

EEA activities on climate change and water

Presentation of the findings of the EEA
report "Climate change and water
adaptation issues"
and recent developments,

*UNECE: Water And Climate Change:
Joining Efforts to Adapt
Amsterdam 1-2 July 2008*
**Peter Kristensen,
European Environment Agency**



EEA 2007: Climate change and water adaptation issues



This report aims to

- evaluate the implications of the need to adapt to climate change for water resource policy and regulation across Europe,
- assess the strengths and weaknesses of current policies and regulations, and
- describe progress and activities in European countries.

The report is available at

http://reports.eea.europa.eu/technical_report_2007_2/en

Briefing http://reports.eea.europa.eu/briefing_2007_1/en

EEA 2007: Climate change and water adaptation issues II

1. Introduction

- Climate change and impacts on water (European perspective)
- Adaptation policy issues

2. Climate change and EU water policy

- Water Framework Directive; Floods; and Water Scarcity and Droughts

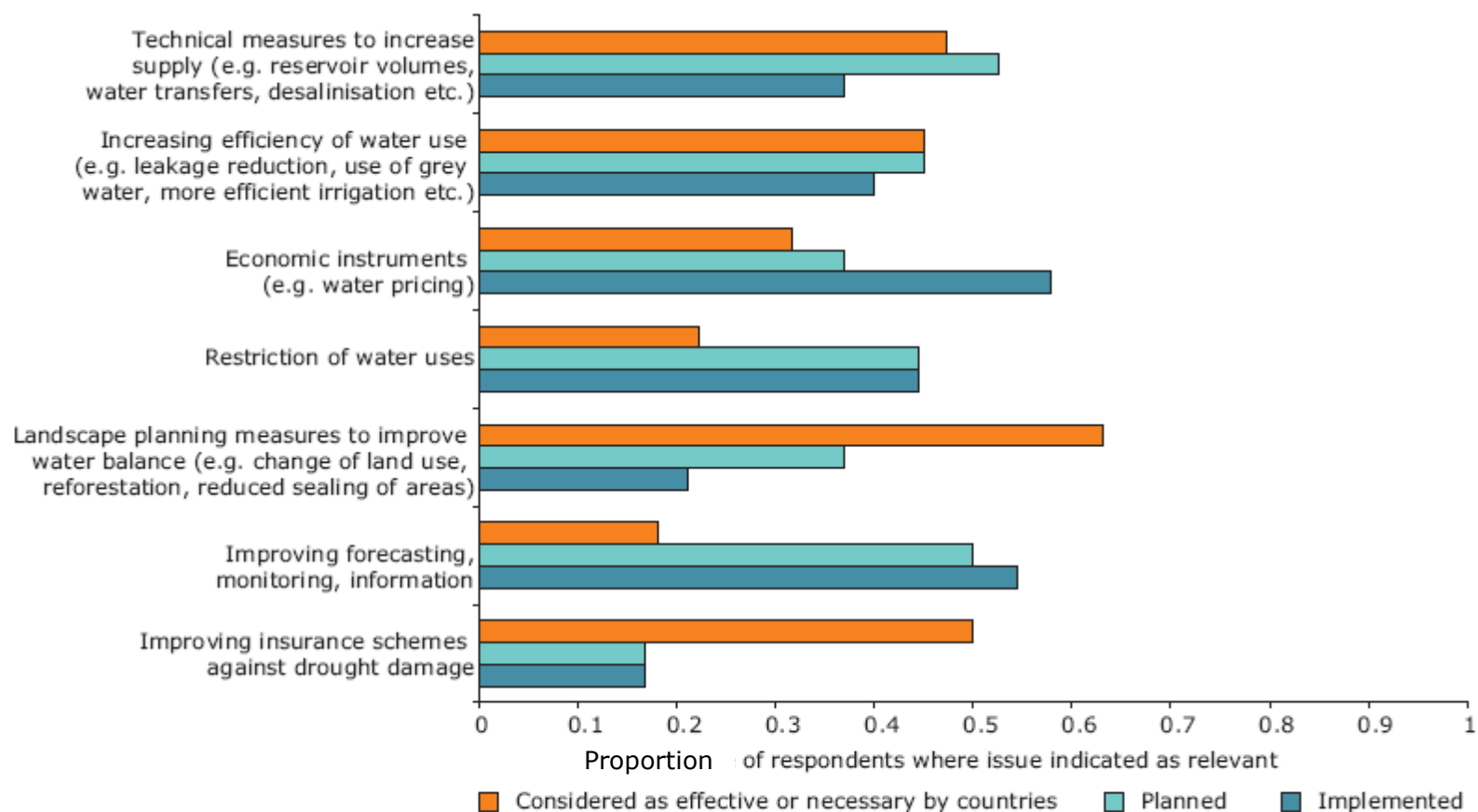
3. National practices and issues

- Activities in relation to drought and scarcity
- Activities in relation to flooding
- Overview of adaptation initiatives

