

Challenge for Water Governance in Times of Change

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Insights developed in context of...

- ▶ ***Newater (New Approaches to Adaptive Water Management Under Uncertainty)***
- ▶ ***Twin2Go (Coordinating Twinning Partnerships towards more Adaptive Governance in River Basins)***
- ▶ ***GWSP (Global Water System Project)***

Some impressions from NeWater and Hungary



Historical tradition of water governance and management

- ▶ Command and control paradigm
- ▶ Technical end-of-pipe solutions
- ▶ Individual problems dealt with in isolation

Legacy of this tradition

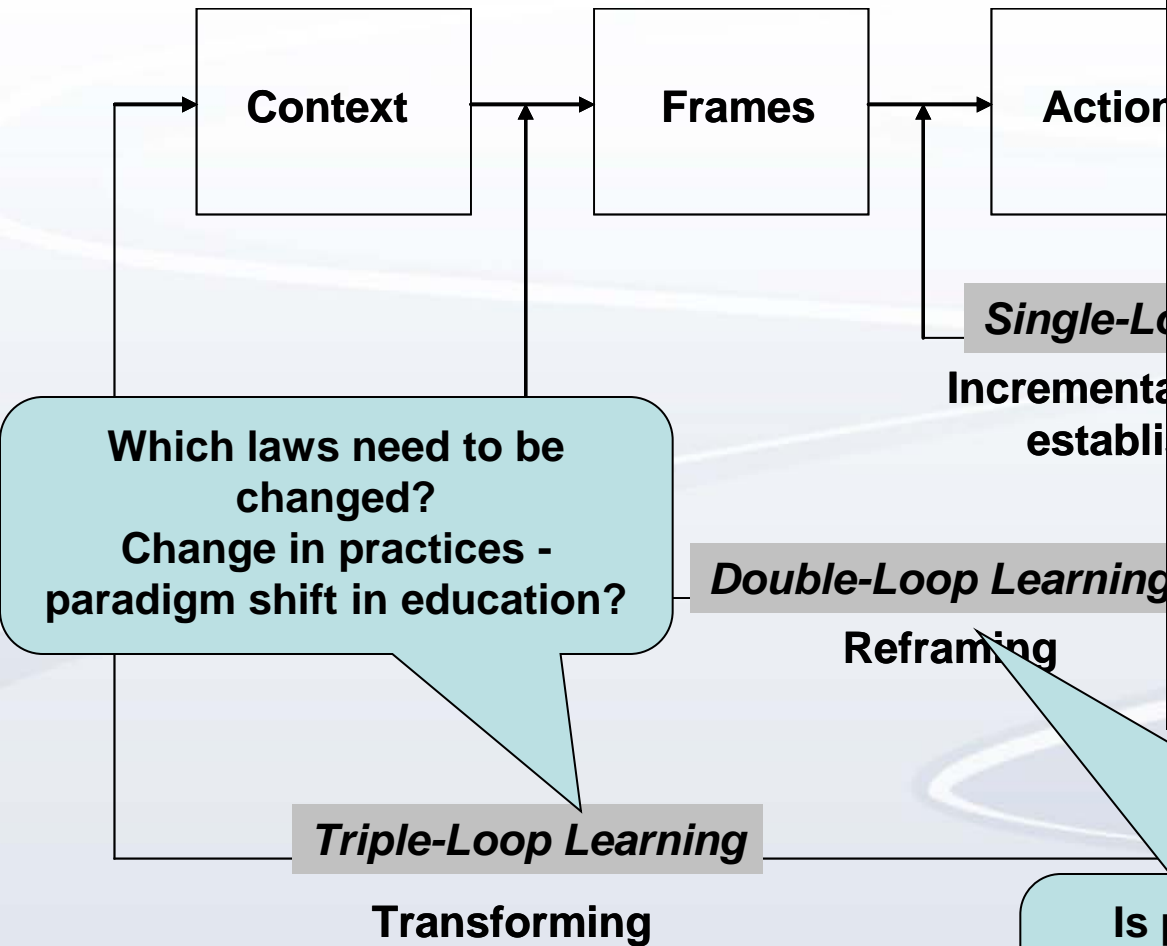
- ▶ Ever bigger wastewater treatment plants but little success in fighting diffuse pollution
- ▶ Water transfers between rivers, shipping of icebergs but no reconsideration of land-use policies
- ▶ More assets in flood-prone areas, more flood protection with emerging change towards risk avoidance policies
- ▶ Adaptive capacity and ability to deal with surprise low

