle the pandemic issues while ensuring enough level of transport integration in the ML region.

As already mentioned previously, the acceptance of digital tools has increased in the past months as a result of the pandemic. There was almost full consensus on the need to take this opportunity to boost and promote a more digital regional economy, which could further enhance e-commerce as well as a more paperless trade. Moreover, coordination protocols among the countries can be reinforced via the use of more frequent online participation meetings.

5. CONCLUSION & FINAL RECOMMENDATIONS

Based on the findings from the desk study, as well as the recommendations provided by the participants in the online consultations, final recommendations are proposed to serve as input for the ongoing project on "Capacity Building for National Coordinators of Mekong-Lancang Cooperation¨, as well as future work.

The recommendations provided by the experts have been re-ordered and grouped into 3 main categories, which are interlinked and span in different time ranges, from short term (less than 1 year) to longer term execution (more than 1 year). The three categories are the following:

- **Information sharing tool**. Considering that several stakeholders were highlighting the need for a monitoring and evaluation tool which could give visibility to the progress status of the projects under the MLC framework. The Mekong Institute is already developing a platform aimed towards that direction, and therefore the solution here pretends to build on top of it in the short term. In this sense, the tool should provide the following:
    - A section that clearly explains and details guidelines to assess suitability of projects under the MLC framework, based on recommendation [Ro. 1]
    - A section that clearly states the difference between the scope of work of the different priority areas, based on recommendation [Ro. 2]
    - A section that clearly states focal contact delegates, as well as duties and roles of the different Line Ministries within the different working groups inside the MLC framework, based on recommendation [Ro. 4]
    - A section that clearly states progress in similar regional cooperation frameworks, as well as focal contact delegates, duties and roles of the different Line Ministries involved in different projects inside and outside the MLC framework, based on recommendation [Ro. 5]
- **Enhanced communication.** Two courses of action can be taken in the short term:
    - Encourage participation of the private sector. Based on recommendation [Ro. 6], discussions could involve the private entities so that
    - Promote a hybrid combination of both online and in-person meetings between the members of the JWG, which could help boost communication in a more efficient manner. While the online format could be done more frequently, the number of in-person meetings could be reduced to more diplomatic purposes.
- **Capacity building.** Throughout a longer time span, capacity building should be conducted on two levels:
    - Dissemination of the aforementioned requirements of the monitoring tool during its launching, so that stakeholders get acquainted with the platform and coordination is improved, based on recommendations [Ro. 1], [Ro. 2], [Ro. 4], and [Ro. 5]
    - In the longer term, upscaling of digital and ICT skills, with the purpose of (1) bridging the large digital divide identified in the region, and (2) preparing the workforce for the future jobs, and (3) reinforcing the connectivity resiliency in

the region against disruptions such as the recent COVID-19 pandemic, based on recommendation [Ro. 7]

Recommendations from participants	Categorical Solutions		
	Information sharing tool	Enhanced communication	Capacity building
[Ro. 1] More clear guidelines to assess suitability of projects under the MLC framework	✓		✓
[Ro. 2] Clear divide between the scope of connectivity and cross-border trade in the MLC framework	✓		✓
[Ro. 3] encourage frequent online participation		✓	
[Ro. 4] Clarify and disseminate contacts, duties and roles of line ministries within the working groups	✓		✓
[Ro. 5] Synchronize the work under different regional frameworks	✓		✓
[Ro. 6] Encourage participation of the private sector		✓	
[Ro. 7] Promote digital transformation and capacity building on ICT skills			✓
Execution time frame	Short Term (≤ 1 year)	Short Term (≤ 1 year)	Long Term (≥ 1 year)

Table 8: Short term and longer-term recommendations in 3 categories

REFERENCES

Regional Cooperation

- MLC Sanya Declaration (2016)
- MLC Phnom Penh Declaration (2018)
- Five-Year Plan of Action on MLC (2018-2022)
- ACMECS Master Plan (2019-2023)
- GMS Regional Investment Framework 2022: Second Progress Report and Update.
- Master Plan on ASEAN Connectivity 2025
- ASEAN (2019), 'Enhancing ASEAN Connectivity. Initial pipeline of ASEAN infrastructure projects: Approach & Context'
- ASEAN (2019), 'Enhancing ASEAN Connectivity. Initial pipeline of ASEAN infrastructure projects: Project Briefs'
- Pacific Forum CSIS (2018), 'The Lancang-Mekong cooperation mechanism (LMCM) and its implications for the Mekong Subregion: Issues & Insights'
- GMS (2018), 'Progress report of GMS cross-border e-commerce cooperation platform'
- GMS (2015), 'Revisiting the GMS economic corridor strategies and action plans'
- GMS (2018), 'Review of configuration of the GMS economic corridors'
- GMS (2018), 'Transport sector strategy'

National & Sectoral Plans

- Thai Transport Infrastructure Development Plan 2015-2022
- Lao PDR: 8th Five-Year National Socio-Economic Development Plan 2016-2020
- Cambodia: Logistics Master Plan SMART 2025
- Myanmar: National Transport Master Plan 2015-2040
- Myanmar: National Logistics Master Plan
- Viet Nam: Five-Year Socio-Economic Development Plan 2016-2020
- 13th Five-Year Plan for Economic and Social Development of the People's Republic of China 2016-2020
- Development Plan of International Navigation on the LM River

Other Reviewed Documentation

- World Economic Forum (2019), Global Competitiveness Report
- UNESCAP (2017), 'Comprehensive planning of Eurasian Transport Corridors to strengthen the intra- and inter-Regional transport connectivity'
- World Bank (2018), Belt and Road Economics. Opportunities and risks of transport corridors
- Mekong Institute (2019), Port infrastructure, sustainable freight and logistics development – Project experiences from GMS countries
- GMS RIF 2022, Second Progress Report and Update, Transport Sector, held in August 15th 2019 in Bangkok, Thailand

APPENDICES

Appendix 1: Current Physical Infrastructure

The current status of physical connectivity infrastructure per country, which can be found in the Appendix. Was identified **based on the findings from the desk review and the feedback from the online consultation sessions with Line Ministries** (see Section 4)[16]. Links and nodes are presented, following the topology of network theory. That is, for each mode, physical connectivity was outlined as a basis of nodes (vertices) and links (connection between nodes).

Roads

To sketch the schematic maps, the UNESCAP Asian Highway Network (AH Network)[17], the GMS new configuration of Economic Corridors, as well as relevant national infrastructure plans, have been used as main criteria to identify major regional linkages. Mymaps© has been used as the tool to generate the schematic maps.

Thailand

- AH1: Aranyaprahet (link to Cambodia) - Bangkok– Bang Pa in – Nakhon Sawan – Tak – Mae Sot (links to Myanmar)
- AH 2: Tak – Lampang – Chiang Rai – Mac Sai (links to Myanmar)
- AH 3: Chiang Rai -Chiang Khong (links to Lao PDR, 4th Friendship Bridge)
- AH 12: Hin Kong – Nakhon Rachasima – Khon Kaen – Udon Thani - Nong Khai (link to Lao PDR, 1st Friendship Bridge)
- AH 13: Nakhon Sawan – Phitsanulok – Nan- Huai Kon (links to Lao PDR)
- AH 15: Udon Thani – Nakhon Phanom (links to Lao PDR via 3rd Friendship Bridge)
- AH 16: Tak – Phitsanulok – Khon Kaen – Mukdahan (links to Lao PDR, 2nd Friendship Bridge)
- AH 19: Nakhon Ratchasima - Kabinburi - Chonburi – Bangkok
- AH 112: Bang Saphan - Khong Loy (links to Myanmar)
- AH 121: Mukdahan (links to Lao PDR) - Suwannaphum - Buriram - Aranyaprathet (link to Cambodia)
- AH 123: Ban Phu Nam ron (links to Myanmar) - Kanchanaburi - Bangkok - Chonburi - Leam chabung - Maptaput - Hat Lek (links to Cambodia)

[16] Since connectivity can be a broad term, the study was scoped down to the hard infrastructure of linkages and nodes, excluding out elements such as cross border trade facilitation.

[17] AH Network can be found at: https://www.unescap.org/resources/asian-highway-route-map

Figure 11:Current status of relevant road infrastructure in Thailand

Cambodia

AH1: Poipet (links to Thailand, includes new Friendship Bridge) - Battambang– Pursat – Kampong Chhnang – Phnom Penh – Neak Locung - Bavet (links to Viet Nam)

- AH 11: Trapeangkreal (links to Lao PDR) – Stung Traeng – Kratie – Kampong Cham – Phnom Penh – Sihanoukville
- AH 21: Siem Reap – Stung Treng – An Dong Pech (links to Viet Nam)
- AH 123: Cham Yeam (links to Thailand) – Kep (links to Viet Nam)

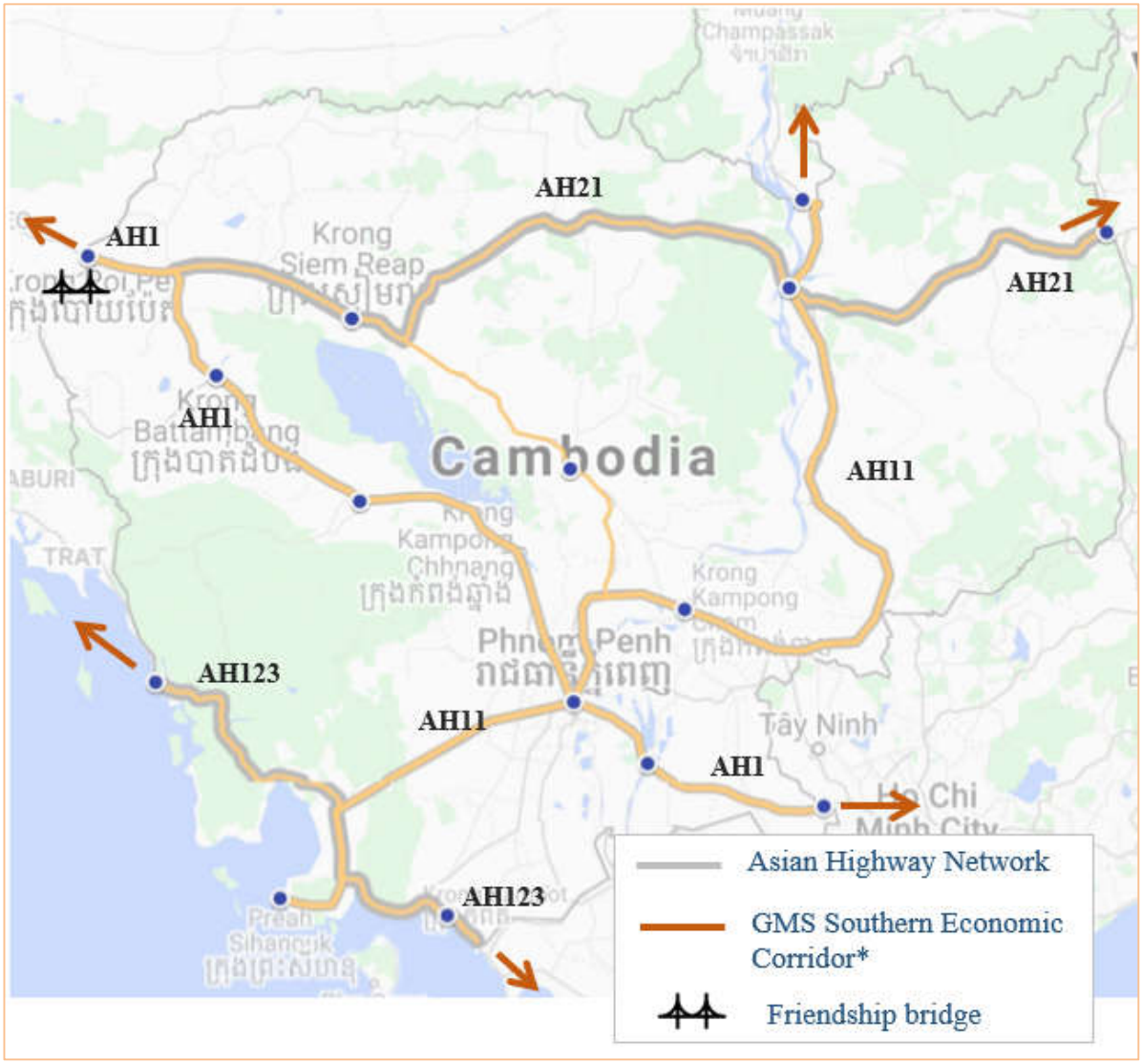


Figure 12: Current status of relevant road infrastructure in Cambodia

Lao PDR

- AH3: Chiang Rai (links to Thailand) – Houauxay – Nateuy – Mohan (links to Yunnan Province, PR China)
- AH 11: Vientiane – Ban Lao – Thakhek – Seno – Pakse – Veunkham – Tranpeangkreal (links to Cambodia)
- AH 12: Nong Khai (links to Thailand) – Thanaleng -Vientiane - Louang Phrabang - Pakmong- Oudomxai – Nateuy – Mohan (links to Yunnan Province, China)
- AH13: Huai Kon (links to Thailand) – Muang Ngeun – Oudomxai – Tai Trang (links to Viet Nam)
- AH 15: Nakhon Phanom (links to Thailand) – Thakhek – Ban Lao – Keoneau – Cau Treo (links to Viet Nam)
- AH 16: Mukdahan (links to Thailand) – Savannakhet – Seno – Densavanh – Lao Bao (links to Viet Nam)
- [i] GMS North South: Vung (Viet Nam) – Mu Ghla (Viet Nam / Lao PDR Border) – Thaklek

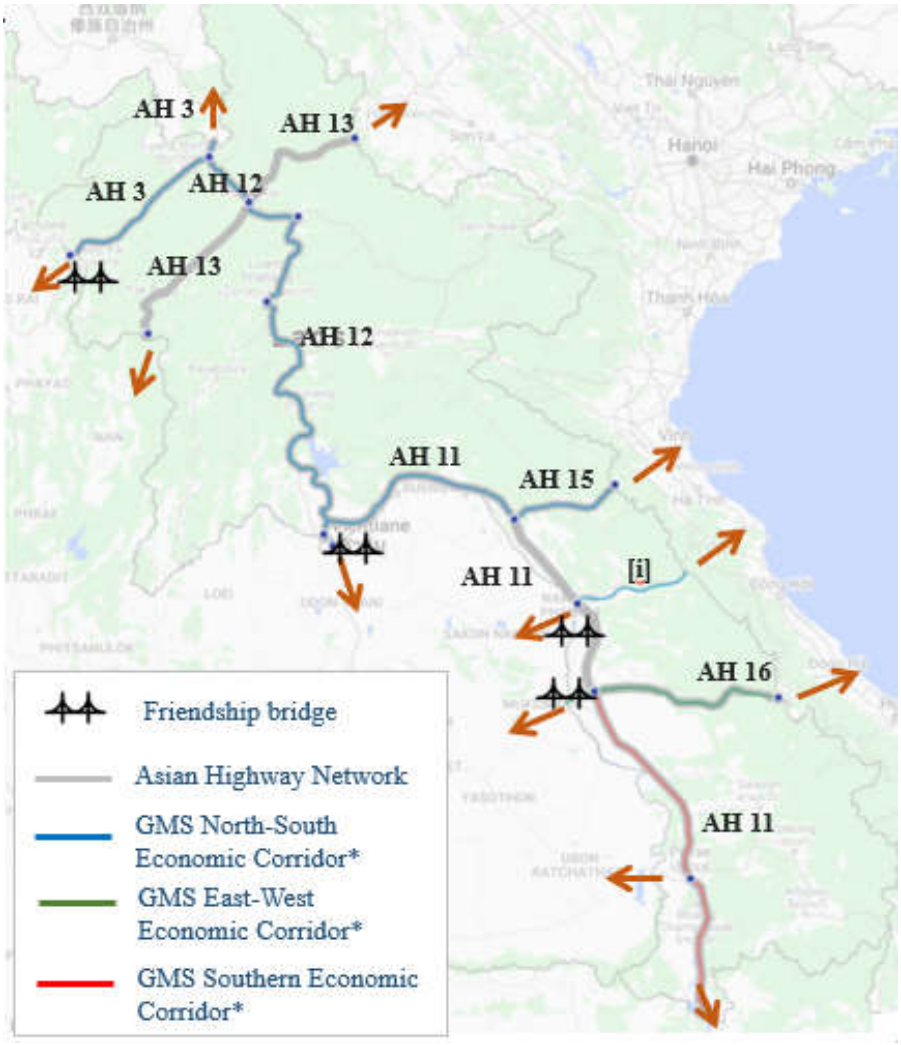


Figure 13: Current status of relevant road infrastructure in Lao PDR

Myanmar

- AH 1: Mandalay – Meiktila – Taungoo – Payagyi – Thaton – Myawaddy (links to Thailand, via Friendship Bridge)
- AH 2: Meiktila – Taunggyi – Kyaing Tong – Tachilek (links to Thailand)
- AH 3: Kyaing Tong – Mongla (links to Yunnan Province, PR China)
- AH 14: Mandalay – Lashio – Muse (links to Yunnan Province, PR China)