Annex 1 Country level activities on climate change in relation to water resource issues

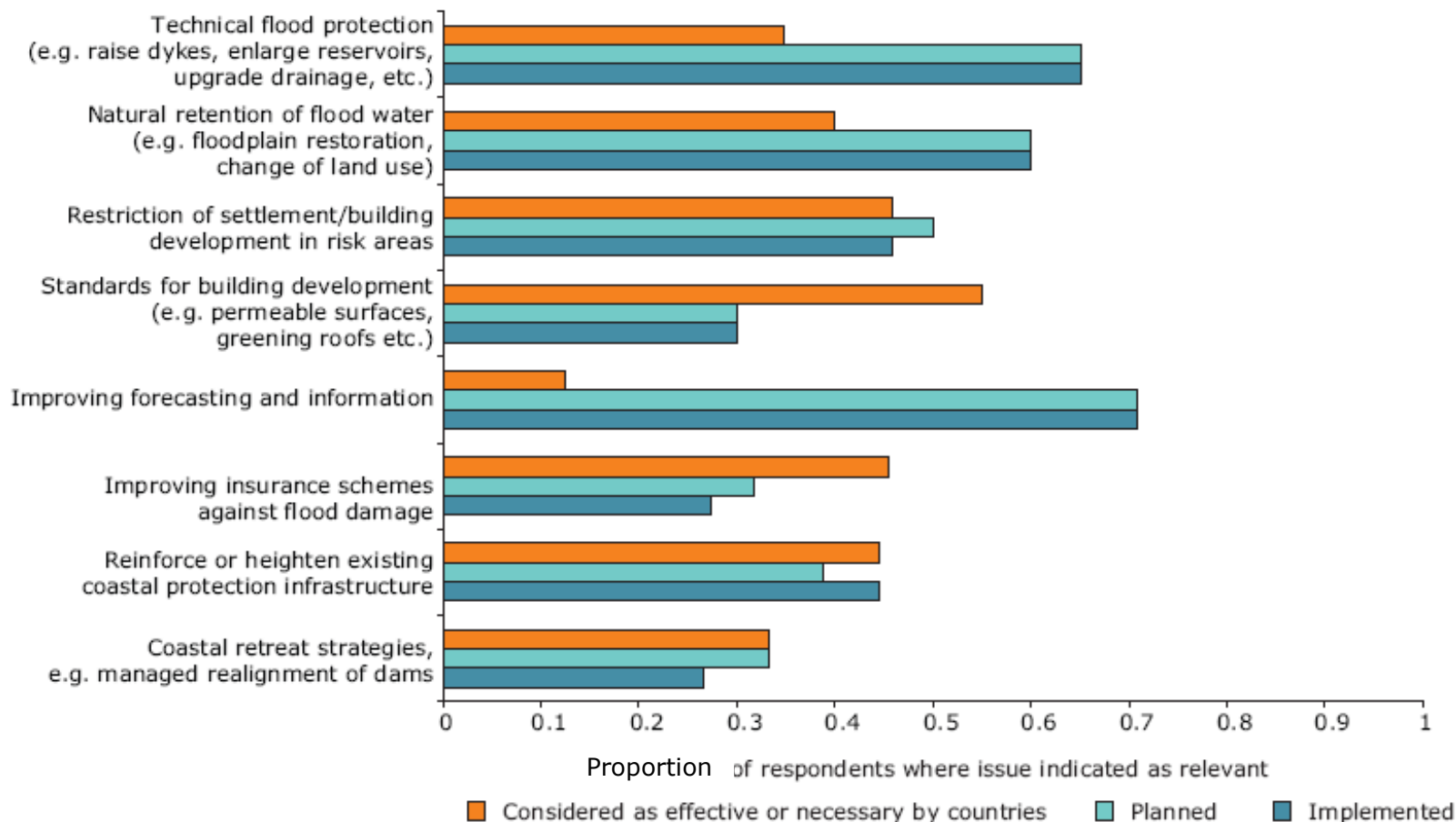


Implementation and future planning for drought control and water scarcity measures



Source: EEA and German Ministry survey.