Paradigm Shift in Water Management

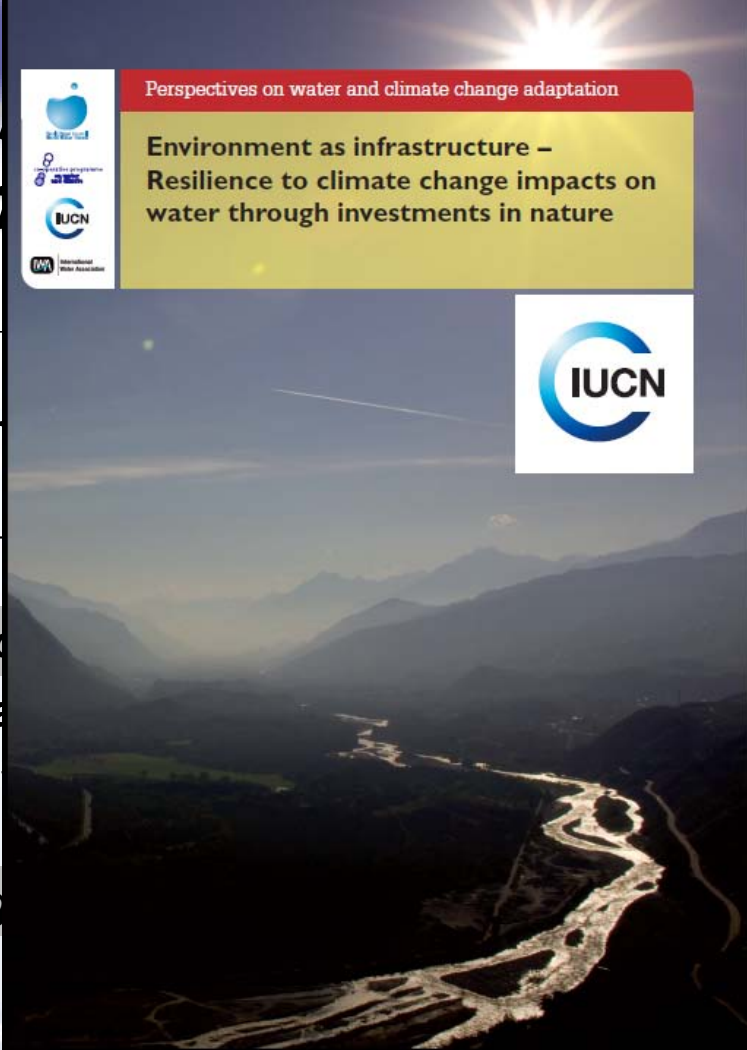
Similarities in paradigm shifts in water management derived from sources published during past decade

- ▶ **participatory** management and collaborative decision making
- ▶ increased **integration** of issues and sectors
- ▶ management of problem **sources not effects**
- ▶ decentralized and more **flexible** management approaches
- ▶ more attention to management of **human behaviour** by “soft” measures
- ▶ include **environment** explicitly in management goals
- ▶ open and shared **information** sources (including linking science and decision making)
- ▶ incorporating iterative **learning cycles**

Triple-loop Learning From Discourse to Structure



Pahl-Wostl, 2009



Is present flood protection practice sustainable?
How can one increase the resilience of landscapes / regions?

Hungarian Tisza River Floodplain

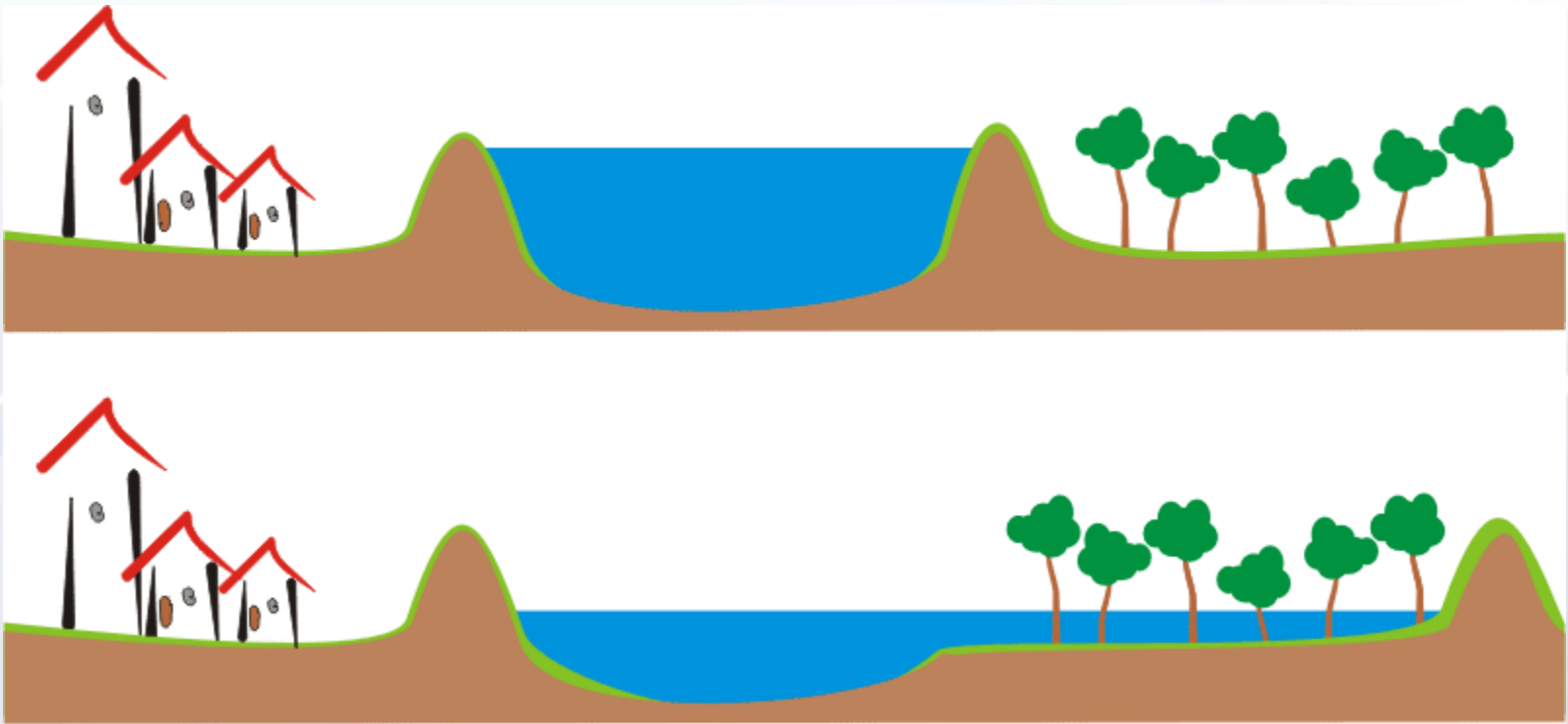
Pre- and Post- Engineering under original Vasarhelyi Plan (1870)



