Twin2Go

Adaptive Water Governance: Lessons learned from synthesising research in basins around the world

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Presentation outline

1. Background and project overview
2. Lessons from comparative analysis of water governance systems
3. Recommendations for transfer and implementation of better governance practices

About Twin2Go

- **Full Title: „Coordinating Twinning partnerships towards more adaptive Governance in river basins“**
  - EU project funded under in the 7th Research Framework Programme
  - Running from June 2009 to Sept. 2011

Goal

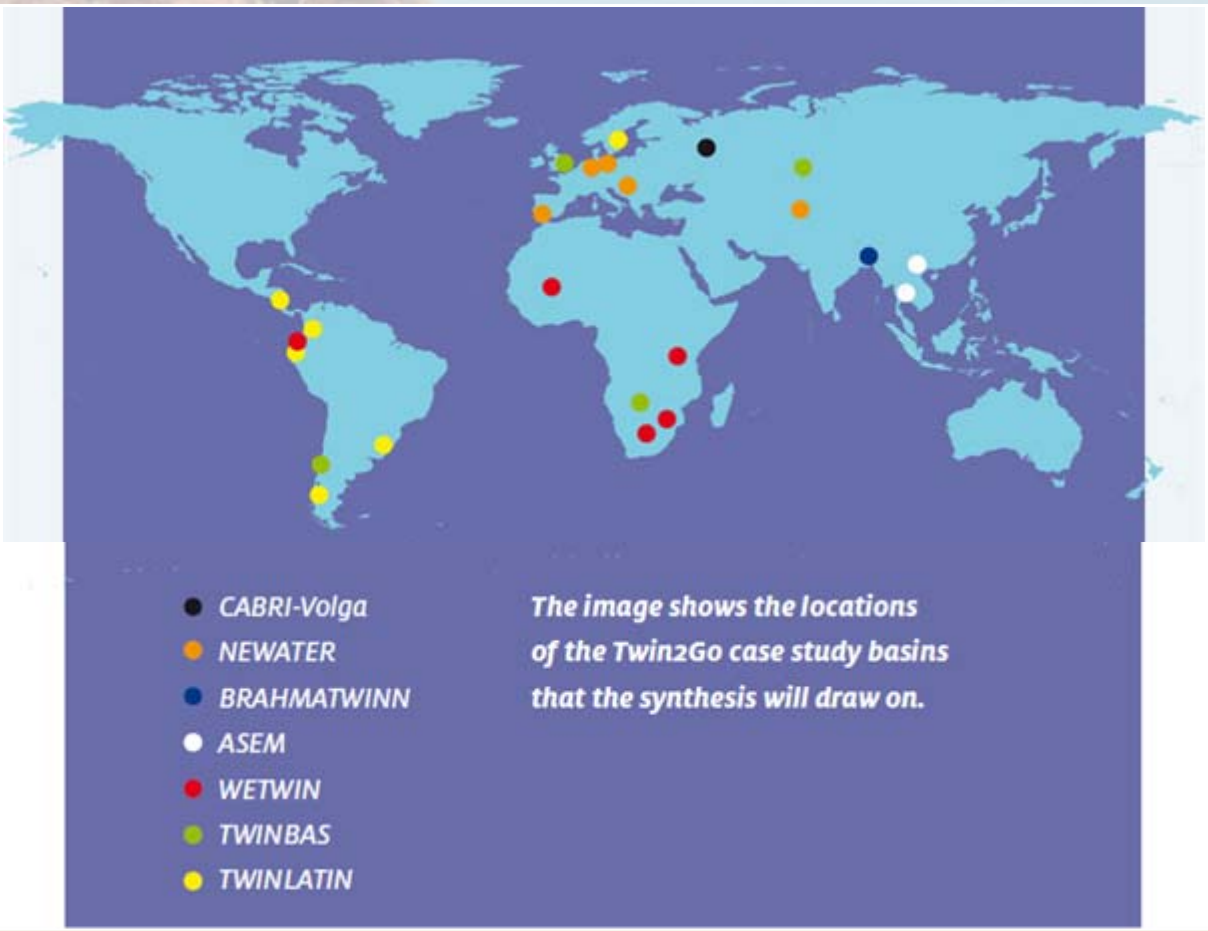
➢To draw policy relevant research results on ‘adaptive water governance in the context of climate change’ and to make them transferable to other basins