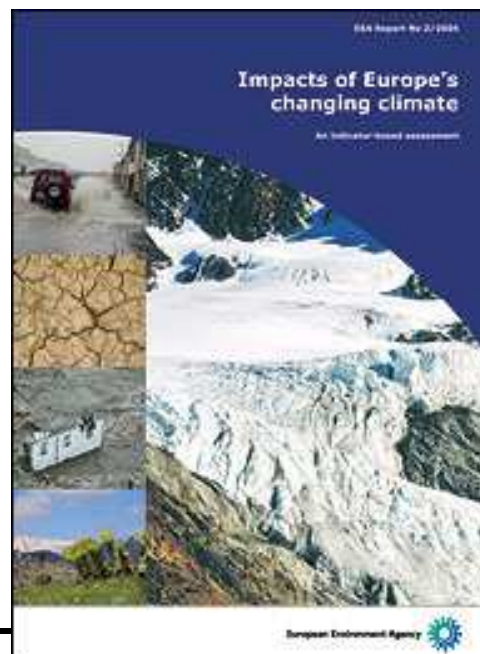
Implementation and future planning for flood control measures



2008 climate change impact report

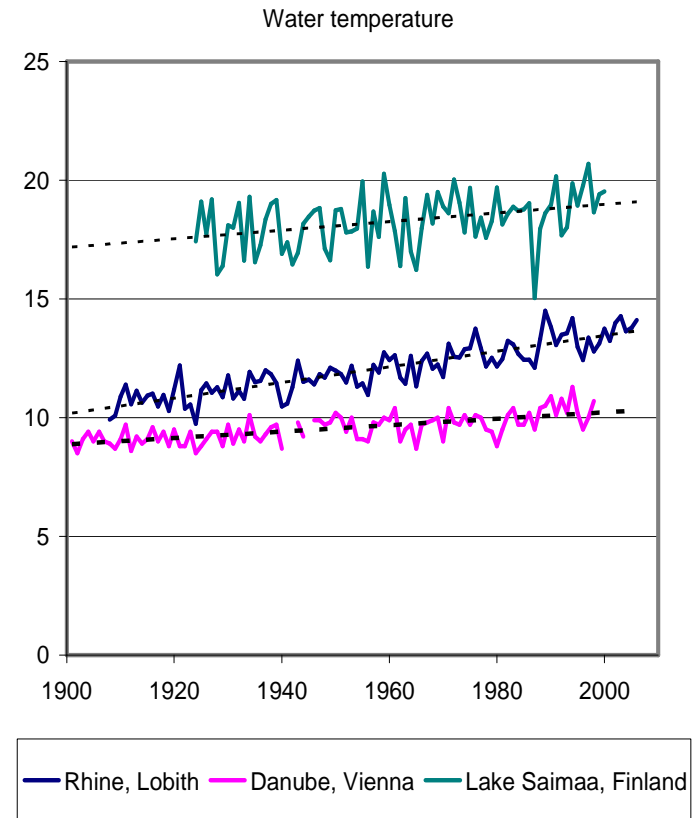
Update of EEA 2004 Climate change impact report

- Target audience: policymakers and (informed) public
- Present past and projected climate change and impacts – Focus on European results
- Identify sectors and regions most vulnerable with high need for adaptation
- Increase awareness of need for adaptation and global/EU mitigation
- Highlight the need for enhanced monitoring, data collection and dissemination, and reduce uncertainties
- Indicator categories:
 - Atmosphere and climate
 - Cryosphere
 - Marine and coast
 - Terrestrial ecosystems, biodiversity
 - Agriculture and forestry
 - Water quantity, river flows, floods, drought
 - Freshwater quality and biodiversity
 - Human health
 - Economic sectors (e.g. hydropower)
- Launch: September 2008



Indicator: Lake and river temperature

- Higher air temperatures lead to higher water temperatures.
- During last century the water temperature of European rivers and lakes has increased by 1-3 °C



EEA 2008 Climate change impact report

water indicators

Water quantity

- River Discharge (Stream flow)
- Water demand
- Hydropower and power plants
- Floods
- Drought and water scarcity
- Groundwater – aquifer recharge

Freshwater quality and biodiversity

- Lake and river temperature
- Lake and river ice coverage
- Chemical composition
 - Nutrient load/Water quality
 - Water color
- Freshwater biodiversity
 - Phenology changes
 - Northward movement
 - Change in species composition



EEA 2008/09 activities on climate and water

- Finalise the 2008 climate impact report -information on climate change impact on water into WISE (Water information System for Europe)
- **Indicators** on impacts, vulnerability and **adaptation** (initial development)
- A “**European Clearinghouse on Climate Change Adaptation**” (access to e.g. European climate change data/scenarios; actions/good practice, including costs)
- Draft of 2009 **report on best practice measures for CC adaptation in river basins management plans** (and national adaptation strategies/plans)
- Regional study: Climate change impacts and adaptation in the **European mountains** (including water issues)



Is this the future situation in European waters?

