

On the collection and use of environmental information in transboundary water management: The case of Lake Constance

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Introduction

Integrated river basin management requires adequate information!

The MANTRA-East project examines the collection and use of environmental information in some selected transboundary water regions in Europe.

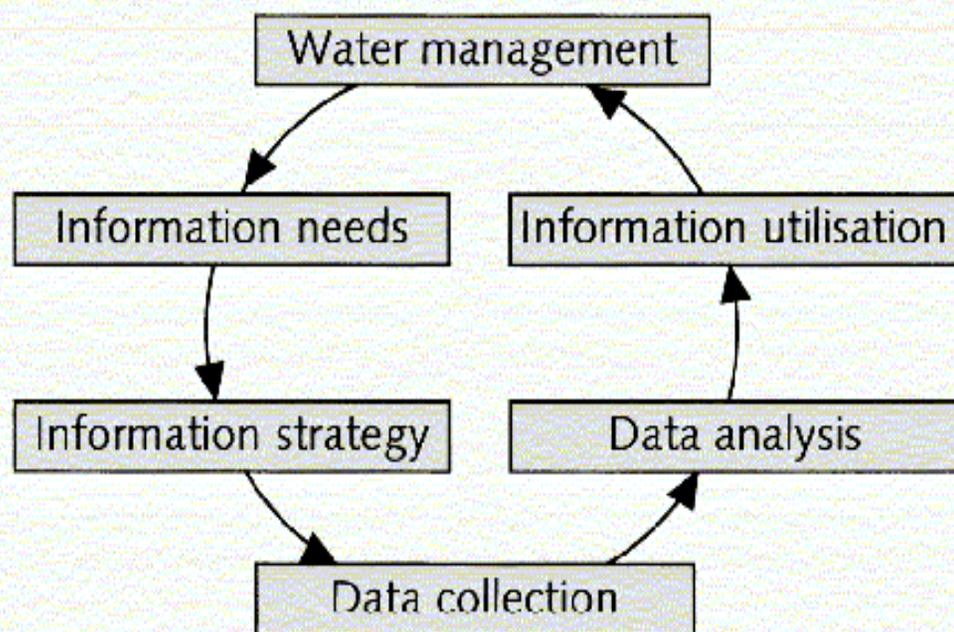
Objectives of the presentation:

- 1) suggest a framework for environmental data and information handling for integrated (transboundary) water management
- 2) present the findings of its application to the Lake Constance region

Frameworks for integrated river basin management

Information Cycle

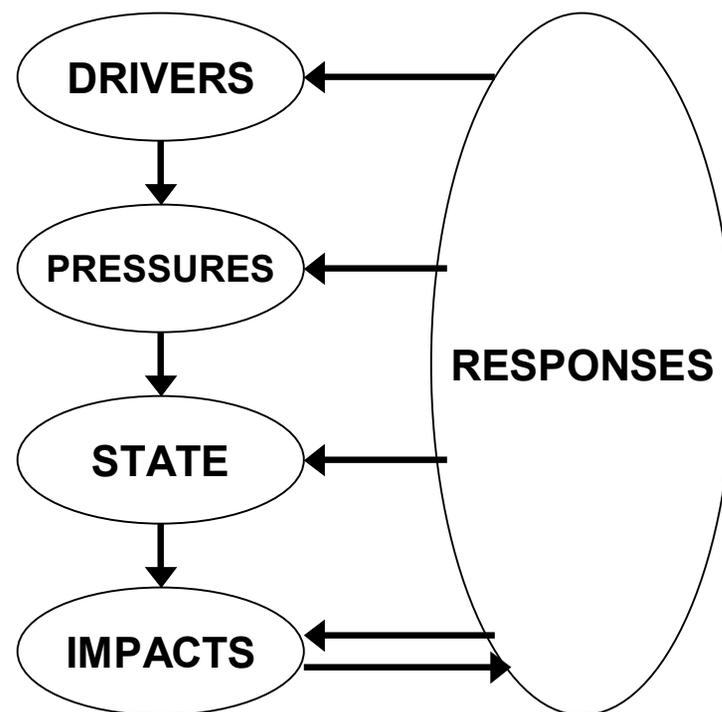
Why? How?