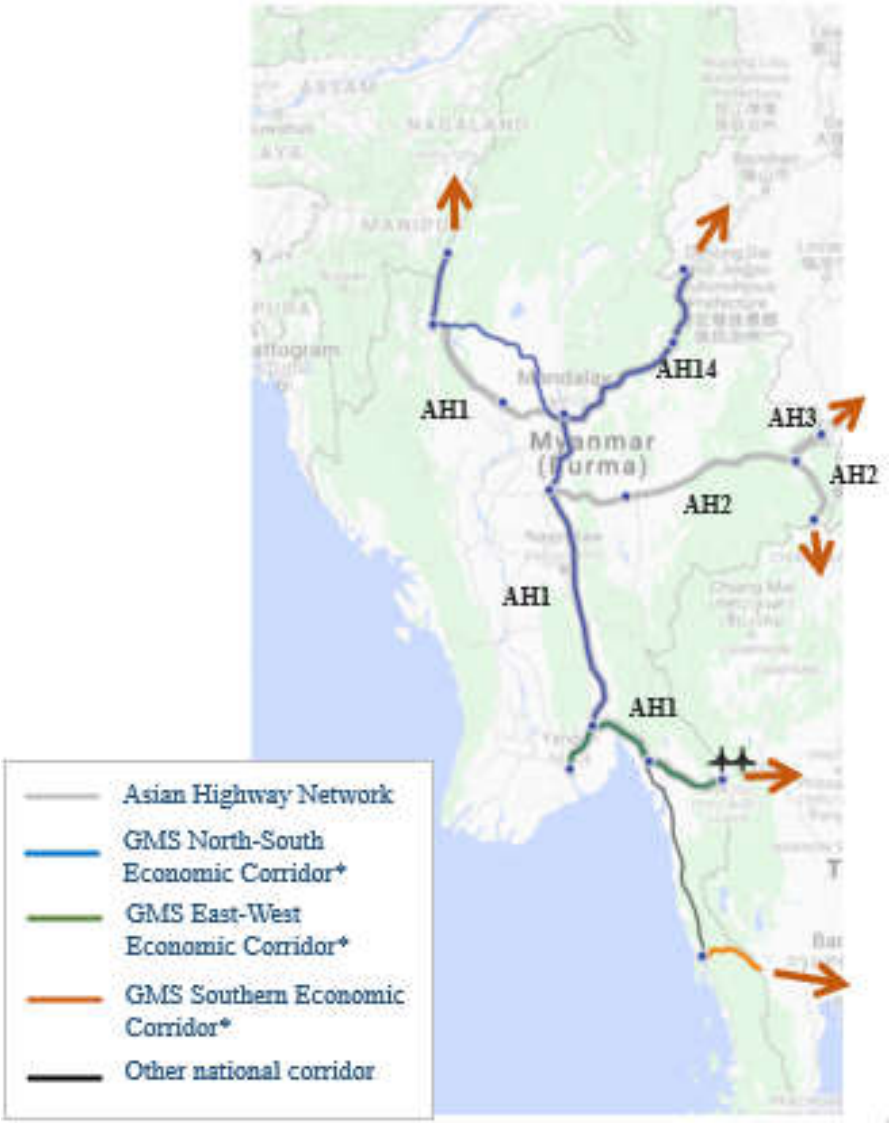


Figure 14: Current status of relevant road infrastructure in Myanmar

Viet Nam

- AH 1: Moc Bai (links to Cambodia) – Ho Chi Minh – Phan Thiet – Nha Trang – Da Nang – Dong Ha – Vinh – Ha Noi – Dong Dang (links to Guangxi Zhuang Autonomous region, PR China)
- AH 13: Pang Hok (links to Lao PDR) - Hanoi
- AH 14: Lao Cai (links to PR China) – Viet Tri - Ha Noi – Hai Phong
- AH 15: Cau Treo (links to Lao PDR) – Vinh
- AH 16: Lao Bao (links to Lao PDR) – Dong Ha
- AH 17: Ho Chi Minh – Vung Tau
- [i] GMS Southern: Ha Tien (links to Cambodia) – Rach Gia – Nam Can
- [ii] GMS Southern: Le Thanh (links to Cambodia) – Quy Nhon
- [iii] GMS North-South: Chalo (links to Lao PDR) – Vung Ang
- [iv] GMS North-South: Hai Phong – Ha Long – Mong Cai (links to Guangxi Zhuang Autonomous region, PR China)

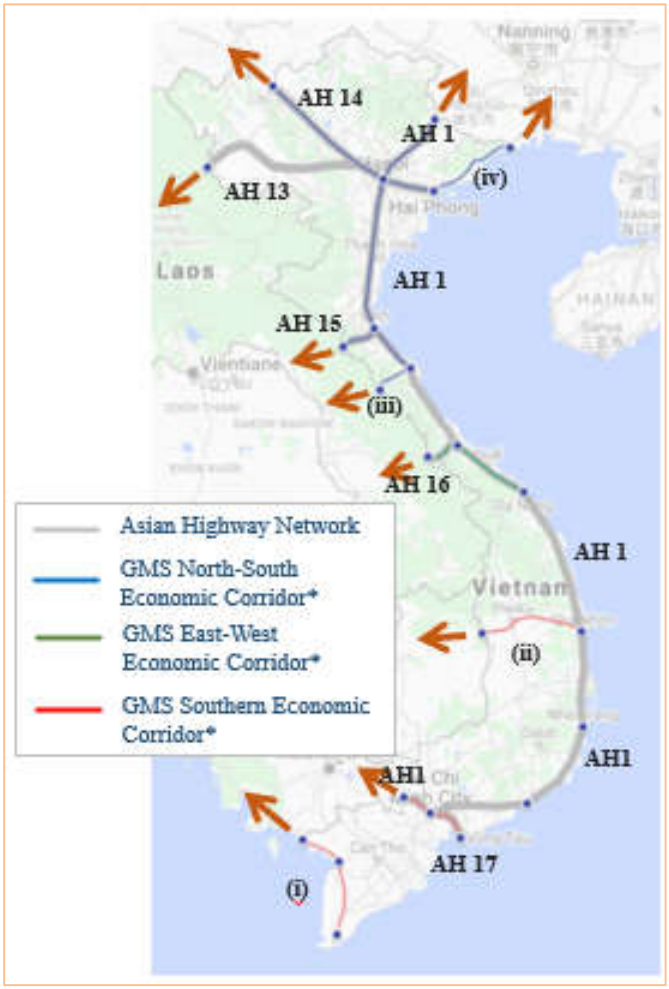


Figure 15: Current status of relevant road infrastructure in Viet Nam

PR China

- AH 1: Nanning – Pingxiang (links to Viet Nam)
- AH 3: Kunning – Jinghong – Mongla (links to Myanmar)
- AH 14: Ruili (links to Myanmar) – Dali – Kunming – Hekou (links to Viet Nam)
- [i] GMS North-South: Nanning – Fangchenggang – Dongxing (linsk to Viet Nam)

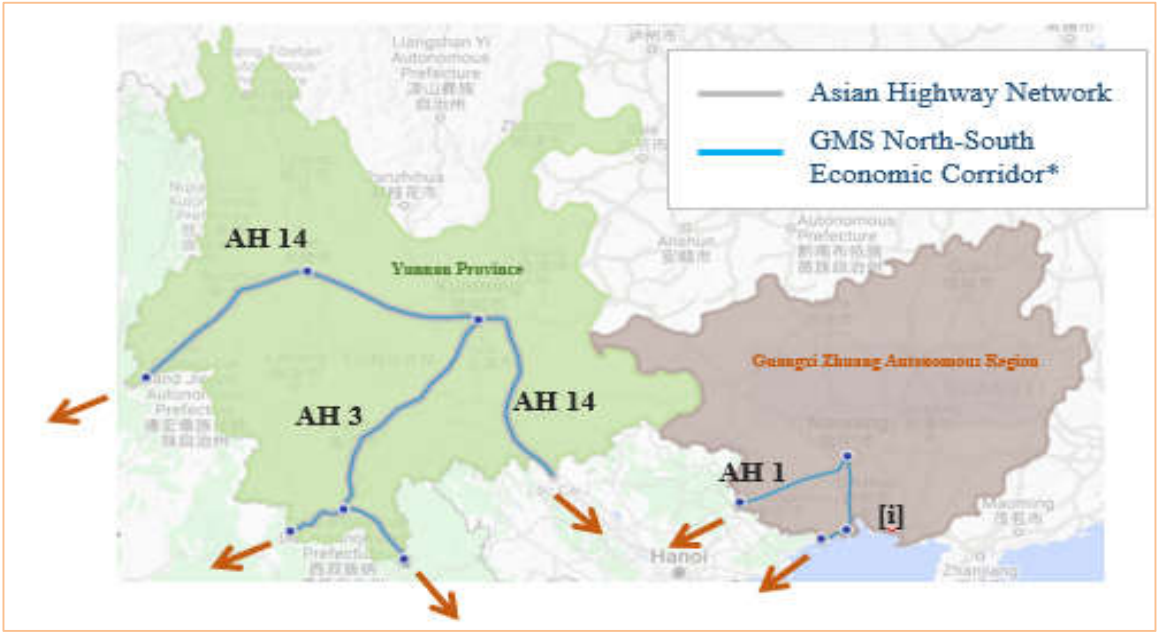


Figure 16: Current status of relevant road infrastructure in Yunnan Province and Guangxi Zhuang Autonomous region, People's Republic of China

Railways

With respect to the railway area, the UNCESCAP Trans-Asian Railway Network (TAR Network)[18], as well as relevant national infrastructure plans, have been considered as the major reference to identify the current status. Only railways with regional linkages have been identified. Mymaps© has been used as the tool to generate the schematic maps. For the case of Thailand, the Thailand's Transport Infrastructure Development Master Plan (2015 –2022) was used instead.

Thailand

- [1] Nonghai (links to Lao PDR) – Khon Kaen - Nakhon Ratchasima – Banpachi – Bangkok (SKRL)
- [2]: Bangkok – Chachoengsao – Aranyaprahet (links to Cambodia)

[18] TAR Network can be found at: https://www.unescap.org/resources/trans-asian-railway-network-map

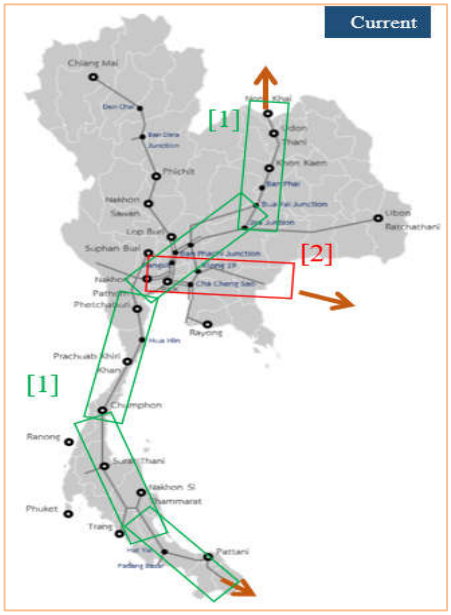


Figure 17: Current status of relevant railway infrastructure in Thailand

Cambodia

- [1]: Poipet (links to Thailand) – Phnom PenhRatchasima – Banpachi – Bangkok
- [2]: Phnom Penh – Sihanouikville Port

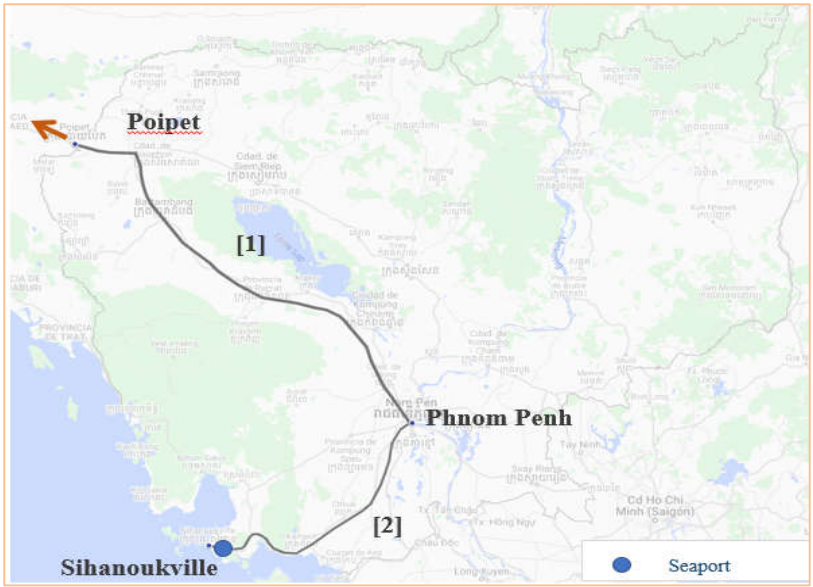


Figure 18: Current status of relevant railway infrastructure in Cambodia

Lao PDR

- [1]: Thanaleng (Vientiane) – Thai Lao Friendship Bridge

Figure 19: Current Status of relevant railway infrastructure in Lao PDR

Myanmar

- [1]: Yangon – Mandalay – Myitkyina
- [2]: Mandalay – Lashio (Existing Station) – Muse
- [3]: Mandalay – Monywa – Yagyi – Kalay – Tamu

Figure 20: Current status of relevant railway infrastructure in Myanmar

Viet Nam

- [1]: Ho Chi Minh - Nha Trang – Da Nang – Dong Ha –Vung Ang – Ha Noi
- [2]: Vung Ang – Mu Gia (links to Lao PDR)

- [3]: Ha Noi – Hai Phong
- [4]: Ha Noi – Quan Trieu
- [5]: Ha Noi – Dong Anh – Dong Dang (links to Guangxi Zhuang Autonomous region, PR China)
- [6]: Dong Anh – Ha Long
- [7]: Lao Cai (links to Yunnan Province, PR China) –Dong Anh

Figure 21: Current status of relevant railway infrastructure in Viet Nam

PR China

- [1]: Dali – Kunming – Nanning
- [2]: Nanning – Pingxiang (links to Viet Nam)
- [3]: Kunming – Hekou (links to Viet Nam)

Figure 22:Current status of relevant railway infrastructure in Yunnan Province and Guangxi Zhuang Autonomous region, People's Republic of China

Airports

The ASEAN Single Aviation Market has been the mechanism through which policy changes have been instituted among the member countries, with full liberalization of air freight and passenger services in the region having taken effect on 1st January 2009. The ongoing liberalization efforts translated into a landscape in the ML region of increased air connectivity, especially in Thailand and Viet Nam, as a result of international tourism, and also in the southern provinces of PR China. The GMS airports map has been considered. Considering that it dates back to 2012, the map has been complemented with national plans, UNCESCAP documentation[19], and recent Mekong trends[20], if necessary.

