Capacity building Workshop on sustainable port development and improving port productivity among ESCAP member countries

Bangkok, 3-4 April 2019

Port Infrastructure, Sustainable Freight and Logistics Development - Project Experiences from GMS countries

Presented by
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Mekong Institute
The Greater Mekong Subregion (GMS) is a natural economic area bound together by the Mekong River, covering 2.6 million square kilometers with population of 326 million. The GMS countries are Cambodia, the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region), Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam.

The Mekong

• The world’s 12th longest river, 7th longest in Asia.
• 4,350-km length, area of 795,000 sq.km.
• A trans-boundary river in Southeast Asia between Thailand, Myanmar, and Laos.
• A major trading route linking China’s Yunnan province to Laos, Myanmar and Thailand to the south
• 70 million people lives across the six countries
Mekong River

The main problem for IWT is the variation in water levels which seriously restrict navigation in the dry season.

The river basin can be divided into:
Upper Basin in China (Lancang)
Lower Mekong Basin from Yunnan (China) downstream to the South China Sea.

- The main use of inland water transport (IWT) on Mekong River is in the upper reaches for cross border trading activities; and in the lower reaches connecting Phnom Penh with the sea and servicing Saigon port;

The main problem for IWT is the variation in water levels which seriously restrict navigation in the dry season.
## Status of Ports – Upper Mekong

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>China - upgraded</td>
<td>Simao, Jinghong; and Guanlei on Lancang river.</td>
</tr>
<tr>
<td>Simao port</td>
<td>First waterway hub connecting Mekong and Lancang Rivers - handled over 350,000 tons of commodity trade, worth of 635 million US dollars for 3 years in 2016.</td>
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<tr>
<td>Simao port</td>
<td>Developed into an international port connecting with Laos, Thailand and Cambodia; handling 70,000 tons of cargo and 40,000 passengers annually. It’s the first port on the Lancang River; Opened 2001.</td>
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<tr>
<td>Jinghong port</td>
<td>Design annual capacity, 100,000 tons and 400,000 passengers; investment, US$ 5.7 million; opened for operation in December 2002.</td>
</tr>
</tbody>
</table>
### Status of Ports – Upper Mekong

| Myanmar has designated two ports for international traffic on the upper reaches of the Mekong River | Wan Seng and Wan Pong Most trade movements are with PRC. |

*Source: Asian Development Bank*

Wan Pong Port
### Status of Ports – Lower Mekong

<table>
<thead>
<tr>
<th></th>
<th>Haciang Commercial Port – private; adequate infrastructure; exports petroleum products to PR China and Myanmar</th>
<th>Chiang Saen Port – public; adequate infrastructure - possible to have cargo operations in all weather conditions; mainly tourist port</th>
<th>Chiang Saen Commercial Port – public; good infrastructure - ambition to be major gateway between Thailand and Southern China; imports fruits from China; exports food products</th>
<th>Chiang Khong Port – public; no cargo handling facility; imports vegetables and flowers from China; exports petroleum products and consumer products to China and Laos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand – 4 ports – 1 privately operated</td>
<td></td>
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<td></td>
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</tbody>
</table>
Status of Ports – Lower Mekong

Lao PDR – 29 river ports; under provincial governments

Most are small and have less developed infrastructure with limited handling facilities, maintenance and management system

Luang Prabang has two ports
Savannakhet Port – has an SEZ; no maintenance or safety management plan

KM4 State port – Vientiane - Cargo exports decreased as roads have improved; study and plans to relocate the port are ongoing

Source: Mekong River Commission
### Status of Ports – Lower Mekong

<table>
<thead>
<tr>
<th>Cambodia- other than Phnom Penh Port, other inland waterway ports are just ramps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kompong Cham – Tonle Bet Port - growing quickly; no special facilities for passengers disembarking; it loads cargo using pontoons; also has warehouse facility</td>
</tr>
<tr>
<td>PPAP Phnom Penh New Container Terminal NCT LM17 – opened in 2013; current port area is about 12 ha and can be extended to 30 ha in the future</td>
</tr>
<tr>
<td>Phnom Penh Oil Terminals (Tonle Sap) Between km 6 and km 10, three Oil Terminals, all privately owned and operated. Condition depends on owner/operator</td>
</tr>
</tbody>
</table>

*Source: Mekong River Commission*
Status of Ports – Lower Mekong

Vietnam - more than 100 small IWT ports in Mekong delta- condition depends on the owner/operator

CanTho Port - largest port in Mekong Delta - two branches: Hoang Dieu Port branch and Cai Cui Port branch.

