Logistics Master Plan Development in the Kingdom of Cambodia

Workshop on Strengthening Transport Operational Connectivity among Cambodia, Lao People’s Democratic Republic, Myanmar, Viet Nam and Thailand (CLMV-T)
Hanoi, 30 November – 01 December 2017
# Content of Presentation

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   - Logistics Infrastructure Improvement
   - Logistics Challenges
   - Logistics Performance Index (LPI)

2. **Institutional Framework**
   - Establishment of National Institutional Framework

3. **Logistics Master Plan Development**
   - Related Policies and Strategy
   - Master Plan Development
1. Current Status of Logistics Sector
Background: Future Socio-Economic Perspectives

Population and Economy will steadily grow.

Towards 2025:
- Gradual Population Growth (x 1.13)
- Continued Economic Growth Expected (economic scale x 1.65)
- Income level is expected to further increase

Domestic logistics capacity needs to be expanded depending on future demand to support economic growth and population increase.

Sources: The forecast of population growth and GDP has been made by the JICA Study Team based on the World Bank data, IMF 2016 Cambodia Article IV, and World Economic Outlook Database, April 2017.
Population and industries are concentrated along the Southern Economic Corridor. Thus strengthening it, as well as connecting all regions to it, are vital for Cambodia’s future development.

The logistics situation in Cambodia has steadily improved in the last 6 years.
Towards 2025:

- Trade will continue to increase (x 2.2) in both import and export.
- Types of industries will be diversified.
- Imports and Exports are more diversified with higher value-added products.

Port and land border capacity needs to be expanded significantly. Border control needs to be more efficient.

Sources: IMF 2016 Cambodia Article IV. The forecast after 2017 was made by the JICA Study Team.
Logistics needs are being more diversified.

Towards 2025:
- Variety of trade commodities are diversified. (900 in 2005 to 1422 in 2015 in HS code).
- Logistics needs are more diversified as the economy develops.
- A more diversified modes of transport is required to meet transport demand.

Logistics should get prepared for diversified needs and destinations. Aviation plays an important role.

Source: Ministry of Commerce.
Background: Cambodia Trade Routes
**Background: Freight Movement**

**Sihanoukville and Phnom Penh Ports are gateways of freight movement. Bavet and Poipet have more industrial goods.**

<table>
<thead>
<tr>
<th></th>
<th>Export (%)</th>
<th>Import (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weight</td>
<td>Value</td>
</tr>
<tr>
<td>Bavet</td>
<td>1.1</td>
<td>5.3</td>
</tr>
<tr>
<td>Phnom Penh</td>
<td>26.6</td>
<td>16.1</td>
</tr>
<tr>
<td>Poipet</td>
<td>1.4</td>
<td>15.7</td>
</tr>
<tr>
<td>Sihanoukville</td>
<td>70.9</td>
<td>62.9</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** JICA Study Team
Logistics Infrastructure: Road Network

National and Provincial Road Network in Cambodia

Road Density: 0.3 Km/km² (2014)
National Road Density: 0.06 Km/km² (2014)

<table>
<thead>
<tr>
<th>Road Class</th>
<th>Length (Km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Road 1 Digit</td>
<td>2,243</td>
</tr>
<tr>
<td>National Road 2 Digit</td>
<td>8,864</td>
</tr>
<tr>
<td>Provincial Road 3 &amp; 4 Digit</td>
<td>4,407</td>
</tr>
<tr>
<td>Rural Road (*)</td>
<td>39,728</td>
</tr>
<tr>
<td>City Road (**)</td>
<td>Under Survey</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55,242</strong></td>
</tr>
</tbody>
</table>

(*) Rural Road is under jurisdiction of Ministry of Rural Development

(**) City Road is under management of local government
Logistics Infrastructure: Road Pavement

Current Road Pavement Status
International Road Network in Cambodia

ASEAN Highways and Main corridors in Cambodia

- AH1
- AH11
- AH123
- new AH21

CAMBODIA- AH (2015)
AH(Total): 1,487 km
TTRs: 1,336 km
Class II: 1,336 km
Class III: 151 km
Missing link: 0 km
Logistics Infrastructure: Expressways Dev. Plan
## Logistics Infrastructure: Railways

### Present Cambodia Railway Network

<table>
<thead>
<tr>
<th>Railway Line</th>
<th>Abbreviation</th>
<th>From-To</th>
<th>Year-Built</th>
<th>Gauge</th>
<th>Axle Load</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Line</td>
<td>NL-PoPet</td>
<td>PHN-PoPet</td>
<td>1929</td>
<td>1m</td>
<td>15t</td>
<td>386km</td>
</tr>
<tr>
<td>Southern Line</td>
<td>SL-Phnom Penh Port</td>
<td>PHN-SHV Port</td>
<td>1960</td>
<td>1m</td>
<td>20t</td>
<td>266km</td>
</tr>
</tbody>
</table>