Country	International Airports (IATA code) / Management
PR China	[AP1] Kunming Changshui International airport (KMG) [AP2] Nanning Wuxu International Airport (NNG) [AP3] Guilin Liangjiang International Airport (KWL) [AP4] Xishuangbanna Gasa Int'l Airport [AP5] Dehong Mangshi International Airport [AP6] Lijiang Int'l Airport
Viet Nam	[AP7] Noi Bai International Airport (HAN) [AP8] Tan Son Nhat Airport (SGN) (NNG) [AP9] Da Nang International Airport (DAD)

[19] Review of Sustainable Transport Connectivity in Asia and the Pacific 2019. Addressing the Challenges for Freight Transport, UNESCAP. Available at: https://www.unescap.org/publications/review-sustainable-transport-connectivity-asia-and-pacific-addressing-challenges

[20] Mekong Trends, Air transport snapshot, 2017. Available at: http://www.mekongtrends.com/snapshots/

Thailand	[AP10] Suvarnabhumi International Airport (BKK) [AP11] Don Mueang International Airport (DMK) [AP12] Chiang Mai International Airport (CNX) [AP13] Mae Fah Luang Chiang Rai (CEI) [AP14] U Taphao International Airport (UTP) [AP15] Phuket International Airport (HKT) [AP16] Krabi International Airport (KBV) [AP17] Hat Yai International Airport (HDY)
Lao PDR	[AP18] Vientiane Wattay (VTE) [AP19] Luang Prabang (LPQ) [AP20] Pakse International Airport (PKZ) [AP21] Savannakhet (ZVK)
Myanmar	[AP22] Yangon International Airport (RGN) / DCA [AP23] Mandalay International airport (MDL) / DCA [AP24] Nay Pyi Taw International Airport (NYT) / DCA
Cambodia	[AP25] Phnom Penh International (PNH) [AP26] Siem Reap International (REP) [AP27] Sihanoukville International (KOS)

Table 9: Selected international airports with relevance at the ML regional level

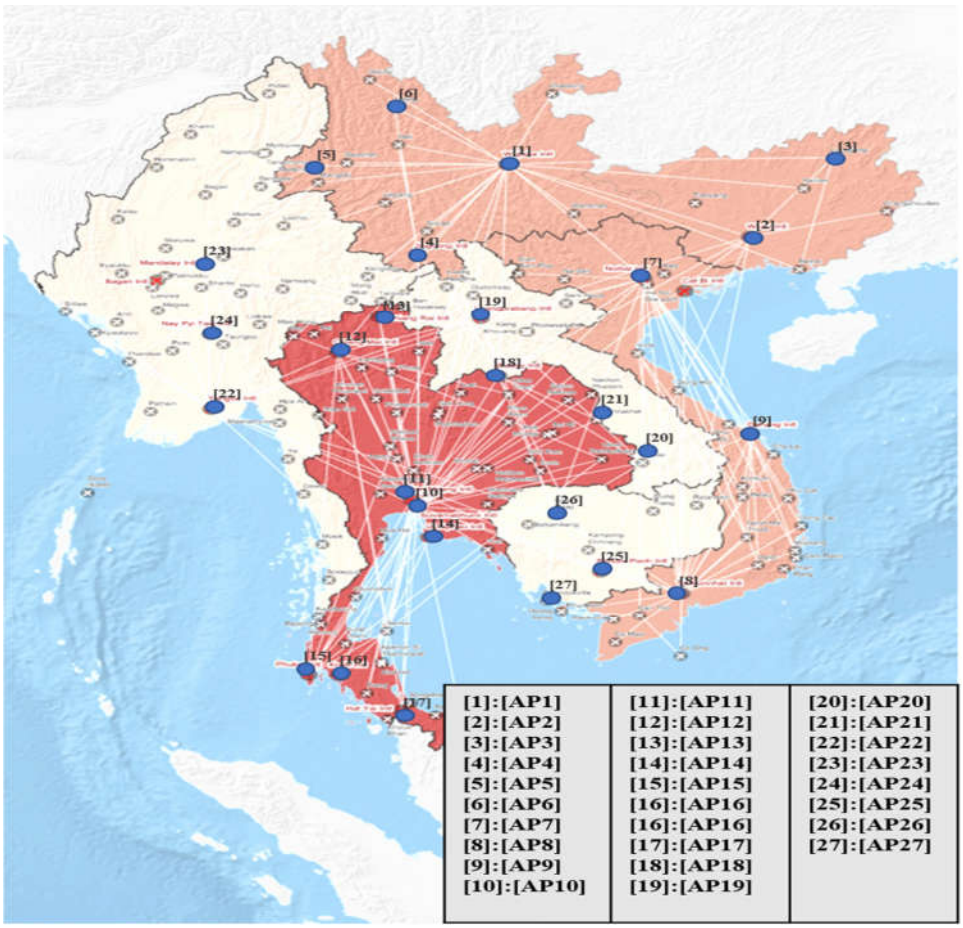


Figure 23: Overview map of major international airports. Adapted from GMS Map Archive, 2012

Seaports

Just like with the previous, the GMS ports map archive has been used, and was complemented with national infrastructure plans, as well as other relevant regional documentation.
Table 4 and Figure 8 display the most relevant seaports in the Mekong Lancang region. It must be noted that ports in this region act as connectors of the Main Trade Corridors, which are dominated by the major players in global chains (port of Singapore, Port of Hong Kong, Port of Shanghai, etc.)[21].

Country	Seaports
PR China	[SP1] Fangcheng Port [SP2] Qinzhou Port [SP3] Beihai Port
Viet Nam	[SP4] Hon Gai [SP5] Hai Phong [SP6] Nghi Son [SP7] Cua Lo [SP8] Vung Ang [SP9] Chan May [SP10] Da Nang [SP11] Dung Quat [SP12] Quy Nhon [SP13] Nha Trang [SP14] Vung Tau [SP15] Dong Nai [SP16] Ho Chi Minh [SP17] Cai Mep –Thi Vai [SP18] Can Tho
Thailand	[SP19] Laem Chabang [SP20] Bangkok Port [SP21] Maptaphut port [SP22] Songkhla Port [SP23] Phuket Port [SP24] Ranong Port
Myanmar	[SP25] Yangon Port (Inner Harbor Area + Thilawa Port Area) / MPA +PPP Scheme [SP26] Kyaukpyu Port / MPA ; Kyaukpyu PR Tanker Port / PR China [SP27] Sittwe Port / MPA [SP28] Thandwe Port / MPA [SP29] Pathein Port / MPA [SP30] Mawlamyine Port / MPA

[21] ERIA, 2018, Developing ASEAN Seamless Connectivity. Available at: https://www.tbs.tu.ac.th/wp-content/uploads/2018/11/Developing-ASEAN-Seamless-Connectivity-Bangkok-Nov2018.pdf

	[SP31] Dawei Port / MPA [SP32] Myeik Port / MPA [SP33] Kawthoung Port / MPA
Cambodia	[SP34] Sihanoukville Port

Table 10: Selected Seaports with relevance at the ML regional level

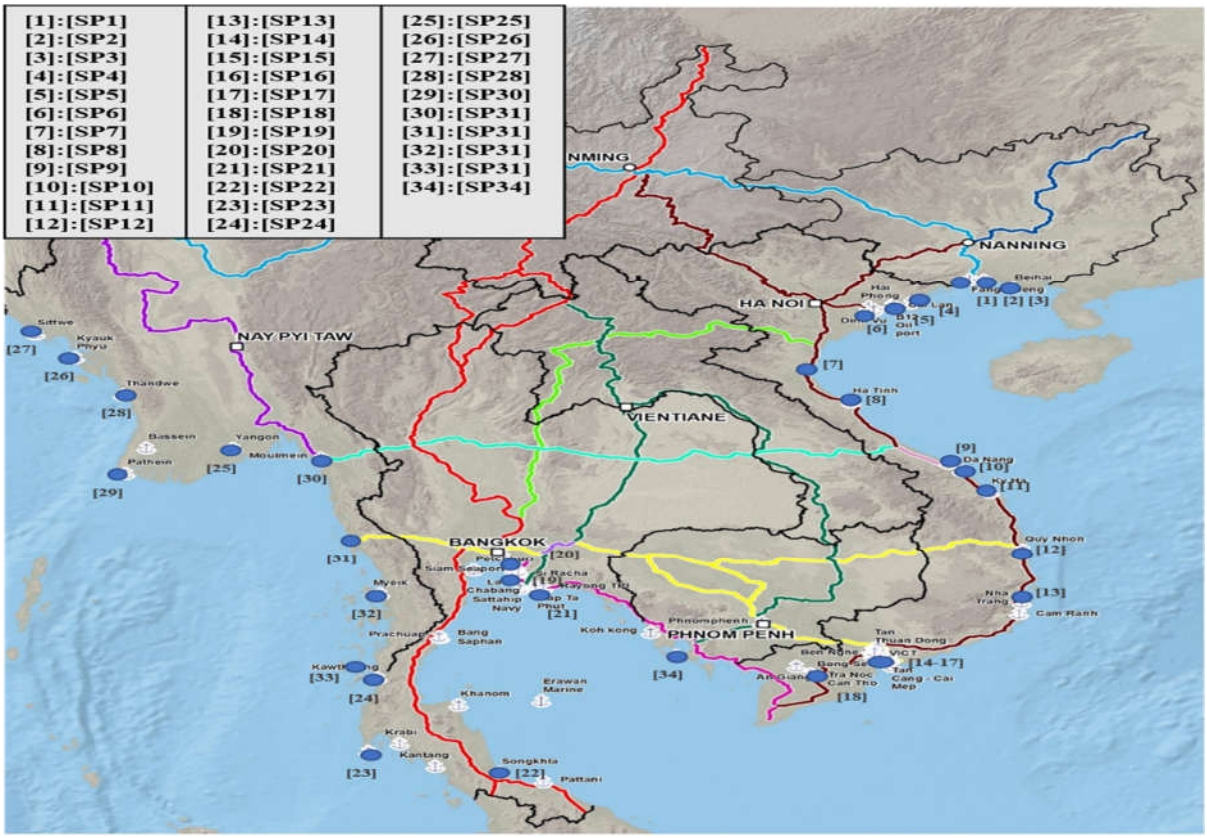


Figure 24. Overview map of major seaports in the ML region. Adapted from GMS Map Archive, 2012.

Inland Waterways

Regarding the inland waterway sector, national infrastructure plans, as well as documentation from the Mekong River Commission, and from other intergovernmental organizations such as the ADB or UNESCAP, which could contain relevant information for particular countries, have been reviewed. Due to the regional context of the study, priority was given to the Lancang Mekong river mainly.

Country	Inland Waterway ports	River Basin
China	[IW1] Simao Port [IW2] Jinghong Port [IW3] Menghan Port [IW4] Guanlei Port	Mekong River

Viet Nam	[IW5] Cai Mep -Thi Vai [IW6] Ho Chi Minh Tan Cang – Cat Lai [IW7] Can Tho Port [IW8] Ha Long Port [IW9] Hanoi [IW10] Viet Tri [IW11] Hai Phong [IW12] Hai Duong [IW13] Phu Tho [IW14] Ninh Binh	Mekong River Mekong River Mekong River Red River Red River Red River Red River Red River Red River Red River
Thailand	[IW15] Haciang Commercial Port [IW16] Chaing Saen Port [IW17] Chaing Saen Commercial Port [IW18] Chiang Khong Port	Mekong River Mekong River Mekong River Mekong River
Lao PDR	[IW19] Ban Sai Port [IW20] Xiengkok Port [IW21] Muongnom (Ban Mom) Port [IW22] Ban Khouane Port [IW23] Huay Xay Port [IW24] Pak Beng Port [IW25] Luang Prabang Ports [IW26] Vientiane [IW27] Savannakhet port and Pakxe port	Mekong River Mekong River Mekong River Mekong River Mekong River Mekong River Mekong River Mekong River Mekong River
Myanmar	[IW28] Soploi Port [IW29] Wan Seng / DWIR [IW30] Wan Pong / DWIR [IW31] Sinham Port / DWIR [IW32] Mandalay Port / DWIR [IW33] Monywa Port / DWIR [IW34] Kalewa Port / DWIR [IW35] Pakkau Port / DWIR [IW36] Magway Port / DWIR	Mekong River Mekong River Mekong River Ayeyarwaddy River Ayeyarwaddy River Chindwin River Chindwin River Ayeyarwaddy River Ayeyarwaddy River
Cambodia	[IW37] Phnom Penh Autonomous Port [IW38] Phnom Penh Passenger Port [IW39] Stung Treng [IW40] Kratie Port [IW41] Kompong Cham Port [IW42] Chong Kneas Port	Mekong River Mekong River Mekong River Mekong River Mekong River Mekong River

Table 11: Selected Inland waterway ports with relevance at the ML regional level.

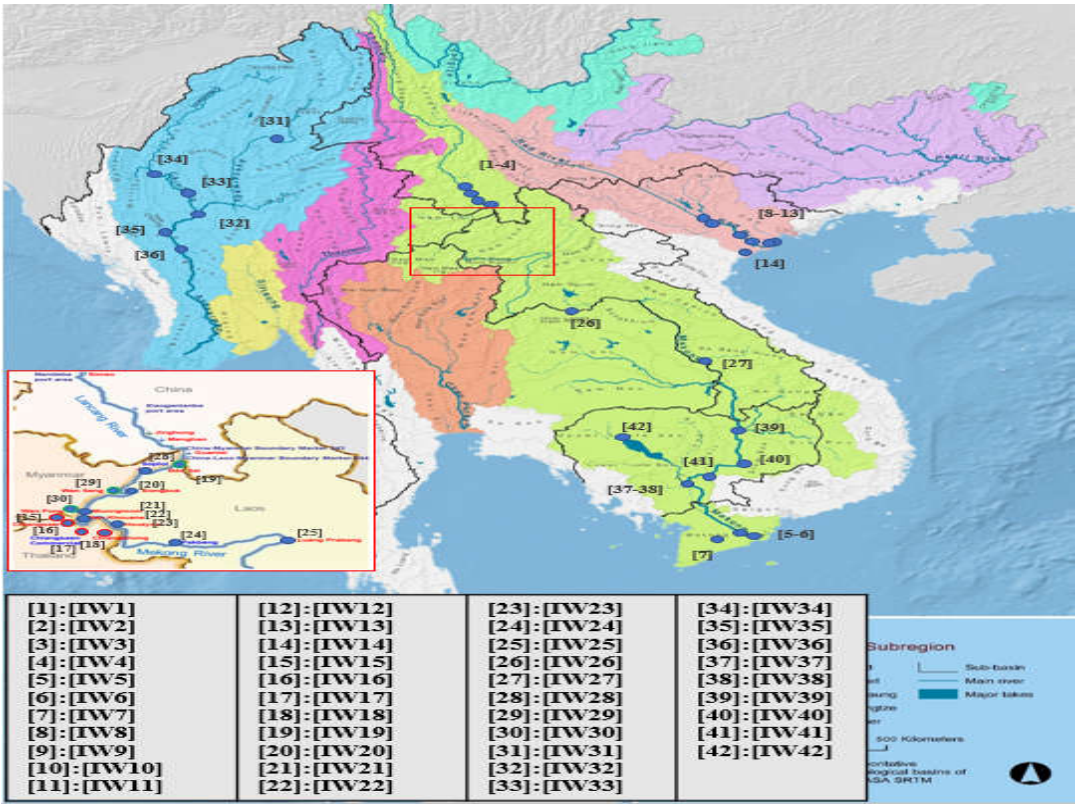


Figure 25. Overview map of Inland Waterway ports in the ML region. Adapted from GMS Map Archive, 2012

Information & Communication Technology

When looking into IT infrastructure linkages, the GMS Information Superhighway (GMS IS) was considered as a valid reference. Proposed by the Ministry of Industry and Information Technology of PR China in 2004, it aimed to promote IT communication among the six member countries. As per 2020, based on the feedback from Line Ministries on IT, the current situation is as follows:

Land Cable Infrastructure

- Phase I, which comprises the construction of a backbone transmission network and high-speed has already been completed.
- Phase II, which consists on improving transmission network by building three synchronous digital hierarchy (SDH) rings into the point-to-point structure, has still not started.