The total port area is about 45 ha with 22,000 m³ of modern warehouses and up to date handling equipment

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>AARG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import (ton)</td>
<td>196,181</td>
<td>60,620</td>
<td>80,078</td>
<td>104,021</td>
<td>113,150</td>
<td>123,093</td>
<td></td>
</tr>
<tr>
<td>Export (ton)</td>
<td>102,802</td>
<td>111,310</td>
<td>68,256</td>
<td>124,111</td>
<td>114,052</td>
<td>94,748</td>
<td></td>
</tr>
<tr>
<td>Domestic (ton)</td>
<td>977,505</td>
<td>584,186</td>
<td>625,346</td>
<td>1,303,794</td>
<td>2,136,930</td>
<td>2,716,107</td>
<td></td>
</tr>
<tr>
<td>Total (ton)</td>
<td>1,276,488</td>
<td>756,116</td>
<td>773,116</td>
<td>1,531,926</td>
<td>2,364,132</td>
<td>2,933,948</td>
<td></td>
</tr>
<tr>
<td>Container (TEU)</td>
<td>4,825</td>
<td>3,196</td>
<td>2,250</td>
<td>10,898</td>
<td>18,693</td>
<td>25,649</td>
<td></td>
</tr>
<tr>
<td>Ship Calls</td>
<td>1,085</td>
<td>807</td>
<td>190</td>
<td>292</td>
<td>486</td>
<td>549</td>
<td></td>
</tr>
</tbody>
</table>

Source: Mekong River Commission
Key Issues

- The ports in the Lower Mekong River Basin do not have a well-developed Port Safety, Health and Environmental Management System (PSHEMS)

- There is limited awareness of the risks associated with handling and storage of dangerous goods esp in Lao PDR, Cambodia and Vietnam

- Most ports do not have Maintenance, Inspection and Testing Program (MITP) for critical equipment for function in a safe and efficient manner and reduce the downtime required for repair or replacement.
Future Plans for Port development

Investments in 2007-2020:
- Chiang Saen Commercial Port in Thailand
- New Phnom Penh Autonomous Port Container Terminal in Cambodia
- Expansion of Can Tho Port for ships up to 10,000 DWT in Vietnam.

By 2040 new passenger ports estimated to be constructed in 14 locations and new cargo ports in 7 locations in Laos and in Kratie, Kompong Cham, Phnom Penh (NCT LM17 Phase III) and Chong Kneas in Cambodia

Construction of inland port and landing facilities development may cause significant direct and indirect impacts on environment and socio-economic characteristics of a river.

Operations of ports, terminals and vessels have the potential to generate both domestic and hazardous wastes.
Key Issues

- OILY WATER
- SEWAGE
- ANTIFOULING PAINT
- BALLAST WATER
- GARBAGE
- CARGO RESIDUES
- OZONE-DEPLETING SUBSTANCES
- CARGO VAPOURS
- NOx EMISSIONS
- INCINERATION EMISSIONS
- CO2 EMISSIONS
- PM EMISSIONS
- SO2 EMISSIONS
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Project on
GREEN FREIGHT & LOGISTICS DEVELOPMENT
IN MEKONG COUNTRIES
Objectives

- Introduce ‘green mark’ standards in logistics service operations.
- Build capacities of the Logistics Service Providers (LSP) on green freight.
- Create database on green logistics technologies.
- Create a platform for collective action among stakeholders to promote green logistics in the Mekong countries.

Aim: To reduce cost of logistics and transport for improvement in economic performance in the Mekong countries by reducing its carbon footprint.

Participating countries
Cambodia, Lao PDR, Myanmar, Vietnam, Thailand

Duration
3 Year project (2017-2020)

Project Partners
- National Ministries of Land Transport,
- Freight Forwarders Associations, Trucking Associations
- GMS- Freight Transport Association
- Korea Transport Institute

Target group
Department of Land Transport
Private Companies e.g.
custom brokers, trucking companies, warehouse, ports, ICD, Cold Chains etc.

Funded by
Republic of Korea, MKCF
Project Activities

Baseline Study in CLMVT

Keys aspects of logistics and green freight among the LSP to be used to measure the progress and outcomes of the project.

Design of Green Freight and Logistics Curriculum

Training curriculum and core training modules

- Setting of environmental performance standards on core logistics services such as Cargo/Freight handling Transportation, Warehouse, ICD etc.
- Agreed by GMS-FRETA members, Government agencies.
- Introduced in all the 5 Mekong countries.
- Certification of Companies at intermediate, moderate and high as per performance.