(from Timmerman et al. 2000)

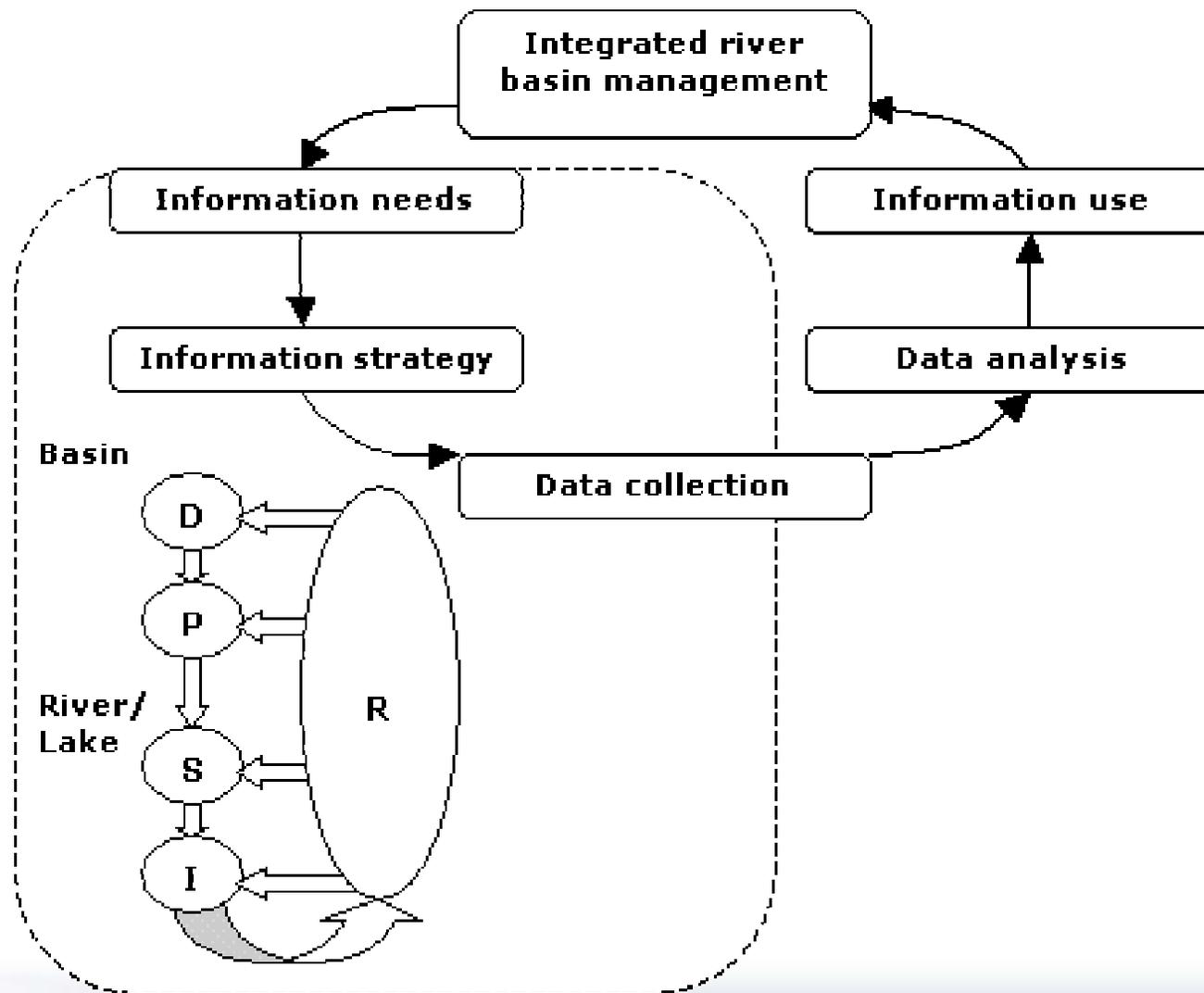
DPSIR framework

What?



(from EEA 2002)