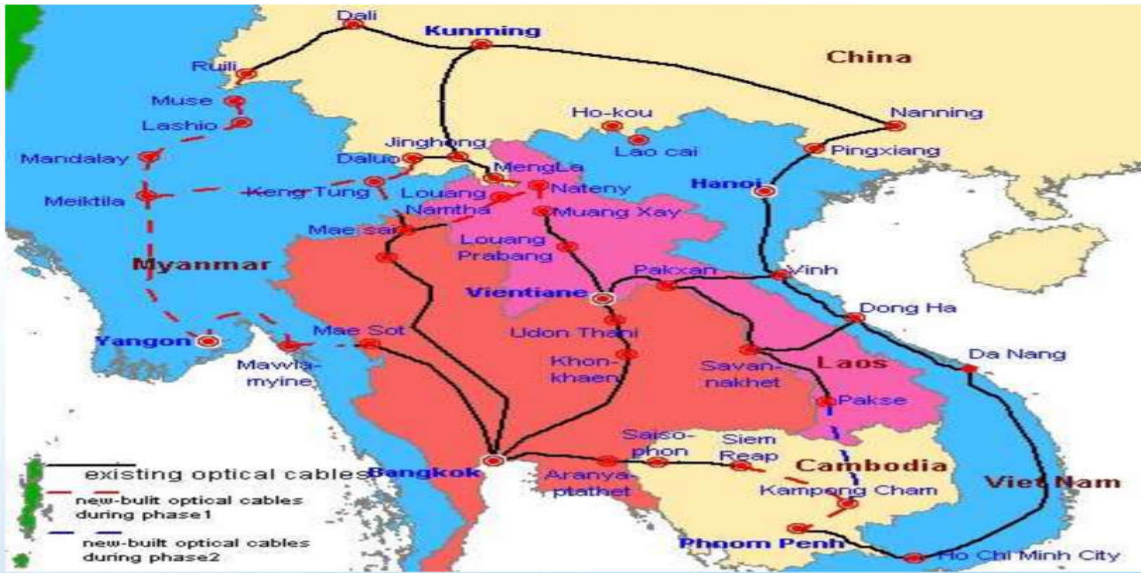


Figure 26. Current status of relevant land ICT infrastructure in the ML Region. Source: GMS Information Superhighway Project.

Submarine Cable Infrastructure

- [SC1]: Asia Africa Europe-1 (AAE-1), including Myanmar, Cambodia, Viet Nam and PR China
- [SC 2] SeaMeWe-3, including Myanmar, Viet Nam and PR China
- [SC3] Asia Direct Cable (ADC), including Thailand Viet Nam and PR China
- [SC4] Asia-America Gateway (AAG) Cable System, including Thailand, Viet Nam and PR China
- [SC 5] Malaysia – Cambodia – Thailand (MCT) Cable, including Cambodia and Thailand
- [SC 6] Southeast Asia-Japan Cable 2 (SJC2), including Thailand, Viet Nam and PR China
- [SC 7] Asia Pacific Gateway (APG), including Thailand, Viet Nam and PR China

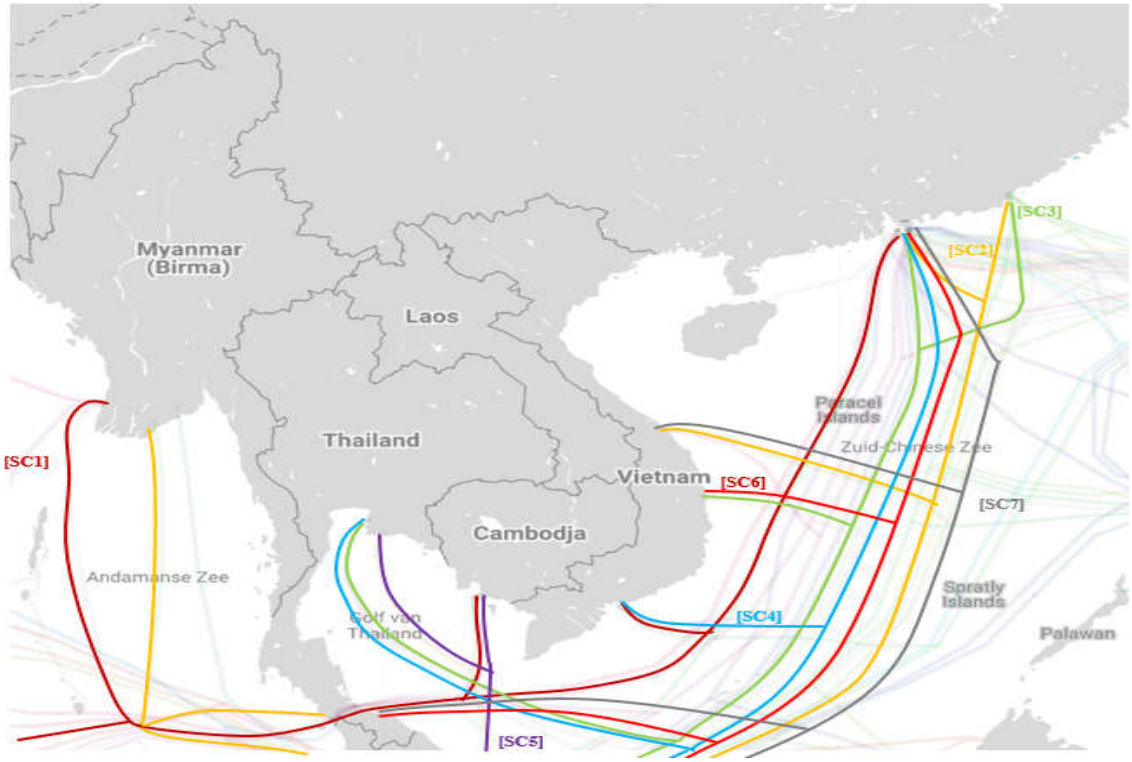


Figure 27. Overview of current relevant submarine ICT infrastructure in the ML Region. Source: GMS Information Superhighway Project. source: Adapted from submarinecablemap.com.

Appendix 2: Expected Physical Infrastructure

In the following paragraphs the main (hard and soft) connectivity infrastructure projects are outlined, per country, for each of the connectivity areas, **based on the findings from the desk review and the feedback from the online consultation sessions with Line Ministries** (see Section 4). Expected status is identified as proposed hard and soft connectivity projects, which expands the scope of the current status from previous section.

Major sources of information have been national infrastructure plans (updated in Section 4), the ASEAN initial pipeline[22], the latest update on the GMS RIF 2022[23]; the ACMECS Master Plan (2019-2023); and the draft on the Plan on Connectivity Cooperation of Mekong-Lancang Countries (2020-2035). Given the scope of the study to improve coordination among the ML countries via the MLC cooperation framework, especial attention is given to the draft on the PCCMLC (2020-2035), by shading proposals included in the PCCMLC in grey. Those projects which were not identified by the national ministries, albeit being found in a particular regional plan, or could be potentially sensitive, have been excluded from the report.

Roads

Building on the current road connectivity of the previous section, the main projects identified are the following:

Thailand

N.	Proposal description	Fund Source	Status	Source
[PRT1]	New Stung Bot-Bang Nong Ian FB between Aranyaprathet – Poipet	Thai Gov	Completed	GMS; ACMECS
[PRT2]	Mae Sot – Myawaddy BC (2nd Thai-Myanmar FB)	Thai Gov	Completed	GMS;
[PRT3]	Tak-Mae Sot road improvement (AH1)	Thai Gov	Completed	GMS; ACMECS
[PRT4]	Bang Yai – Kanchanaburi (part of Laem Chabang – Bangkok – Dawei motorway project)	Thai Gov	Ongoing [C]	GMS; ACMECS
[PRT5]	Chiang Rai – Chiang Khong	Thai Gov	Ongoing [C]	GMS
[PRT6]	Kalasin – Nakrai – Kamcha Highway improvement	Thai Gov	Completed	GMS; ACMECS
[PRT7]	The 5th Thai-Lao FB	Thai Gov	Ongoing [C]	GMS
FB: Friendship Bridge; NF: Not Found; C: Construction phase; S/D: Study/Design Phase PRTxx: Code for "Project Road Thailand"				

Table 12: Relevant projects in road infrastructure in Thailand

[22] Initial pipeline of ASEAN Infrastructure Projects. Available at: https://asean.org/?static_post=enhancing-asean-connectivity-initial-pipeline-asean-infrastructure-project

[23] GMS RIF 2022 Second Progress Report and Update. Available at: https://greatermekong.org/sites/default/files/RIF%202022.%20Overview%202019_0.pdf

Figure 24:Relevant projects in road infrastructure in Thailand

Cambodia

N.	Proposal description	Fund Source	Status	Source
[PRCB1]	Upgrading of Siem Reap – Ratanakiri Road	Seeking funding	Proposed	GMS
[PRCB2]	Phnom Penh – Sihanoukville Expressway Project	Seeking funding	Ongoing [C]	GMS
[PRCB3]*	Inspection for maintenance work for Sekong Bridge, Takhmao Bridge, and Preak Tamak Bridge and purchase of 2 maintenance vehicles for bridge inspection	NF	Proposed by Chinese counterparts in Draft of PCCMLC	PCCMLC
NF: Not Found; C: Construction phase; PRCxx: code for "Project Road Cambodia" * Soft connectivity projects.				

Table 13: Relevant projects in road infrastructure in Cambodia

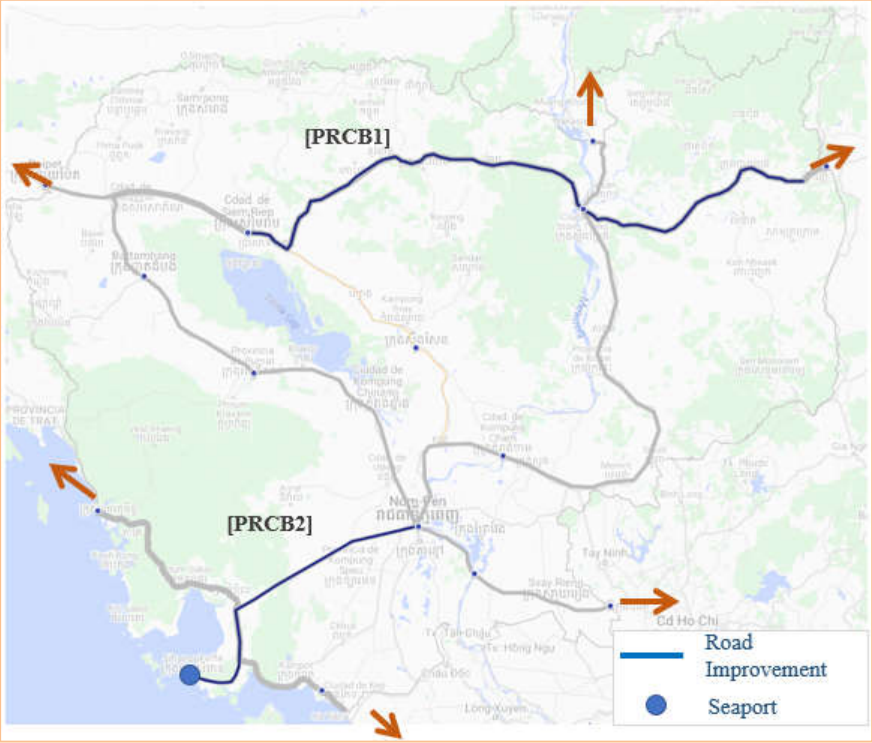


Figure 29: Relevant projects in road infrastructure in Cambodia

Lao PDR

N.	Proposal description	Fund Source	Status	Source
[PRL1]	NR2 Upgrading (pak Beng 'Muang Xay), as part of AH13	NF	Proposed [FS]	ASEAN Pipeline; National Plan; GMS
[PRL2]	NR8 upgrade (AH15) between Ban Lao – Nam Phao BC	KOICA, WB	Proposed [FS]	ASEAN Pipeline; National Plan; ACMECS
[PRL3]	New highway contruction of AH3 branch (Boten to Houay Xai)	NF	Proposed	GMS
[PRL4]	Upgrade of AH12 from Nateuy to Vientiane	PR China	Ongoing [D]	GMS; ACMECS
[PRL5]	Upgrade Vang Tao Border Crossing to Thailand (NR16)	Gov Lao PDR	Ongoing [C]	GMS
[PRL6]	5th Thai-Laos Friendship bridge connecting Bung Kan (Thailand) with Pakxan (Lao PDR)	NEDA Thailand	Ongoing [D]	GMS
[PRL7]	Improvement of Thanaleng BC (Connects to 1st Thai-Laos Friendship bridge)	NF	Proposed	GMS
[PRL8]	Lalay BC (NR15) / Na Phao BC (NR12)	NF / NEDA Thailand	Proposed	GMS
[PRL9]	NR17 upgrade between Myanmar-Lao Friendship bridge (Xiengkok) and Luang Namtha	Lao-India Cooperation framework	Proposed	GMS; ACMECS; National plan
[PRL10]	Construction Lrabang – Dien Bien Phu (Viet Nam)	Gov Viet Nam	Proposed	GMS
[PRL11]	Upgrade NR18A Phiafay – Attapeu	RVO (Dutch Gov)	Proposed	GMS
[PRL12]	Mekong Bridge at Luang Prabang	NEDA Thailand	Proposed	GMS
[PRL13]	Selamphao Bridge (end of NR14A) between Lao PDR and Cambodia	Joint Investment between Cambodia and Lao PDR	Proposed	GMS
[PRL14]	Dak Chung BC (NR16)	NF	Proposed	GMS
[PRL15]	Construction Vientiane – Ha Noi Expressway	JICA	Proposed	GMS

[PRL16]	Upgrade 13S (AH11)	WB; AIIB; EIB; NDF; Gov Lao	Proposed	GMS; ACMECS
[PRL17]	Capacity building on sustainable land transport	NF	Proposed	Early harvest PCCMLC
[PRL18]	Lao PDR Transport Regional Connectivity and Integration Strategy 2025	NF	Proposed by Chinese counterparts in Draft of PCCMLC	PCCMLC
[PRL19]	Vientiane – Vang Vieng Expressway	NF	Ongoing [C]	PCCMLC; GMS; Asian Highway Network