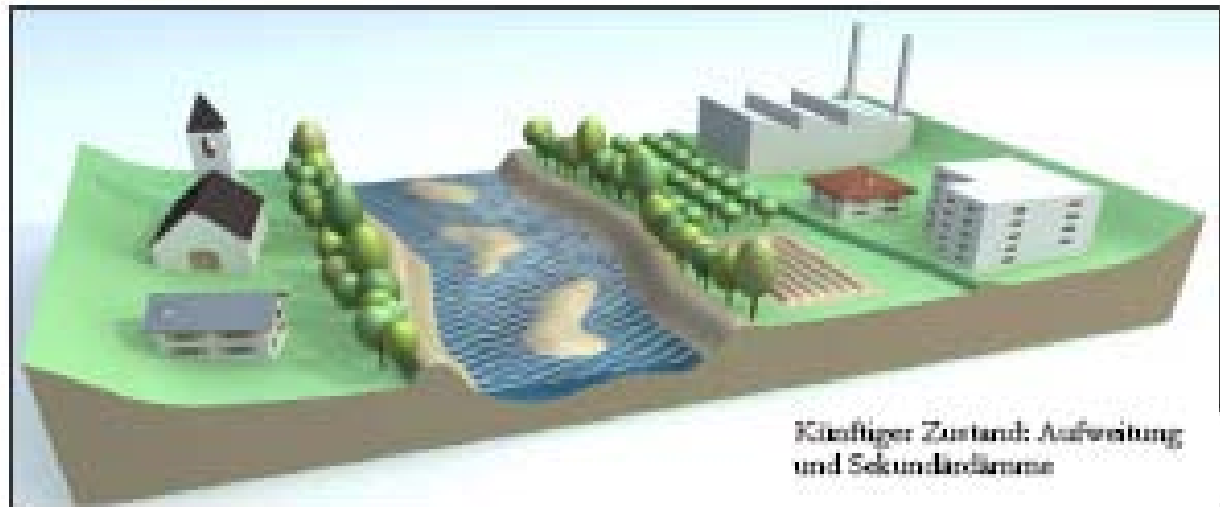
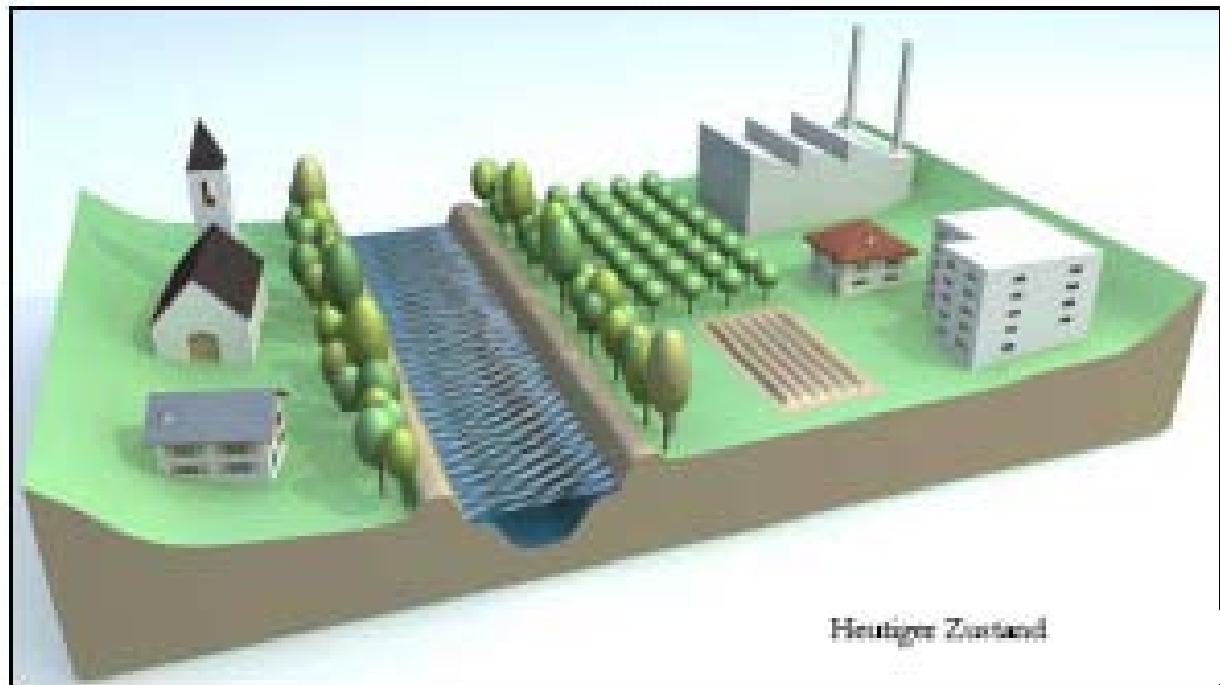
Tisza's length was lowered by more than 400 kilometers
Floodplain area was lowered from 38500 km² to 1800 km² (whole basin)