A combined framework

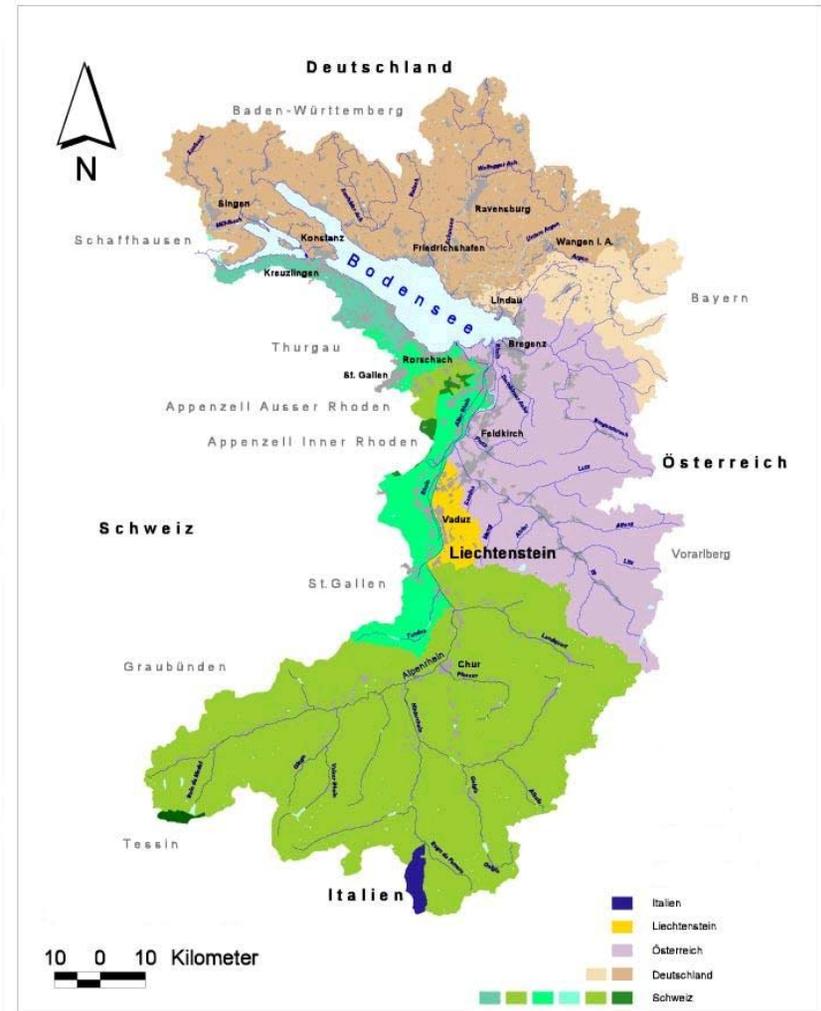


Questions addressed:

- Why are environmental data and information collected, stored, analysed and used?
- How are the information needs and strategies defined?
- What type of data and information is collected?
- How is it used?

The Lake Constance region

- Basin shared between Austria, Switzerland, Liechtenstein, Germany and Italy
- 1,5 million people live and work in the region
- The lake is used for drinking water supply, fishery, shipping and recreation
- Eutrophication main environmental issue
- Increasing population, tourism and traffic potential issues of concern
- Many different cross-border actors in the region, e.g. International Bodensee conference, International shipping commission



(Source: IGKB, 2001. Cartography by R. Obad, ISF, Langenargen)

The International Commission for the Protection of Lake Constance (IGKB)

Why focus on the IGKB?

- Recognised as the central authority for the protection of Lake Constance
- Can be regarded as a joint body in line with the definition of such a body given in the Convention on the Protection and use of Transboundary Watercourses and International Lakes
- Will most likely play a major role in the implementation of the EC WFD

The International Commission for the Protection of Lake Constance (IGKB)

- Founded 1959 by Austria, Switzerland, Bavaria and Baden-Württemberg
- Expert commission
- Resolutions are given as recommendations to the member countries
- Efforts of the commission have resulted in a significant reduction of the phosphorous concentration in the lake
- Regarded as a very successful environmental regime

Method

Semi-structured interviews with three delegates and four consulting experts. Reading of treaty texts, reports, meeting minutes and Internet material.

The collected material was analysed ad hoc in relation to the following categories:

- Information needs and strategies;
- Data collection and analysis; and
- Information use

Information needs and strategies

Reasons for the IGKB to collect and use env. data and information	DPSIR-categories
Observe and agree upon the current status of the lake	S,I
Recommend preventive measures	R
Identify the causes of pollution	D,P
Discuss planned utilisation of the lake	D,P,S,I,R
Examine to what extent problems are still present and if measures have had the intended effect	S,I

