



InCom WG 203

Sustainable Inland Waterways – A Guide for Waterways Managers on Social and Environmental Impacts

Terms of Reference

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This TOR is the result of INCOM decision (on 9th May 2017) to merge the 2 following ideas (and TOR):

- Multifunction of Inland Waterways – Chances and Challenges for IW Managers
- Social and Environmental Awareness of Waterborne Infrastructure Managers

As these 2 ideas/concept share in fact the same background, InCom has decided to merge them in a unique WG (to avoid the existence of 2 // WGs, discussing close concepts and requiring each competent members).

So the proposal for this new WG is to have a first part focusing of a general concept “*Social and Environmental Awareness of Waterborne Infrastructure Managers*”, also called CSR (Corporate Social Responsibility) . The purpose is to raise the global awareness of the PIANC community, pushing to change education and mentality towards a more sustainable world.

Then, in a second part subtitled “*Multifunction of Inland Waterways – Chances and Challenges for IW Managers*” will give examples and case studies showing how these concepts of “*Social and Environmental Awareness*” and “*multifunction of IW (also called Co-Creation)*” have been applied by some managers. The public authorities responsible for common welfare associated with IW infrastructure should consider the application of CSR concepts and approaches in the execution of their responsibilities. More specifically, an examination of CSR, in the context of IW, will reveal the role and societal contributions made by waterway managers within the public administration.

1. Background

“Sustainable development”, “circular economy”, “social and environmental responsibility” ... are concepts that enter each day a little more in different aspects of our life. Through the mobility, climate changes, waste management and recycling, energy saving..., we are witnessing the development of a progressive, collective and personal awareness of the impact that our society has on our living environment, and vice versa. This impact is the result of our personal behaviour, on a local scale and following the actions of companies - public or private - on a local, regional or even global scale. More and more, all the actors operating in our world (organisations, governments, companies and people) need to develop an understanding of their influence on our local, regional, and global systems, at a range of scales, in order to guide actions supporting sustainable development.

For organizations whether public (governmental body) or private ones, this approach to sustainable development is reflected in the concept of "Corporate Social Responsibility (CSR)". This concept is becoming more and more important and it reflects how these organisations fit into a global (economic, societal, environmental) process supporting "sustainable development". CSR is relevant to Inland Waterway infrastructure development, including maintenance and operations (management) of these systems.

The public authorities, responsible of the common welfare, through their administration, should have a role of example or even precursor in this process. More specifically, it seems interesting to show what is the role and societal contributions, in this overall process, of the waterway managers within the public administration.

In the "daily live" such challenging philosophical concept can be applied through the reality and further development of the Multifunctional of Inland Waterways, which is a chance and a challenge for IW Managers at the same time.

Referring to previous investigations, in and outside PIANC, inland waterways are more than just ways for transportation. Canals and rivers can fulfil many other functions. In the InCom WG139 "Values of Inland Waterways" (2016), 12 principal uses of inland waterways are raised, which are:

- Navigational uses: (1) Freight transport, (2) Passenger transport, (3) Recreational navigation
- Waterway management uses: (4) Flood alleviation; (5) Hydropower and (6) Environment/biodiversity
- Water consuming uses: (7) Water supply and (8) Irrigation
- Other uses: (9) General recreation, (10) Heritage; (11) Land and city planning and (12) Other water related uses

This list of inland waterways uses gives an impressive view on how waterways can be useful or valuable, not just for the navigational business, but also for a wide range of services to the society. This is, on the one hand, an advantage of inland waterways, in particular in comparison to other means of transport like roads or railways. On the other hand, it is a challenge for waterway organizations or administrations, which are in charge of managing, operating and maintaining the waterways. They are confronted with a wide range of interests represented by different stakeholders, like communities, environmental organizations, other organizations and ordinary people, who all have their own interests on waterways or simply on open waters, coming from above mentioned uses or functions.

IW Infrastructure construction may cause impacts on the people living and working around them, and on the natural environment. Stakeholders and their interests in the waterways are affected, and controversial discussions, even conflicts, become inevitable. Therefore, operation and maintenance of inland waterways as well as their development in a sustainable way require a lot of efforts to combine the wide range of interests as far as possible with the own ones, to achieve acceptance and support by the public.

What are the interests, what are the tools for reaching agreements with stakeholders and how the non-navigational benefits of waterways can be combined with navigational aims?

