MASTER PLANNING FOR WATERBORNE TRANSPORT IN THE MEKONG RIVER BASIN

MASTER PLANS FOR WATERBORNE TRANSPORT ON THE MEKONG RIVER SYSTEM IN CAMBODIA

Freddy WENS, MSc. Civ. Eng.
PIANC Cooperation Commission (CoCom)
The PAST history, the PRESENT situation and FUTURE recommendations on the Master Planning for Waterborne Transportation on the Mekong River System in the Kingdom of Cambodia
1. THE HISTORY
1.1. THE MPWT MASTER PLAN FOR WATERBORNE TRANSPORT ON THE MEKONG RIVER SYSTEM IN CAMBODIA (2005 – 2006)

- Second Socio-economic Development Plan 2001-2005: transport infrastructure limitations are a major constraint to the country’s development and the potential of the Mekong River System for more efficient waterborne transport should be exploited.
- MPWT Workshop, July 2005: decision to start the design of a Master plan for Waterborne Transport in Cambodia and to address separately the cross-border waterborne transport, the domestic commercial and inland rural waterborne transport and the development of institutional strengthening and training.
- September 2005: Start of the design of the Master plan, carried out by a team of 12 local experts and 12 international consultants and financially supported by the Belgian Technical Cooperation (BTC).
The design consisted of five phases:
1. The study of the current situation (2005);
2. The economic study of the potential for growth of waterborne transport;
3. The study of technical problems and constraints;
4. The development of long-term strategies; and
5. The preparation of a prioritized action plan.

This action plan was composed of some 60 actions, being 21 regional cross-border waterborne transport actions, 25 domestic and rural waterborne transport actions and 14 institutional strengthening and capacity building actions.
The five waterway design actions included some dredging activities, a classification study and hydrodynamic monitoring;

The fifteen waterway safety actions included the installation of Aids to Navigation and VTS and the reporting of marine accidents, the prevention of oil pollution, the carriage of dangerous goods and Search and Rescue;

The fourteen port planning actions included the construction or the upgrade of port facilities in Phnom Penh, Chong Kneas, Kampong Cham, Kampong Chhnang and Kratie;

The three legal actions included the ratification of a Cambodia-Vietnam Agreement on Waterway Transportation and the preparation of Inland Waterway Transport legislation and Port legislation;
The nine environmental actions included the implementation of Environmental impact Assessments (EIAs), Waste Management Plans, a Navigation Spill Contingency Plan and Emergency Response Plans;

The five social actions included the provision of ferry services on rural roads and the promotion, capacity building, technical and financial support of the Inland Rural Waterway Transport sector;

The three capacity building actions included the establishment of an Inland Waterway Transport School, a Waterborne Transport University Program and the organization of IWT training sessions; and

The six institutional actions included the creation of a Data and Information Management Center, a Navigation Coordination Committee and a Port Department at the Ministry of Public Works and Transport.
In **August 2006**, a Master Plan Workshop was organized with:

- more than 100 participants from governmental agencies, the Mekong River Commission, donor agencies and development banks, the private sector, civil society and waterway users;
- Critical review of the strategies, the objectives and the identified actions; and
- A multi-criteria analysis to prioritize the proposed actions and to finalize the study of the Cambodian Master plan.
1.2. THE NAVIGATION COORDINATION COMMITTEE (2007 – 2013)

- In June 2007, the Minister of Public Works and Transport of the Royal Government of Cambodia agreed on the establishment of a Navigation Coordination Committee within the Ministry of Public Works and Transport in order to implement the actions of the Master plan.

- This NCC was composed of a Steering Committee that was taking all decisions based on documents, prepared by an Executive Office, composed of a Director, three local experts and a part time international consultant.

- During the six years of its existence, the Navigation Coordination Committee:
  - organized 12 Steering Committee Meetings;
  - prepared Inception Reports and Terms of Reference for some 40 Actions of the Master plan;
  - organized six workshops;
  - prepared five comprehensive reports; and
  - did the follow-up of the projects, funded by several other cooperation agencies.
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1.3. THE MRC REGIONAL ACTION PLAN FOR THE CARRIAGE, HANDLING AND STORAGE OF DANGEROUS GOODS ALONG THE MEKONG RIVER (2012-2014)

In 2012, MRC started the study of a Regional Action plan for the carriage, handling and storage of dangerous goods along the Mekong River with a risk analysis, a list of recommendations and some 12 actions for each of the MRC member countries:

- Five projects concerning vessel safety;
- Four projects concerning port and terminal safety;
- Two projects concerning waste management; and
- One project concerning the introduction of geographical zones in the Mekong River system.
1.4. THE MRC MASTER PLAN FOR REGIONAL WATERBORNE TRANSPORT IN THE MEKONG RIVER BASIN (2015 – 2016)

- In 2015, MRC started the design of a “Master plan for Regional Waterborne Transport in the Mekong River Basin” with the main objective “to design a short-term and long-term development programme which should rehabilitate and improve the national and international transport network using the Mekong River Basin in the MRC Member Countries”.