Main findings - information needs and strategies

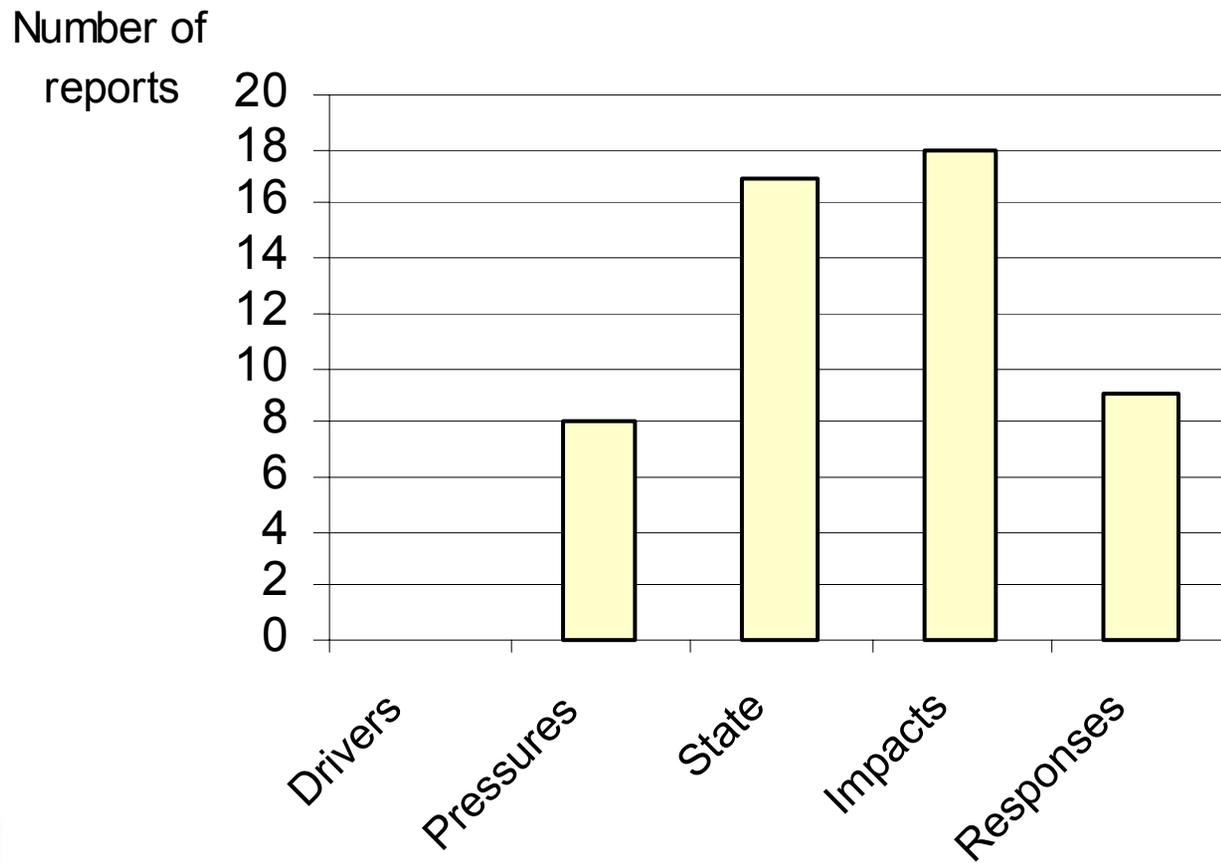
- Needs **well defined** corresponding to the tasks stated in the Convention on the Protection of Lake Constance Against Pollution
- Needs require **D, P, S, I** as well as **R** information
- Needs defined with the **commission's own needs** in mind and with little consideration to needs of other interest groups
- Being an expert commission, it makes little sense to discuss the often lacking dialogue between information users and producers as stressed by Timmerman et al. (2000)

Data collection and analysis

DPSIR-category	Data and information collected on a regular basis
D	Not collected on a regular basis
P	Data on water quality and quantity of the tributaries, N and P emissions from sewage treatment plants
S	Monitoring of physical, chemical and biological parameters at six stations in the lake
I	The lake monitoring performed since 1961 describes impacts on the limnological system
R	Not collected on a regular basis

Data collection and analysis

Classification of case study reports 1963-2000



Main findings – data collection and analysis

- S, I and to some extent P information is collected regularly
- D and R information is not collected regularly
- Thus, more effort appear to be put on fulfilling the information needs “to observe and agree upon the current status of the lake” and “to examine to what extent problems are still present and if measures have had the intended effect” (S and I) than the needs “to identify the causes of pollution” and “to recommend preventive measures” (D/P and R)

Information use

Results from monitoring or special studies are published in reports. This information is mainly used for **internal** discussions and decision-making.

Main fora for communication with interest groups and the public:

- Newsletter Seespiegel
- IGKB homepage
- Press conference
- Publications of reports

Main findings – information use

- Well working communication between information producers and users **within** the commission
- Communication with interest groups and the public are done through **passive channels**
- Strengthening the communication with interest groups and the public will probably require **definition of new information needs** and **development of new fora** for communication