Table 14. Relevant projects in road infrastructure in Lao PDR

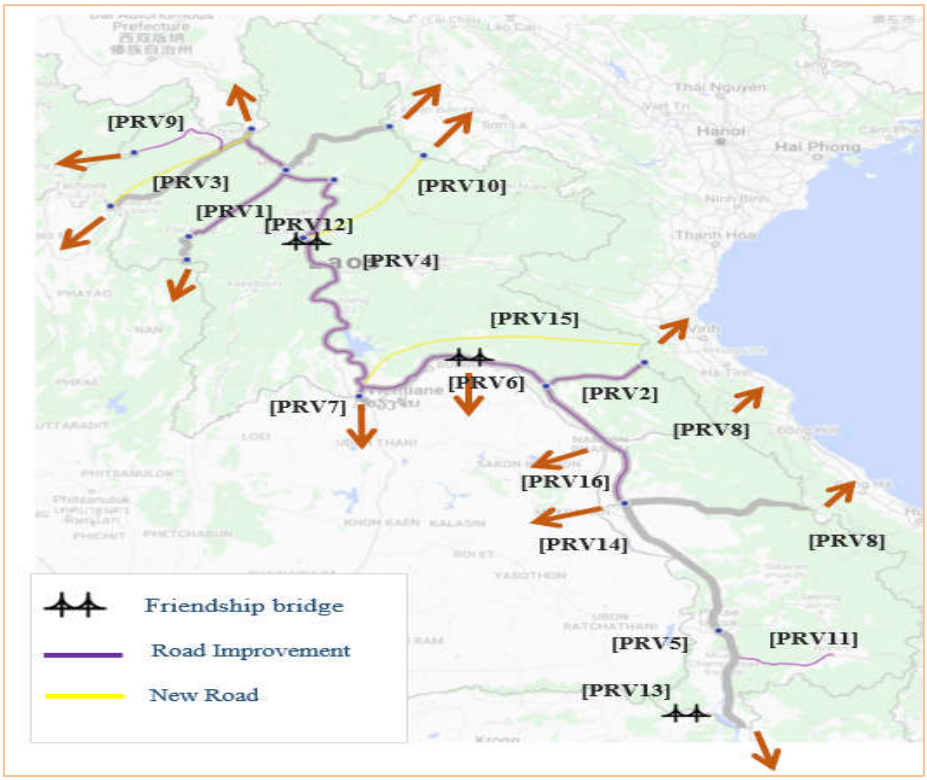


Figure 30: Relevant projects in road infrastructure in Lao PDR

Myanmar

N.	Proposal description	Fund Source	Status	Source
[PRM1]	Mandalay – Yangon Expressway improvement	NF	Proposed	ASEAN Pipeline; National plan
[PRM2]	New expressway Muse – Tigyaing – Mandalay	NF	Proposed	ASEAN Pipeline; National plan

[PRM3]	Kyaukpyu (SEZ) – Ma e – Naypyitaw Expressway	NF	Proposed	ASEAN Pipeline; National plan
[PRM4]	Tarlay – Kyainglat Road upgrade (to connect with Lao PDR)	DOH (Dep of Highways)	Proposed	ASEAN Pipeline; National plan
[PRM5]	Improve BSs at Muse (PRC) and Tachileik (Thailand)	ADB, PRC, NEDA, Thai Gov	Proposed	GMS
[PRM6]	Bago – Kyaikto Road improvement	ADB	Proposed	GMS
[PRM7]	Daluo (China) – Tachilek (Myanmar) Highway	PPP (BOT) Gov Myanmar + private sector	Ongoing [C]	GMS
[PRM8]	Thaton – Payagyi Road improvement	Privat e Sector	Ongoing [C]	GMS; ACMECS
[PRM9]	EWEC Eindu – Kawkareik Road improvement	ADB,	Ongoing [C]	GMS; ACMECS
[PRM10]	Road improvement Loilem – Kyaington + new bridge Kyaington – Taunggyi	Gov Myanmar	Ongoing [C]	GMS
NF: Not Found; C: Construction phase; BOT: Build-Operate-Transfer PRMxx: code for "Project Road Myanmar"				

Table 15: Relevant projects in road infrastructure in Myanmar

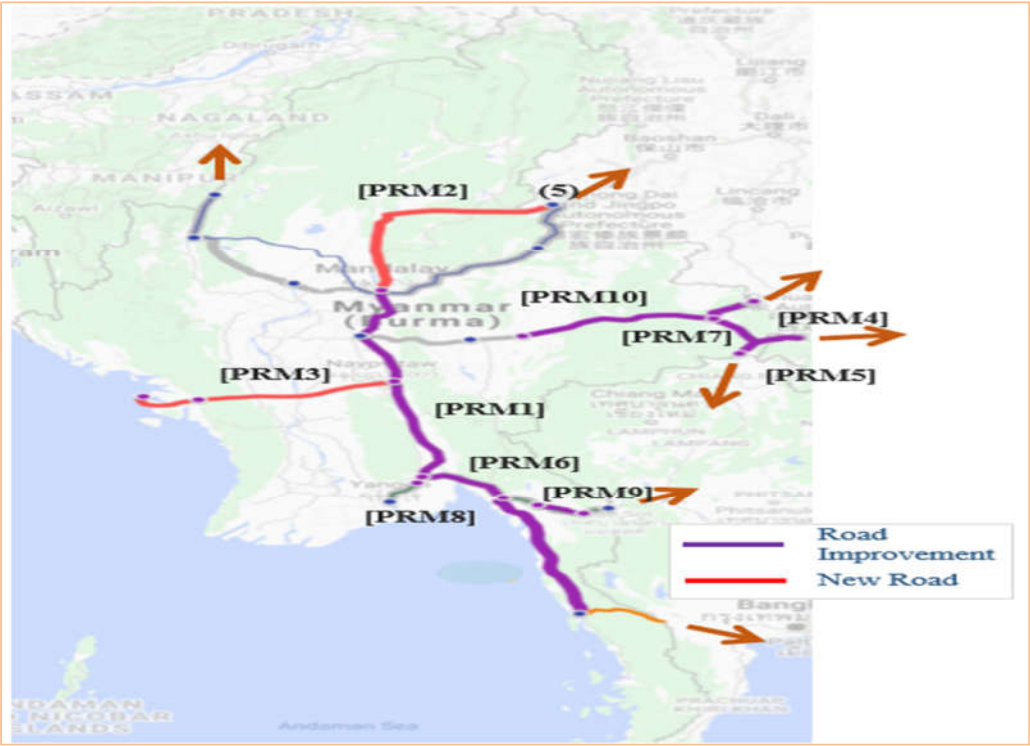


Figure 31: Relevant projects in road infrastructure in Myanmar.

Viet Nam

N.	Proposal description	Fund Source	Status	Source
[PRV1]	Southern Coastal Corridor project – Phase II	CIPM	Proposed	ASEAN pipeline; GMS
[PRV2]	Ho Chi Minh – Moc Bai new expressway	MoT	Proposed	ASEAN pipeline; ACMECS
[PRV3]	Ha Noi – Vientiane new Highway	JICA	Proposed	ACMECS; GMS
[PRV4]	Luang Prabang – Thanh Hoa GMS improvement	ADB; Gov Vietnam	Ongoing [C}	GMS
[PRV5]	Ha Noi – Lang Son expressway project (Huu Nghi – Chi Lang section)	Private	Ongoing [C]	GMS

[PRV6]	NR14D improvement	Gov seeking funding	Proposed	GMS
[PRV7]	Lao Cai – Hekou improvement (at border with PR China)	Seeking funding	Proposed	GMS
NF: Not Found; C: Construction phase; PRVxx: code for "Project Road Viet Nam"				

Table 16: Relevant projects in road infrastructure in Viet Nam

Figure 32: Relevant projects in road infrastructure in Viet Nam

PR China

N.	Proposal description	Fund Source	Status	Source
[PRC1]	Rehabilitation of the Ning´er – Jiangcheng – Longfu Road	ADB; PR China Gov	Ongoing [C]	GMS
[PRC2]	Jinghong – Daluo Expressway	PR China Gov	Proposed	GMS
[PRC3]	Lao Cai (Viet Nam) – Hekou (PR China) improvement	Seeking funding	Proposed	GMS
C: Construction phase; PRCxx: code for "Project Road China" IN PCCMLC, under PR China, there is project "Vientiane – Vang Vieng Expressway", excluded out of the table.				

Table 17: Relevant projects in road infrastructure in PR China

Figure 33: Relevant projects in road infrastructure in PR China

Railways

Thailand

N.	Proposal description	Fund Source	Status	Source
[PRWT1]	New line Denchai – Chiang Rai –Chiang Khong	Thai Gov	Ongoing [C]	GMS; National Plan
[PRWT 2]	New line Ban Phai (Khon Kaen) – Mukdahan and Ban Phai-Nakhon Phanom	Thai Gov	Ongoing [C]	GMS; ACMECS
[PRWT3]	Bangkok-Nong Khai HSR-Phase II (part of SKRL)	Thai Gov	Ongoing [S/D]	ASEAN pipeline; GMS; ACMECS; BRI; National plan
[PRWT4]	Bangkok – Pakse (Lao PDR) – Hue (Vietnam)	NF	Pre-feasibility study phase	PCCMLC; National Plan
[PRWT5]	Yangon (Myanmar) – Bangkok – Phnom Penh (Cambodia) – Ho Chi Minh city (Vietnam)	NF	Studied	PCCMLC; ASEAN Communication Master Plan, Trans-Asian Railway

NF: Not Found; C: Construction phase; S/D: Study/Design Phase;
PRWTxx: Code for "Project Railway Thailand". High priority to projects (1), (2) and (3)

Table 18: Relevant rail infrastructure projects in Thailand

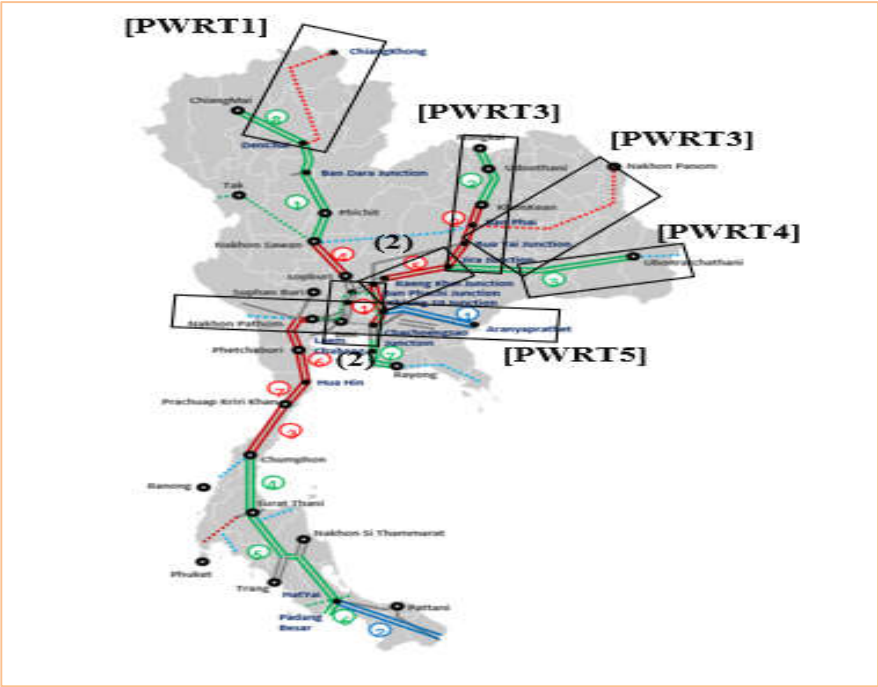


Figure 34: Relevant projects in rail infrastructure in Thailand.

Cambodia

N.	Proposal description	Fund Source	Status	Source
[PRWC1]	New link from Bad Doeng to Snoul (part of SKRL)	Seeking funding	Proposed (FS phase)	ACMECS
[PRWC2]	New link from Snoul to Stung treng (links to Lao PDR)	Seeking funding	Proposed (FS stage)	ACMECS
[PRWC3]	Rehabilitation Phnom Penh – Poipet	Seeking funding	NF	National Plan
[PRWC4]	Railway connection from Phnom Penh to Phnom Penh autonomous port	Seeking funding	NF	National Plan
[PRWC5]	Phnom penh – Bavet –Ho Chi Minh railway	Seeking funding	Proposed	National Plan
NF: Not Found; FS: Feasibility Study; C: Construction phase; S/D: Study/Design Phase; PRWCxx: Code for "Project Railway Cambodia". High priority to projects (4) and (5)				

Table 19: Relevant rail infrastructure projects in Cambodia

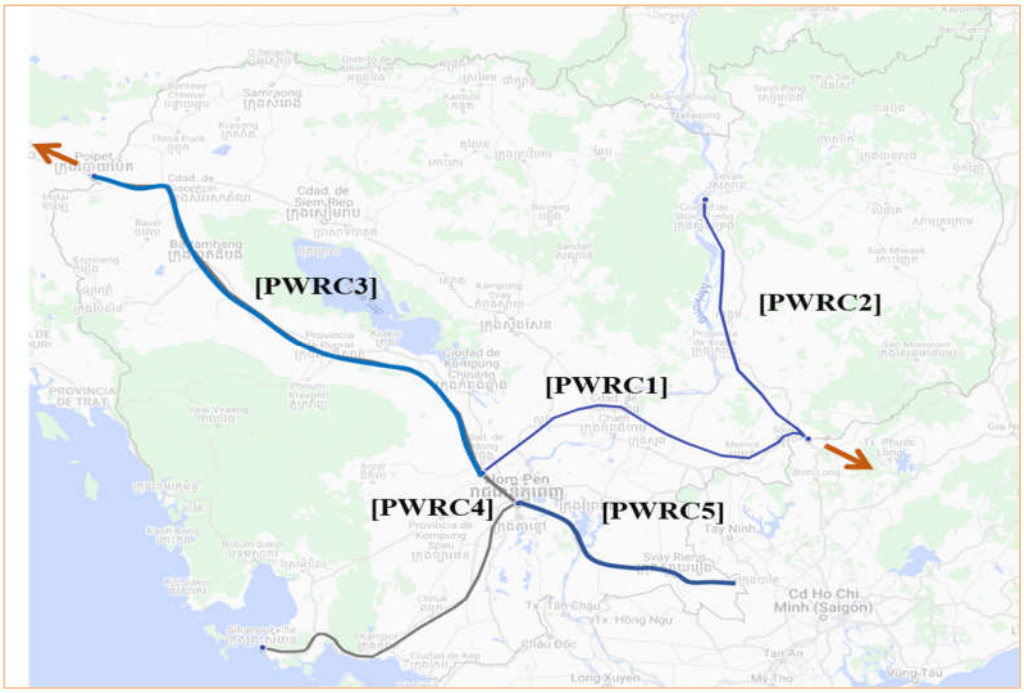


Figure 35: Relevant projects in rail infrastructure in Cambodia

Lao PDR

N.	Proposal description	Fund Source	Status	Source
[PRWL1]	Railway extension Thanalaeng – Nong Khai (Thailand), 7,5km	NEDA Thailand	Ongoing [C]	GMS
[PRWL2]	Bridge for railway Thanalaeng – Nong Khai	Sino-Lao cooperation	Proposed	GMS
[PRWL3]	Railway Boten – Vientiane (China-Lao connection)	PR China Gov	Ongoing [C]	Trans-Asian Railway Network; ACMECS; GMS; PCCMLC
[PRWL4]	Railway construction Vientiane – Thakheh – Mu Gia ("Spur line" in SKRL)	Seeking Finance for PPP	Ongoing [FS]	Trans-Asian Railway Network; ACMECS; GMS; PCCMLC;

[PRWL5]	Lao-Thai Railway project to link at 3rd Lao-Thai friendship bridge (Khammouane – Nakon Phannom)	NF	NF	Trans-Asian Railway Network; ACMECS
[PRWL6]	Lao-Thai Railway project at Vang Tao -Chongmek BC	NF	NF	Trans-Asian Railway Network; ACMECS
[PRWL7]	Savannakhet – Densavanh (links to Viet Nam)	NF	Proposed	Trans-Asian Railway Network; GMS
[PRWL8]	Lao-Thai Railway project to link at 2nd Lao-Thai friendship bridge (Savannakhet – Mukdahan)	NF	NF	Trans-Asian Railway Network; ACMECS
[PRWL9]	Thakhek – Savannakhet – Pakse – Vang Tao BC (to Thailand)	NF	NF	ASEAN potential pipeline
NF: Not Found; FS: Feasibility Study; C: Construction phase; S/D: Study/Design Phase; PRWLxx: Code for "Project Railway Lao PDR".				