Netherlands

*.... sustainable planning -
Space for the river*



*Competition
for space -
use conflicts*





The Integrated Rhine Programme

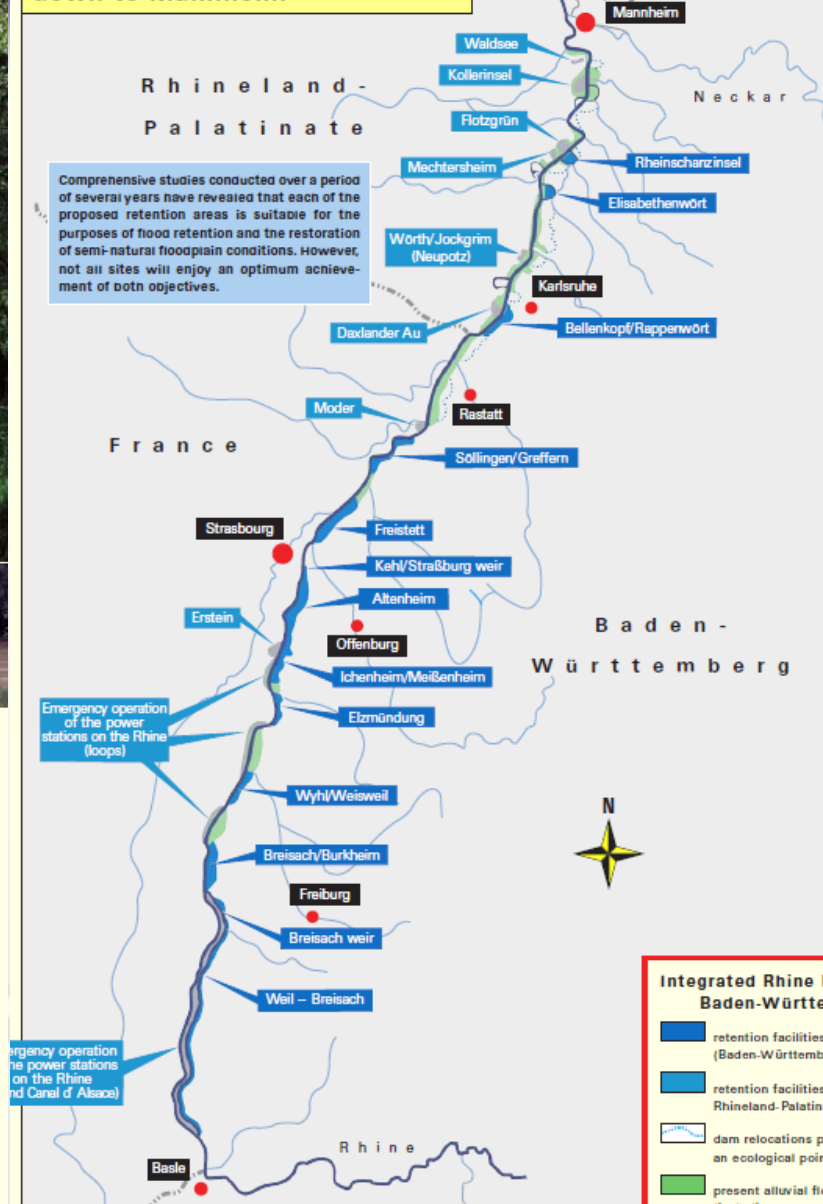
Flood control and restoration of former floodplains along the Upper Rhine



Baden-Württemberg

UMWELTMINISTERIUM

The Upper Rhine retention areas down to Mannheim



A mathematical flood discharge model was used for the purpose of verifying whether the measures laid down in the Framework Concept of the Integrated Rhine Programme – in conjunction with the measures taken in France and Rhineland-Palatinate – would actually ensure the required level of efficiency. The relevant findings speak for themselves and underline the importance of achieving the set targets. For this purpose, all sites embracing an overall volume of 167.3 m³ which are proposed in the Framework Concept for the Integrated Rhine Programme, will be required.