**Total Length**: 652km

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**Legend**
- **Blue line**: Northern Line (PHN-PoPet)
- **Red line**: Southern Line (PHN-SHV Port)
- **Nodes**:
  - Phnom Penh (PHN)
  - PolPet
  - Silanoukville (SHV) Port
  - Thailand
SKRL LINK in Cambodia (611Km)

Poi Pet - Sisophone 48 km

Northern Line
Sisophon-Phnom Penh 338 km

Southern Line
Phnom Penh-Sihanoukville Port 264 km

Missing Link
Bat Doeung - Vietnam Border : 257 Km

Railway Department, MPWT
Railway Development Plan
Logistics Infrastructure: Sea and River Ports

SP1: Koh Kong Port
SP2: Sre Ambel Port
SP3: Okhina Mong Port
SP4: StungHAV Ports
SP5: Oil Terminal
SIHANOUKVILLE PORT
SP 6: KAMPOT PORT
SP 7: KAEB PORTS

Phnom Penh Autonomous Port

Sihanoukville Autonomous Port
Logistics Infrastructure: Sihanoukville Autonomous Port (PAS)

Source: PAS
Logistics Infrastructure: Sihanoukville Autonomous Port (PAS)
Container Throughput of Sihanoukville Autonomous Port (PAS)

Source: PAS
Phnom Penh Autonomous Port (PPAP)
Logistics Infrastructure: River Port (PPAP)

Inland Waterway Connection

- Bassac River
- Neak Loeung Bridge
- Mekong River
- Mỹ Thuận Bridge
- Rach Mieu Bridge
- Can Tho Bridge
- Vung Tau
- TS3
- LM17
- Border
- CAI MEP
- My Thuận Bridge
- Cần Thơ Bridge
- Ăn Thuận Bridge
- Bassac River
- Neak Loeung Bridge
- Mekong River
- Mỹ Thuận Bridge
- Rach Mieu Bridge
- Can Tho Bridge
- Vung Tau
- TS3
- LM17
- Border
- CAI MEP
Container Throughputs of Phnom Penh Autonomous Port (PPAP)

Source: PPAP
Logistics Infrastructure: PPAP versus PAS

Main Ports Market Share
Container Throughput 2016

PPAP: 151,781 TEU (27%)  
PAS: 400,187 TEU (73%)
Logistics Infrastructure: Cross Border Facilities

Border Control Facilities: MAIN BUILDING

BORDER CROSSING FACILITIES AT STUNG BOT
Logistics Infrastructure: Air Transport

Airports in Cambodia

Source: SSCA
Logistics Infrastructure: Air Transport

The upgrading of the international airports at Phnom Penh, Sihanoukville and Siem Reap, along with the establishment of direct international services into Siem Reap, has boosted tourism in the sense that international passenger traffics increased an average of 8% yearly between 2008 and 2015 from 2.5 million to over 5.6 million passengers.

International air cargo traffic increased by over 13% annually during the same period of time to over 36,898 tons in 2015.

Source: SSCA
Logistics Challenges

Current issues in the Logistics Sector are Identified.

**Infrastructure:** Infrastructure (road, railway, port and inland waterways) has been gradually developed with lengthy efforts. Capacity Enhancement will be necessary to continue to meet future demand increase.

**Transport:** Transport hubs are not effectively organized.

**Border Control:** Limited capacity of border facility causes congestion. Border operating hours are not fit to business needs.

**Logistics Costs:** Logistics costs are expensive compared with Thailand and Vietnam. In particular, forwarding charge and port charge are high in Cambodia.

**Logistics Services:** Logistics services are not sufficiently qualified as professional service. For example, truck drivers with appropriate skills is scarce. Modern logistics services like LCL services and Cold chain service are still in beginning stage.