Table 20: Relevant rail infrastructure projects in Lao PDR.

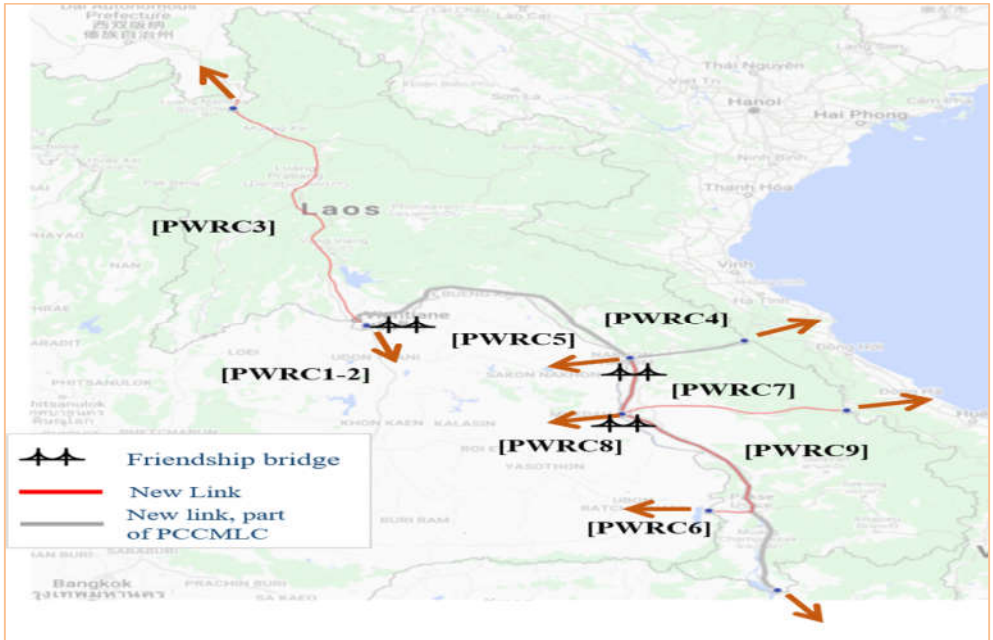


Figure 36: Relevant rail infrastructure projects in Lao PDR

Myanmar

N.	Proposal description	Fund Source	Status	Source
[PRWM1]	Yangon – Mandalay Railway improvement	JICA's ODA Loan	Ongoing [C]	National plan
[PRWM2][1]	Route 1: Thanphyuzayat-Three Pagodas Pass (Myanmar)-Nank Toke (Thailand)	TA	Proposed	GMS; ACMECS
[PRWM3] [1]	Dawei – Htiki – Ban Phunam Ran (links to Thailand)	TA	Proposed	ACMECS; GMS; MJ-CI
[PRWM4] [1]	New line Mae Sot – Myawaddy – Hpa an – Thaton	TA	Proposed	GMS
[PRWM5]	New line Mandalay - Lashio – Muse (links to PR China)	ICB	Ongoing [FS]	BRI; Trans-Asian Railway Network
[PRWM6]	New line Kyaukpyu – Mandalay	ICB	Proposed	BRI
[PRWM7]	Mandalay – Myitkyina Railway improvement	Korean EDCF loan	Ongoing	National Plan
[PRWM8]	Yangon – Pyay Railway line improvement	NF	NF	Consultations
[PRWM9]	Bago – Mawlamyine Railway line improvement	NF	NF	Consultations

NF: Not Found; FS: Feasibility Study; C: Construction phase; TA: Technical Assistance;
PRWMxx: Code for "Project Railway Myanmar".
[1] [PRWM2]; [PRWM3]; and [PRWM4] three potential links to connect with Thailand. [PRWM2] is high priority.

Table 21. Relevant rail infrastructure projects in Myanmar.

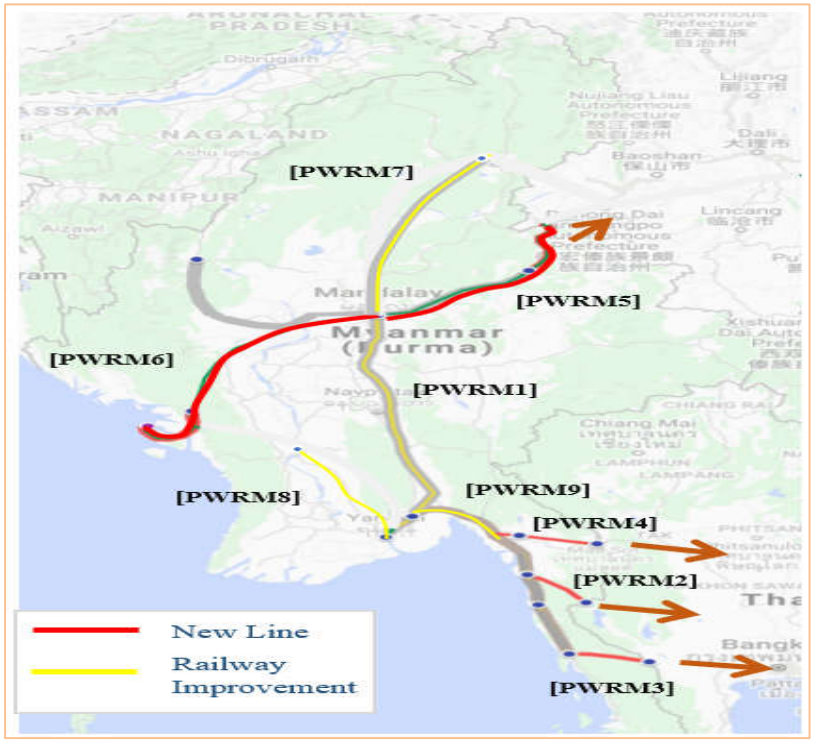


Figure 37: Relevant rail infrastructure projects in Myanmar.

Viet Nam

N.	Proposal description	Fund Source	Status	Source
[PRWV1]	Hanoi – Ho Chi Minh Railway improvement	NF	Proposed	BRI
[PRWV2]	Hanoi – Ho Chi Minh Railway improvement	NF	Proposed	BRI
[PRWV3]	New Railway connecting Vung Ang and Vientiane	NF	Proposed	ACMECS; ASEAN; GMS
[PRWV4]	Dong Ha – Densavanh (Lao PDR)	NF	Proposed	Trans-Asian Railway network
[PRWV7]	Enhance connectivity and trade in goods between Viet Nam and China via Yuxinou International Railway, China´s South Channel (Chongqing – Guangxi – Singapore)	NF	Proposed by Chinese counterparts in Draft of PCCMLC	PCCMLC
NF: Not Found; FS: Feasibility Study; C: Construction phase; TA: Technical Assistance;				

PRWVxx: Code for "Project Railway Viet Nam".

Table 22: Relevant rail infrastructure projects in Viet Nam.

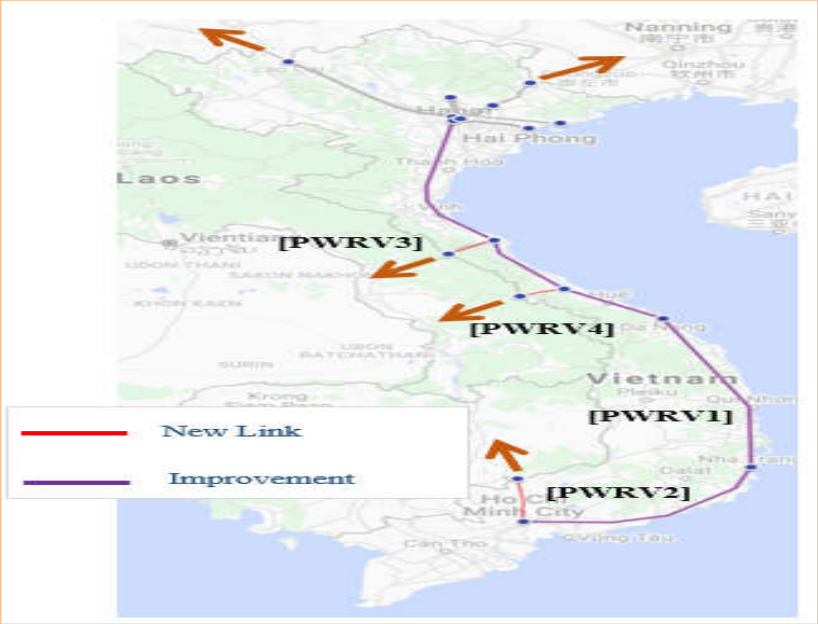


Figure 38: Relevant rail infrastructure projects in Viet Nam

PR China

N.	Proposal description	Fund Source	Status	Source
[PRWPRC1]	Kunming – Jinghong – Mohan (links to Lao PDR)	PR China Gov; ADB	Ongoing [C]	GMS; Trans Asian Railway Network; PCCLMC route I
[PRWPRC2]	Kunming – Jinghong – Mongla (links to Myanmar)	NF	NF	Trans Asian Railway Network
[PRWPRC3]	Dali – Baoshan – Ruili (links to Myanmar)	PR China Gov	Ongoing [C]	GMS; BRI; Trans Asian Railway Network
[PRWPRC4]	Dali – Baoshan – Kachang (links to Myanmar)	NF	Ongoing [C]	BRI; Trans Asian Railway Network; PCCLMC branch line*
[PRWPRC5]	Railway Boten-Vientiane standard gauge railway (Lao PDR)	NF	Ongoing [C]	PCCMLC
NF: Not Found; FS: Feasibility Study; C: Construction phase; TA: Technical Assistance; PRWPRCxx: Code for "Project Railway PR China".				

Table 23: Relevant rail infrastructure projects in PR China.

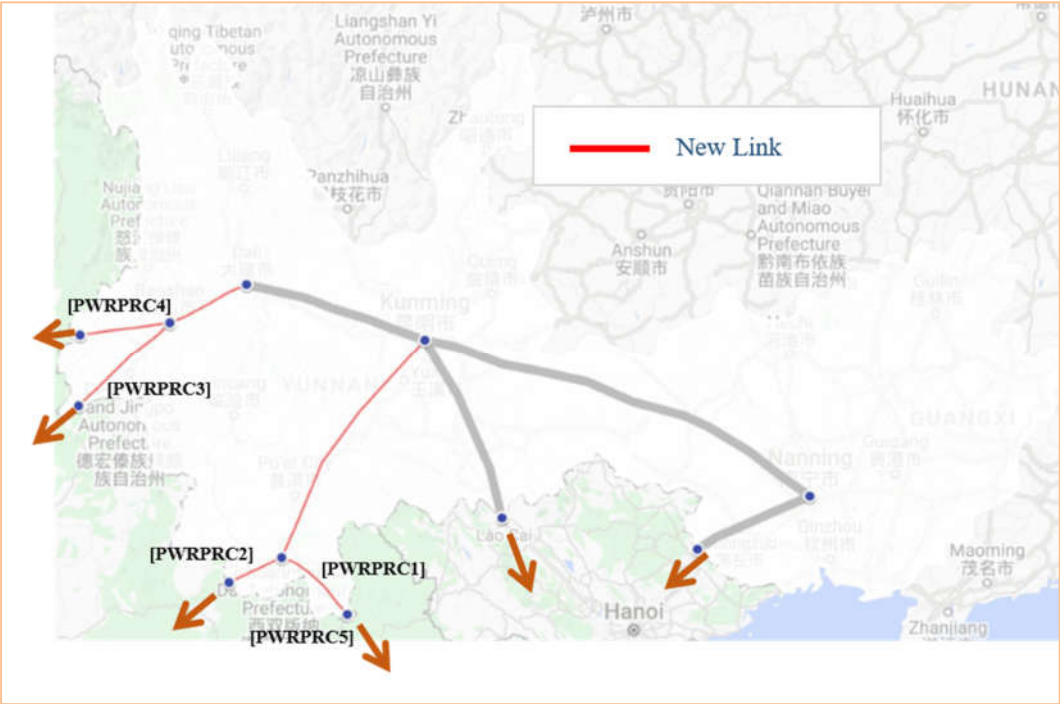


Figure 39: Relevant rail infrastructure projects in PR China.

Airports

N.	Country	Proposal description	Fund Source	Status	Source
[PA1]	Thailand	Mae Sot International Airport development (runway and aircraft parking space expansion)	Thai Gov	- Runway is ongoing (completion expected 2021) - Passenger terminal and aircraft parking space completed in 2019	ACMECS; National Plan
[PA2]	Thailand	Khon Kaen International Airport development (new passenger terminal and aircraft parking space expansion)	Thai Gov	Proposed	ACMECS

[PA3]	Cambodia	Angkor International Airport project	PR China under BOT	Ongoing [C]	PCCMLC
[PA4]	Myanmar	Yangon International Airport upgrade (phase I – phase III)	Private	Ongoing (85% completed)	ACMECS
[PA5]	Myanmar	Mandalay International Airport upgrade	Private	Completed (2018)	ACMECS
[PA6]	Myanmar	Kawthaung Airport upgrade	NF	Tender	ACMECS
[PA7]	Myanmar	Mawlamyine Airport upgrade	Private	Agreement finalization	ACMECS
[PA8]	Myanmar	Heho Airport upgrade	Private	Agreement negotiation	NF
[PA9]	Viet Nam	Tan Son Nhat Airport expansion	NF	Proposed	NF
[PA10]	Viet Nam	Long Thang New International Airport	*SEK	Proposed	Long Thang New international airport
NF: Not Found; C: Construction phase; PAxx: Code for "Project Airport xx". 2 projects from Lao PDR missing.					