- To adopt the logistics standards in their respective country.
- Monitor the use and application of the software tool by the companies and periodic monitoring/review of the compliance of the standards.

- Core standards cover aspects on fuel reduction, measures for emissions besides non-technical aspects of management and operations efficiency.
- The company’s adopt on voluntary basis to record and monitor the core measures to comply with the standards.
- The government agencies (transport departments) utilize the information from the companies on periodic basis to assess the compliance of the green freight standards for annual renewals of the certification.

Green Freight Certification Process

Setting of Green Logistics Service Quality Standards (Green Mark)

Core Group to introduce the Green logistics Standards (Green Mark)

Development of software program to monitor the standards
Project Activities - Trainings

Green Freight and Logistics Management (Utilize Training curriculum)

Three (3) modular trainings at MI

Advanced ToT on Green Freight and Logistics Certification

- 6 pax /country
- 5 dys Training
- Total 30 X 3 = 90

Participants

Action Plan
Conduct workshop for transferring gained knowledge to others in CLMVT

- to promote a pool of professionals to provide support to the existing companies and coach new companies on green freight standards and certification.
- 4 selected /country from three trainings (total 20)
- 5 days training at MI
**Project Activities – Standards and Certification**

**Software Program to Monitor the performance**

**Training on Use and Application of the Software Program on Green Logistics Service Quality Standards**

**Participants**

**Trainings in each CLMVT**

**Action Plan**

Apply the software Program in the company

**Core Group Member in CLMVT**

monitor the use and application of the GLSQS by the companies

**Categories of ‘green label’ are monitored for compliance and certification as**

i. intermediate,  
ii. moderate and  
iii. high depending upon the level of performance
Green Logistics Standards (GLS) or Green Mark

- A software tool for measuring and quantifying,
  - Fuel Efficiency
  - Green Logistics Performance and Measurement
  - Monitoring Company Operational Efficiency

‘Green Mark’ can be applied to a logistics service provider or an industrial or manufacturer with in-house logistic activity.

Benefits:
✓ gives shippers access to "green" carriers who are committed to efficiency and a reduced carbon footprint, and gives carriers a competitive advantage with shippers (particularly multinational companies at the carrier selection process).

✓ allows carriers to acquire recognition for their progress towards sustainable freight, and allows shippers to select and reward carriers by making sourcing decisions that include sustainability criteria.
Thank you for completing your registration!

This software is a part of the project and is introduced to promote logistics companies to reduce their carbon emissions and energy use from goods transits by improving performances in fuel-efficiency, effective transport operations, clean waste management and responsible and accountable organizational management practices. This software can be applied to a logistics service provider or an industrial or manufacturer with in-house logistics activities.

You are now available to download the GLSQS Auditor Software version 2.0.0, please click at the link of user manual for guideline of its installation of the software at https://bit.ly/2FMIQ7m

And/or go to GLSQS Auditor Software link directly at https://bit.ly/2SzXhBy

Please be note that, the GLSQS Auditor Software version 2.0.0 is powered and copyright 2018 by the Mekong Institute. All rights are reserved.

The project team member will follow up how useful of the GLQS Auditor Software version 2.0.0 with you through online survey within 6 months for further improvement.

Should you have any inquiry, please feel free to email to glqs@mekonginstitue.org

With Regards,…………………….
To promote and facilitate business networking among logistics companies in Cambodia, Laos, Myanmar, Thailand and Vietnam (CLMVT)

- Over 1000 logistic company profiles in CLMVT
- Include transport agreements, regulations, notifications in logistic sector
- Database and Smart Phone Application system
- Partner with GMS-FRETA, LIFFA, CAMTA, MIFFA, VATA, TIFFA, CAMFFA
The Logistics GMS application is available in the iOS and Android platforms.

**COMPANY SHOWCASE**

A showcase of companies in every GMS country

- Cambodia
- Laos PDR

Business model developed for investment to run on a commercial basis
Collaborate to launch online truck/logistics hiring services

Upgraded to include function on buyer’s request to search potential green freight technology suppliers within the GMS region and beyond.

URL
www.logisticsgms.com

DETAILS
Available in the iOS app store and Google Play Store
Mekong Institute (MI) is an Inter-Governmental Organization (IGO) owned and managed by the governments of six countries in Greater Mekong Subregion (GMS), namely Cambodia, China, Laos, Myanmar, Thailand and Vietnam, to promote regional economic cooperation and integration thorough capacity development programs in three thematic areas - Agricultural Development and Commercialization (ADC), Trade and Investment Facilitation (TIF), and Innovation and Technological Connectivity (ITC).