**Regulatory and Institutional Framework:** Many logistics-related regulations are missing. Even if they are prepared, some are not well functionalized. Inter-governmental coordination is just starting.
WB Logistics Performance Index (LPI)

6 LPI dimensions along a supply chain framework

- Timeliness
- Ease of arranging shipments
- Tracking and Tracing
- Timeliness
- Ease of arranging shipments
- Tracking and Tracing

Source: Banomyong (2017)
### GMS LPI 2016 Ranking

*LPI implies logistics issues may exit in customs & border procedures, infrastructure, logistics competence and tracking & tracing.*

<table>
<thead>
<tr>
<th>Country</th>
<th>LPI Rank</th>
<th>Customs</th>
<th>Infrastructure</th>
<th>International Shipments</th>
<th>Logistics Competence</th>
<th>Tracking &amp; Tracing</th>
<th>Timeliness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>73</td>
<td>77</td>
<td>99</td>
<td>52</td>
<td>89</td>
<td>81</td>
<td>73</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>152</td>
<td>155</td>
<td>155</td>
<td>148</td>
<td>144</td>
<td>156</td>
<td>133</td>
</tr>
<tr>
<td>Myanmar</td>
<td>113</td>
<td>96</td>
<td>105</td>
<td>144</td>
<td>119</td>
<td>94</td>
<td>112</td>
</tr>
<tr>
<td>Thailand</td>
<td>45</td>
<td>46</td>
<td>46</td>
<td>38</td>
<td>49</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>Vietnam</td>
<td>64</td>
<td>64</td>
<td>70</td>
<td>50</td>
<td>62</td>
<td>75</td>
<td>56</td>
</tr>
</tbody>
</table>

## ASEAN LPI 2014 Ranking

<table>
<thead>
<tr>
<th>Typology</th>
<th>LPI Score</th>
<th>ASEAN countries</th>
</tr>
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<tr>
<td>logistics friendly</td>
<td>3.50 - 5.00</td>
<td>Singapore, Malaysia</td>
</tr>
<tr>
<td>consistent performers</td>
<td>2.95 - 3.49</td>
<td>Thailand, Philippines, Vietnam, Indonesia</td>
</tr>
<tr>
<td>partial performers</td>
<td>2.40 - 2.94</td>
<td>Cambodia</td>
</tr>
<tr>
<td>logistics unfriendly</td>
<td>0.00 - 2.39</td>
<td>Laos, Myanmar</td>
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Source: Banomyong (2017)
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<td>partial performers</td>
<td>2.40 - 2.98</td>
<td>Indonesia, Vietnam, Brunei, Philippines, Cambodia, Myanmar</td>
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<tr>
<td>logistics unfriendly</td>
<td>0.00 - 2.39</td>
<td>Lao PDR</td>
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Source: Banomyong (2017)
2. Establishment of National Institutional Framework for Logistics Improvement and Development
National Logistics Council (NLC)
- Deputy Prime Minister as Chairman
- Member: MPWT, MEF, CDC, MoP, MoC & SNEC
- Annual Meeting

National Logistics Steering Committee (NLSC)
- MPWT as Chairman
- Member: Line ministries, private sector & academia
- Semi-annual Meetings

Secretariat (General Department of Logistics-GDL / MPWT)
- Use GDL Structure
- Monthly, Quarterly & Annual Meetings
- Use MPWT budget

Royal Decree on the Establishment and Functioning of NLC and NLSC No. NS/RD/1117/1092 dated 24 Nov 2017

MPWT: Ministry of Public Works and Transport; MEF: Ministry of Economy and Finance; MoC: Ministry of Commerce; MoP: Ministry of Planning; CDC: Council for Development of Cambodia; SNEC: Supreme National Economic Council.
3. Logistics Master Plan Development in the Kingdom of Cambodia
Target Year: 2018

Practical Measures: Develop and implement a master plan for transport and logistic system development with the aim of creating integrated and highly effective multimodal transport and logistics system, focusing on connecting the major economic poles and the three economic corridors – Phnom Penh – Sihanoukville, Phnom Penh – Bavet and Phnom Penh – Poipet – to become key national economic corridors through the construction of internationally standards highways and the setup of an effective logistics system.

Performance Indicators: Master Plan for Integrated and Effective Logistics System

Coordinated by: Committee for Economic and Financial Policy

Implemented by: MPWT, MEF, MoC, CDC

Source: Appendix C, Matrix of four key concrete measures to promote the implementation of the “Industrial Development Policy”, Cambodia Industrial Development Policy 2015-2025
Seamless Logistics:

- Lower supply chain costs in each ASEAN Member State,
- Improve speed and reliability of supply chains in each ASEAN Member State.

There are two initiatives:

- Strengthen AESAN competitiveness through enhanced trade routes and logistics,
- Enhance supply chain efficiency through addressing key chokepoints.
Coverage of Logistics Master Plan (M/P)

Current situation of the Logistics Sector in Cambodia

Roles of the Logistics System to enhance Industrial Development in Cambodia

Short-Term Priority Projects
- De-bottlenecking based on private sector needs (visible impacts)
- Reform of logistics organizations and institutions
- Public-private partnerships

Mid-Term Priority Projects to fulfill the gap between the current challenges and future Vision

Long-Term Priority Projects to fulfill the gap between the current challenges and future Vision

Technical Cooperation Projects
- Capacity building
- Institutional reforms
- Development of technical tools and practices (demand forecast modeling) etc.