Table 24: Relevant Airport infrastructure projects in the ML region

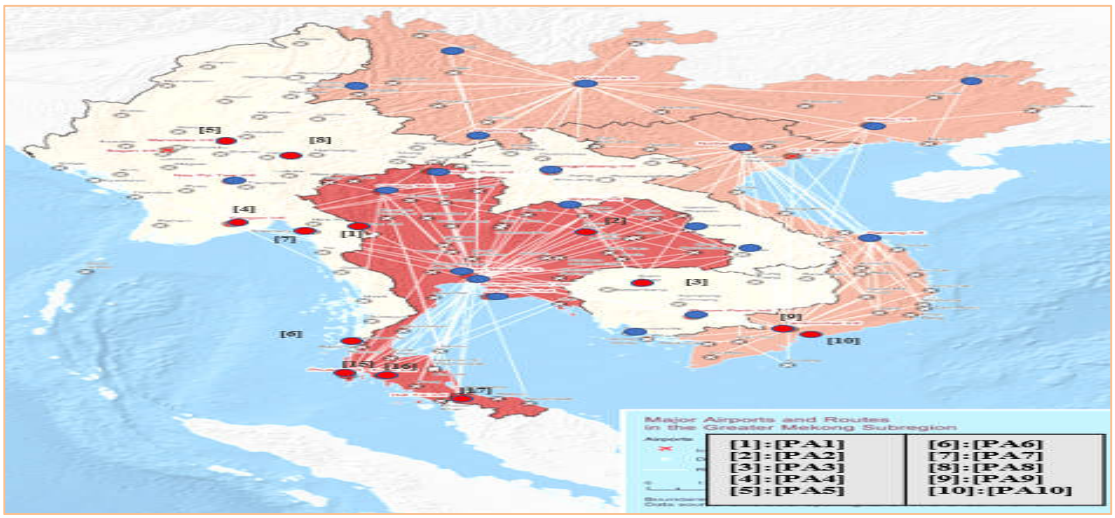


Figure 40: Relevant Airport infrastructure projects in the ML region.

Seaports

N.	Country	Proposal description	Fund Source	Status	Source
[PP1]	Thailand	Laem Chabang Port developments (1)	PAT Thai Gov	Ongoing	GMS RIF; National Plan
[PP2]	Cambodia	Upgrading of Sihanoukville to 14,5m depth for Container terminal	NF	NF	National Plan
[PP3]	Myanmar	New Deep Seaport in the Andaman Coast (Around Existing International Port, Yangon)	NF	Under study	National Plan; greatermekong.org
[PP4]	Myanmar	Kyaukpyu Deep Sea Port	PCR	Proposed	Kyauk Phyu Special Economic Zone Management Committee
[PP5]	Myanmar	Dawei Deep Sea Port	Thailand	Proposed	Dawei Special Economic Zone Management Committee
[PP6]	Viet Nam	Cat Hai Port development (Group 1)	NF (seeking funding)	Ongoing [C]	Sectoral Master Plan
[PP7]	Viet Nam	Vung Tau – Thi Vai Seaport expansion (Group 5)	NF (seeking funding)	Ongoing [C]	Sectoral Master Plan
[PP8]	PR China	Expansion of Tieshan, part of Beihai Port	NF	NF	NF

NF: Not Found; FS: Feasibility Study
PPxx: Code for "Project Port xx". (1) 4 projects were condensed into one

Table 25:Relevant port infrastructure projects in the ML region

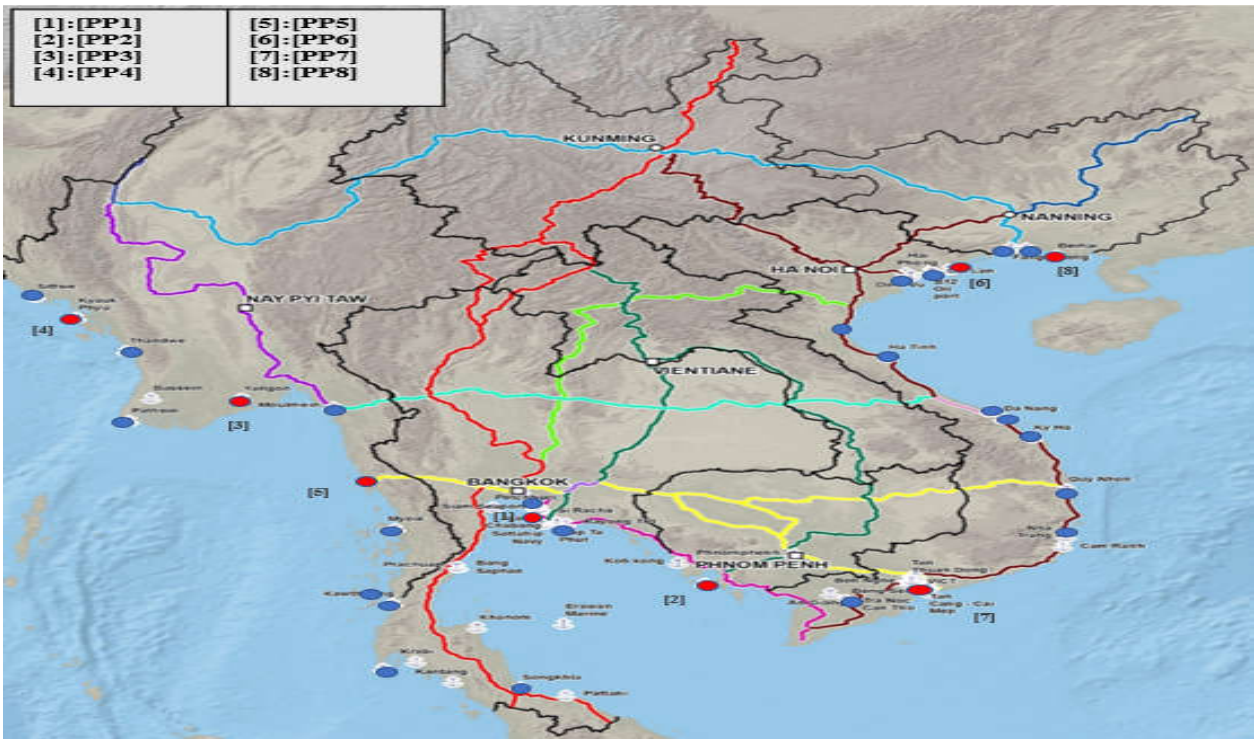


Figure 41: Relevant port infrastructure projects in the ML region

Inland Waterways

N.	Country	Proposal description	Fund Source	Status	Source
[PIW1]	Cambodia	Rehabilitation of waterway from Phnom Penh to Kratie	Seeking funding	Proposed	ACMECS
[PIW2]	Cambodia	Tbong Khnum Port Project (Tonle Bit)	NF	Proposed	NSDP
[PIW3]	Cambodia	Dredging of Takeo Lake with the surface of 456 ha (phase I) for connecting to Basac and Mekong River and facilitate waterway transport between Cambodia, Vietnam and Lao PDR	NF	Proposed by Chinese counterparts in Draft of PCCMLC	(i) PCCMLC
[PIW4]	Cambodia	Construction Local Por in Angkor Borey District for connecting to Basac and Mekong River to facilitate waterway transport	NF	Proposed by Chinese counterparts in Draft of PCCMLC	(i) PCCMLC

		between Cambodia, Vietnam and Lao PDR			
[PIW5]	Cambodia	Construction of Sambour Port for connecting to Mekong River to facilitate the waterway transport between Cambodia, Vietnam and Lao PDR	NF	Proposed by Chinese counterparts in Draft of PCCMLC	(i) PCCMLC
[PIW6]	Cambodia	Construction of new Kratie Port for connecting to Mekong River to facilitate the waterway transport between Cambodia, Vietnam and Lao PDR	NF	Proposed by Chinese counterparts in Draft of PCCMLC	(i) PCCMLC
[PIW7]	Cambodia	Expansion of Phnom Penh Autonomous port	NF	Proposed	NSDP
[PIW8]	Lao PDR	Upgrade Ban Mom River Port	Private Sector/ Lao Gov	Ongoing [D/C]	GMS; ACMECS
[PIW8]	Lao PDR	Upgrade Xiengkok River Port	PR China Gov	Proposed	GMS; ACMECS
[PIW9]	Lao PDR	Upgrade Houei Sai (Huay Xay) River Port	Seeking funding	Proposed	GMS; ACMECS
[PIW10]	Lao PDR	Upgrade Pakbeng River Port (Oudomxay Province)	PR China Gov	Proposed	GMS; ACMECS
[PIW11]	Lao PDR	Khok Chong River Port (Luangphabang Province)	PR China Gov	Proposed	GMS; ACMECS
[PIW12]	Lao PDR	Navigation channel and port improvements: Luang Prabang to Savannakhet	Seeking funding	Proposed	GMS; ACMECS
[PIW13]	Lao PDR	Navigation channel improvement between Green Triangle and Luang Prabang	NF	FS	Development Plan on International Navigation on the ML River 2015-2025
[PIW14]	Lao PDR	Set up technical specification for survey-design of port construction and port classification	NF	Proposed	(i) PCCMLC
[PIW15]	Lao PDR	Training program for skipper and mechanic	NF	Proposed	(i) PCCMLC
[PIW16]	Lao PDR	Minimum standards for vessel design construction and equipment	NF	Proposed	(i) PCCMLC

[PIW17]	Lao PDR	Standards for the planning design and construction of ports and terminals	NF	Proposed	(i) PCCMLC
[PIW18]	Myanmar	Mandalay Port upgrade	Ayeyarwadd y	JICA	Confirmed
[PIW19]	Myanmar	Monywa Port	Chindwin	PPP	Proposed
[PIW20]	Myanmar	Magway Port	Ayeyarwadd y	PPP	Proposed
[PIW21]	Myanmar	Kalewa Port	Chindwin	PPP	Proposed
[PIW22]	Myanmar	Bhamo Port	Ayeyarwadd y	PPP	Proposed
[PIW23]	Myanmar	Pakkoku Port	Ayeyarwadd y	PPP	Proposed
[PIW24]	Myanmar	Upgrade Wan Pong	Mekong	Special FundJCCCN MLC	Proposed
[PIW25]	Myanmar	Upgrade ports along the Lancang-Mekong River and navigation improvement including installation of more navigation aids with the same standards along the river	Mekong	NF	Proposed by Chinese counterparts in Draft of PCCMLC
[PIW26]	Viet Nam	Upgrade corridor 1 of Red River Delta	NF	Proposed	(i)
[PIW27]	Viet Nam	Upgrade corridor 2 of Red River Delta	NF	Proposed	(i)
[PIW28]	Viet Nam	Upgrade corridor 3 of Red River Delta	NF	Proposed	(i)
[PIW29]	Viet Nam	Upgrade corridor 1 of Mekong Delta	NF	Proposed	(i)
[PIW30]	PR China – Thailand – Lao PDR	Improvement of the Upper Mekong River Navigation Channel from PRC (landmark 243) and Myanmar to Luang Prabang (Lao PDR)	PR China and other funding sources	Proposed	GMS
NF: Not Found; FS: Feasibility Study PIWxx: Code for "Project Inland Waterway xx". (i) Facilitating Trade through Competitive, Low-Carbon Transport the Case for Vietnam's Inland and Coastal Waterways (World Bank, 2013)					

Table 26. relevant inland waterway infrastructure projects in the ML region.

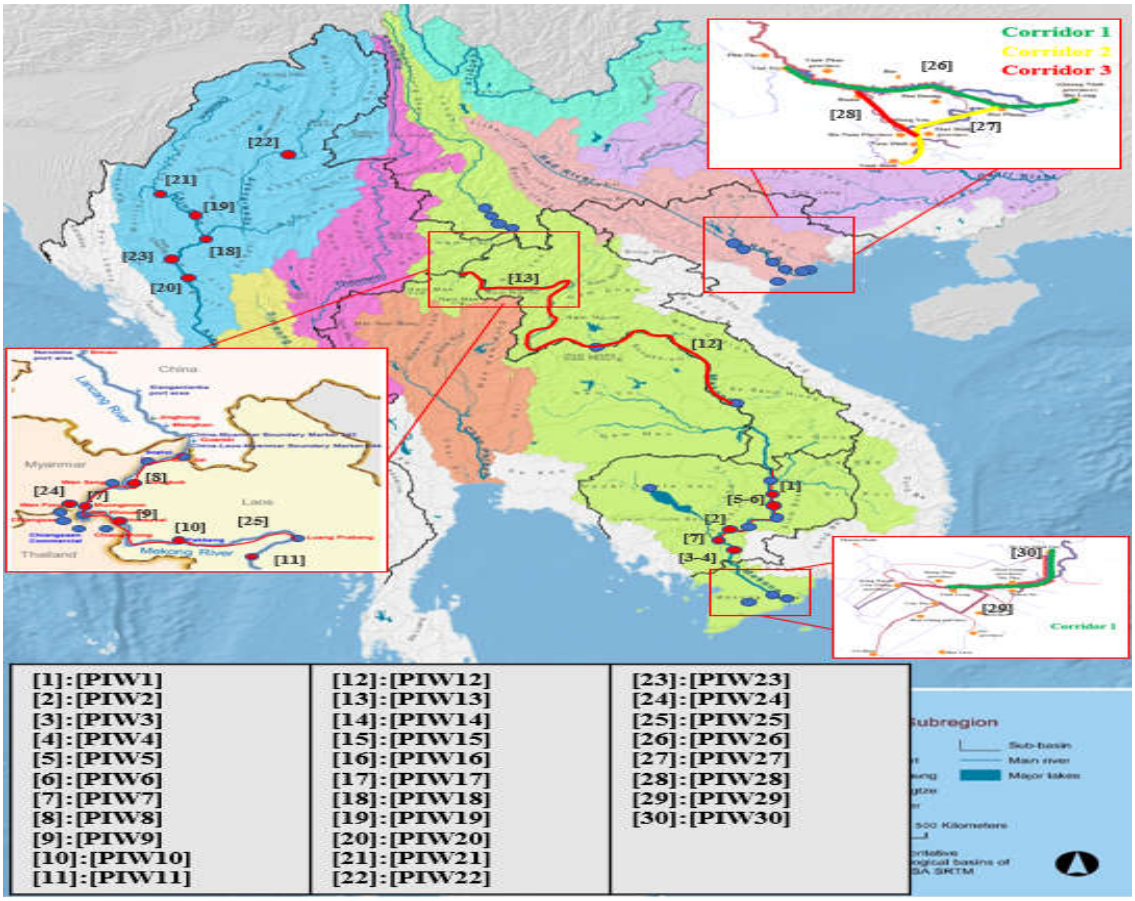


Figure 42: Relevant inland waterway hard infrastructure projects in the ML region.

Information & Communication Technology

N.	Country	Proposal description	Fund Source	Status	Source
[PIT1]	Thailand	ASEAN Digital Hub	Thai Gov	Proposed	ASEAN Pipeline
[PIT2]	Thailand	National broadband Project	Thai Gov	Ongoing	National Plan
[PIT3]	Lao PDR, PR China	China-Lao PDR cable expansion project	NF	NF	PCCMLC
[PIT4]	Lao PDR	GMS Information Superhighway Phase II	NF	Ongoing	GMS, online consultations
[PIT5]	Lao PDR	Lancang-Mekong Forum on Women empowerment in digital age_Strategy to practice	MLC Special Fund	Proposed	Online consultations with key stakeholders

[PIT6]	Lao PDR	The sample project for ICT use to combating with poverty in Lancang-Mekong Community	MLC Special Fund	Proposed	Online consultations with key stakeholders
[PIT7]	Lao PDR	To centralize ICT data collection within LMC Community	MLC Special Fund	Proposed	Online consultations with key stakeholders
[PIT8]	Lao PDR	Strengthening Policies and Best Practices for Digital Service Development for LMC Countries	MLC Special Fund	Proposed in draft of PCCMLC	Online consultations with key stakeholders
[PIT9]	Lao PDR	Study on efficiency roaming policy supporting modern ICT infrastructure for Mekong countries	MLC Early Harvest Special Fund	Proposed in draft of PCCMLC	PCCMLC (Now under ASEAN)
[PIT10]	Lao PDR	Modernization of Lao ICT Statistic project	MLC Early Harvest Special Fund	Proposed in draft of PCCMLC	PCCMLC
[PIT11]	Lao PDR	Develop ICT Regulation Framework in Lancang Mekong Countries (LMC)	MLC Early Harvest Special Fund	Proposed in draft of PCCMLC	PCCMLC
[PIT12]	Myanmar	Myanmar's domestic land cable	NF	Proposed	PCCMLC
[PIT13]	Myanmar	GIS Hardware, Software and Training	NF	Proposed in draft of PCCMLC	PCCMLC
[PIT14]	Viet Nam, PR China	China-Viet Nam cable expansion project	NF	NF	PCCMLC
[PIT15]	Viet Nam	Joint research on ICT architecture for City chains´ Smart cities in Mekong-Lancang member countries	MLC Early Harvest Special Fund	Proposed in draft of PCCMLC	PCCMLC
[PIT16]	Myanmar, Thailand, Cambodia, Viet Nam	land cable across Dawei (Myanmar) – Bangkok (Thailand) – Phnom Penh (Cambodia) – Ho Chi Minh City (Viet Nam)	NF	NF	PCCMLC
[PIT17]	All	Submarine cable across Hong Kong, PR China, Vietnam, Cambodia, Thailand, Myanmar	NF	NF	PCCMLC

[PIT18]	All	GMS Cross-Border E-Commerce Cooperation Platform	NF	Initial phase	GMS
NF: Not Found; PAxx: Code for "Project Information Technology xx".					