2. Objectives

The **first** goal of the working group is to provide a general document showing possible contributions of the waterborne infrastructure managers, in particular of inland waterways, in the global process of a more sustainable development of our society. We want to increase their awareness. We want to move from an approach that is based on acting under constraints and laws to an approach where we act using proactive design that prioritizes taking advantage of new opportunities to incorporate social & environmental considerations in synergy with an efficient economy.



The objectives of this working group are:

- To present a historical background on “sustainable development” of IW;
Raising its 3 fundamental pillars (see Figure 1):
 - Societal aspect: equity, social welfare, improve living conditions, ethics, health needs, education, housing, intergenerational ...
 - Economy: economic welfare, employment, industrial development...
 - Environment: conserving natural resources, sustainable energy resources, promoting biodiversity;which make the development “*Equitable, Liveable and Viable.*”

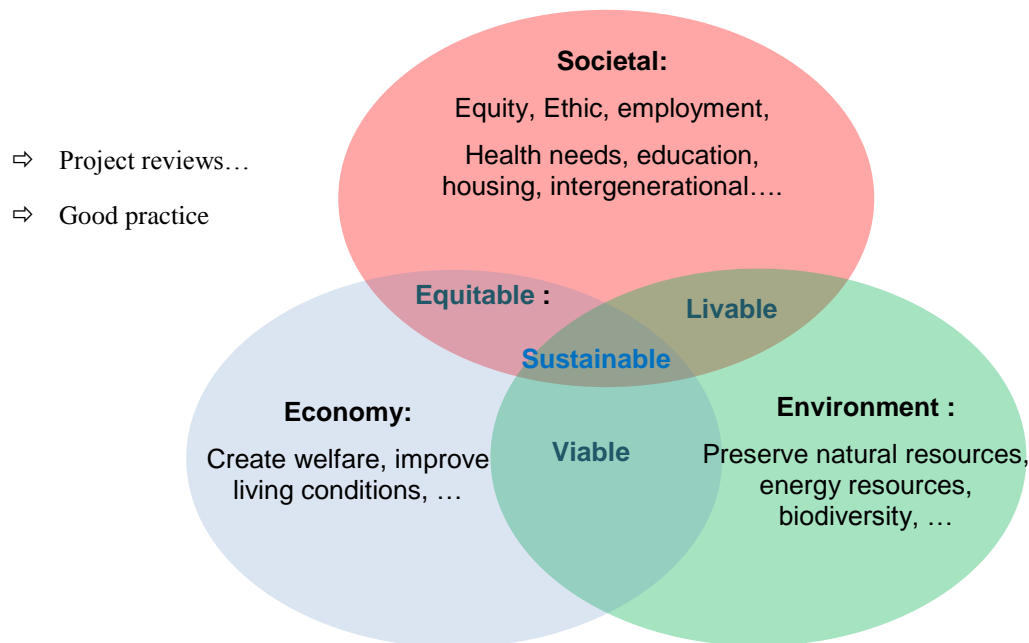


Figure 1: Pillars of “Waterborne Infrastructure Sustainable Development”

To show, by use of case studies, how the three dimensions of “sustainable development” are taken into account in the management of waterways. So, the WG should investigate and report on;

- i. What are the main interests coming from the above mentioned uses and who are the stakeholders associated to these interests?
 - ii. Analyse whether these interests are supporting the development of inland waterway transport, in particular waterway projects, or being in conflict with them. Which stakeholders would be natural allies of developed waterways, and which will be, objectively, rather on contradicting positions?
 - iii. An overview of the tools of negotiating with stakeholders or with the public, like information, communication etc.
 - iv. An general overview of legal regulations and procedures having been decreed in Europe and in other parts worldwide effecting waterway issues
 - v. Examples of successful cases of finding a balance of interests for projects of developing or upgrading inland waterways
- Provide a document allowing a better understanding and awareness of the role of waterways in sustainable development and
 - Work out how this understanding will be supporting IW managers in their daily work of maintaining, operating and developing inland waterways by gaining public acceptance.

3. Earlier Reports and Concurrent Working Group Activities

PIANC InCom, MarCom, EnviCom, and RecCom Commissions, as well as other entities, have several Working Groups and Task Groups related to the subject.