- The study was carried out by a team of 4 MRC staff members, 6 local experts from each of the MRC member countries and 9 international consultants and consisted of six parts:
  1. The problem definition;
  2. The data collection on the current situation (2015);
  3. An economic forecast for the short term (2020) and for the long term (2040);
  4. The initiation of future short-term and long-term development scenarios;
  5. The identification of an Action Portfolio; and
Finally, the Action plan was composed of 54 short term and 44 long term Actions of which 43 short term actions and 30 long term actions directly applied to Cambodia.

<table>
<thead>
<tr>
<th>Actions</th>
<th>For all MRC member countries</th>
<th>For Cambodia</th>
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<tbody>
<tr>
<td></td>
<td>Short Term (2020)</td>
<td>Long Term (2040)</td>
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<tr>
<td>Fleet</td>
<td>4</td>
<td>2</td>
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<tr>
<td>Waterway design</td>
<td>5</td>
<td>11</td>
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<tr>
<td>Navigation safety</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Aids to navigation</td>
<td>7</td>
<td>6</td>
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<tr>
<td>Port development</td>
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<td>9</td>
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<tr>
<td>Legal</td>
<td>6</td>
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<tr>
<td>Environment</td>
<td>7</td>
<td>3</td>
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<tr>
<td>Social</td>
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<tr>
<td>Capacity building</td>
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<tr>
<td>Institutional</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Total</td>
<td>54</td>
<td>44</td>
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Concerning the short-term actions (2016-2020), related to Cambodia:

- The four fleet actions included a harmonized vessel classification, a study on the use of reinforced sea-river barges, the development of a fleet policy and the implementation of the five Fleet Projects of the RAP for Dangerous Goods;

- The four waterway design actions included a harmonized waterway classification, the design of river training works at the Sdao Canal and an experimental test dredging in the Tonle Sap and the Lake;

- The six waterway safety actions included a vessel inspection system, the reporting of marine accidents, a Contingency Plan, Search and Rescue units, a manual on safe working practices for crew and the introduction of compulsory AIS and VHF;

- The four Aids to Navigation actions included low water alert gauges, air clearance marks at the bridges and the upgrade of the existing Aids to Navigation System;
The seven port development actions included the implementation of the four Port Projects of the RAP for Dangerous Goods, the rehabilitation of Phnom Penh Passenger Port, the construction of new passenger ports in Kratie, Kompong Cham, Kompong Chhnang and Chong Kneas, standards on petrochemical transfer ports and the expansion of the existing PPAP NCT;

The four regulatory actions included the implementation of the Cambodia-Vietnam Agreement, the legal protection of passengers and the endorsement of a Port Law;

The six environmental actions included the development of SEA and EIA guidelines, the optimization of sand dredging, Waste Management Plans, Navigation Spill Contingency Plans and Emergency Response Plans;

The three social actions included a study to integrate local boat transport with national and regional Inland Waterway Transport, the promotion of eco-tourist and river-related tourism and the development of landing facilities for local passengers;
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- The capacity building action included the planning of national, bilateral and regional IWT education and training activities; and finally
- The four institutional actions included the creation of a Data and Information Management Center, a Navigation Coordination Committee and a Port Department at the Ministry of Public works and Transport.

For the long-term actions (2021-2040), next to a study of climate change mitigation measures, the main actions propose to upgrade the waterway channel over the whole length of the Mekong, the Tonlé Sap and Great Lake and to develop new ports facilities in Kratie, Kompong Cham, Kompong Chhnang and Chong Kneas.

In November 2015, during the “Regional Final Navigation Master Plan Workshop” in Bangkok, the delegations represented at this Workshop reached a common agreement to endorse the Final Draft Master Plan and to present it to their authorities.
2. ACTUAL SITUATION

- Of the 60 actions of the *Cambodian* Master Plan, today some 30% are executed, some 20% are going on and 50% did not started yet. The most important actions that are executed yet are the installation of Aids to Navigation between the Cambodia-Vietnam border and Kompong Cham, the ratification of the Cambodia-Vietnam Agreement on Waterway Transportation and the start of the New PPAP Container Terminal.