- ➢ review, compare, synthesise and consolidate the outcomes of several EU projects

Partners and Projects

Twin2Go's 8 partner institutions
Representing 7 EU twinning projects

Projects & Case Studies



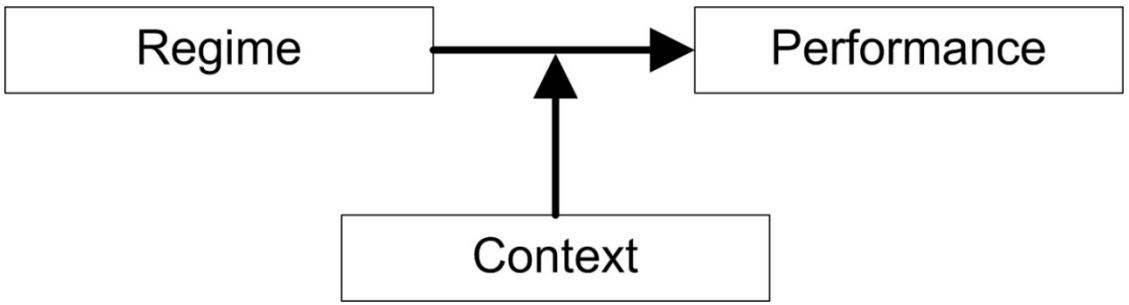
Twin2Go's synthesis draws on:

- **Case studies from 26 basins around the world**

Comparative analysis

Main question: What features of water governance systems can help increase the ability to respond to climate change?

•How does the water governance regime impact performance of water resources management in different environmental and socio-economic contexts?



Twin2Go Questionnaire

- Basis for data collection and comparative analysis
- 98 indicators
- 3 sections: Governance regime, context, performance

No.	Indicator	Score	Comments
b) Formalisation of IWRM principles & Millennium Development Goals			
24.	Formalised IWRM principles		
25.	State of implementation of IWRM principles		
26.	Capacity to implement IWRM		
27.	Is universal and non-discriminatory access to safe drinking water and sanitation a goal?		
28.	Integration of wetlands in IWRM and IRBM*		
28.a	*Case-specific indicator(s)...*		
c) Decision making regarding uncertainties			
29.	General practices for dealing with uncertainties		
30.	Dealing with uncertainties: Reversible and flexible options		
31.	Dealing with uncertainties: Safety margins		
32.	Are scenarios used for decision making?		
33	Climate risks: Climate		

Case Study Basins Review

- Data collection, questionnaire with 98 indicators
- 5 workshops held, each with a regional focus
- ~ 100 case study experts
- Dataset on 29 (sub-)basins
- Quantititative & qualitative comparative analyses

Adaptive governance

What features of water governance systems increase the ability to respond to the challenges posed by climate change?

- **Polycentric governance systems** have a higher capacity to respond to climate change than centralised or fragmented systems

- Water resources governance systems that have adopted innovative approaches to take into account existing **uncertainties in decision making** are also more likely to respond adequately to future climate change

- A **sound legal and administrative framework** for water resources management is a precondition for good performance in water-related adaptation – but it needs to be complemented with **sufficient implementation capacity**

Best Practices & Tools

Best Practices & Tools inventory:

➢48 examples were described and opportunities, barriers and context affecting their performance discussed with experts in 4 regional workshops

➢Three different categories:

- Application of national water governance frameworks in river basins
- Engagement and coordination among actors, forms of interaction/partnerships
- Enabling learning and building adaptive capacity in water governance

No	BP&T	River Basin/Province/Country	Region
Focus 1: Application of national water frameworks in river basins			
2	Relaxation of procedures and removal of administrative barriers in issuing water use permits	Russia	Russia
4	Compensation for restoring and maintaining ecosystem services especially in times of food insecurities	Niger river basin	Africa
11	Implementing IWRM through RBO in Vietnam	Red River/Vietnam	SEA
Focus 2: Engagement and coordination among actors, forms of interaction/partnerships			
18	Early stakeholder mapping for improved operationalization of the Limpopo Agreement	Limpopo river basin/	Africa
19	Participatory water allocation at Bangpakong and Prachinburi River basin	Bangpakong Prachinburi basins/ Thailand	SEA
25	Multi-sectoral collective environmental diagnostic for the Basin	Alto Cauca/Colombia	LAC
Focus 3: Enabling learning and building adaptive capacity in water governance			
28	Enhancing dissemination of information on water supply of rural areas to decision-makers	Yaroslavl oblast/ Russia	Russia
29	Creating an enabling environment through inclusive and equitable knowledge and capacity building	Orange-Senqu river basin/	Africa
31	Transboundary, basin-wide, shared, georeferenced database and modeling application for Decision Support	Quarai-Cuareim/ Brazil, Uruguay	LAC

Best Practices & Tools

What are the challenges to introducing new water governance practices?

