Mekong2Rio
Wednesday 2nd May
Phuket, Thailand

Navigation, water and the environment.
The role of RBOs in the Sustainable Development of Inland Navigation
CONTENTS

1. Opportunities for/Benefits of Inland Navigation
2. Potential Impacts of Inland Water Transport
3. RBOs in the Sustainable Development of Inland Navigation
4. Guiding principles for RBOs dealing with inland river transport in the water, food, energy and environment nexus
CONTENTS

1. Opportunities for/Benefits of Inland Navigation

2. Potential Impacts of Inland Water Transport

3. RBOs in the Sustainable Development of Inland Navigation

4. Guiding principles for RBOs dealing with inland river transport in the water, food, energy and environment nexus
Least External Costs

Marginal average external costs of transport by mode in €/1000tkm

Road 24.12
Rail 12.35
Inland navigation max. 5.0

Source: European Commission
Energy Efficient

Distance in km to move 1 ton of cargo with 1 Liter of fuel:

- 21 km
- 71 km
- 182 km

(Source: 3rd World Water Forum – Water and Transport – MTS, US Dep’t of Transportation)

1 inland barge in Europe can carry the same volume of goods as 93 railway wagons or 173 trucks.
Relieves road congestion

In 1990:
it took an average
of 1 hour
to drive a truck
between Antwerp (Belgium) - Rotterdam (Netherlands)
Distance is 90 km

In 2012:
it takes an
average of
3.4 hours
Cont.
LIVING WITH THE ENVIRONMENT

Thousands of people rely on the river for their day to day travel
accessibility to schools and hospitals
Fish are crucial for nutrition and food security. They provide Cambodian people with 80% of their animal protein.

To access fish, people need boats.
Domestic Waterborne Transport and Poverty Alleviation
CONTENTS

From Transport Corridors to Economic Corridors
Cai Mep

Cambodia

by truck

by feeder vessel - indirect

Phnom Penh

by barge

by mother vessel - direct

by feeder vessel - indirect
CONTENTS

1. Opportunities for/Benefits of Inland Navigation
2. Potential Impacts of Inland Water Transport
3. RBOs in the Sustainable Development of Inland Navigation
4. Guiding principles for RBOs dealing with inland river transport in the water, food, energy and environment nexus
Inadequate Transportation of dangerous goods
Location of oil terminal locations close to populated areas
Practices of dredging
Benzene spill in Songhua River, PR China

Premier Wen Jiabao watches the impacts from the benzene pollution on the Songhua River.

3.8 million residents enduring periods without running water while they wait for a spill of toxic benzene in a nearby river to pass.
Oil Spill in Mississippi River, USA

Diesel tanker involved in collision on

17.02.2012
Tanker accident on the Rhine

MV Waldhof 13.1.2011
Chemical tanker, ADN Type C

L = 110 m, W = 10,50, D = 3,15 m

Carrying capacity of

Classified by Germanischer Lloyd

Full load of sulfuric acid at time of accident:
2500 tons, or 2,200,000 million liters
The Costs of the Buncefield Incident

1.8 Billion (USD)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Cost in million USD ($) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site operators (compensation claims)</td>
<td>1227</td>
</tr>
<tr>
<td>Aviation</td>
<td>481</td>
</tr>
<tr>
<td>Competent Authority and Government response</td>
<td>29</td>
</tr>
<tr>
<td>Emergency response</td>
<td>14</td>
</tr>
<tr>
<td>Environmental impact (drinking water)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1755</strong></td>
</tr>
</tbody>
</table>
CONTENTS

1. Opportunities for/Benefits of Inland Navigation
2. Potential Impacts of Inland Water Transport
3. RBOs in the Sustainable Development of Inland Navigation
4. Guiding principles for RBOs dealing with inland river transport in the water, food, energy and environment nexus
Can ecology and waterway transport coexist in the Danube River Basin?
International Commission for Protection of the Danube River (ICPDR)

The ‘Joint Statement on Inland Navigation and Environmental Sustainability in the Danube River Basin’ is based on an interdisciplinary assessment of the following issues:

• What is the ecological situation of the Danube River Basin?
• What will be the projects and plans for the future development of inland navigation?
• What are the pressures and impacts resulting from navigation?
• How can the navigation sector help meet the requirements of the EU Water Framework Directive?
Central Commission for Navigation on the Rhine (CCNR)

The International Commission for Protection of the Rhine (ICPR) co-operates with the CNNR to inform inland navigation of the risks of pollution and to assist to develop regulations directed mainly at ensuring safety and protection of the environment to ensure:

- uniform regulations for its entire navigable length;
- the safety of navigation on the Rhine, for both people and the environment; and
- qualifications and a social framework suited to the people working in navigation on the Rhine.
Lake Victoria Basin Commission (LVBC)

The Lake Victoria Basic Commission (LVBC) recently commenced projects in relation to pollution risk management and safety of navigation including:

- survey of the local and marine transport routes;
- installation of navigation equipment and facilities,
- provide rescue operation equipment, and early warning systems; and
- implement contingency plan for the oil spills and hazardous wastes management in Lake Victoria.
MRC Navigation Programme

- The Objective of the MRC Navigation Programme is to promote freedom of navigation and increase the international trade opportunities - to assist in developing effective and safe waterborne transport in a sustainable and protective manner for the waterway environment

1. Regional Master Plan
2. Legal Frameworks
3. Safety and Environment
4. Information, Coordination and Promotion
5. Institutional Development
‘Sustainable Management of Dangerous Goods’
CONTENTS

1. Opportunities for/Benefits of Inland Navigation
2. Potential Impacts of Inland Water Transport
3. RBOs in the Sustainable Development of Inland Navigation
4. Guiding principles for RBOs dealing with inland river transport in the water, food, energy and environment nexus
GUIDING PRINCIPLES FOR RBOs DEALING WITH INLAND RIVER TRANSPORT IN THE WATER, FOOD, ENERGY AND ENVIRONMENT NEXUS (1)

- Pay greater attention to air and water pollution and realize environmental gains;

- Transport strategies must address key environmental issues, and must abide to IWRM principles;

- Mitigate the local impacts of climate change on river transportation, and reduce the impacts of navigation on global warming;

- Continue to support private sector participation through close coordination and understanding;
GUIDING PRINCIPLES FOR RBOs DEALING WITH INLAND RIVER TRANSPORT IN THE WATER, FOOD, ENERGY AND ENVIRONMENT NEXUS (2)

- Include poverty-reduction measures in transport strategies;

- Increase attention to governance, policy coherence, and corruption issues in transport projects;

- Improve multimodal transport links: shifts between road and waterway where ecologically suitable, and avoid road Congestion;

- Combine cargoes so that large volumes can be transported by one mode of transport instead of many small deliveries
GUIDING PRINCIPLES FOR RBOs DEALING WITH INLAND RIVER TRANSPORT IN THE WATER, FOOD, ENERGY AND ENVIRONMENT NEXUS (3)

- Promote green shipping: reduce emissions, increase fuel efficiency, and prevent cargo and waste discharge;
- Raise the awareness of the benefits of Inland navigation.
Thank you

geerinck@mrcmekong.org