Polder Elzmündung: Begründungen werden abgelehnt

Das Landratsamt (LRA) weist die Einwände gegen den Bau des Polders Elzmündung zurück.



2009

Das Schild am Ortseingang von Allmannsweiler verblasst allmählich, aber das Thema ist weiterhin aktuell. Foto: Ulrike Derndinger

Vor dem Wasser kommt die Klageflut

Wie ökologisch verträglich lässt sich ein Polder fluten? Die Antwort wird auch über das Schicksal des Integrierten Rheinprogramms entscheiden.



2010

Protestschild in Schwanau Foto: dpa

Der Kampf für eine verträgliche Retention Breisach-Burkheim geht weiter

Bei einem gemeinsamen Ortstermin in den Rheinauen zwischen Breisach und Burkheim erläuterten Gemeindevertreter, Gewässerexperten und Mitglieder der gleichnamigen Bürgerinitiative, wie sie sich eine für Mensch und Natur verträgliche Retention vorstellen.



Auch im Burkheimer Quelltopf hat sich bereits viel Schlamm abgesetzt.

Was bleibt von der Natur übrig?

Das Verwaltungsgericht Freiburg befasst sich mit den mehr als 100 Klagen gegen den Überschwemmungspolder Elzmündung.



Umgeben von Aktenbergen verhandelt die zweite Kammer des Verwaltungsgerichts mit dem Vorsitzenden Jens Michaelis (Zweiter von links) über den Polder Elzmündung. Foto: Michael Bamberger

Signs for change in water management paradigm?

- ▶ Discourse on radical change and reframing of the debate visible in some areas
- ▶ Innovative legislation in place in many countries

BUT

- ▶ Potential for innovation provided by legal frameworks hardly used in implementation
- ▶ Implementation of legal frameworks slower than expected
- ▶ Major barriers for going from reframing to transformation

Transition towards sustainable water governance and management in times of change requires ...

- a balance between decentralization and coordination to avoid both fragmentation and rigid central control*
- an explicit integration of experimental learning cycles into policy and management processes*
- a paradigm shift in science, policy and management in our understanding what „management“ means*
- integrated system design to build and sustain enabling structural conditions*
- no panaceas but a “diagnostic approach”*

Coordinating Twinning partnerships towards more adaptive Governance in river basins

