COUNCIL STUDY

Design of the Development Scenarios for
the Thematic Area ‘Navigation’

Meeting under the CS, OSV 13 May 2015

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1. What is meant by “Development Scenario Planning”?  
3. Baseline Conditions – problems and opportunities  
4. Economic Assessment – economic drivers and potentials  
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1. **WHAT IS MEANT WITH “DEVELOPMENT SCENARIO PLANNING”?**

Development Scenario Planning is not about predicting the future. It is about exploring the future.

Scenario planning exercises involve identifying trends and exploring the implications of projecting them forward. These must include political, economic, legal, social, environmental and technological aspects.

As different trends are chosen, a spectrum of possibilities can be identified, but should be limited.

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1. **Methodology of the Design of the Master Plan for Regional Waterborne Transport in the Mekong Basin**

MRC is designing a long term development programme which implementation will rehabilitate and improve the cross-border transport network using the Mekong River System in the MRC Member Countries

Design duration: January 2015 - September 2015

- Additional data and information
- National and regional strategies
- Existing data, projects & reports

Description of status quo, identification of obstacles and opportunities

BASELINE CONDITIONS FOR ALL DISCIPLINES

Economic Assessment

- MODAL SPLIT FORECASTS
- OPERATIONAL FORECASTS

Development Scenario for Ports
Development Scenario for Fleet and Safety
Development Scenario for Waterways

BASIN DEVELOPMENT SCENARIO FOR NAVIGATION DEVELOPMENT

2020 + 2040

Prepare Action Plan for Ports
Prepare Action Plan for Fleet/Safety
Prepare Action Plan for Waterways
Prepare Action Plan for Legal Regime
Prepare Action Plan for socio-environment
Prepare Action Plan for Cooperation Initiatives

PORTFOLIO OF ACTIONS

Economic Socio-Environmental Assessment of the Actions

Prioritization of the Actions

ACTION PLAN (who, when, where...)

REGIONAL MASTER PLAN
- DEVELOPMENT SCENARIO
- ACTION PLAN
- PORTFOLIO OF ACTIONS
3. Baseline Conditions

2 main pockets:

Commercial navigation between PR China and Thailand + cruise shipping

Commercial navigation between overseas trading partners and Cambodia and Viet Nam + inland shipping
| FINANCIAL AND ECONOMIC COST OF IWT OPERATION, HCMC-PHNUM PENH (cont'd) |
|-----------------|--------|-----|-----|-----|
| A               | B      | C   | D   | E   |
| Annualized Financial costs | 40000  |     |     |     |
| Vessel Depreciation | 417927  |     |     |     |
| Fuel consumption -voyage | 37536  |     |     |     |
| Fuel consumption -at anchor/in port | 22773  |     |     |     |
| Oil consumption (5% of fuel cost) | 56400  |     |     |     |
| Crew wages | 11280  |     |     |     |
| Social and medical benefits | 28200  |     |     |     |
| Supplies, etc | 10148  |     |     |     |
| Vessel maintenance | 6000  |     |     |     |
| Insurance (1% of boat value) | 630265  |     |     |     |
| Management Overhead (20 per cent) | 126053  |     |     |     |
| Sub-total | 756318  |     |     |     |
| River transit charges | 20891  |     |     |     |
| In Viet Nam | 1748  |     |     |     |
| Pilotage HCMC-Yung Tau (US$ 0.0018/GRT/nm) | 5547  |     |     |     |
| Tonnage dues (US$ 0.0.058 less 30% per GRT for entry and exit) | 5547  |     |     |     |
| Navigation charge/Channel Dues (US$ 0.184 per GRT for entry and exit less 30%) | 5547  |     |     |     |
| Aids to navigation charge (US$ 0.184 less 30%/GRT/entry/exit) | 5547  |     |     |     |

Table continued...
4. Economic Assessment

Where are the Production and Consumption Zones? What type of goods and how much? Flow of passengers and tourists – from where to where?

How will we best use the river to transport the goods and passengers, tourists?

OPTIMAL SHIP DESIGN, based on requirements and the trends/possibilities

NEW PORTS OR PORT DEVELOPMENT

OPTIMAL CHANNEL DIMENSIONS
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OPTIMAL CHANNEL DIMENSIONS
Long profile: possible future waterway characteristics (upstream Vientiane)

- Ban Houei Sai: KM 2313
- Lock 39 / 30 m
- Chiang Khong: KM 2188
- Lock 50 m
- Pak Beng Dam: KM 2010
- Lock 39 / 30 m
- Luang Prabang Dam: KM 1930
- Lock 33 m
- Xayaburi Dam: KM 1818
- Lock 21 m
- Pakchom Dam: KM 1736
- Lock 21 m
- Vientiane: KM 1650
- Lock 21 m
This barge fits to the locks of 120m X 12m X 4m
The population in the Basin is growing rapidly, at 2% per year. It will increase from 81 million at present to 120 million in 2025.

- River Cruise boats – 2.5m draught
- Coastal Cruise ship – draught 5.2 m, can reach Phnom Penh
CONCLUSIONS

As stated in the introduction, development scenario planning for Navigation involves:

- Knowing your baseline conditions well (incl. National Transport Plans)
- Knowing your problems and opportunities
- Identifying trends and socio-economic driving factors
- Exploring the implications of projecting the trends and opportunities forward as forecasts. The trends of the political, economic, legal, social, environmental and technological aspects must be studied.
- Limit your spectrum of scenarios – *do not shoot at moving ducks*
Thank you for your kind attention