Source: JICA Study Team
Analytical Framework of Logistics M/P

Current Situation and Issues/Demands
- Cambodian Citizens
- Issues and demands
- Industries
- Issues and demands
- Logistics Service Providers
- Issues and demands
- Infrastructure
- Issues and demands
- Government
- IDP, and other policies

Key Constraints and External Factors
- Global and regional economic developments
- Domestic Issues by region
- Institutional and Resource Constraints
- Budget and financial Constraints

Logistics M/P
- Short-term Objectives
  - High priority
  - Low resource requirements
- Mid-term Objectives
  - High priority
  - Moderate resource requirements
- Long-term Objectives
  - Priority
  - High resource requirements

Source: JICA Study Team
**SMART Logistics 2025 - Overall Concept**

**Current trade off and availability**

- **High Cost**
  - Air transportation
  - Limited Service
  - Availability
  - High Logistics Costs
  - Long Time
  - Expected trade off

- **Low Cost**
  - Truck transportation

**Logistics in 2025**

- **High Cost**
  - Sufficient Capacity and Variety by Multi-modality and Advanced Technology for Reliable Transport

- **Low Cost**
  - Air transport based Services
  - Cold Chain
  - Vegetables
  - Rail based Services
  - Water based Services
  - Water based Transportation
  - Truck based transport Services
  - LCL
  - Rail

Source: JICA Study Team
SMART Logistics 2025 – Draft Principles, Strategies and Programs

3 Principles

1. Sufficient Capacity to meet future demand on volume
2. Sufficient Diversity of Services to meet future demand on quality
3. Speedy, Stable and Cost-effective to support industry

5 Strategies

Strategy 1: Development of Economic Corridors
Strategy 2: Development of Logistics Hubs for Multi-Modal Transport
Strategy 3: Realization of Seamless Border Transport
Strategy 4: Capacity Enhancement of Logistics Service Providers
Strategy 5: Strengthening of Legal and Institutional Framework

25 Programs

- Road Transport Capacity Enhancement
- Promotion of Railways as an Emerging Transport Mode
- Inland Water Transport Improvements
- Sihanoukville Port Development
- Phnom Penh Port Development
- Bavet Border Area Improvement
- Poi Pet Border Area Improvement
- Logistics Complex Development
- Diversified Business Supports
- Aviation Hub Development
- Introduction of Port EDI
- Port Management System Enhancement
- Introduction of Cambodia National Single Window (CNSW)
- Enhancement of the Best Trader Incentives
- Institutional and Capacity Building for Customs and Customs Brokers
- Optimization of CamControl Functions and Procedures
- Establishment and Operation of a Technical Working Group on Logistics Development
- Establishment of a Logistics Technical Training Center
- Modernization of Freight Vehicles
- Grading of Logistics Service Providers
- Private Sector Participation in Public Monopolies
- Institutional Capacity Enhancement of Logistics Policy Making and its Implementation
- Facilitation of Trade Agreements
- Enhancement of Borderless Transportation
- Optimization of Logistics Costs

Source: JICA Study Team
SMART Logistics 2025 – Draft Development Phases

**Short Term (2018-2019)**

- Debottlenecking
  - Enhancement of Transport infrastructure to be fully functioned
  - Smooth transit at border points
  - Simple import/export permit and inspection

**Short Term (2020-2022)**

- Reaching Global Standards
  - Global Standards of infrastructure
  - Internationalized import/export permit and inspection
  - Harmonized cross-border operation with Thailand and Viet Nam

**Long Term (2023-2025)**

- Activating Logistics Businesses
  - Optimum transport under efficient network and hubs, and modal selection
  - High connectivity in the Mekong Region and seamless transport
  - Diversified logistics services to respond diversified transport demand
  - Enhancement of Competition in logistics market

Source: JICA Study Team
The Master Plan is being developed with technical support from JICA and the World Bank.

1st Stakeholder Consultation Meeting was held on 08 November 2017. Interim report of the Master Plan Study is made available and shared with relevant stakeholders for inputs...

... schedule to be completed by March 2018.
Thank you very much. We are planning to realize that our logistics system well enhances industrialization to share a regional logistics function in the Mekong Region.

Mr. HENG Salpiseth
Director, Department of Logistics, General Department of Logistics, MPWT.
Email: heng_salpiseth@yahoo.com