EU project in the 7th Framework Programme

Running from 2009 to 2011



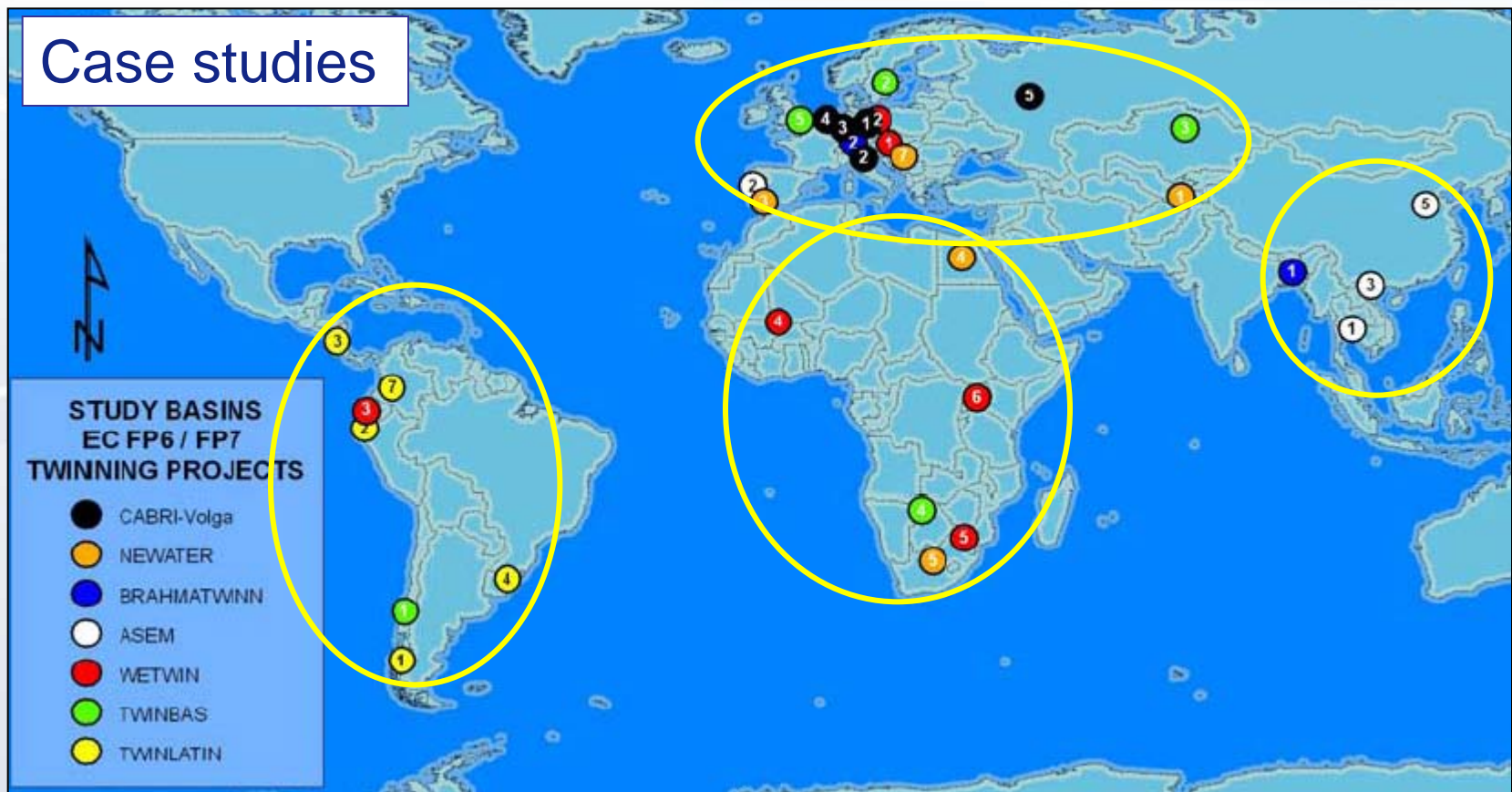
Objectives

1. Review, compare, synthesize and consolidate the outcomes of several EU projects
2. Draw context-sensitive, but transferable approaches for improved (adaptive) water governance
3. Formulate policy-relevant best practices and tools for implementing adaptive water governance
4. Disseminate outcomes effectively to relevant stakeholders at the policy level