- Of the 43 Cambodia related short-term actions of the MRC *Regional* Master Plan, 30% are going on will be started next year while 70% did not start yet. The most important actions that are going on or will be proposed by MRC to start next year are the actions on a harmonized vessel and waterway classification, on the carriage, handling and storage of dangerous goods and the drafting of rules and regulations on navigation safety and anti-pollution.
3. Recommendations for the future
For the near future, it is proposed to give a high priority to following actions:

3.1. Implement standards and inspections for oil ports

With almost a dozen oil and LPG terminals on the Tonlé Sap and the lower Mekong River, of which several in the immediate vicinity of the capital, it is of utmost importance for Cambodia to have and to implement a legal framework on safety risk assessment and environmental protection in ports and terminals, handling and storing dangerous goods.

Therefore, it is proposed that Cambodian standards on the construction, equipment and operations of petrochemical transfer ports should be drafted, based on international standards and that official inspectors should be trained to verify if this legal framework is actually implemented.
3.2. Prepare harmonized rules and regulations on navigation safety and anti-pollution

The Agreement between Cambodia and Viet Nam on Waterway Transportation states that several rules and regulations should be harmonized. The following could be elaborated in the short term:

a) Rules and regulations on Waterway Navigation Traffic Safety (including rules of the road);

b) Technical regulations on ship safety, equipment and inspections;

c) Guidelines on the legal protection of passengers, travelling on the Mekong River and its tributaries;

d) Rules and regulations on coordinated cross-border pollution prevention and on emergency response on board vessels;

a) Rules and regulations on the investigation of accidents;

b) Technical regulations on Search and Rescue; etcetera.
3.3. Contingency plan for oil spill response

Spills of oil and other hazardous substances can cause varying degrees of environmental and commercial damage. An emergency plan should exist in order to minimize such damage.

A draft Cambodian Navigation Spill Contingency Plan (NSCP) has been prepared by MPWT but is only referring to coastal zones and the sea. An extension of this draft Navigation Spill Contingency Plan for the Mekong River and its tributaries has been prepared by the Navigation Coordination Committee.

Therefore, it is proposed to review this draft Navigation Spill Contingency Plan with all concerned parties, including the National Committee for Disaster Management and the private sector and to draft rules and regulations to make the Plan operational.
3.4. Develop an Automatic Identification System (AIS) and Radio Communication system (VHF) along the Mekong River System in Cambodia and make it compulsory for selected ship sizes and types

Improving safety and increasing navigation efficiency go hand in hand. Therefore, the overall objective of this project is to enhance navigation safety/security and vessel/port efficiency through the development of selected navigational aids including an Automatic Identification System (AIS) and Radio Communication Systems (VHF).

According to Action SNS6 of the MRC Regional Master plan, following outputs are expected:

1. Prepare a Feasibility Study with recommendations showing where along the Mekong River AIS and VHF are required;
2. Prepare a detailed Implementation Plan;
3. AIS and VHF are developed and installed, including provisions for training, use and maintenance;
4. The systems are made compulsory for selected ship sizes and types.
4. Conclusions

- Knowing that the Mekong River System in Cambodia has a huge potential for waterborne transport and that in many cases, waterborne transport is cheaper, more reliable and environmentally friendlier than the sometimes-congested road transport;

- Knowing that the objectives of the Master Plans “to reduce poverty in Cambodia through interventions in its under-utilized navigation sector” and “to rehabilitate and improve the national (rural and domestic) and international transport network using the Mekong River Basin in Cambodia” are still valid;

Therefore, it is highly recommended to continue, maybe at a higher speed, the coordination and implementation of the Master Plan Actions, some with national initiatives, some with external funding and some under the umbrella of the MRC, in order to make use of the great potential for socio-economic development in the Mekong basin by reducing the physical and non-physical barriers to an efficient waterborne transport.
This means that there is still a lot of work to do.... but....

Thank you for your kind attention

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WATER IS THE WAY TO GO

FIRST PIANC – CAMBODIA INTERNATIONAL SEMINAR ON WATERBORNE TRANSPORT INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT, PHNOM PENH, 24 – 25 OCTOBER 2019