- potential **mismatch** between new practice and existing context (incl. water governance system, legal and organisational frameworks, social organisation, capacities, culture and norms)
- The **implementation stage** – crucial point of potential failure

…and the opportunities:

- Existing scientific and technical networks as drivers of change
- Policy and other institutional reform as windows of opportunities

Recommendations

Actors is involved in the transfer and implementation of better practices in water governance should:

- Thoroughly assess and consider existing biophysical conditions as well as governance frameworks
- Consider a gradual implementation of new water governance practices – as maturity might require many years.
- Ensure horizontal and vertical coordination among those who are directly and indirectly involved in implementing governance practices.
- Involve stakeholders at the early stages of better practices transfer and implementation in order to increase ownership and ensure support
- Complement the transfer and implementation of better practices in water governance with capacity development, information sharing and communication.

Thank you!

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Water Governance Regime

- Institutional Characteristics
  - Water Policy, organisational & legal framework (formal and informal)
  - Formalisation of IWRM principles and MDGs
  - Decision making regarding uncertainties
- Actor Networks
  - Cooperation and coordination structures
  - Information sharing
- Multi-level interactions and cross-sectoral integration

Performance

- Progress towards stated sustainability goals (MDGs)
- Good governance principles (realized)
- Response to Climate Change
- State of the aquatic environment
- Water Management Practice

Context

- Economic and institutional development (e.g. GDP, GINI index, CPI)
- Environmental dimension (e.g. water availability, climate)

Hypo 12 Good Governance			
National Basin	Scores	P2&P3	CPI
Thames/UK	16	24	7,70
Norrström/Sweden	16	22	9,20
Rhine/TheNetherlands	16	21	8,90
Elbe/Germany	16	19	8,00
Tisza/Hungary	16	22	5,10
Quaraí/Brasil	14	22	3,70
Cuareim/Uruguay	14	20	6,70
Orange/SouthAfrica	14	12	4,70
Brahmaputra/Bhutan	12	24	5,00
Guadiana/Spain	12	21	6,10
Catamayo/Peru	12	17	3,70
Cauca/Colombia	12	15	3,70
Brahmaputra/Nepal	12	14	2,30
Cocibolca/Nicaragua	12	13	2,50
Niger/Mali	12	16	2,80
Olifants/SouthAfrica	12	10	4,70
Brahmaputra/India	12	9	3,40
Volga/Russia	10	14	2,20
Kyoga/Uganda	10	12	2,50
Baker/Chile	10	8	6,70
Okavango/Namibia	8	16	4,50
Nura/Kazahstan	8	12	2,70
RedRiver/Vietnam	8	9	2,70
Guayas/Ecuador	6	6	2,20
Biobio/Chile	6	4	6,70
Amudarya/Uzbekistan	2	2	1,70
BangPakong/Thailand	2	16	3,40
Catamayo/Ecuador	2	6	2,20
Paute/Ecuador	2	9	2,20

Having good governance principles in legislation in place is a necessary but not sufficient condition for increasing the performance of the water governance and management regime regarding a good governance process.

Good governance principles in legislation

Good governance realized

Effectiveness Formal Institutions

Some Statistical Analyses

Performance Measure Regime measure	*P2&P3* *Good governance*	*P4* *Adaptation policies*	*P5b* *Environ. management*	*P All* *Aggregated over all*
R1 Legal frameworks	**0.67*****	0.47******	-	0.25******
R2 Basin principles	**0.56*****	-	-	0.23*
R4 Polycentricity	**0.81*****	**0.54*****	-	**0.36*****
R6 Vertical integration	**0.78*****	0.35******	-	0.29******
R7 Horizontal integration	0.44******	**0.36*****	-	0.19*
R8 Knowledge	**0.79*****	-	0.27*	0.26*
R9 Handling Uncertainty	**0.84*****	**0.69*****	-	**0.37*****

Becoming richer no guarantee for improvement…..