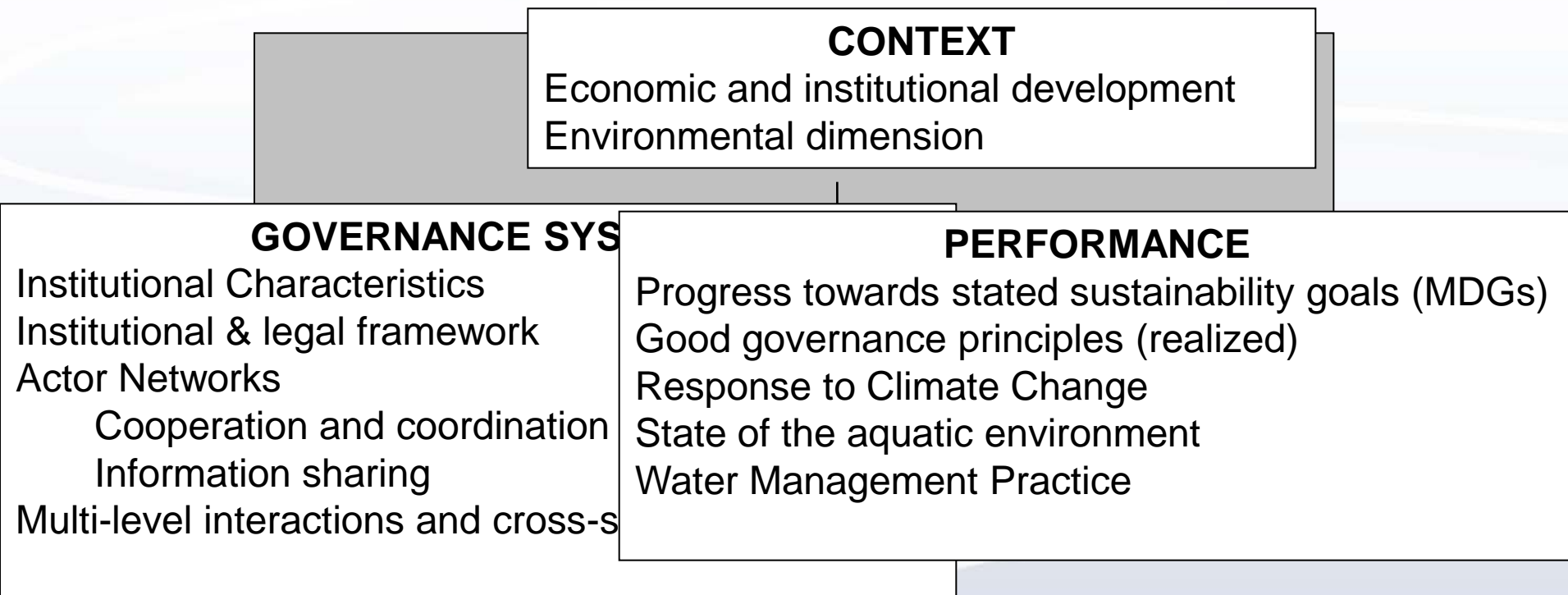


Projects & Case Studies

7 Projects: CABRI-Volga, NeWater, Brahmatwinn, ASEM WaterNet, WETwin, TwinBas, Twinlatin

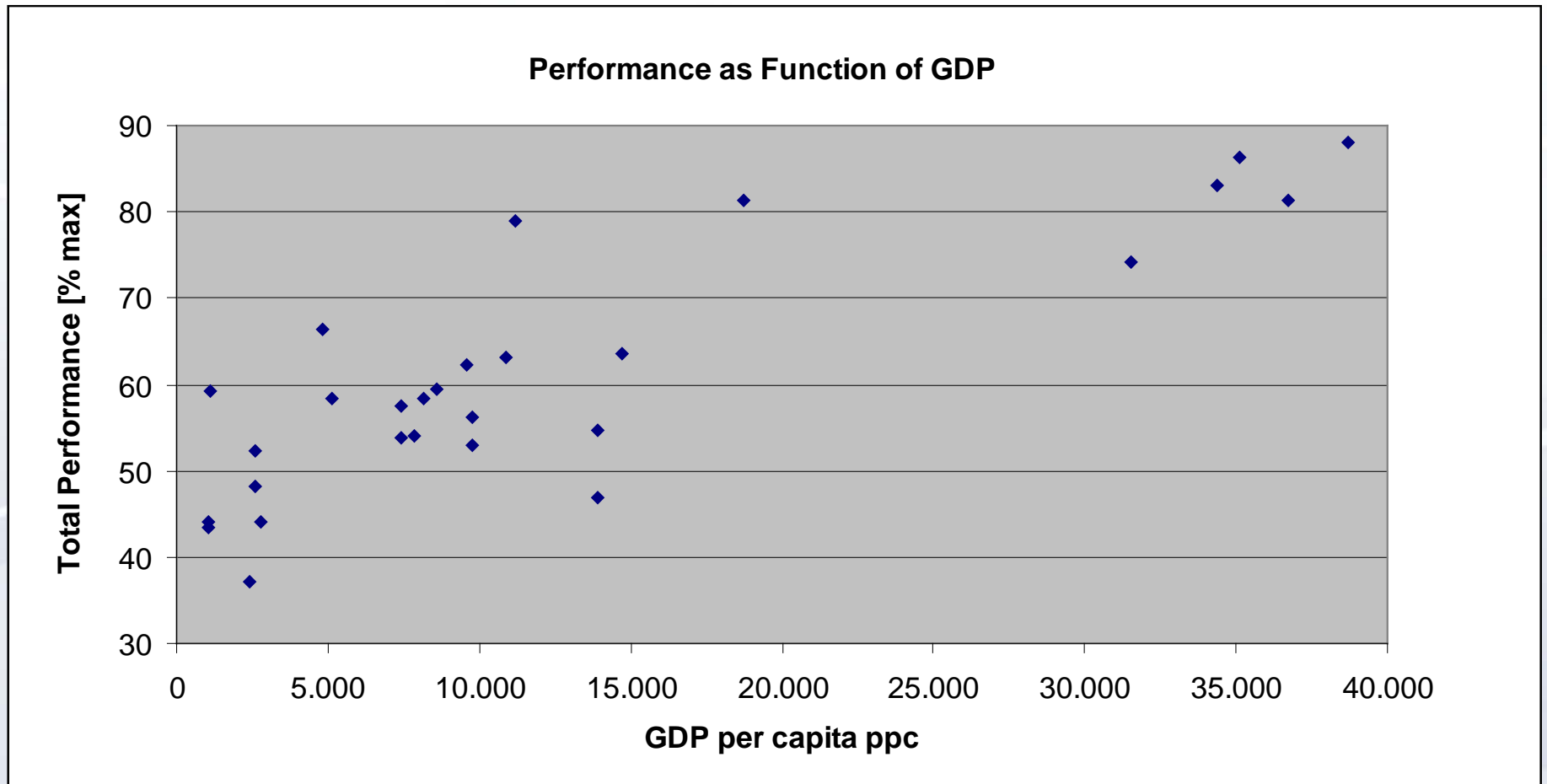


Framework of analysis for diagnostic approach



.... analyse how certain characteristics of a water governance system influence its performance and how this is affected by the context in which the system is embedded

Becoming richer no guarantee for improvement....



