



## Values of Inland Waterways

### Terms of Reference

#### Background

Canals and some rivers are generally developed, improved and/or managed to meet a number of specific goals such as the movement of freight, power generation, flood alleviation etc. It seems very logical to try to realize the potentials of these waterways for these specific goals but what about other benefits/values of the waterway for society? How many can be distinguished and can these values provide benefit in some other way together with the primary goals or will other values be conflicting? What is the potential of these other values?

There are obviously many questions, and when considering waterways all over the world, the values for society can be very diverse. Sometimes these values can be expressed in terms of financial value, but at other times it will be a value to society difficult to express in these economic terms. With this in mind, a broader insight in to these values could be helpful in managing, operating, developing or investing in waterways.

For waterway projects, greater insight could help in the process of increasing the benefit to cost ratio which would increase the attractiveness of the project, and could assist in selling the project to a wider community.

#### Objective of the Working Group

The WG should investigate and report on;

- i. An overview of these possible additional values and benefits from navigable waterways
- ii. Analyze what parameters are determining and creating these values.
- iii. What values and benefits can be considered the most important and which of these are related to the physical appearance and the aesthetic impact of the waterway?

- iv. Insight into the way these values and benefits are reinforcing or conflicting, what are the quick wins, what measures can be taken to handle conflicting functions and how to improve mutual strengthening of functions would be beneficial?
- v. Well illustrated examples of successful developments of waterways in increasing the value of the waterway for society, including indication of the quantitative aspects of these values where available, would be useful.

Limitations;

- i. From step four, only values connected to the physical aspects of the waterway will be considered. This to prevent the study from covering topics far outside the scope of PIANC and its members' backgrounds. This will also prevent the study from becoming too wide and complex.

### **Earlier reports to be reviewed**

PIANC Working group 133 will be, partly simultaneously, working on the topic 'Economic Aspects of Recreational Navigation'. Close contact should be kept to prevent overlaps and discrepancies between the two topics.

The most relevant differences being WG 133 focuses on a limited range of benefits all connected to recreational navigation, including the quantitative aspects. This WG, 'Values of waterways', will focus on a wide range of values and benefits but will be limited to qualitative aspects. WG133 has a focus on a geographical area surrounding a marina, WG 'Values of waterways' will be considering waterways over its entire length.

The forthcoming report from EnviCom TG 2 "Environmental Benefits of Waterborne Transport " needs to be considered and its conclusions may form part of the "value" associated with the development and use of waterways.

### **Matters to be investigated**

Direct and indirect uses of waterways such as; freight transport, marinas and mooring, angling, industrial and drinking water supply, water movement, water storage and discharge, land drainage, boating and boat hire, recreation along the canal, flood alleviation, water related businesses or floating businesses, taxis and pleasure trips, boat manufacture, boat sales, boat maintenance and repair, ecology, heritage, waterfront development, aesthetics, waste transport, cooling and heating water, extraction of sand/gravel, professional fisheries, power generation, improving accessibility of facilities like schools and hospitals etc.

### **Method of approach**

The working group shall;

- i. Gather case studies, examples, literature, statistics or other source material
- ii. Evaluate the material and derive a list of values and/or benefits.
- iii. Categorize the values/benefits and evaluate these in terms of importance and possible other criteria
- iv. Prepare examples or describe best practices connected to the most important values
- v. Evaluate the way different values interact.
- vi. Gather examples of very effective combinations of values.

### **Suggested final product of the Working Group**

The working group shall issue a Report in which the range of values or benefits for society of waterways is described. For the values of greatest weight, examples or best practices of how to manage, operate, invest or develop the waterway will be given. An evaluation will be given of all values, including a qualitative description of the potential revenues or value for society. An indication will be given whether a value is conflicting with (or strengthening) other values combined with suggestions about the measures to be taken to reduce this (or strengthen even further).

A technical brief will be provided to aid the promotion of the document and for it to be placed on the PIANC website.

### **Desirable disciplines of the members of the working group**

The members of the WG should be experts or have experience in the following disciplines:

- i. Design of inland waterways
- ii. Operation of inland waterways
- iii. Rural and Urban Planning
- iv. Social Sciences
- v. Economics

It is suggested that members of EnviCom and/or TG2, RecCom and/or WG133 are asked to join the WG.

## **Relevance for Countries in Transition**

The subject of the working group can be considered as universal and will also be applicable, and can be helpful, for inland waterway projects in countries in transition. The report could be of value for countries in transition in supporting their application for a grant to a development bank or other fund holder.