The following past and present Working Groups are (*this is not a comprehensive list see <http://www.pianc.org/edits/technicalreportsbrowseall.htm#InCom> for more references*):

- [Values of Inland Waterways](#), InCom WG 139 – 2016
- In WG139, the various uses or values of IW is analysed. A preliminary insight to what can be the Balance of interests is given, which has to be investigated more in detail regarding the topic of this WG.
- [Waterway Infrastructure Asset Maintenance Management](#), InCom report 129 – 2013
- [Performance Indicators for Inland Waterways Transport – User Guideline](#), InCom WG 111 – 2011
- [Economic Aspects of Inland Waterways](#), InCom WG 21 – 2005
- [Initial Assessment of Environmental Effects of Navigation and Infrastructure Projects](#), EnviCom WG 143 – 2014
- [Sustainable Maritime Navigation](#), EnviCom WG 136 – 2013
- [Towards a Sustainable Waterborne Transportation Industry](#), EnviCom TG 2 – 2011
- [Sustainable Waterways within the Context of Navigation and Flood Management](#), EnviCom report of WG 107 – 2009
- [Guidelines for Sustainable Inland Waterways and Navigation](#), EnviCom report of WG 6 – 2003
- [Climate change and navigation](#), EnviCom report, Task Group 3, 2008

Other references are:

- "Aquapuncture: Sustainable future of inland waterways", by Ronald E. Waterman and Jaap Brouwer; Terra et Aqua no 140, September 2015
- "Towards a comprehensive identification of beneficiaries of navigable waterways", Dr. Larry G. Bray, Center for Transportation Research, University of Tennessee, 2010
- "The benefits of Inland Waterways", Defra and the Inland Waterways Advisory Council, UK, 2009

4. Scope

Matters to be investigated

- Historical overview of the evolution of the changes in awareness of the role of public enterprises (particularly administrations managing waterways) for sustainable development;
- Review and analysis of some inland waterborne infrastructure works concerning the three dimensions of sustainable development (project reviews and study cases);
- Identify the interactions between the different interests of the waterway management in terms of the navigational uses, and the interests of other stakeholders, coming from the non-navigational uses, including other governmental organization, being in charge of e.g. water management or environmental issues.
- Show how the use of tools of communication and participation could be able to involve the interested public and to gain acceptance and support in particular for waterway projects, additionally by considering legal rules.
- Identify commonalities among the regions globally and the differences, by considering divergent conditions in developed and developing countries.
- Summary, recommendations for good practice and guidelines.

Method of Approach

- Review of existing documents, by putting into perspective the three dimensions of sustainable development: social, environmental and economic. We have to look how social and environmental awareness is being used in other sectors and translating how these experiences could be applied in our sector.

- Review of some important waterborne infrastructure works and emphasizing the use of case studies related to the inland infrastructure development to show the impact of having improved the Manager's awareness.
 - Derive a list of interests, respectively associated stakeholders.
 - Categorize the interests & stakeholders and evaluate these in terms of whether convergence of interests with navigational aims is given or not.
 - Prepare a list of communicational tools and how they could be suitable to convince the public of the advantages of waterways respectively of realization of waterway projects.
- Prepare Case studies and describe best practices connected to seeking a balance of interests by combining them together with the relevant stakeholders.

5. Suggested Final Products

The working group shall issue a Report in which the range of interests, coming from the values or benefits as mentioned in the report of WG 139 is briefly described. Examples or best practices of how to manage, operate, invest or develop the waterway will be given. The focus is to be on how to combine diverse interests, at first being controversially, by working with the relevant stakeholders and with the public.

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

6. Recommended Members

We need a good balance of members from all stakeholders and from IW organisations.

First we need members from public administrations representing inland waterways works (including marinas), economy and sustainable development.

In addition we need members who have expertise in the following disciplines:

- i. Operation and management of inland waterways,
- ii. Realization of waterway projects, incl. working with the public,
- iii. Social Responsibility,
- iv. Environmental impacts,
- v. Using different tools of communication and (public) participation,
- vi. Legal regulations, in particular on water management and environment.

The participation ENVICOM, and the support of MARCOM and RECOM, are expected to identify relevant experts to join this WG.

7. Relevance for Countries in Transition (CiT)

Social responsibility in waterborne infrastructure works is still not developed in CiT and many CiT have significant challenges relevant to achieving sustainable development. Therefore, the relevance of the proposed Working Group is high for CiT.

8. Climate Change and Working with Nature

Social responsibility in waterborne infrastructure works is fully integrated in the concept of "Working with Nature (WwN)" and can make a significant contribution toward climate change mitigation and adaptation. This WG fits with the issues developed by PIANC at the World Water Forum.