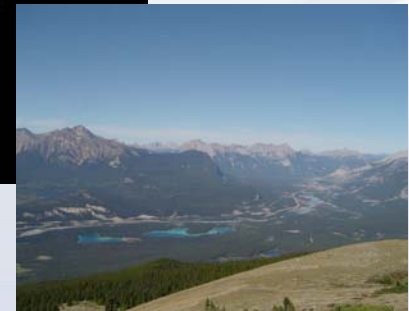
Overall conclusions

- **No simple recipes (panaceas) for a relationship between regime and performance and not for governance reform**
 - **Legal frameworks are a necessary but not sufficient condition for good performance**
 - **Effectiveness of formal institutions crucial**
 - **Capacity to implement required**
- **Climate change adaptation strongly related to knowledge management, vertical and horizontal integration and innovative ways for dealing with uncertainty**
- **Context has a modulating but not decisive influence**
- **Development of typologies promising**
 - **polycentric, centralized, fragmented**
 - **relationship formal and informal institutions**

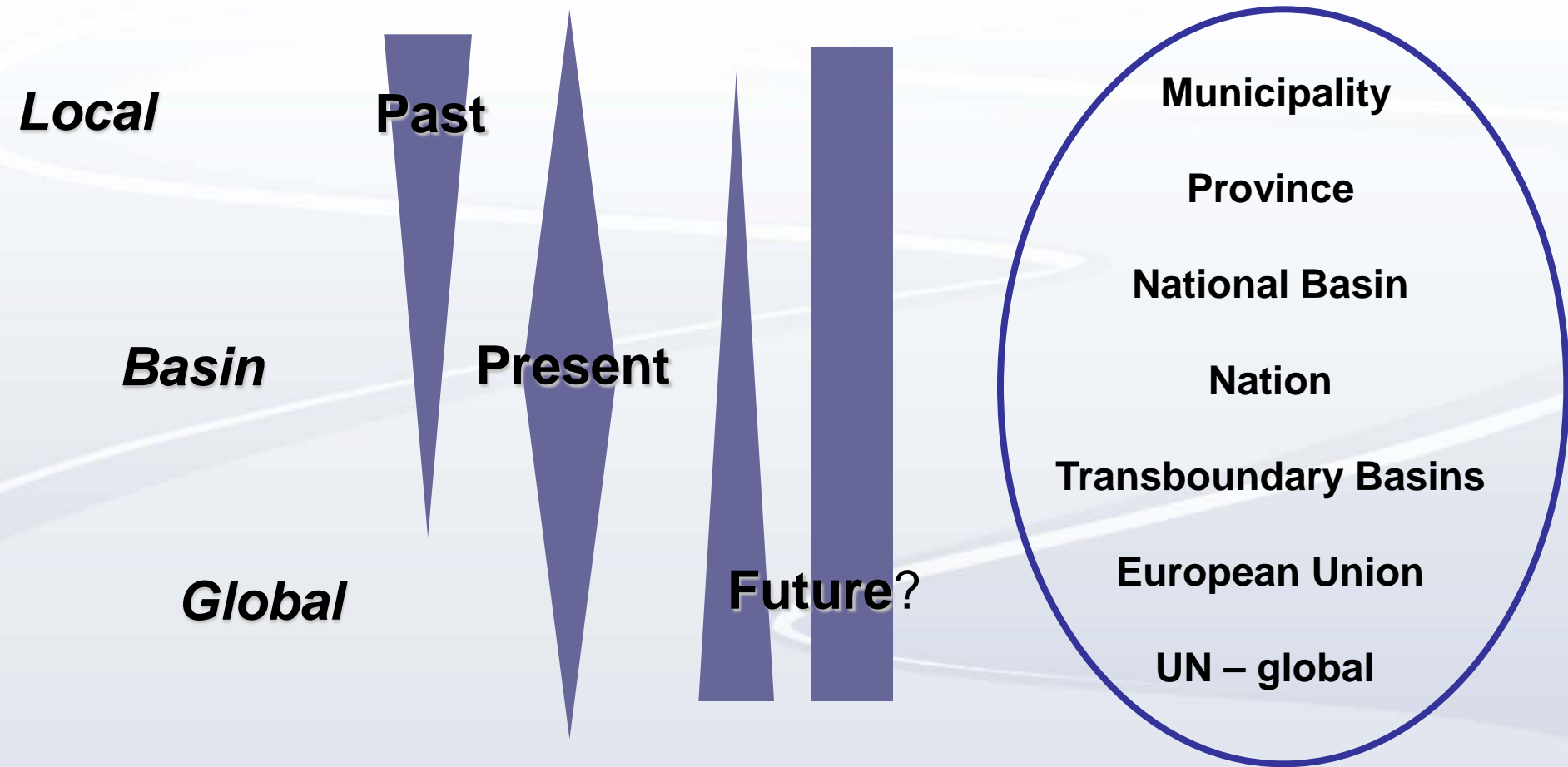
Upcoming....

- ▶ **Online data base**
- ▶ **Project reports**
- ▶ **Policy briefs**
- ▶ **Peer reviewed publications**
- ▶ **Seminar Stockholm Water Week**

Water Governance: Quo vadis?



Water governance A multi-level challenge!



Key challenges for governance

- ▶ *Change the role of water from being the recipient of decisions in other sectors to being the guiding principle for integrated and adaptive resource management – at all levels*
- ▶ *Embrace complexity and uncertainty and build the foundations for implementing adaptive management*
- ▶ *Move towards multi-level governance with a balance between bottom-up and top-down processes*
- ▶ *Improve scientific knowledge base*

More information

- ▶ **Newater** - www.newater.info
- ▶ **Twin2Go** – www.twin2go.eu
- ▶ **GWSP** – www.gwsp.org