

Working with Nature

Presentation by
Jan Brooke
PIANC

9th June 2009

Working with Nature: background

Working with Nature

- developed as a position paper by PIANC's Environmental Commission in 2007-2008
- endorsed by PIANC's Executive Committee, 2008
- aims to provide a practical framework for sustainable navigation infrastructure development

Working with Nature: introduction

- An integrated process, applied early in a project, within strategic planning context
- Aim: identify win-win solutions, acceptable to project proponents and environmental stakeholders, which respect nature
- Needs shift in philosophy from 'control' to 'management'
- Represents a medium-long term ambition to address challenge of development and environmental protection

Working with Nature: background

- Well-established requirement to consider environmental implications of projects
- However, in practice, the process is often complicated: may be frustrations, delays and increased costs
- If a design exists first, EIA is necessarily about mitigation or damage limitation
- Current approach is not sustainable
- Potential for missed opportunities

Working with Nature: what does it mean?

Working with Nature requires a subtle shift in approach to:

- focus on achieving project objectives in an ecosystem context rather than assessing consequences of a pre-defined design
- focus on identifying win-win solutions rather than simply minimising ecological harm

Working with Nature: doing things in a different order

1. Establish project need and objectives
2. Understand the environment
3. Make meaningful use of stakeholder engagement; identify win-win options
4. Prepare project proposals/design to benefit navigation and nature

Working with Nature: can we do it?

Significant progress made in recent years

- Advances in science and technology, modelling and design
- Understanding of system dynamics
- Better able to handle uncertainty
- Balance of environmental, social and economic considerations
- Improved stakeholder engagement

Working with Nature: some significant challenges...

- Effort to raise awareness of concept
- Recognise we don't have all the answers, especially dynamic natural ecosystems
- Research on ecosystem dynamics; cause and effect relationships; collect data
- Lack of flexibility in environmental regulation; look at intention of legislation
- Need perseverance and patience during transitional period

Working with Nature: why does it matter?

- Aquatic ecosystems are vital to human economic well-being
- Population growth; growth in trade
- Natural environment is under ever-increasing pressure
- Need improved efficiency; need new infrastructure
- Current approach is not sustainable

Working with Nature: the way forward

- The transition will take time.....
- Recognise the challenges; learn from achievements
- Identify and build on existing cost-effective examples of working with, rather than against, natural processes
- Accept that developing/delivering win-win solutions will take more imagination and innovation in some cases than in others

Le Havre Wetland Restoration



Le Havre Bird Island



Alternative bank protection, River Weser, Germany (1)



Alternative bank protection, River Weser, Germany (2)



Working with Nature: PIANC's position (1)

- **Working with Nature** is essential to future, sustainable port and navigation development
- **Working with Nature** does not mean we no longer achieve our development objectives; rather it ensures we satisfy these in a mutually beneficial way
- There are challenges but the problems are not insurmountable

Working with Nature: PIANC's position (2)

- PIANC believes that the rewards of **Working with Nature** potentially extend far beyond the natural environment
- Outstanding issues should not be used as excuse to defer attempts to put **Working with Nature** into practice