Table 27: Selected ICT projects with relevance at the ML regional level

Appendix 3: Consultative Questions

The online consultations followed a semi-structured format, allowing participants to freely give their opinions about the different questions outlined during the presentation. To ease the understanding of the participants, questions were combined with figures and hypothetical examples.

An iterative process was followed to finetune and reformulate the presentation based on the feedback of previous consultations, with the purpose of increasing the efficiency of the later meetings.

Part A: Confirm national and sector specific plans

- *National Plan:*
- *Road Sector Plan (if applies):*
- *Rail Sector Plan (if applies):*
- *Aviation Sector Plan (if applies):*
- *Inland Waterway Sector Plan (if applies):*
- *Port sector plan (if applies):*
- *IT Sector plan (if applies):*

Part B: Confirm current and expected connectivity status

After displaying LPI and mayor Transport Infrastructure Indexes by the Global Competitiveness Report 2019, the discussion focused on the different modes with respect to their current status and the list of ongoing projects, broken down into fund source, status of the project, and source of the information.

- Display of the found current road infrastructure (example for the Kingdom of Thailand):

MEKONG INSTITUTE **ROAD** CONNECTIVITY (current)

Please let us know if you any missing link of **importance at ML regional scale**

Road	Connection
AH 1	Aranyaprahet (link to Cambodia) - Bangkok– Bang Pa in – Nakhon Sawan – Tak – Mae Sot (links to Myanmar)
AH 2	Tak – Lampang – Chiang Rai – Mac Sai (links to Myanmar)
AH 3	Chiang Rai -Chiang Khong (links to Lao PDR)
AH 12	Hin Kong – Nakhon Rachasima – Khon Kaen – Udon Thani - Nong Khai (link to Lao PDR, 1st FB)
AH 13	Nakhon Sawan – Phitsanulok – Nan- Huai Kon (links to Lao PDR, 4th FB)
AH 15	Udon Thani – Nakhon Phanom (links to Lao PDR, 3rd FB)
AH 16	Tak – Phitsanulok – Khon Kaen – Mukdahan (links to Lao PDR, 2nd FB)

Only major regional links are considered

FB: Friendship Bridge

** Based on new proposed configuration of the GMS Economic Corridors*

- Display of the found expected road infrastructure (example for the Kingdom of Thailand):

ROAD CONNECTIVITY (current)

Please let us know if you see (a) any missing proposal, as well as (b) your top priority projects **with importance at a ML regional scale**

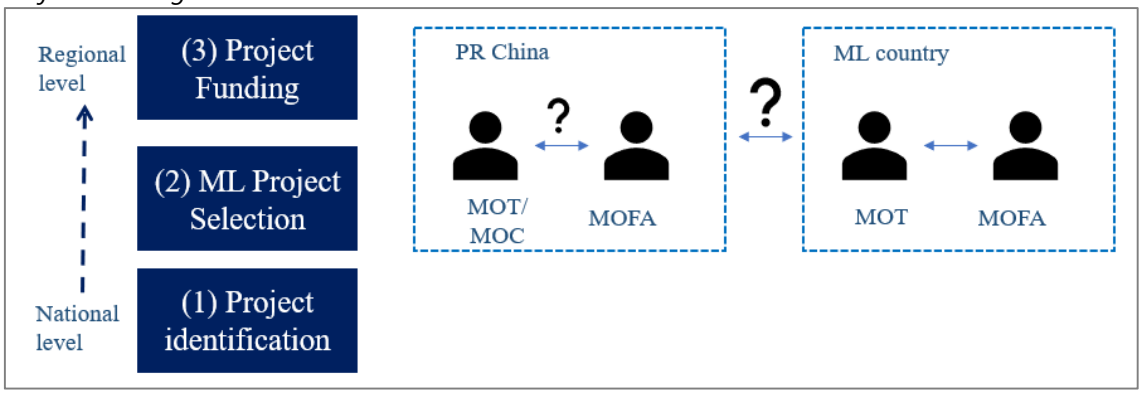
N.	Proposal	Fund source	Status	Source
1①	New Stung Bot-Bang Nong Ian FB between Aranyaprathet – Poipet	NF	Completed	GMS RIF; ACMECS
2①	Mae Sot – Myawaddy BC (2nd Thai-Myanmar FB)	Thai Gov	Completed	GMS RIF; Greatermekong .org
3	Tak-Mae Sot road improvement (AH1)	Thai Gov	Ongoing [C]	GMS RIF; ACMECS
4	Bang Yai – Kanchanaburi (part of Laem Chabang – Bangkok – Dawei motorway project)	Thai Gov	Ongoing [C]	GMS RIF; ACMECS
5	Chiang Rai – Chiang Khong	Thai Gov	Ongoing [C]	GMS RIF
6	Kalasin – Nakrai – Kamcha Highway improvement	Thai Gov	Ongoing [S/D]	GMS RIF; ACMECS
7	5th Thai-Lao FB	Thai Gov	Proposed	GMS RIF

① *Completed*

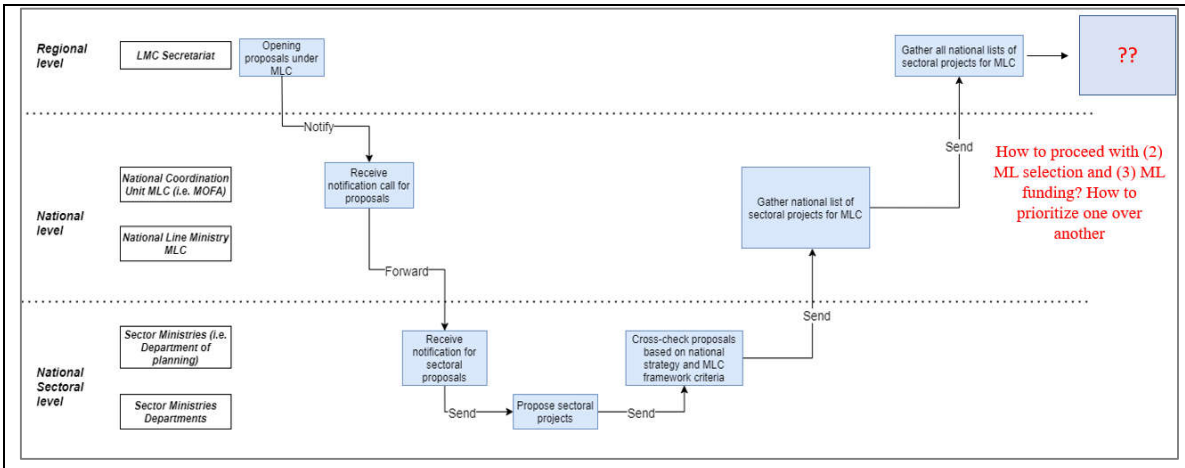
NF: Not Found, FB: Friendly Bridge, C = Construction , SD = Study/Design phase

PART C: Identify bottlenecks and recommendations in your sector projects

"Q1: What is/are the process/steps to go from Project Identification to ML Project Selection and Project Funding? How does coordination work between MOFA and MOT under the MLC?"



Following the first online meetings, the previous figure was further complemented with the following figure to ease the understanding of the questions to the participants:



"Q2: What bottlenecks do you see internally (within your own country) within the mentioned process?"

"Q3: What bottlenecks do you see from the neighboring countries? Do they help or do they hinder the process flow?"

"Q4: Based on your past experiences, what recommendations would you give to improve the mentioned process flow in the MLC framework?"

"COVID-19 has completely changed the way we interact, communicate and do business. It is interesting to see the influence that this pandemic could play in the development of the MLC framework. In fact, the Leader's Meeting of March 2020 was postponed as a result of the pandemic"

"Q5: Do you think priorities within connectivity have changed since the beginning of this year? If so, please explain where the higher focus is (road, rail, air, deep sea, IT, …)"

"Q6: As a result of COVID, in-person meetings have been changed to an online format. Do you think this creates ore bottlenecks in the coordination within the 6 countries under regional frameworks (i.e. MLC)? Or else could the use of online meetings be an opportunity (i.e. due to reduced travelling costs) for advisory and coordination units within the MLC?"

"Q7: Anything else you would like to express as a result of COVID-19 that was not covered in the previous questions?"

Appendix 4: List of Delegates participated in the Online Meetings

Ministry of Transport, Kingdom of Thailand (MOT) July 10, 2020 at 1.00-3.00 pm. (Thailand Time)			
Name of Delegates	**Position/Department**	**Ministry**	**Contact**
Ms. Dollaya Panthanont	Transport Technical Officer International Affairs Division	Ministry of Transport (MOT)	dollaya.mot@gmail.com Tel. (+66) 2283 3384 Fax. (+66) 2280 1714
Ms. Krittika Buranadis	Chief of Macro Planning Division, Office of Transport and Traffic Policy and Planning		mern2009@gmail.com
Ms. Tanachon Bootwong	Plan and Policy Analyst, Office of Transport and Traffic Policy and Planning		tanachon.boo@otp.go.th
Mr.Sutjapong Paisoon	Foreign Relations Officer, Department of Airports		doaintergroup@gmail.com; inter@airports.go.th
Mr. Bhanitiz Aursudkij	Civil Engineer Senior Professional Level, Department of Highways		Bhanitiz@gmail.com intlco.doh@gmail.com
State Secretariat of Civil Aviation (SSCA), Cambodia July 13, 2020, 3.15-4.30 PM			
H.E Capt Khan Vanna	Director General of SSCA		k-vanna@civilaviation.gov.kh
H.E Seng Satta	Director General of Administration and General Affairs		

Mr. Moeung Sathya	Director Department of Strategic Planning and Policy Department	State Secretariat of Civil Aviation (SSCA)	ptoudom@gmail.com, moeungsathya@ssca.gov.kh, sathya.moeung@gmail.com *Coordinator of SSCA Mr. Moeung Sathya Director Department of Strategic Planning and Policy Department The State Secretariat of Civil Aviation (SSCA) Mobile: +855-(0)88 975 8649
NF	Air Navigation Department, Aerodrome		
NF	Safety and Security Oversight Department		
Ministry of Digital Economy and Society (MDES), Thailand July 29, 2020 at 2.30-3.30 pm. (Thailand time)			
Ms. Ishariyaporn Smiprem	Director of Regional Cooperation Group	Ministry of Digital Economy and Society (MDES)	ishariyaporn.s@mdes.go.th Jackrakrit Srisun Foreign Relations Officer International Affairs Division Ministry of Digital Economy and Society Tel.+6621416893 Fax. +661438029 Email: jitsupa.t@mdes.go.th
Ms. Natthaleeya Narash	Foreign Relations Officer, Professional Level		natthaleeya.na@mdes.go.th

Ministry of Transport and Communications (MOTC) July 17, 2020 at 2.00-4.00 pm. (Thailand time)			
Mr. Zarne Aung	Deputy Director General, Post and Telecommunications Department	Ministry of Transport and Communications (MTC)	uzarne@yahoo.com Phone: 95 9 5400056 For Permanent Secretary Mr. Aung Ye Tun Assistant Secretary Ministry of Transport and Communications Nay Pyi Taw, Myanmar Tel: 95-67-3411520 Fax: 95-67-3411419
Mr. Win Hlaing	Deputy Director		motc.landtransport@gmail.com Phone :95 67 411604
Mr. Aung Win	General Manager, Myanma Railways (Technical & Admin)		uagwinmr@gmail.com Phone: 95 67 77024
Mr. Nyi Nyi Swe	General Manager, Myanma Railways (Planning & Admin)		swe.nyio@gmail.com Phone: 95 67 77025
Mr. Maung Maung Thwin	General Manager, Myanma Railways (Civil)		mgmgthwin.mr@gmail.com Phone: 95 67 77007
Mr. Htun Lwin	Deputy General Manager, Myanma Railways (Planning)		dgm.planning.mr@gmail.com Phone: 95 67 77024
Mr. Toe Aung Lin	Director, Directorate of Water Resources and Improvement of River Systems		kotoegyi.dwir5@gmail.com Phone: 95 67 411428
Dr. Myo Nyein Aye	Deputy General Manager, Myanma Port Authority		myonyeinaye@gmail.com Phone: 95 9 254617091
Mr. Myo Tint	Deputy Director, Information, Technology and Cyber Security Department		myotint@gmail.com Phone: 95 9 450000196

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Ms. May Thazin Tun	Assistant Director, SRCD		
Ms. July Kyaw Zaw	Head of Branch II, SRCD		
Ministry of Public Works and Transport (MPWT), Lao PDR July 23, 2020, 2.00-3.30 PM			
Mr. Sengdarith Kattignasack	Director General Department of Planning	Ministry of Public Works and Transport (MPWT)	*Coordinator Mr. Chasui Email: siharard@gmail.com
Mr. Litta Katinga	Director General Department of Road		NF
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Mr.Chasouy Tantsavath	Officer, Department of Planning & Cooperation		siharard@gmail.com
Ministry of Posts and Telecommunications On Jul 24, 2020 13:30 - 14.30 PM (Cambodia time)			
Dr. Cheang Sopheak	Deputy Director General of Telecommunication General Department	Ministry of Posts and Telecommunications (MPT)	cheang.sopheak@gmail.com
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	Cooperation Department		
Mr. Vibol Neak	Official of ASEAN Affair Bureau		vibolneak@ymail.com
Ministry of Post and Telecommunications (MPT), Lao PDR July 29, 2020, 1.30-2.30 PM			
Ms. Phavanna Doungboupha	Deputy Director General of Planning and Cooperation Department	Ministry of Post and Telecommunications (MPT)	
Ms. Vannapha Phommathansy			Vannapha@mpt.gov.la *Coordinator Ms. Vannapha Email: vannapha@mpt.gov.la
NF			phouthasone@mpt.gov.la
Ministry of Foreign Affairs (MOFA), PR China July 30, 2020, 2.30-3.30 PM (China time)			
Mr. Chen		National Development and Reform Commission	chenbc@ndrc.gov.cn
Ministry of Public Works and Transport On Aug 03, 2020 13:30 - 15.30 PM (Cambodia time)			
H.E. Chhieng Pich	Director General of General Department of Logistics (GDL)	Ministry of Public Works and Transport (MPWT)	*Chair
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